



# 2015 Independent Environmental Audit

Maules Creek Coal Pty Limited

22 August 2016

## INDEPENDENT ENVIRONMENTAL AUDIT SUBMISSION FORM

### Project

Consent Number	10_0138
Description of Project	Maules Creek Coal Project
Project Address	Therribri Road, Boggabri, NSW 2382
Proponent	Maules Creek Coal Pty Limited
Proponent Address	PO Box 56, Boggabri, NSW 2382

### Independent Audit

Certificate	<p>I certify that I have prepared the contents of the attached independent audit and to the best of my knowledge:</p> <ul style="list-style-type: none"> <li>• It is in accordance with relevant approval conditions;</li> <li>• I have acted professionally, accurately and in an unbiased manner in conducting the audit;</li> <li>• I am not related to any owner or operator of the project as a spouse, partner, child, sibling, employer, or in a contractual arrangement outside the audit;</li> <li>• I do not have any pecuniary interest in the project, including where there is a reasonable likelihood or expectation of appreciable financial gain or loss to me or to a person to whom I am related;</li> <li>• Neither I nor my employer have provided consultancy services to the project that were subject to this audit;</li> <li>• I have not accepted, nor intend to accept any inducement, commission, gift or any other benefit (apart from fair payment) from any owner or operator of the project, their employees or any interested party. I have not knowingly allowed, nor intend to allow my colleagues to do so.</li> </ul>
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## EXECUTIVE SUMMARY

SMEC Australia Pty Ltd (SMEC) was commissioned by Maules Creek Coal Pty Ltd to conduct an Independent Environmental Audit (IEA) in accordance with the Project Approval 10\_0138 (Schedule 5 Condition 10) for the Maules Creek Coal Mine (MCCM).

Maules Creek Coal Mine is located approximately 18 km north north east of Boggabri New South Wales (NSW). MCCM is an open cut operation which commenced in August 2014, with first coal railed in December 2014.

Project Approval (10\_0138) was granted on 23 October 2012 for an open cut operation. The project approval allows for the extraction of up to 13 million tonnes per annum of run of mine (ROM) coal until the end of December 2034. The audit was designed and conducted to satisfy the planning approval conditions for MCCM and focuses on the site's compliance with licences, approvals and supporting documents including management plans. This audit period is 23 October 2012 (date of approval of the project by NSW Department of Planning and Environment) to 31 June 2015.

A total of 1543 conditions and commitments were assessed as part of this audit. 47 issues resulted in 61 non-compliances. 36 of the issues were administrative. Many of the non-compliances noted in this audit relate to the same issue which, due to the duplication of commitments between consent documents and management plans, raise the same non-compliance several times.

A basic risk assessment was conducted for all non-compliances with Low/Medium/High/Extreme risk levels as results. For the non-compliances that were not administrative (there were 36 administrative non-compliances), there were 19 Low, and 6 Medium results. No High or Extreme risks were identified in the audit.

It should be noted that the site is currently in the first 12 months of operations and at an early point in the mines development with a number of Boggabri / Maules Creek / Tarrawonga (BTM) Complex management strategies in draft and not approved. As such, many of the measures detailed in the strategies have not been implemented due to uncertainty surrounding the content of the management strategy once approved. Where there is no direct environmental impact associated with not implementing these measures, they have not been identified as "not compliant". At the end of the audit period the status of the BTM Management Strategies were as follows:

- The Blast Management Strategy was approved (July 2014);
- The Noise Management Strategy is in draft form (March 2014);
- The Air Quality Management Strategy is in draft form (March 2014);
- The Water Management Strategy is in draft form (March 2013);
- The Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas, is in draft form (September 2014); and
- The Leard Forest Mining Precinct Regional Biodiversity Strategy has not been drafted. DPE has provided time extensions for the preparation of this strategy as detailed in Section 4.19.

There are a number of items that have been found to be not compliant in this audit. Many MCCM was aware of prior to the audit and the audit will serve the purpose of raising the rest.

Future focus is recommended on the following points:

- Committing to achievable management options that are timely;
- Being prepared for the next phase of site development – particularly the commencement of rehabilitation of the out of pit emplacement; and
- Maintaining the currently good relationship with the neighbouring community.

## ABBREVIATIONS AND ACRONYMS

Abbreviation/ Acronym	Description
ACHMP	Aboriginal Archaeology and Cultural Heritage Management plan
AEMR	Annual Environment Management Report
AMD	Acid Mine Drainage
AQGHGMP	Air Quality and Greenhouse Gas Management Plan
AR	Annual Return (to the EPA)
AS/NZS	Australian Standard / New Zealand Standard
BMP	Biodiversity Management Plan
BOA	Biodiversity Offset Area
°C	Degrees Celsius
CCC	Community Consultative Committee
CMA	Catchment Management Authority
DP&E	NSW Department of Planning and Environment
DRE	Division of Resources and Energy
DTI	Department of Trade and Industry
EA	Environmental Assessment
EEC	Endangered Ecological Community
EPA	Environment Protection Authority
EP&A Act	Environment Planning and Assessment Act 1979
EPL	Environment Protection License
EPBC	Environment Protection and Biodiversity Conservation Act 1999
GW	Groundwater Well
IEA	Independent Environmental Audit
INP	Industrial Noise Policy (NSW EPA)
LDP	Land Disturbance Protocol
LLS	Local Land Services
m	Metres
MCCPL	Maules Creek Coal Pty Ltd
ML	Mining Lease
MOP	Mining Operations Plan
NAG	Net Acid Generating
NATA	National Association of Testing Authorities, Australia
NoW	NSW Office of Water
OCE	Open Cut Examiner
OEH	NSW Office of Environment and Heritage
PA	Project Approval
PAG	Potentially Acid Generating

Abbreviation/ Acronym	Description
POEO	Protection of the Environment Operations Act 1997
RMP	Remediation Management Plan
SMEC	Snowy Mountains Engineering Corporation
SoC	Statement of Commitments (from the EA)
TARP	Trigger, Action, Response Plan

# 1. INTRODUCTION

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## 1.1. Background

SMEC Australia Pty Ltd (SMEC) was commissioned by Maules Creek Coal Pty Ltd to conduct an Independent Environmental Audit (IEA) in accordance with the Project Approval 10\_0138 (Schedule 5 Condition 10) for the Maules Creek Coal Mine (MCCM).

The audit was designed and conducted to satisfy the planning approval conditions for MCCM and focused on the site's compliance with licences, approvals and supporting documents including management plans. This audit period is 23 October 2012 (date of approval of the project by NSW Department of Planning and Environment) to 31 June 2015.

## 1.2. Site Description

MCCM is owned by a joint venture between Aston Coal 2 Pty Limited (a company 100% owned by Whitehaven Coal Limited) (75%), ITOCHU Coal Resources Australia Maules Creek Pty Ltd (ICRA MC Pty Ltd) (15%) and J-Power Australia Pty Limited (J-Power) (10%). Maules Creek Coal Pty Ltd (wholly owned subsidiary of Whitehaven Coal Limited) manages the operation of the MCCM on behalf of the joint venture. Project Approval was granted on 23 October 2012 to operate the "Maules Creek Coal Project" under Project Approval 10\_0138. Statements of compliance reported in this audit report are in relation to the conditions and commitments of Project Approval 10\_0138.

MCCM is located approximately 18 km north north east of Boggabri New South Wales (NSW). MCCM is an open cut operation which commenced in August 2014, with first coal railed in December 2014.

The project approval allows for the extraction of up to 13 million tonnes per annum of run of mine (ROM) coal until the end of December 2034.

## 1.3. Audit Work

This IEA has been prepared to satisfy Conditions 10 and 11, Schedule 5 of Project Approval 10\_0138. Table 1 lists the requirements of this condition and shows where each is located in this IEA report.

Table 1.1 - List of Requirements for this IEA Report

Condition	Requirement	Location in report
Schedule 5		
10	By the end of June 2015 and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:	This Audit
10(a)	Be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;	Section 1.4
10(b)	Include consultation with the relevant agencies;	Section 2

Condition	Requirement	Location in report
10(c)	Assess the environmental performance of the project and assess whether it is complying with the requirements in this approval, and any other relevant approvals, relevant EPL/s and/or Mining Lease (including any assessment, plan or program required under these approvals);	Section 4
10(d)	Assess whether the Proponent is implementing best noise, blasting and air quality management practice;	Sections 4, 4.10, 4.11, 4.12, 4.15, 5, 6.1,
10(e)	Investigate and report on the measures taken to minimise the noise and air quality impacts of the project during meteorological conditions and/or extraordinary events when the relevant noise and air quality limits in this approval do not apply, including: <ul style="list-style-type: none"> <li>the effectiveness of these measures in maintaining impacts within the relevant criteria in this approval and/or the limits in the relevant EPL; and</li> <li>any additional measures available to mitigate impacts under such conditions;</li> </ul>	Sections 4, 4.10, 4.11, 4.12, 4.15, 5.4, 6.1,
10(f)	Review the adequacy of any approved strategy, plan or program required under the abovementioned approvals; and	Section 5
10(g)	Recommend measures or actions to improve the environmental performance of the project and/or any strategy, plan or program required under these approvals.	Section 6
Notes:	This audit team must be led by a suitably qualified auditor, and include experts in noise, air quality, ecology and any other fields specified by the Director-General.	1.4
11	Within 3 months of commissioning this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General, together with its response to any recommendations contained in the audit report.	Noted

## 1.4. Audit Approach

This IEA was undertaken generally in accordance with *AS/NZS ISO 19011:2014 – Guidelines for quality and/or environmental management systems auditing* by the following personnel:

- Peter Horn (Environmental Principal) – Lead Auditor;
- Liz Broese (Senior Ecologist) – Biodiversity Specialist from SMEC;
- Neil Pennington, (Acoustics Technical Principal) – Acoustics/Noise Specialist from Spectrum Acoustics;
- Shane Lakmaker (Senior Associate, Air Quality) – Air Quality Specialist from Jacobs;

- Glenn Mounser (Water Manager) – Surface Water Specialist from SMEC;
- Josh Ford (Senior Water Resources Engineer) – Surface Water Specialist from SMEC;
- Carly McCormack (Principal Environmental Scientist)– Assistant Auditor from SMEC;  
and
- Joy Duncan (Technical Principal - Environment) – Peer Review from SMEC.

The audit team were approved by the Department of Planning and Environment (DP&E) (on 10 July 2015) prior to conducting the audit (appended as Appendix A).

This IEA consisted of a detailed desktop review of documents supporting compliance, interviews with MCCM staff and a site inspection of MCCM from 3 – 7 August 2015.

Interviewees included:

- Area Manager Services - Maules Creek;
- Leading Hand, Operator;
- Environmental Officers;
- Administration Assistant;
- Mining Supervisor;
- Mine Manager – Maules Creek;
- Drill & Blast Superintendent; and
- Earthworks Supervisor.

Site opening and closing meetings were held with the site Environment team and Operations Manager in attendance with the audit team. The opening meeting discussed the approach and process of the audit while the closing meeting covered the findings to that point and the audit teams general impressions of the sites management.

The environmental conditions at the time of the audit were mild with daytime maximum temperatures in the high teens (degrees Celsius) and minimums between -2°C and 10°C. There were mainly fine conditions during the site audit with light cloud.

## 1.5. Report Structure

This report is structured as follows:

### **Executive Summary**

**Section 1.0** provides an introduction, background and description of MCCM, describes the requirements for the IEA and provides a guide to the structure of the report.

**Section 2.0** discusses consultation with the relevant departments.

**Section 3.0** lists the planning approvals in place at MCCM, provides a description of each and confirms those which have been the subject of this IEA.

**Section 4.0** provides a discussion of non-compliances against the project approval, licences, permits and supporting documents.

**Section 5.0** provides a review of the adequacy of the environmental management at the site both documented and observed

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

## 2. CONSULTATION

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The MCCM environment department notified the DP&E of the proposed scope of the areas requiring expert assessment for the audit. The DP&E confirmed the key scope areas requiring expert assessment to be ecology, water quality, noise emissions and air quality.

The audit team consulted the NSW Environment Protection Authority (EPA), Department of Trade and Investment, Regional Infrastructure and Services – Division of Resources and Energy (DRE), Maules Creek Community Consultation Committee (CCC), Department of Environment (Commonwealth) (DoE), NSW Office of Environment and Heritage requesting input into the audit scope and focus (appended as Appendix B).

Comments were as follows:

Department of Environment did not provide a response regarding the scope;

The EPA asked for a focus on:

- Noise impacts from operations on surrounding environment (for current and future mining development).
- Fume management from blasting.
- Dust management onsite.
- Engagement with neighbouring residents and broader community.
- Surface water management (i.e. maintenance of sediment dams and retaining suitable capacity).

DRE did not provide a response regarding the scope;

OEH did not have any specific requests outside the scope already noted.

The Maules Creek Community Consultative Committee (CCC) were contacted but chose not to offer any direct comment.

No other input was provided by the regulators prior to this audit report being finalised.

### 3. DOCUMENTS AUDITED

Table lists the documents reviewed for compliance in this IEA along with where each document is addressed in the report. There were many other documents reviewed by the audit team as evidence or supporting information that are not listed here. **Error! Reference source not found.** lists the sites approval documents.

Table 3.1 List of Documents Audited

Document	Location in Report
Project Approval 10_0138	4.2
Maules Creek Coal Project Environmental Assessment - Statement of Commitments	4.3
EPL 20221	4.4
Mining Leases	4.6
Mining Operations Plan, March 2014 - March 2016 that includes the Rehabilitation Management Plan	4.5
EPBC Approval, 2013	4.7
Environmental Management Strategy, April 2013	4.8
Environmental Monitoring Program (within EMS), April 2013	4.9
Noise Management Plan, February 2014	4.10
Draft Noise Management Strategy, Boggabri, Tarrawonga, Maules Creek Complex, March 2014	4.11
Blast Management Plan, July 2014	4.12
Blast Management Strategy, July 2014	4.13
Air Quality and Greenhouse Gas Management Plan, March 2014	4.14
Air Quality Management Strategy, March 2014	4.15
Water Management Plan, March 2014	4.16
Water Management Strategy, March 2013	4.17
Maules Creek Biodiversity Management Plan, October 2014	4.18
White-Box Yellow-Box Blakely's Red-Gum Woodland Endangered Ecological Community Implementation Plan, January 2015	4.19
Threatened Fauna Implementation Plan, January 2015	4.21
Aboriginal Archaeology and Cultural Heritage Management Plan, April 2013	4.22
Draft Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas, September 2014	4.23

Document	Location in Report
Historic Heritage Management Plan (Initial Draft), April 2013	4.24
Social Impact Management Plan, June 2015	4.25
Construction Workforce Accommodation Plan, April 2013	4.26
Traffic Management Plan, September 2014	4.27
Out of Hours Protocol, September 2013	4.28

Table 3.2 Maules Creek Coal Mine Approvals

Approval	Regulator	Expiry Dates
Project Approval 10_0138	DP&E	31 December 2034
EPBC Approval 2010/5566	DoE	31 December 2053
EPL 20221	EPA	Annual Renewal Date 02-04-16
Coal Lease CL 375	DTIRIS DRE Minerals	Various
Exploration Licence No. 346	DTIRIS DRE Minerals	
Mining Lease ML 1701	DTIRIS DRE Minerals	

Table 3.3 Maules Creek Coal Mine Water Licences

Water Licence Number	Water Sharing Plan	Water Source and Management Zone	Entitlement
WAL 27385	Upper and Lower Namoi Groundwater Sources 2003	Upper Namoi Zone 4 Namoi Valley (Keepit Dam to Gin's Leap) Groundwater Source	38
WAL 12811	Upper and Lower Namoi Groundwater Sources 2003	Upper Namoi Zone 5 Namoi Valley (Gin's Leap to Narrabri) Groundwater Source	135
WAL 12491	Upper and Lower Namoi Groundwater Sources	Upper Namoi Zone 11 Maules Creek Groundwater Source	77
WAL 12479	Upper and Lower Namoi Groundwater Sources 2003	Upper Namoi Zone 11 Maules Creek Groundwater Source	78
WAL 27383	Upper and Lower Namoi Groundwater Sources 2003	Upper Namoi Zone 11 Maules Creek Groundwater Source	0
WAL 12480	Upper and Lower Namoi Groundwater	Upper Namoi Zone 11 Maules Creek Groundwater Source	215

Water Licence Number	Water Sharing Plan	Water Source and Management Zone	Entitlement
	Sources 2003		
WAL 29467	NSW Murray Darling Basin Porous Rock Groundwater Sources	Gunnedah - Oxley Basin Mdb Groundwater Source	6
WAL 29588	NSW Murray Darling Basin Porous Rock Groundwater Sources	Gunnedah - Oxley Basin Mdb Groundwater Source	300
*90SL101060	-	Catchment: Unnamed Water Source	30
WAL 36641	NSW Murray Darling Basin Porous Rock Groundwater Sources	Gunnedah - Oxley Basin Mdb Groundwater Source	800
WAL 13050	Upper Namoi and Lower Namoi Regulated River Water Sources	Lower Namoi Regulated River Water Source	3,000

Water pumped from the Namoi River was the main source of raw water supply in the reporting period. MCC has predicted that the take of groundwater will occur from the Porous Rock aquifer (initially as the open cut mine is developed) and will extend into the neighbouring alluvial aquifers (Zone 11, Zone 4, and Zone 5) once the depressurisation within the Porous Rock aquifer extends beneath the alluvial areas. Current modelling indicates MCC has sufficient water licence allocations.

All relevant water licences held by MCC were reviewed as part of the IEA. However, as there was negligible groundwater take during the audit period, these licences are not addressed further in this report.

## 4. ENVIRONMENTAL COMPLIANCE

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

- Compliant;
- Not Compliant;
- Not Compliant Administrative (the issue was caused by not submitting a document or keeping a document on file, not by the omission of an action or measurement, this non-compliance does not impact the sites environmental performance);
- Not able to be Verified (enough evidence to verify compliance was not found);
- Not Triggered (a timing trigger had not been reached);
- Observation;
- Not Applicable (used where conditions have not yet been activated/triggered due to activities not being commenced or requests not being made as examples); or
- Note (a fact or statement that does not require action for compliance).

A total of 1543 conditions and commitments were assessed as part of this audit. 47 issues resulted in 61 non-compliances. 36 of the issues were administrative. Many of the non-compliances noted in this audit relate to the same issue which, due to the duplication of commitments between consent documents and management plans, raise the same non-compliance several times.

A basic risk assessment was conducted for all non-compliances with Low/Medium/High/Extreme risk levels as results. For the non-compliances that were not administrative (there were 36 administrative non-compliances), there were 19 Low, and 6 Medium results. No High or Extreme risks were identified in the audit.

It should be noted that the site is currently in the first 12 months of operations and at an early point in the mines development with a number of Boggabri / Maules Creek / Tarrawonga (BTM) Complex management strategies in draft and not approved. The Blast Management Strategy was approved at the time of the audit. As such, many of the measures detailed in the strategies have not been implemented due to uncertainty surrounding the content of the management strategy once approved. Where there is no direct environmental impact associated with not implementing these measures, they have not been identified as “not compliant”.

The audit has been able to give some direction to the site regarding environmental improvements and has identified a number of areas where documentation and reporting could be improved.

### 4.1. Issues Causing Non-Compliance

Each non-compliance was caused by an action, omission or event. These combined constitute the issues that the site needs to address to achieve compliance. For this reason, the issues are extracted from the non-compliances so they will be more readily addressed by MCCM.

The issues identified in this audit and the associated non-compliances are presented in Table 4.1.

Table 4.1 Issues Causing Non-Compliance

Issue	Non-compliances
The existing development consent (DA85/1819) has not been surrendered.	PA 10-0138, Sch 2 Condition 10
The Voluntary Planning agreement with Narrabri Council was not completed in the time frame stipulated in the consent.	PA 10-0138, Sch 2 Condition 17
Some equipment filed SPL testing and was not removed from the operational environment.	PA 10-0138, Sch 3 Condition 14 Noise MP S 5.2.4
The site was not able to demonstrate the use of predictive and real time air dispersion modelling for management of air quality.	PA 10-0138, Sch 3 Condition 33 EA SoC Cl 8
During construction, less than 90% of employees were transported by shuttle bus.	PA 10-0138, Sch 3 Condition 63
There was no evidence of liaison with Gunnedah Shire Council regarding the road traffic impacts of increased rail transport (level crossings).	PA 10-0138, Sch 3 Condition 66
MCCM did not supply all the required information regarding tenants' rights under the approval in advice to the tenants regarding potential environmental exceedances. Did not request tenants visit medical practitioner to discuss air quality health impacts in advice to the tenants regarding potential environmental exceedances.	PA 10-0138, Sch 4 Condition 2 AQGHGMP 3.6
For 2 exceedances of noise criteria (note these were not non-compliances), no impacted landowners were notified formally in writing though contact was made.	PA 10-0138, Sch 4 Condition 3
Some of the management plans lacked "detailed" background data.	PA 10-0138, Sch 5 Condition 3
Not all management plans have been revised within the nominated three month period following annual reviews, incident reports, audits or modification of the approval.	PA 10-0138, Sch 5 Condition 5
A "recognised environmental group" was not included in the CCC in accordance with the project approval.	PA 10-0138, Sch 5 Condition 7
Noise monitoring was not always conducted within 30 metres of a building façade or 1metre of a building façade as required by the EPL. No agreement with the EPA was in place to allow the change in location.	EPL L3.4
Some PM <sub>10</sub> samples were not collected due to equipment failure.	EPL M2.2
One groundwater sampling point was not able to be collected quarterly as required by the EPL.	EPL M2.3
Not every blast was monitored at all monitoring points in the EPL due to equipment failure.	EPL M7.3
Attended noise monitoring was not conducted during the evening or night over consecutive days.	EPL M7.5
"Particulate Matter Control Best Practice	EPL E1.4

Implementation - Wheel Generated Dust” report not submitted in accordance with the timing noted in the EPL.	
“Particulate Matter Control Best Practice Implementation - Disturbing and Handling Overburden under adverse weather conditions” report not submitted in accordance with the timing noted in the EPL.	EPL E2.3
Noxious weeds were not recorded in the Land Disturbance Procedures that were reviewed and none with noxious weeds were able to be provided as evidence of consideration.	MOP 4.2.1
Seed collection not undertaken throughout the year.	MOP 4.2.1 Biodiversity MP Table 5.1
MOP details regarding Contaminated Land were not referenced in the Materials Safety Management Plan as the MOP directed.	MOP 4.2.1
Internal audit of the Remediation Management Plan was not conducted within 12 months of the commencement of the MOP.	MOP 9.1.5
2014 AEMR was lacking measures that will be implemented over the following year.	MOP 11 Blast MP 7.1.1
Landholders not informed of the renewal of Coal Lease 375 in 2013 as required by the lease conditions.	CL375 Condition 1
The Local Aboriginal Land Council was not informed of the renewal of the exploration license (A346) within 28 days of renewal.	EL A346 Condition 56
Calibration certificates for water meters were not able to be provided to the audit team.	Water License 90WA801901 CI MW0839-00001
A water meter failed and the failure was not reported to NoW.	Water License 90WA801901 CI MW0839-00001
No oral history has been collected from landowners whose properties have been acquired (2 in the audit period).	EA SoC CI 21
Records of training including personal development undertaken are not recorded in a Responsibility Matrix as required by the EMS.	EMS 4.2
Not all environmental incidents are reported by the Incident Report Form (note all incidents are reported) as required by the EMS.	EMS 4.3.2 EMS 5.2
Environmental incidents are not formally documented and managed in an incident response system using an incident register.	EMS 4.3.2
The EMS register does not list “external documents” that are relevant to the site operation.	EMS 4.4
Internal annual environmental audits of departments are not scheduled.	EMS 5.4
EMS has not been reviewed annually, no evidence of review.	EMS 6.1
The EMS and Management Plans were not reviewed following annual reviews and other proscribed review	EMS 6.2 ACHMP 6.24

triggers.	Blast MP 7.2 Water MP 8.1 Noise MP 7.2
Agricultural Land Monitoring as specified in the Environmental Monitoring Program is not conducted.	Env Monitoring Program Table 4
AEMR was not provided directly to NoW, OEH and Councils as required by some of the Management Plans.	Blast MP 7.1.1 Noise MP 7.1.1
Upgrade of intersection of Rangari Road and Kamilaroi Highway not completed by June 2015.	Traffic MP 4.1
An annual broader information meeting is not held with aboriginal community members who have shown an interest in attending the meeting in accordance with the ACHMP.	ACHMP 4.4
Panoramic photographs of Quinine Bush sites were not recorded as required by the ACHMP. Procedures for preparation of Bush Medicine are not documented or stored in the keeping place.	ACHMP 6.1
The temporary keeping place for salvaged artefacts is not the one specified in the ACHMP.	ACHMP 6.11
Elements of the Social Impact Management Plan, Housing and Accommodation Management Actions performance measure data were not able to be provided as evidence.	Social Impact MP Table 4.2
Elements of the Social Impact Management Plan not reported in the AEMR as stipulated in the plan.	Social Impact MP Table 4.2
Some Management tasks and controls nominated in the Biodiversity Management Plan not completed in the times required or not recorded.	Biodiversity MP Table 12.1 Biodiversity MP Table 12.3
No loggers installed in piezometers during 2014 as required by the Water Management Plan (WMP).	Water MP 6.2.4
Groundwater monitoring reports do not reference these standards: Murray Darling Basin Groundwater Quality Sampling Guidelines Technical Report No. 3; and Groundwater Sampling and Analysis: A Field Guide (Geoscience Australia, 2009) – as required by the WMP.	Water MP 6.2.5
Noise exceedance not notified to the EPA and DP&E within 7 days.	Noise MP 7.1.2

## 4.2. Project Approval PA 10\_0138

Table 4.1 shows the conditions that were not compliant with the Project Approval PA 10\_0138. An assessment of compliance for each condition in the PA 10\_0138 is provided in the audit protocol in Appendix C.

Table 4.1 Non-Compliances for PA 10\_0138

Schedule	Condition	Requirement	Finding
2	10	<p>By the end of 2013, or as otherwise agreed by the Director-General, the Proponent shall surrender the existing development consent (ie. DA85/1819) for mining on the site in accordance with Section 104A of the EP&amp;A Act.</p> <p>Prior to the surrender of this development consent, the conditions of this approval shall prevail to the extent of any inconsistency with the conditions of the development consent.</p>	<p>The consent was not surrendered. MCCM needs landowner consent which had not been forthcoming at the time of the audit. There was no agreement for the delay with the DG DP&amp;E.</p> <p>Not Compliant Administrative</p>
2	17	<p>By the end of March 2013, unless the Director-General agrees otherwise, the Proponent shall enter into a planning agreement with Council in accordance with:</p> <ol style="list-style-type: none"> <li>Division 6 of Part 4 of the EP&amp;A Act; and</li> <li>the terms of the Proponent's offer in Appendix 3.</li> </ol>	<p>VPA with Narrabri Shire Council, implemented 15 May 2014 that was not in accordance with the timing requirement.</p> <p>Not Compliant Administrative</p>
3	12	<p>The Proponent shall:</p> <p>(a) ensure that:</p> <ul style="list-style-type: none"> <li>all mining trucks and water carts used on the site are commissioned as noise suppressed (or attenuated) units;</li> <li>ensure that all equipment and noise control measures deliver sound power levels that are equal to or better than the sound power levels identified in the EA, and correspond to best practice or the application of the best available technology economically achievable;</li> <li>where reasonable and feasible, improvements are made to existing noise suppression equipment as better technologies become available; and</li> </ul> <p>(b) monitor and report on the implementation of these requirements annually on its website.</p>	<p>A-weighted levels generally compliant with EA limits however some trucks have not met L weighted test criteria.</p> <p>Not Compliant</p>

Schedule	Condition	Requirement	Finding
3	33	The Proponent shall: (b) operate a comprehensive air quality management system on site that uses a combination of predictive meteorological forecasting, predictive and real time air dispersion modelling and real-time air quality monitoring data to guide the day to day planning of mining operations and implementation of both proactive and reactive air quality mitigation measures (such as relocate, modify and/or suspend operations) to ensure compliance with the relevant conditions of this approval;	There was no evidence to demonstrate that the site currently uses predictive and real time air dispersion modelling.  Not Compliant
3	63	The Proponent shall ensure that construction and operational employees are predominantly transported to the site by shuttle bus, consistent with the assumptions used in the traffic study undertaken for the EA. Note: The EA assumed that 90% of construction employees and 90% of operational workers based on peak travel movements would be transported to the site by shuttle bus from Boggabri township. However, the shuttle bus service could also operate from Gunnedah and Narrabri.	“Approximately 65-85% use of the shuttle bus, but ‘substantially’ transported by shuttle Bus.” Shuttle buses are still in operation for the operational phase with a higher use rate.  Not Compliant
3	66	Within 12 months of the completion of the Gunnedah Traffic Study, the Proponent shall: (a) liaise with Gunnedah Shire Council regarding the study recommendations, including mitigating impacts of coal transportation by rail on road safety and congestion in the Gunnedah LGA due to closures of rail level crossings; and (b) provide a report of the outcomes of this liaison and identify reasonable and feasible proposals recommended by the Proponent and/or the Gunnedah Shire Council towards implementing the Study’s recommendations, to the satisfaction of the Director-General. Note: Any contribution by the Proponent should be on an equitable basis with other coal project rail users.	There was no evidence of consultation with Gunnedah Council regarding the impacts identified in this report.  Not Compliant
4	2	Prior to entering into any tenancy agreement for any land owned by the Proponent that is predicted to experience exceedances of the recommended dust and/or noise criteria, or for any of the land listed in Table 1 that is subsequently purchased by the Proponent, the Proponent shall:	Letter sighted from 23 January 2013 that included the “Mine Dust and You” factsheet. The letter did not detail provision of

Schedule	Condition	Requirement	Finding
		<ul style="list-style-type: none"> <li>a) advise the prospective tenants of the potential health and amenity impacts associated with living on the land, and give them a copy of the NSW Health fact sheet entitled “Mine Dust and You” (as may be updated from time to time);</li> <li>b) advise the prospective tenants of the rights they would have under this approval; and</li> <li>c) request the prospective tenants consult their medical practitioner to discuss the air quality monitoring data and predictions and health impacts arising from this information, to the satisfaction of the Director-General.</li> </ul>	<p>rights (b) or directly request consultation with a medical practitioner.</p> <p>Not Compliant</p>
4	3	<p>As soon as practicable after obtaining monitoring results showing:</p> <ul style="list-style-type: none"> <li>a) an exceedance of the relevant criteria in schedule 3, the Proponent shall notify the affected landowner in writing of the exceedance, and provide regular monitoring results to each of these parties until the project is complying with the relevant criteria again; and</li> <li>b) an exceedance of the relevant air quality criteria schedule 3, the Proponent shall send to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land) a copy of: <ul style="list-style-type: none"> <li>• the NSW Health fact sheet entitled “Mine Dust and You” (as may be updated from time to time); and</li> <li>• the monitoring data, in an appropriate format so that a medical practitioner can assist the resident in making an informed decision on the health risks associated with occupation of the property.</li> </ul> </li> </ul>	<p>Two exceedance of noise criteria, no notification has taken place. Levels 1-2 dB above the criteria are not a non-compliance per INP S11.1.3. Levels more than 2dB above criteria are a non-compliance. Non-compliances must be sustained and not addressed/rectified to constitute a breach of licence. However, any level above the criterion is an exceedance. The condition requires notification of exceedances, not non-compliances, so resident(s) should have been formally notified. Notifications may incorporate definitions of non-compliance and breach of licence condition as defined in the INP.</p>

Schedule	Condition	Requirement	Finding
			Not Compliant Administrative
5	3	<p>The Proponent shall ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:</p> <p>(a) detailed baseline data;</p> <p>(b) a description of:</p> <ul style="list-style-type: none"> <li>• the relevant statutory requirements (including any relevant consent, licence or lease conditions);</li> <li>• any relevant limits or performance measures/criteria;</li> <li>• the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;</li> </ul> <p>(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria</p> <p>(d) a program to monitor and report on the:</p> <ul style="list-style-type: none"> <li>• impacts and environmental performance of the project;</li> <li>• effectiveness of any management measures (see c above);</li> </ul> <p>(e) a contingency plan to manage any unpredicted impacts and their consequences;</p> <p>(f) a program to investigate and implement ways to improve the environmental performance of the project over time;</p> <p>(g) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> <li>• incidents;</li> <li>• complaints;</li> <li>• non-compliances with statutory requirements; and</li> <li>• exceedances of the impact assessment criteria and/or performance criteria; and</li> </ul> <p>(h) a protocol for periodic review of the plan.</p>	<p>There were various non-compliances across several management plans mainly the lack of “detailed” background data.</p> <p>Not Compliant Administrative</p>
5	5	<p>"Within 3 months of the submission of an:</p> <p>(a) annual review under condition 4 above;</p> <p>(b) incident report under condition 8 below;</p> <p>(c) audit under condition 10 below; or</p> <p>(d) any modification to the conditions of this approval, the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General.</p>	<p>Some of the management plans had not met the 3 month revision period.</p> <p>Not Complaint Administrative</p>

Schedule	Condition	Requirement	Finding
		Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project. "	
5	7	<p>The Proponent shall establish and operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Director-General. This CCC must be operated in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version), and be operating within 6 months of the date of this approval.</p> <p>The CCC must include at least one member representing the Maules Creek community, one member from Aboriginal stakeholder groups, and seek to include some joint membership with CCCs for other operating coal mines within the Leard Forest Mining Precinct, unless otherwise agreed by the Director General.</p> <p>Notes:</p> <ul style="list-style-type: none"> <li>The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval; and</li> <li>In accordance with the Department's guideline, the CCC should be comprised on an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community.</li> </ul>	<p>According to the CCC minutes and confirmed at site interview, a recognised Green Group was not invited/ involved in several meetings.</p> <p>Not Compliant</p>

### 4.3. Statement of Commitments from the EA

Table 4.3 shows the requirements and commitments that were not compliant with the Statement of Commitments. An assessment of compliance for all requirements and commitments in the Statement of Commitments is provided in the audit protocol in Appendix C.

Table 4.3 Statement of Commitments

Commitment	Requirement	Finding
8	Aston will install a real time meteorological monitoring system with predictive air quality modelling software capabilities at locations selected in	<p>Real time predictive air quality modelling is not conducted.</p> <p>Not Compliant</p>

Commitment	Requirement	Finding
	consultation with OEH. Consultation will also occur with Boggabri and Tarrawonga Coal Mines in an attempt to develop an holistic network for the region. The monitoring component of this system will include a PM <sub>2.5</sub> monitor at a location representative of the receivers located within the Maules Creek Community.	
21	Aston will compile an Oral History report for any landowners which are identified to be adversely impacted by the Project and who are acquired in accordance with conditions of Project Approval.	Two landowners have had their properties acquired and left the area who would fit this requirement. No oral history was collected.  Not Compliant Administrative

#### 4.4. Environmental Protection Licence

Table 4.4 shows the conditions that were not compliant with the Environmental Protection Licence 20221 (EPL 20221). An assessment of compliance for each condition in the EPL is provided in the audit protocol in Appendix C.

Table 4.4 Environmental Protection Licence

Condition	Requirement	Finding
L3.4	<p>Determining Compliance To determine compliance:</p> <p>a) with the Leq(15 minute) noise limits in the Noise Limits table, the noise measurement equipment must be located:</p> <p>i) approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or</p> <p>ii) within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable</p> <p>iii) within approximately 50 metres of the boundary of a National Park or a Nature Reserve; or,</p> <p>iv) at an alternative location approved in writing by the EPA.</p> <p>b) with the LA1(1 minute) noise limits in the Noise Limits table, the noise measurement equipment must be located within 1 metre of a dwelling façade or at an alternative location approved in writing by the EPA.</p> <p>c) with the noise limits in the Noise Limits table, the noise</p>	<p>Attended noise monitoring (LAep15 minute) not conducted within 30 metres of from a dwelling façade.</p> <p>Attended noise monitoring (LA1minute) not conducted within 1 metre of dwelling façade. No agreement was in place with the EPA to vary the requirement.</p> <p>Consultation was undertaken with EPA to justify selection of monitoring</p>

Condition	Requirement	Finding																
	<p>measurement equipment must be located:</p> <ul style="list-style-type: none"> <li>i) at the most affected point at a location where there is no dwelling at the location; or</li> <li>ii) at the most affected point within an area at a location prescribed by part (a) or part (b) of this condition.</li> </ul>	<p>locations. Discussions are ongoing with EPA to approve final attended noise monitoring locations.</p> <p>Not Compliant Administrative</p>																
M2.2	<p>Air Monitoring Requirements:</p> <p>POINT 18</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>PM10</td> <td>micrograms per cubic metre</td> <td>Continuous</td> <td>AM-22</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	PM10	micrograms per cubic metre	Continuous	AM-22	<p>Continuous samples were not able to be obtained. 347 samples of the required 365 samples of 24hr average PM<sub>10</sub> measurements</p> <p>Not Compliant</p>								
Pollutant	Units of measure	Frequency	Sampling Method															
PM10	micrograms per cubic metre	Continuous	AM-22															
M2.3	<p>Water and/ or Land Monitoring Requirements:</p> <p>POINT 13,14,15,16,17</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Conductivity</td> <td>microsiemens per centimetre</td> <td>Quarterly</td> <td>Representative sample</td> </tr> <tr> <td>pH</td> <td>pH</td> <td>Quarterly</td> <td>Representative sample</td> </tr> <tr> <td>Total dissolved solids</td> <td>milligrams per litre</td> <td>Quarterly</td> <td>Representative sample</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	Conductivity	microsiemens per centimetre	Quarterly	Representative sample	pH	pH	Quarterly	Representative sample	Total dissolved solids	milligrams per litre	Quarterly	Representative sample	<p>Quarterly Representative samples were not able to be obtained from Monitoring Point 13_RB01a.</p> <p>Not Compliant</p>
Pollutant	Units of measure	Frequency	Sampling Method															
Conductivity	microsiemens per centimetre	Quarterly	Representative sample															
pH	pH	Quarterly	Representative sample															
Total dissolved solids	milligrams per litre	Quarterly	Representative sample															
M7.3	<p>For each monitoring point specified below, the Licensee must monitor the noise or vibration 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>Points: BM2 and BM3:</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Units of measure</th> <th>Frequency</th> <th>Sample Method</th> </tr> </thead> <tbody> <tr> <td>Blast Noise</td> <td>DB (Lin Peak)</td> <td>Every Blast</td> <td>As detailed in the most recently approved "Blast Management Plan" for the premises.</td> </tr> <tr> <td>Blast Vibration</td> <td>mm/s</td> <td>Every Blast</td> <td>As detailed in the most recently approved "Blast Management Plan" for the premises.</td> </tr> </tbody> </table>	Parameter	Units of measure	Frequency	Sample Method	Blast Noise	DB (Lin Peak)	Every Blast	As detailed in the most recently approved "Blast Management Plan" for the premises.	Blast Vibration	mm/s	Every Blast	As detailed in the most recently approved "Blast Management Plan" for the premises.	<p>Blast noise and vibration was not monitored every blast at BM3 due to equipment failure.</p> <p>Not Compliant</p>				
Parameter	Units of measure	Frequency	Sample Method															
Blast Noise	DB (Lin Peak)	Every Blast	As detailed in the most recently approved "Blast Management Plan" for the premises.															
Blast Vibration	mm/s	Every Blast	As detailed in the most recently approved "Blast Management Plan" for the premises.															
M7.5	<p>To assess compliance with the noise limits presented in the Noise Limits table, attended noise monitoring must be undertaken in accordance with the condition titled Determining Compliance, outlined above, and:</p> <ul style="list-style-type: none"> <li>a) at each one of the locations listed in condition M7.1;</li> </ul>	<p>Attended noise monitoring was not conducted during the evening or night over</p>																

Condition	Requirement	Finding
	b) occur monthly in a reporting period; c) occur during either the evening or night period as defined in the NSW Industrial Noise Policy for a minimum of: i) 1 hour during the evening or night. d) occur for two consecutive operating days.	consecutive days.  Not Compliant
E1.4	The Licensee must submit a report to the EPA which documents the results of the assessment undertaken in accordance with Condition E1.2. The report must include an assessment of: - the dust control effectiveness, - the dust levels recorded, and - any relationship established between control effectiveness and the additional site data. The report must be submitted by the Licensee to the Environment Protection Authority Regional Manager Armidale, at PO Box 494, ARMIDALE by 31 March 2015.	The report documenting the results of the assessment detailed in E1.2 were not submitted to the EPA.  Not Compliant
E2.3	The Licensee must submit a report to the EPA which documents the results of the actions taken in accordance with Condition E2.2. The report must include an assessment of the effectiveness of changes made to mining activities due to adverse weather and document meteorological conditions and the resultant dust levels. The report must be submitted by the Licensee to the Environment Protection Authority Regional Manager Armidale, at PO Box 494, ARMIDALE by 31 March 2015.	The report documenting the results of the assessment detailed in E2.2. were not submitted to the EPA.  Not Compliant

#### 4.5. Mining Operations Plan

Table 4.5 shows the requirements and commitments that were not compliant with the Mining Operations Plan. An assessment of compliance for all requirements and commitments in the Mining Operations Plan is provided in the audit protocol in Appendix C.

Table 4.5 Mining Operations Plan

Reference	Requirement	Finding
4.2.1	Prior to clearance, infestations of significant weeds (noxious weeds or WONS) will be recorded in the LDP and mapped. If recommended by MCCM's Environmental Officer or Environmental Manager, the control of weeds will be undertaken to minimise the risk of spread of weeds during clearing. Weed control measures will be species specific and will be guided by published control measures.	LDP's were sighted however neither examples included consideration of weed infestations or WONS.  Not Compliant Administrative

Reference	Requirement	Finding
	Prior to clearing, all plant and equipment entering the site will be inspected and recommended for wash down (in designated wash down areas) as required to ensure weed material from offsite locations do not establish or spread into native vegetation within the Project Boundary. Plant and machinery will be again washed down prior to removal from site to prevent weeds from spreading into off site areas.	
4.2.1	Seed collection will be undertaken throughout the year from all areas within the Project Boundary. The seed collected will be propagated for use in rehabilitation areas and other disturbed areas as part of the pre-clearing and post-clearing protocols.	An inspection has been conducted but at the time there was no seed available in the areas to be cleared The condition requires “seed collection throughout the year” and this has not been done.  Not Compliant
4.2.1	A number of areas of potential hydrocarbon contamination may exist within the Project Boundary during mining activities, although a number of measures and processes will be installed and adopted to minimise contamination. These measures and processes include: <ul style="list-style-type: none"> <li>• Bunded diesel and oil tanks;</li> <li>• Compacted gravel hardstand areas;</li> <li>• Impervious refuelling, workshop and hydrocarbon storage areas;</li> <li>• Use of oil/water separators;</li> <li>• The adoption of ‘dry’ spill clean-up and workshop cleaning processes; and</li> <li>• Establishment of a bioremediation pad on site to allow progressive and rapid remediation of any contaminated soil on site.</li> </ul> Further detail on hydrocarbon and hazardous materials storage and handling is presented in the Maules Creek Materials Safety Management Plan.	Not all measures noted in the MOP were specifically referenced in the Material Safety Management Plan.  Not Compliant Administrative
9.1.5	An audit shall be undertaken annually by the Environment Manager (or delegate) to ensure implementation of the RMP as a whole. Non-conformance issues and corrective action requests will be identified and formally documented in the audit process.	An audit was not conducted within 12 months of commencement of the MOP.  Not Compliant Administrative

Reference	Requirement	Finding
11	An Annual Review will be submitted by the end of March each year as per Condition 4, Schedule 5 of PA 10_0138, which outlines the environmental performance of the Project over the preceding 12 month period. The Annual Review will discuss rehabilitation performance and any non-conformance issues. This will include monitoring results, statutory requirements, and a description of rehabilitation activities and measures that will be implemented over the following year. Rehabilitation performance against the key objectives and completion criteria will be an integral part of the Annual Review. All stakeholders will have access to this document on the Whitehaven website.	The 2014 AEMR lacked details of measures that would be implemented over the following year.  Not Compliant Administrative

#### 4.6. Mining Leases

The tables in the following sub-sections show the conditions of the Mining Leases that were assessed as not compliant. An assessment of compliance for each condition in the mining leases is provided in the audit protocol in Appendix C.

##### 4.6.1. Coal Lease 375 (CL 375)

Table 4.6 Coal Lease 375

Condition	Requirement	Finding
1	(a) 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.  (b) If there are ten or more landholders affected, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this lease has been granted/renewed; state whether the lease includes the surface and must contain an adequate plan and description of the lease area.	The ML was reviewed in 2013 within the audit period. Evidence was not provided for either option.  Not Compliant Administrative

#### 4.6.2. Exploration Licence 346 (A 346)

Table 4.7 Exploration Lease 346

Condition	Requirement	Finding
56	The licence holder must inform the relevant Local Aboriginal Land Council of the grant or renewal of this exploration licence within 28 days of the grant or renewal.	There was no evidence of the Land Council being notified  Not Compliant Administrative

#### 4.6.3. Mining Licence 1701 (ML 1701)

The conditions of the Approval under the Mining Licence 1701 were assessed and all conditions were either “compliant” or “not triggered”. No conditions were found to be “not compliant”. An assessment of compliance for all conditions in the Mining Licence 1701 is provided in the audit protocol in Appendix C.

#### 4.7. EPBC Approval

The conditions of the Approval under the Environment Protection and Biodiversity Conservation (EPBC) Act 1999 were assessed and all conditions were either “compliant” or “not triggered”. No conditions were found to be “not compliant”. An assessment of compliance for all conditions in the EPBC Approval is provided in the audit protocol in Appendix C.

#### 4.8. Environmental Management Strategy

Table 4.8 Environmental Management Strategy shows the conditions that were not compliant with the Environmental Management Strategy. An assessment of compliance for all conditions in the Environmental Management Strategy is provided in the audit protocol in Appendix C.

Table 4.8 Environmental Management Strategy

Reference	Requirement	Finding
4.2	A record of training including personal development undertaken will be recorded in a Responsibility Matrix. Copies of education and training qualifications will be maintained in personnel files accessible on site. The Responsibility Matrix will be updated on an ongoing basis as required with changes to positions, roles and staff, and training or other personal development undertaken.	Records of induction and competency training are kept but there is no Responsibility Matrix as described here. There are responsibility matrices in the back of all the EMPs but not in this form.  Not Compliant Administrative
4.3.2	All environmental incidents will be reported as soon as possible using the Incident Report Form.	The Incident Report Form is not used for all incidents. The Incident Register is not

Reference	Requirement	Finding
	All environmental incidents are managed by the Environmental Manager and will be lodged in the Incident Register.	used. Not Compliant Administrative
4.4	The Environmental Manager will maintain a Register of EMS Documents which will list policies, manuals, procedures, plans, external documents, registers, forms, templates and records relevant to the environmental management system. The register will detail the Whitehaven reference number, name, description, responsibility, last updated date, date required for review and comments.	The EMS register does not list external documents. Not Compliant Administrative
5.2	The Project will implement a process for taking corrective and preventative actions against identified and potential non-compliances. Should an environmental non-conformance occur, an Incident and Investigation Form will need to be completed	The Incident Reporting Form is not used in all cases. Not Compliant Administrative
5.4	Internal Environmental Audits shall be conducted by Project personnel including the Environmental Manager and the relevant Managers or their delegates. The Internal Environmental Audit shall be conducted for individual departments in accordance with an agreed schedule on an annual basis. The Internal Environmental Audit will require the completion of an Internal Environmental Audit Report.	No audits have been conducted in accordance with this commitment. Regular environmental reviews and inspections are undertaken but they are not in accordance with this requirement. Not Compliant Administrative
6.1	This EMS will be reviewed on an annual basis by the Senior Management team (as managed by the Environmental Manager) to ensure that it will be adequate for the upcoming operations and to ensure that adequate resources are allocated to environmental management to affirm continual improvement.	No evidence of reviews conducted without revision of the document as required were able to be provided. Not Compliant Administrative
6.2	This EMS will be reviewed following an annual review, incident report, audit, and modification of approval. It will be updated every five years, or as required. The review will include an assessment of	The reviews required by this requirement were not able to be verified as they were no documented.

Reference	Requirement	Finding
	the effectiveness of the established system and its performance against the objectives and performance outcomes.	Not Compliant Administrative

#### 4.9. Environmental Monitoring Program

Table 4.9 shows the requirements and commitments that were not compliant with the Environmental Monitoring Program located within the Environmental Management Strategy. An assessment of compliance for all requirements and commitments in the Environmental Monitoring Program located within the Environmental Management Strategy is provided in the audit protocol in Appendix C.

Table 4.9 Environmental Monitoring Program

Reference	Requirement	Finding																								
Table 4	<table border="1"> <thead> <tr> <th>Parameter Monitored</th> <th>Management Plan</th> <th>Parameters monitored</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td> <ul style="list-style-type: none"> <li>Regional Monitoring (control site)</li> </ul> </td> </tr> <tr> <td>Blasting</td> <td>Noise and Blasting Management Plan</td> <td> <ul style="list-style-type: none"> <li>Filming</li> <li>Air blast overpressure (dB[Linear peak]); and</li> <li>Peak particle velocity (mm/s).</li> <li>Blast fume monitoring (NOx rating scale)</li> </ul> </td> </tr> <tr> <td>Noise</td> <td>Noise and Blasting Management Plan</td> <td> <ul style="list-style-type: none"> <li>Predictive meteorological forecasting</li> <li>Real – time noise monitoring for day to day planning</li> <li>Supplementary attended monitoring</li> <li>Inversion strength of winds</li> </ul> </td> </tr> <tr> <td>Meteorological Conditions</td> <td>Air Quality Monitoring Plan</td> <td> <ul style="list-style-type: none"> <li>Rainfall</li> <li>Temperature @ 2m</li> <li>Temperature @ 10m</li> <li>Wind Speed @ 10 m</li> <li>Wind Direction @ 10 m</li> <li>Sigma Theta</li> <li>Solar Radiation</li> </ul> </td> </tr> <tr> <td>Traffic</td> <td>Traffic Management Plan</td> <td> <ul style="list-style-type: none"> <li>Traffic volume surveys</li> <li>Amount of coal transported from site</li> <li>Date and time of each train movement</li> </ul> </td> </tr> <tr> <td>Waste</td> <td>Materials Management Plan</td> <td> <ul style="list-style-type: none"> <li>Quantities of waste</li> <li>Waste streams</li> <li>Effectiveness of minimisation measures</li> </ul> </td> </tr> <tr> <td>Social</td> <td>Social Impact Management Plan</td> <td> <ul style="list-style-type: none"> <li>Local vs Non-Local workforce</li> <li>Amount of MCC owned land still utilised for agricultural purposes</li> <li>Agricultural productivity</li> </ul> </td> </tr> </tbody> </table>	Parameter Monitored	Management Plan	Parameters monitored			<ul style="list-style-type: none"> <li>Regional Monitoring (control site)</li> </ul>	Blasting	Noise and Blasting Management Plan	<ul style="list-style-type: none"> <li>Filming</li> <li>Air blast overpressure (dB[Linear peak]); and</li> <li>Peak particle velocity (mm/s).</li> <li>Blast fume monitoring (NOx rating scale)</li> </ul>	Noise	Noise and Blasting Management Plan	<ul style="list-style-type: none"> <li>Predictive meteorological forecasting</li> <li>Real – time noise monitoring for day to day planning</li> <li>Supplementary attended monitoring</li> <li>Inversion strength of winds</li> </ul>	Meteorological Conditions	Air Quality Monitoring Plan	<ul style="list-style-type: none"> <li>Rainfall</li> <li>Temperature @ 2m</li> <li>Temperature @ 10m</li> <li>Wind Speed @ 10 m</li> <li>Wind Direction @ 10 m</li> <li>Sigma Theta</li> <li>Solar Radiation</li> </ul>	Traffic	Traffic Management Plan	<ul style="list-style-type: none"> <li>Traffic volume surveys</li> <li>Amount of coal transported from site</li> <li>Date and time of each train movement</li> </ul>	Waste	Materials Management Plan	<ul style="list-style-type: none"> <li>Quantities of waste</li> <li>Waste streams</li> <li>Effectiveness of minimisation measures</li> </ul>	Social	Social Impact Management Plan	<ul style="list-style-type: none"> <li>Local vs Non-Local workforce</li> <li>Amount of MCC owned land still utilised for agricultural purposes</li> <li>Agricultural productivity</li> </ul>	<p>Evidence was not provided for agricultural land monitoring.</p> <p>Not Compliant Administrative</p>
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#### 4.10. Noise Management Plan

Table 4.10 shows the requirements and commitments that were not compliant with the Noise Management Plan. An assessment of compliance for all requirements and commitments in the Noise Management Plan is provided in the audit protocol in Appendix C.

Table 4.10 Noise Management Plan

Reference	Requirement	Finding
5.2.4	"any plant items found to operate with sound powers greater than those specified in Section 4.2 will be withdrawn from service to allow rectification. In accordance with the approval, items will need testing to ensure compliance with limits before	<p>Plant measurements confirm compliance with A-weighted sound power levels. Some plant has been found with L weighted levels over the limit.</p> <p>Not Compliant</p>

Reference	Requirement	Finding
	being re-accepted for use on site."	
7.1.1	A copy of the AR will be forwarded to relevant stakeholders including, but not limited to DP&I, EPA, NOW, OEH, Narrabri Shire Council and members of the CCC. The AR will also be placed on the Whitehaven website.	Councils did not receive a copy.  Not Compliant Administrative
7.1.2	In accordance with Schedule 5, Condition 8 of the approval, MCCM will, within 7 days of exceedance date, notify the NSW DP&I and other relevant agencies. MCCM will submit a written report that: <ul style="list-style-type: none"> <li>describes the date, time, and nature of the exceedance;</li> <li>identifies the cause (or likely cause) of the exceedance;</li> <li>describes what action has been taken to date; and</li> <li>describes the proposed measures to address the exceedance.</li> </ul>	The mine was informed by the noise consultant on 29/4/15 of and exceedance on 22/4/15. EPA and DP&I notified on 30/4/15. That is 8 days.  Not Compliant
7.2	In accordance with Schedule 5, Condition 5 of the approval, this NMP will be reviewed within 3 months of any annual review, incident report, audit or modification to conditions. Should this review identify any requirement to change the NMP, this document will be updated accordingly in accordance with the approval.	The NMP was last revised on 18/02/2014. There was no evidence of a review since publication of the 2014 and 2014 AEMRs.  Not Compliant Administrative

#### 4.11. Noise Management Strategy

The Noise Management Strategy was assessed and all conditions were either compliant or not applicable. No conditions were found to be "not compliant". An assessment of compliance for each condition in the Noise Management Strategy is provided in the audit protocol in Appendix C.

#### 4.12. Blast Management Plan

Table 4.11 shows the requirements and commitments that were not compliant with the Blast Management Plan. An assessment of compliance for all requirements and commitments in the Blast Management Plan is provided in the audit protocol in Appendix C.

Table 4.11 Blast Management Plan

Reference	Requirement	Finding
7.1.1	<p>The AR will, in accordance with the requirements of Schedule 5, Condition 4 of the approval:</p> <p>a) describe the development ... that was carried out in the past calendar year, and the development that is proposed to be carried out over the current calendar year;</p> <p>b) include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against the :</p> <ul style="list-style-type: none"> <li>• relevant statutory requirements, limits or performance measures/criteria;</li> <li>• monitoring results of previous years; and</li> <li>• relevant predictions in the EA;</li> </ul> <p>c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;</p> <p>d) (d) identify any trends in the monitoring data over the life of the project;</p> <p>e) (e) identify any discrepancies between the predicted and actual impacts of the project, 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 project.</p>	<p>Measures to improve compliance were not included in the 2014 AEMR requirements.</p> <p>Not Compliant Administrative</p>
7.1.1	<p>A copy of the AR will be forwarded to relevant stakeholders including, but not limited to DRE, DP&amp;I, NOW, OEH, EPA, Narrabri Shire Council and members of the CCC. The AR will also be placed on the Whitehaven website.</p>	<p>There was no evidence provided that NOW, OEH, Council and CCC were forwarded the 2014 AEMR.</p> <p>Not Compliant Administrative</p>
7.2	<p>The BLMP will be reviewed against blasting performance following 3 months of operational blasts. This is to determine if the plan is working as per predicted or if changes are required.</p>	<p>The review occurred but was not documented.</p> <p>Not Compliant Administrative</p>

#### 4.13. Blast Management Strategy

The Blast Management Strategy was assessed and all conditions were either compliant or not applicable. No conditions were found to be “not compliant”. An assessment of compliance for each condition in the Blast Management Strategy is provided in the audit protocol in Appendix C.

#### 4.14. Air Quality and Greenhouse Gas Management Plan

Table 4.12 shows the requirements and commitments that were not compliant with the Air Quality and Greenhouse Gas Management Plan. An assessment of compliance for all requirements and commitments in the Air Quality and Greenhouse Gas Management Plan is provided in the audit protocol in Appendix C.

Table 4.12 Air Quality and Greenhouse Gas Management Plan

Reference	Requirement	Finding
3.6	MCCM will advise the prospective tenants of the rights that they have under the Project Approval. MCCM will also request the prospective tenants to visit their medical practitioner to discuss the air quality monitoring data and predictions and the health impacts arising from that information.	A letter to tenants was provided to the audit team that included the factsheet but not the explicit rights of tenants or the explicit requirement to consult medical practitioner. There was no evidence of approval of the tenancy agreement by the DG DP&E.  Not Compliant
8.7	Within 3 months of the submission of an annual review, incident report, audit or any modification to the conditions of this approval, the AQGHGMP would be reviewed and if necessary revised.	There was no system for recording reviews of documentation.  Not Compliant Administrative

#### 4.15. Air Quality Management Strategy

The Air Quality Management Strategy was assessed and all conditions were either compliant or not applicable. No conditions were found to be “not compliant”. An assessment of compliance for each condition in the Air Quality Management Strategy is provided in the audit protocol in Appendix C.

#### 4.16. Water Management Plan

Table 4.13 shows the requirements and commitments that were not compliant with the Water Management Plan. An assessment of compliance for all requirements and commitments in the Water Management Plan is provided in the audit protocol in Appendix C.

Table 4.13 Water Management Plan

Reference	Requirement	Finding
6.2.4	Electronic water level loggers will be progressively installed during 2014 in all existing and future monitoring bores.	Vibrating wire piezometers were installed, loggers have yet to be ordered and installed in accordance with the date noted

Reference	Requirement	Finding
		(2014).  Not Compliant
6.2.4	All groundwater sampling will be conducted in accordance with the following guidelines: <ul style="list-style-type: none"> <li>• Murray Darling Basin Groundwater Quality Sampling Guidelines Technical Report No. 3; and</li> <li>• Groundwater Sampling and Analysis: A Field Guide (Geoscience Australia, 2009).</li> </ul>	Neither guideline was referenced in the monitoring reports.  Not Compliant Administrative
8.1	Water Management Plan will be reviewed within three months of the submission of the Annual Review and updated to the satisfaction of the Director-General where necessary.	There was no evidence of a review being undertaken.  Not Compliant Administrative

#### 4.17. Water Management Strategy

The Water Management Strategy was assessed and all conditions were either compliant or not applicable. No conditions were found to be “not compliant”. An assessment of compliance for each condition in the Water Management Strategy is provided in the audit protocol in Appendix C.

#### 4.18. Biodiversity Management Plan

Table 4.14 shows the requirements and commitments that were not compliant with Biodiversity Management Plan. An assessment of compliance for all requirements and commitments in the Biodiversity Management Plan is provided in the audit protocol in Appendix C.

Table 4.14 Biodiversity Management Plan

Reference	Requirement	Finding
Table 5-2	Seed Collection Throughout year; and before and immediately after clearing Observations to be made throughout year to check flowering/seeding development of key species. To be documented as part of the Mine Operations Plan reporting.	Seed collection is not done throughout the year.  Not Compliant
Table 12-1		No evidence of the controls required prior to May and April 2015 were provided.  Not Compliant

Reference

Requirement

Finding

**Table 12-1 Management Tasks - First Year (May 2014 to May 2015)**

Management Tasks for Each Year	Type of Action	Specific Timing	Relevant BMP Section
<b>Long-term Security</b>			
The long-term security of the offset areas that are not subject to the approval of the revised offset strategy to be registered (all offset areas except Wongala, Roseglass, Bimboria and Oakleigh/Onavale).	Long-term Security	Before December 2014 unless agreed otherwise by the NSW Secretary of DP&E after consultation with OEH	Section 3.3
The long-term security of the offset areas subject to the approval of the revised offset strategy to be registered (i.e. Wongala, Roseglass, Bimboria and Oakleigh/Onavale).	Long-term Security	Within 12 months of approval of Stage 2 of the Leard Forest Mining Precinct Regional Biodiversity Strategy	Section 3.3
<b>Grazing Management</b>			
Complete an Agricultural Suitability Assessment of the grazing areas within all offset areas.	Management	Before April 2015	Section 3.4
<b>Revegetation</b>			
Revegetation areas to be identified in all offset areas.	Management	Before May 2015	Sections 7.3.2, 9.3.2, and 11.3.2
Pre-planting site preparation to be commenced in all revegetation areas.	Management	Before May 2015	Section 7.3.4, 9.3.4 and 11.3.4, Appendix F
Seed collection and propagation to be commenced.	Management	Before May 2015	Section 7.3.3, 9.3.3 and 11.3.3, Appendix F
<b>Weed Management</b>			
Undertake weed monitoring – Mapping of major occurrences of Brair Rose, Weeping Willow, Elm and Thistles in all offset properties to be commenced.	Monitoring	Before May 2015	Sections 7.4, 9.4 and 11.4
Control of Brair Rose, Weeping Willow, Elm and Thistles in the offset properties to be commenced.	Management	Before May 2015	
<b>Feral Animal Management</b>			
Control of Feral Pig, Feral Goat and Fox in the Northern offset properties to be commenced.	Management	Before May 2015	Section 7.5
Control of Feral Pig and Fox in the Eastern, Western and Southern Offsets to be commenced.	Management	Before May 2015	Sections 9.5 and 11.5

**Table 12-3 Performance Criteria - First Year (May 2014 to May 2015)**

Performance Criteria for Each Year	Specific Timing	Relevant BMP Section	Relevant BMP Section with Corrective Actions
<b>Long-term Security</b>			
Suitable arrangements have been made for the long-term security of the offset areas that are not subject to the approval of the revised offset strategy to be registered (all offset areas except Wongala, Roseglass, Bimboria and Oakleigh/Onavale). The conservation agreement(s) must be registered by December 2014 unless agreed otherwise by the NSW Secretary of DP&E after consultation with OEH.	Before December 2014 unless agreed otherwise by the NSW Secretary of DP&E after consultation with OEH	Section 3.3	-
<b>Grazing Management</b>			
An Agricultural Suitability Assessment of the grazing areas within all offset areas has been commenced.	Before April 2015	Section 3.4	-
<b>Revegetation</b>			
Identification of revegetation areas have been commenced in all offset areas.	Before May 2015	Sections 7.3, 9.3 and 11.3.	Sections 7.3.6, 9.3.6 and 11.3.6
Pre-planting site preparation has been commenced in all revegetation areas.	Before May 2015	Sections 7.3.4, 9.3.4 and 11.3.4 Appendix F	
Seed collection and propagation has been commenced.	Before May 2015	Sections 7.3.3, 9.3.3 and 11.3.3 and Appendix F	
<b>Weed Management</b>			
Mapping of major occurrences of Brair Rose, Weeping Willow, Elm and Thistles in the offset properties has been commenced.	Before May 2015	Sections 7.4, 9.4 and 11.4	Sections 7.4.3, 9.4.3 and 11.4.3
Control of Brair Rose, Weeping Willow, Elm and Thistles in the offset properties has been commenced.	Before May 2015		
<b>Feral Animal Management</b>			
Control of Feral Pig, Feral Goat and Fox in the Northern Offset properties has been commenced.	Before May 2015	Section 7.5	Section 7.5.3
Control of Feral Pig and Fox in the Eastern, Western and Southern Offsets has been commenced.	Before May 2015	Sections 9.5 and 11.5	Sections 9.5.3 and 11.5.3
<b>Creekline Stabilisation</b>			
Fencing has been commenced to exclude livestock grazing from the Riparian Domain in all offset areas.	Before May 2015	Sections 7.6, 9.6 and 11.6	Sections 7.6.3, 9.6.3 and 11.6.3
Mapping of major occurrences of Brair Rose, Weeping Willow, Elm and Thistles in the offset properties has been commenced.	Before May 2015		
Control of Brair Rose, Weeping Willow, Elm and Thistles in the offset properties has been commenced.	Before May 2015		

Table 12-3

No evidence of the controls required prior to May and April 2015 were provided.

Not Compliant

Reference	Requirement	Finding																													
	<table border="1"> <thead> <tr> <th colspan="4">Fire Management</th> </tr> </thead> <tbody> <tr> <td>Completion of the Bushfire Management Plan</td> <td>Before May 2015</td> <td>Section 7.7</td> <td>-</td> </tr> <tr> <td>Mapping of the asset protection zones around infrastructure in all offset areas has been commenced.</td> <td>Before May 2015</td> <td>Sections 7.7, 9.7 and 11.7</td> <td>Sections 7.7.3, 9.7.3 and 11.7.3</td> </tr> <tr> <th colspan="4">General</th> </tr> <tr> <td>Box Gum Woodland EEC investigation report and implementation plan have been prepared.</td> <td>Before 23 October 2014</td> <td>Section 17.1.2</td> <td>-</td> </tr> <tr> <td>Baseline vegetation condition monitoring has been commenced.</td> <td>Spring 2014</td> <td>Section 13.2</td> <td>-</td> </tr> <tr> <td>Baseline fauna monitoring has been undertaken.</td> <td>Spring and summer before May 2015</td> <td>Section 13.3</td> <td>-</td> </tr> </tbody> </table>	Fire Management				Completion of the Bushfire Management Plan	Before May 2015	Section 7.7	-	Mapping of the asset protection zones around infrastructure in all offset areas has been commenced.	Before May 2015	Sections 7.7, 9.7 and 11.7	Sections 7.7.3, 9.7.3 and 11.7.3	General				Box Gum Woodland EEC investigation report and implementation plan have been prepared.	Before 23 October 2014	Section 17.1.2	-	Baseline vegetation condition monitoring has been commenced.	Spring 2014	Section 13.2	-	Baseline fauna monitoring has been undertaken.	Spring and summer before May 2015	Section 13.3	-		
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General																															
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Baseline vegetation condition monitoring has been commenced.	Spring 2014	Section 13.2	-																												
Baseline fauna monitoring has been undertaken.	Spring and summer before May 2015	Section 13.3	-																												

#### 4.19. Leard Forest Mining Precinct Regional Biodiversity Strategy

Schedule 3 Condition 41 of PA 10\_0138 requires MCC to commission and fund the preparation of a Leard Forest Mining Precinct Regional Biodiversity Strategy, jointly with all other coal mines within the Precinct. The Stage 1 Scoping Report was submitted in June 2013 following an extension letter received from DP&E. A letter received from DP&E in March 2014 acknowledged MCCM had met its obligations in providing Stage 1 report.

A further letter to MCC was received from the department notifying of a time extension to the 30 June 2015 (end of the audit period) for the completion of Stage 2. As the strategy was not finalised in the reporting period, this IEA provides no further comment on the compliance of MCCM with the requirements of the Leard Forest Mining Precinct Regional Biodiversity Strategy.

#### 4.20. White-Box Yellow-Box Blakely's Red-Gum Woodland EEC Implementation Plan

The White-Box Yellow-Box Blakely's Red-Gum Woodland EEC Implementation Plan was assessed and all conditions were either compliant or not applicable. No conditions were found to be "not compliant". An assessment of compliance for each condition in the White-Box Yellow-Box Blakely's Red-Gum Woodland EEC Implementation Plan is provided in the audit protocol in Appendix C.

#### 4.21. Threatened Fauna Implementation Plan

The Threatened Fauna Implementation Plan was assessed and all conditions were either compliant or not applicable. No conditions were found to be "not compliant". An assessment of compliance for each condition in the Threatened Fauna Implementation Plan is provided in the audit protocol in Appendix C.

#### 4.22. Aboriginal Archaeology and Cultural Heritage Management Plan

Table 4.15 shows the requirements and commitments that were not compliant with the Aboriginal Archaeology and Cultural Heritage Management Plan. An assessment of compliance for all requirements and commitments in the Aboriginal Archaeology and Cultural Heritage Management Plan is provided in the audit protocol in Appendix C.

Table 4.15 Aboriginal Archaeology and Cultural Heritage Management Plan

Reference	Requirement	Finding
4.4	Once a year, a broader information meeting will be open to attendance by any Aboriginal community member with an interest in the MCCM Project.	This has not occurred.  Not Compliant Administrative
6.10	In order to manage and mitigate these impacts for this species, the following ethnobotanical management procedures are to be implemented and co-ordinated by a suitably qualified ecologist. 2. A series of panoramic photographs (either taken with wide angle lens or compiled from stitched photomosaics) of representative ecosystems with extant individual or stands of Quinine Bush are to be taken. These photos will record the pre-mining state of the environment of these plants should impacts occur. Each panoramic photo must include at least one representative Quinine Bush. 4. The procedures for preparation of bush medicine are to be documented in a culturally appropriate manner and stored as part of a permanent cultural record in the proposed Keeping Place. Permission should be sought from RAPs for the opportunity to provide to this information to the NSW Royal Botanic Gardens Aboriginal Education Programs to allow the diversity of medicine in this area be more fully documented.	2. The photographs were not provided as evidence. 4. The procedures were no provided as evidence It is assumed that 2 and 4 have not been done.  Not Compliant
6.11	During consultation on a permanent Keeping Place, MCCM will utilise the existing homestead on the "Tralee" (ex-Watson) property as an Interim Keeping Place. The MCCM Project Environmental Manager will be responsible for ensuring that the Interim Keeping Place is secure and provide protection from the elements and pests. Appropriate shelving and space for research purposes will be provided.	The temporary keeping place is at the Whitehaven Gunnedah CHPP, a permanent location is still to be agreed with the community. The process is not complete as yet so no recommendation has been made.  Not Compliant Administrative
6.24	A review of the AHMP is to be conducted within three months of: <ul style="list-style-type: none"> <li>• submission of the Annual Review (Schedule 5, Condition 4 of PA 10_0138);</li> <li>• an incident report (Schedule 5, Condition 8 of PA 10_0138);</li> </ul>	The most recent revision was 16/04/2013, the 2013 and 2014 AEMRs have been completed

Reference	Requirement	Finding
	<ul style="list-style-type: none"> <li>the undertaking of an Independent Environmental Audit (Schedule 10, Condition 4 of PA 10_0138); or</li> <li>any modification to the PA 10_0138.</li> </ul>	<p>undertaken since then. No other evidence of a revision could be provided.</p> <p>Not Compliant Administrative</p>

#### 4.23. Aboriginal Heritage Conservation Strategy for the BTM Complex and BOAs

The Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas (BOAs) was assessed and all conditions were either compliant or not applicable. No conditions were found to be “not compliant”. An assessment of compliance for each condition in the Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas is provided in the audit protocol in Appendix C.

#### 4.24. Historic Heritage Management Plan (draft)

The Draft Historic Heritage Management Plan was assessed and all conditions were either compliant or not applicable. No conditions were found to be “not compliant”. An assessment of compliance for each condition in the Draft Historic Heritage Management Plan is provided in the audit protocol in Appendix C.

#### 4.25. Social Impact Management Plan

Table 4.16 shows the requirements and commitments that were not compliant with the Social Impact Management Plan. An assessment of compliance for all requirements and commitments in the Social Impact Management Plan is provided in the audit protocol in Appendix C.

Table 4.16 Social Impact Management Plan

Reference	Requirement	Finding
4.1 Table 4.2	The data for indicators / performance measures listed in Table 4.2 are to be collected to assess the success of the Social Impact Management Plans Housing and Accommodation Management Strategy.	<p>Data was not able to be provided to the audit team.</p> <p>Not Compliant Administrative</p>
5.2	Data for the performance measures detailed in Sections 4.1 to 4.4 and for indicators identified in Table 5-2 will be collected annually or as identified in Table 5-2, and reported in the Annual Review by the end of March in each year. Monitoring results will also be used to inform annual review of the SIMP and MCCMM	Only some of the required data from Table 5.2 is presented in

Reference	Requirement	Finding
	audits.	the AEMRs  Not Compliant Administrative

#### 4.26. Construction Workforce Accommodation Plan

The Construction Workforce Accommodation Plan was assessed and all conditions were either “compliant” or “not triggered”. No conditions were found to be “not compliant”. An assessment of compliance for each condition in the Construction Workforce Accommodation Plan is provided in the audit protocol in Appendix C.

#### 4.27. Traffic Management Plan

Table 4.17 shows the requirements and commitments that were not compliant with the Traffic Management Plan. An assessment of compliance for all requirements and commitments in the Traffic Management Plan is provided in the audit protocol in Appendix C.

Table 4.17 Traffic Management Plan

Reference	Requirement	Finding		
4.1	In accordance with Condition 60 of Schedule 3 of PA 10_0138, MCCM is proposing to upgrade the intersection of Rangari Road and the Kamilaroi Highway to provide a channelised right turn in accordance with Austroads guidelines. The design and the carrying out of the upgrade works to this intersection will be completed in close consultation with RMS, with the anticipated time for completion being June 2015.	MCCM were currently reviewing traffic volumes at this intersection to reassess the upgrade requirements. Not compliant with the timing in the requirement.  Not Compliant		
6.1	A shuttle bus system to transport workers to and from the site, consistent with the assumptions in the EA of 90% of workers being transported to site by shuttle bus, and in accordance with Condition 63 of Schedule 3 of PA 10_0138 and Section 7.14.4 of the EA, MCCMM will ensure that construction and operational employees are predominantly transported to the site by shuttle bus to minimise traffic on the road network.	Reported in AEMR, approximately 65 - 85% use of shuttle bus system during construction  Not Compliant		
6.1	<table border="1" style="width: 100%;"> <tr> <td style="width: 30%;">All personnel:</td> <td> <ul style="list-style-type: none"> <li>• Adhere to the requirements of this TMP.</li> <li>• Report any instances where dust control measures may need to be implemented.</li> <li>• Comply with the nominated access routes, prohibited routes and drivers Code of Conduct.</li> <li>• Use the shuttle bus services to ensure approximately 90% employees use the bus to access the site.</li> </ul> </td> </tr> </table>	All personnel:	<ul style="list-style-type: none"> <li>• Adhere to the requirements of this TMP.</li> <li>• Report any instances where dust control measures may need to be implemented.</li> <li>• Comply with the nominated access routes, prohibited routes and drivers Code of Conduct.</li> <li>• Use the shuttle bus services to ensure approximately 90% employees use the bus to access the site.</li> </ul>	“Approximately 65-85% use of the shuttle bus, but ‘substantially’ transported by shuttle Bus. Shuttle buses are still in operation for the
All personnel:	<ul style="list-style-type: none"> <li>• Adhere to the requirements of this TMP.</li> <li>• Report any instances where dust control measures may need to be implemented.</li> <li>• Comply with the nominated access routes, prohibited routes and drivers Code of Conduct.</li> <li>• Use the shuttle bus services to ensure approximately 90% employees use the bus to access the site.</li> </ul>			

Reference	Requirement	Finding
		operational phase with a higher use rate"  Not Compliant

#### 4.28. Out of Hours Protocol

The Out of Hours Protocol was assessed and all conditions were either compliant or not applicable. No conditions were found to be “not compliant”. An assessment of compliance for each condition in the Out of Hours Protocol is provided in the audit protocol in Appendix C.

## 5. ADEQUACY / EFFECTIVENESS OF ENVIRONMENTAL MANAGEMENT AND MANAGEMENT DOCUMENTATION

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From an environmental perspective, the key potential impacts resulting from activities at the MCCM are ecological sustainability and loss of habitat, rehabilitation, surface water quality, ground water extraction, air quality and noise. The majority of the management plans are relatively new and most of the BTM Complex Strategies were not final or approved at the time of the audit (only the Blast Management Strategy was approved). As such, the comments in this section of the audit offer value to the site in improving environmental performance.

This section looks into the adequacy of the mitigation measures and the on ground applicability of the management measures proposed in the site environmental management documentation.

### 5.1. Ecology

Results of the vegetation surveys in the Environment Assessment (EA) provide baseline information that underpins MCCM management plans and strategies to fulfil state and federal government biodiversity requirements for mine site rehabilitation and offsetting loss of biodiversity values. These plans require detailed descriptions, maps and area for each of the Box-Gum Woodland CEEC and other vegetation types in management zones (domains) in the project boundary and offset sites.

Inconsistency in naming and conservation status of vegetation types for figures was identified when reviewing and comparing the figures from the EA, the Mine Operations Plan (MOP) and the Mine Site Rehabilitation Plan.

Inconsistencies between the naming protocols and depiction of vegetation mapping include areas mapped as White Box - Narrow-leaved Ironbark - White Cypress Pine Shrubby Open Forest in the EA are coded as part of the Dwyer's Red Gum Woodland in the MOP. In Section 2.1 of the Mine Site Rehabilitation Plan, White Box - Narrow-leaved Ironbark - White Cypress Pine Shrubby Woodland is named as part of Box-Gum Woodland CEEC. This community name does not match any vegetation types detailed in the EA, nor in any other MCCM biodiversity management plans.

MCCM should review the GIS attribution of vegetation type names, CEEC status and Project Boundary polygons in the MOP and Mine Site Rehabilitation Plan against those detailed in the EA with the objective of ensuring the depiction of vegetation types is consistent between the documents.

This recommendation relates to future revisions of the Biodiversity Management Plan, Biodiversity Corridor Management Plan and Mine Site Rehabilitation Plan that are required to integrate of the actions outlined in the Maules Creek White-Box Yellow-Box Blakely's Red Gum Woodland Endangered Ecological Community Implementation Plan and the Maules Creek Threatened Fauna Implementation Plan.

### 5.2. Rehabilitation

Operations commenced at MCCM in August 2014. There is no rehabilitation of the out of pit emplacement area proposed in the current 2 year MOP. The rehabilitation that has been

established in other areas where construction is complete is relatively stable but requires maintenance in some areas. The clean water drain around the CHPP showed evidence of rilling and sediment in the base of the structure.

Other issues identified in the audit included:

**Local provenance seed collection** – Seed collection has not commenced. It would be useful for the site to start seed collection so that a ready supply is available when rehabilitation commences and to allow for some tubestock growing out and planting.

**Rehabilitation Trials** - Given the poor soils and high rehabilitation standards required to meet objectives, MCCM should commence trials of options for rehabilitation establishment at the site as soon as possible given timing and site constraints and availability of suitable substrates. Drivers for the trial have been included in the revised BMP now with DP&E for approval.

### 5.3. Acoustics

The "EPL monthly monitoring data" on the company website did not include the low frequency noise modifying factor assessments that are detailed in the attended monitoring reports.

The June 2015 report assesses low frequency noise and after application of the 5dB correction factor there were five (5) minor (1-2 dB) exceedances of the  $L_{Aeq(15min)}$  criteria. The EPL summary on the website lists "Measured levels". It is recommended that future EPL summaries should include "Reportable levels", which are the measured levels plus any applicable modifying factor penalties.

### 5.4. Air Quality

Interviews and a site inspection was carried out to assess compliance. Each emission-generating activity in the mining operation was assessed. The evidence to suggest compliance is as follows, for each activity:

- Scrapers on topsoil. Roads are designated, water spraying is carried out before mulching, roads are watered.
- Drills. Water injection and curtains are used. Equipment is shutdown if not operating correctly.
- Blasting. Procedures include 24-hour notification, text to stakeholders / residents, checklists used (sighted), holes are dipped for water (for management of fume).
- Loading trucks. When excess dust is observed the procedures include minimising drop height, reducing swing rates, slowing production, walking equipment to another bench with different material and ceasing operations.
- Haulage by truck. Operators are encouraged to radio directly to the water carts. Fill points have been appropriately positioned around haul routes. Dust-a-Side (chemical dust suppressant) is used from December to March.
- Dumping to hopper. Dust curtains and sprays inside hopper. Enclosure of hopper on 3 sides and roof. Transfer points are covered.

- Dumping to emplacement areas. Options in place to dump high or low, depending on the conditions.
- Dozers. Moved from the top dumps depending on the weather conditions.
- Wind erosion. Mulch cover used on some cleared areas. Pre-strip area is minimised.

No off-site air pollution was observed during the site inspection. A dedicated inspector was located above the high wall to continuously observe operations and dust emissions. This inspector communicates directly to operators or the OCE in the event of potential visual dust issues.

The air quality management system includes observations, daily weather reports and forecasts, and ongoing analysis of trends in monitoring. The air quality management system used at MCCM is not as detailed as described in the AQGHGMP. There is no evidence of "scenario modelling", a system to accept "emissions estimates based on activity data" or a system which provides "recommendations with respect to abatement or avoidance of potential issues and operational requirements based on outputs of the system". It is understood the predictive air quality modelling is being investigated, but at this stage is not in place as it is considered a commitment of the BTM Complex. The BTM Complex Air Quality Management Strategy should be finalised and implemented or consideration should be given to modifying the AQGHGMP to allow the site to be compliant.

PM2.5 concentrations are being monitored.

Shutdown logs were inspected, demonstrating a response based on meteorological conditions to minimise air quality impacts.

Surface disturbance was commensurate with the currently observed level of mining activity.

Coordination between mines within the Leard Forest Mining Precinct was observed. This was evidenced by blasting notifications, monthly meetings with other sites, sharing of monitoring data as required, and email communications.

The Environmental Assessment included air quality predictions at properties to the north of MCCM. Predictions for Year 5 (the closest modelled year to current operations) have been derived from Figure 8.1 and 8.9 of PAEHolmes (2011). Monitored levels have been derived from the Maules Creek Mine 2014 AEMR.

Table 5.1 EA Predictions Vs Monitoring Results shows a comparison between the Environmental Assessment results (for Year 5 operations) and monitored results in 2014, for the nearest properties to the north. It can be seen from these data that the monitored levels are below the model predictions.

Table 5.1 EA Predictions Vs Monitoring Results

Statistic	At nearest properties to the north of MCCM	
	Prediction for Year 5 operations (from PAEHolmes 2011)	Currently measured result (from AEMR 2014)
Maximum 24-hour average PM <sub>10</sub> (µg/m <sup>3</sup> )	Between 50 to 100 µg/m <sup>3</sup> (Fig 8.1 due to mine only)	Between 29 and 32 µg/m <sup>3</sup> (AEMR Figure 3.2.8)
Annual average PM <sub>10</sub> (µg/m <sup>3</sup> )	30 µg/m <sup>3</sup> (Fig 8.9 cumulative)	<10 µg/m <sup>3</sup> (AEMR Section 3.2.8)

## 5.5. Surface Water Quality

The following findings were made from undertaking the site inspection:

- The mine were undertaking the necessary actions in order to segregate clean and dirty water and to eliminate uncontrolled dirty water runoff discharging from the site, however the timing of these actions requires review;
- There were a number of areas where clean water diversion drains had not yet been constructed. These were mostly smaller catchments. The mine mentioned that construction of these clean water diversion drains was forthcoming. For example, at the time of the site visit, there were a number of highwall dams being constructed along the south-eastern area of the site. These areas had been stripped with some bulk earthworks undertaken. It is noted that there were no dirty water diversion drains observed downstream of the highwall dams, however any dirty water runoff would currently discharge into the pit;
- Check dams had been constructed in swales and appear to be effective in trapping sediment. A number of the check dams had been cleaned out as part of ongoing maintenance prior to the site visit;
- There was evidence of erosion and scouring in the clean water diversion drain along the western side of the CHPP. Hydro-mulching had been undertaken within this area, however this did not uptake as successfully as in other areas;
- During the first year of mining operation, the majority of on-site water was sourced from the Namoi River (this is discussed further in this section);
- At the time of the site visit there was very little ponded water within the pit and an insufficient volume to warrant any pumping of ponded water from the pit;
- Given the combination of steep slopes at the site and the evidence of highly erodible materials, the mine needs to be proactive in minimising the potential for erosion and scouring of material through appropriate measures;

The pipeline from the Namoi River was the main source of raw water supply in the 2014 reporting period. Water volumes pumped from the Namoi River during this reporting period for use in construction and the start of operations was approximately 630ML. This is significantly greater than the 110ML predicted in the water balance model from the WMP (31/03/2014) however, the actual mine year (numbered from the commencement of construction) and the calendar year in the mine water balance are not aligned. The mine water balance also assumes that in the year 2014:

- There will be ground water inflows – this has not been experienced as yet;
- Evaporation from dams – the main Raw Water Dam and Mine Water Dam were completed at the end of 2014 so no evaporation was experienced;
- High wall dams were not constructed in 2014 (clean water diversion); and
- The CHPP was not washing coal which is assumed in the water balance.

The WMP states that the site water balance will be reviewed and updated as additional and/or more recent information becomes available with the progression of the mine. The water volumes from the Namoi River taken in 2014 indicate that a review of the mine water balance and WMP is required to align the timing.

It is recommended that's upstream clean water diversions should be constructed prior to large scale clearing activities occurring to prevent:

- Unnecessary contamination of clean water;
- To ensure clean water is diverted to maintain the flows in local streams;
- To prevent clean water entering the dirty water system; and
- To prevent loss of topsoil in cleared areas due to overland flow from upstream catchments that should have been diverted.

## 6. RECOMMENDATIONS

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There are a number of issues noted in Table 4.1 of this report not addressed below as these have been or are being addressed by MCCM and do not need to be repeated here. The following recommendations have resulted from:

- Observations made by the specialists on the audit team;
- Non-compliances that required a recommendation; and
- Those made to improve environmental performance.

Some of these recommendations have not been noted in the document prior to this section as they do not all result from lack of compliance.

### 6.1. Air Quality

The air quality management system includes observations, daily weather reports and forecasts, and ongoing analysis of trends in monitoring. The site should develop a predictive and real time air dispersion model to inform operational decisions around air quality or revise the AQGHGMP to reflect the sites management of air quality without a predictive and real time air dispersion model.

### 6.2. Aboriginal Heritage

Review the requirements relating to the quinine bush and ensure the site is able to demonstrate compliance with the requirements of the project approval and the ACHMP.

### 6.3. Biodiversity and Offsets

MCCM should review the GIS attribution of vegetation type names, CEEC status and Project Boundary polygons in the MOP and Mine Site Rehabilitation Plan against those detailed in the EA.

This recommendation relates to future revisions of the Biodiversity Management Plan, Biodiversity Corridor Management Plan and Mine Site Rehabilitation Plan that are required to integrate of the actions outlined in the Maules Creek White-Box Yellow-Box Blakely's Red Gum Woodland Endangered Ecological Community Implementation Plan and the Maules Creek Threatened Fauna Implementation Plan.

### 6.4. Noise

The noise consultant must inform the mine of exceedances in a timely fashion to allow MCCM to fulfil its reporting requirements.

The EPL summary on the website lists "Measured levels". It is recommended that future EPL summaries should include "Reportable levels", which are the measured levels plus any applicable modifying factor penalties.

### 6.5. Lighting

The lights above the ROM stockpile and hopper are elevated and the light spill is over a wide area. The light spill should be checked by the environment team from the nearest residence

to the north where this light may be visible at night. If necessary (ie light is spilling off site with the potential to impact residents), reorientation of the shields may be required.

## **6.6. Heritage**

Follow up the two landowners whose properties MCCM acquired and ask if they will assist in providing the oral history required in the Draft Heritage Management Plan and Project Approval.

## **6.7. Rehabilitation**

Commence a local seed collection program as detailed in the Biodiversity Management Plan.

The MOP Remediation Management Plan requires a significant amount of additional information resulting from the recent development of the White-Box Yellow-Box Blakely's Red-Gum Woodland EEC Implementation Plan and the Threatened Fauna Implementation Plan. Early commencement of rehabilitation trials would help inform the MOP.

## **6.8. Water Management**

The Water Balance requires review.

Review the validity of surface water quality trigger levels in the TARP as the level of data available becomes more extensive.

Establish clean water diversions prior to clearing and isolate clean catchment waters from entering the pit.

## **6.9. Environmental Incident Management**

The use of a single system to record and respond to environmental incidents and complaints should be implemented.

Ensure impacted residents are informed when monitoring indicates exceedances of environmental parameters at their residence.

## **6.10. Management Plans and Strategies**

Some of the management plans do not include enough of the background data that was used to formulate them. Future revisions should consider ways to present this information to inform the measures described.

The management plans all include requirements for review and it is apparent that these occur. The site however needs to document these reviews in order to demonstrate they have occurred particularly when no changes to the management plan eventuate from the review.

The BTM Complex Strategies constitute an important part of the cumulative management of impacts from mining in the area. If they remain unapproved, MCCM should consider whether cumulative impacts are adequately addressed and mitigated through a review of the pertinent MCCM management plans.

### **6.11. Reporting**

Review all management plans (particularly the Social Impact Management Plan) for the reporting requirements and add in to the AEMR any requirements that are currently not reported.

### **6.12. Broad Issues**

There are a number of items that have been found to be not compliant in this audit. Many MCCM was aware of prior to the audit and MCCM are addressing or have rectified these issue, the audit will serve the purpose of raising the rest.

Future focus is recommended on the following points:

- Committing to achievable management options that are timely;
- Being prepared for the next phase of site development – particularly the commencement of rehabilitation of the out of pit emplacement; and
- Maintaining the relationship with the neighbouring community.

# APPENDIX A AUDIT TEAM APPROVAL

---

Craig Simmons  
Area Manager Services  
Maules Creek Coal Project  
PO Box 56  
BOGGABRI NSW 2382

Dear Craig

**Maules Creek Coal Mine – 2015 Independent Environmental Audit**

I refer to your letter dated 24 June 2015 seeking endorsement of a suitably qualified, experienced and independent team to undertake an independent environmental audit of Maules Creek Coal Mine Project, required under the Maules Creek Coal Mine Project Approval 10\_0138.

In accordance with PA 10\_0138, Schedule 5, Condition 10 the Secretary has approved the following team to conduct this audit of the Maules Creek Coal Mine Project:

- Peter Horn (SMEC) – Lead Auditor
- Neil Pennington (Spectrum) – Acoustic Specialist
- Shane Lakmaker (Jacobs) – Air Quality Specialist
- Dr Elizabeth Broese van Groenou (SMEC) – Ecology Specialist
- Glenn Mounser (SMEC) – Surface Water Specialist

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

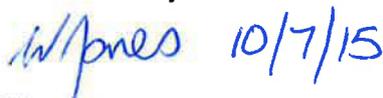
The Department requests the audit specialists to focus in detail on:

- Air quality: comparing EA predictions with monitoring results
- Noise emissions: comparing EA predictions with monitoring results  
low frequency emissions  
emissions associated with commissioning of washery and associated infrastructure
- Water quality: dirty/clean water separation and management

The Department expects the audit to be commissioned by 30 July 2015, and in accordance with PA 10\_0138, Schedule 5, Condition 10, a copy of the audit report must be submitted to the Director General, together with responses to any recommendations contained in the audit report, within three months of commissioning this audit.

For further information, please contact Wayne Jones on 6575 3406 or by email to [wayne.jones@planning.nsw.gov.au](mailto:wayne.jones@planning.nsw.gov.au).

Yours sincerely



Wayne Jones  
**A/Investigations (Lead) Compliance**  
As the Secretary's Nominee

# APPENDIX B CONSULTATION WITH REGULATORY STAKEHOLDERS

---

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Newcastle, NSW 2300, Australia  
(PO Box 1346, Newcastle, NSW 2300, Australia)  
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[www.smec.com](http://www.smec.com)

31 July 2015

Maules Creek Coal Community Consultative Committee

**Attention: John Turner - Independent Chairperson**

Dear John,

**RE: Maules Creek Coal Project – August 2015 Independent Environmental Audit**

In accordance with the Maules Creek Coal Project Approval 10\_0138 for the Maules Creek Coal Project, an Independent Environmental Audit will be undertaken in August 2015. The audit team has now been endorsed by Department of Planning and Environment (DP&E) and will include experts in acoustics, air quality, ecology and surface water.

The Independent Environmental Audit will assess the environmental performance of Maules Creek Coal, and its compliance with the requirements of PA 10\_0138, Environmental Protection Licence 20221, Mining Leases and management plans. The audit will also involve a review of the adequacy of strategies, plans and programs required under the abovementioned approvals and, where necessary, recommend appropriate measures or actions to improve the environmental performance of the project.

The audit will be comprehensive however, if there are any particular aspects within the items listed above that you would like the audit to take into consideration, please contact the undersigned (02 4925 9657) or by e-mail [carly.mccormack@smec.com](mailto:carly.mccormack@smec.com).

Regards,



**Carly McCormack**  
**Principal Environmental Scientist**  
**SMEC Australia**

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31 July 2015

Department of the Environment  
Post Approvals Section  
Environmental Assessment and Compliance Division  
GPO Box 787  
Canberra ACT 2601

**Attention: Cassi Elliot**

Dear Cassi,

**RE: Maules Creek Coal Project – August 2015 Independent Environmental Audit**

In accordance with the Maules Creek Coal Project Approval 10\_0138 for the Maules Creek Coal Project, an Independent Environmental Audit will be undertaken in August 2015. The audit team has now been endorsed by Department of Planning and Environment (DP&E) and will include experts in acoustics, air quality, ecology and surface water.

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Regards,



**Carly McCormack**  
**Principal Environmental Scientist**  
**SMEC Australia**

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31 July 2015

Department of Trade and Investment  
Division of Resources and Energy  
Environmental Sustainability Unit

**Attention: John Trotter - A/Snr Inspector Environment**

Dear John,

**RE: Maules Creek Coal Project – August 2015 Independent Environmental Audit**

In accordance with the Maules Creek Coal Project Approval 10\_0138 for the Maules Creek Coal Project, an Independent Environmental Audit will be undertaken in August 2015. The audit team has now been endorsed by Department of Planning and Environment (DP&E) and will include experts in acoustics, air quality, ecology and surface water.

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Regards,



**Carly McCormack**  
**Principal Environmental Scientist**  
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[www.smec.com](http://www.smec.com)

31 July 2015

NSW Environment Protection Authority  
Armidale Office

**Attention: Kharl Turnbull - A/ Senior Operations Officer- North Branch**

Dear Kharl,

**RE: Maules Creek Coal Project – August 2015 Independent Environmental Audit**

In accordance with the Maules Creek Coal Project Approval 10\_0138 for the Maules Creek Coal Project, an Independent Environmental Audit will be undertaken in August 2015. The audit team has now been endorsed by Department of Planning and Environment (DP&E) and will include experts in acoustics, air quality, ecology and surface water.

The Independent Environmental Audit will assess the environmental performance of Maules Creek Coal, and its compliance with the requirements of PA 10\_0138, Environmental Protection Licence 20221, Mining Leases and management plans. The audit will also involve a review of the adequacy of strategies, plans and programs required under the abovementioned approvals and, where necessary, recommend appropriate measures or actions to improve the environmental performance of the project.

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Regards,



**Carly McCormack**  
**Principal Environmental Scientist**  
**SMEC Australia**

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31 July 2015

Office of Environment and Heritage  
Regional Operations Group  
PO Box 2111  
Dubbo NSW 2830

**Attention: Sonya Ardill - Senior Team Leader Planning - North West**

Dear Sonya,

**RE: Maules Creek Coal Project – August 2015 Independent Environmental Audit**

In accordance with the Maules Creek Coal Project Approval 10\_0138 for the Maules Creek Coal Project, an Independent Environmental Audit will be undertaken in August 2015. The audit team has now been endorsed by Department of Planning and Environment (DP&E) and will include experts in acoustics, air quality, ecology and surface water.

The Independent Environmental Audit will assess the environmental performance of Maules Creek Coal, and its compliance with the requirements of PA 10\_0138, Environmental Protection Licence 20221, Mining Leases and management plans. The audit will also involve a review of the adequacy of strategies, plans and programs required under the abovementioned approvals and, where necessary, recommend appropriate measures or actions to improve the environmental performance of the project.

The audit will be comprehensive however, if there are any particular aspects within the items listed above that you would like the audit to take into consideration, please contact the undersigned (02 4925 9657) or by e-mail [carly.mccormack@smec.com](mailto:carly.mccormack@smec.com).

Regards,



**Carly McCormack**  
**Principal Environmental Scientist**  
**SMEC Australia**

## Environment Protection Authority

**From:** Kharl Turnbull [<mailto:Kharl.Turnbull@epa.nsw.gov.au>]  
**Sent:** Monday, 3 August 2015 11:15 AM  
**To:** McCormack, Carly  
**Subject:** RE: Maules Creek Coal Independent Environmental Audit - EPA

Hi Carly

The main items the EPA would recommend SMEC take into consideration are:

1. Noise impacts from operations on surrounding environment (for current and future mining development),
2. Fume management from blasting,
3. Dust management onsite,
4. Engagement with neighbouring residents and broader community,
5. Surface water management (ie maintenance of sediment dams and retaining suitable capacity).

Regards

### **Kharl Turnbull**

A/ Senior Operations Officer- [North Branch](#) | **NSW Environment Protection Authority** |

Phone 📞: (02) 6773 7000 | Fax 📠: (02) 6772 2336 | 📧 [kharl.turnbull@epa.nsw.gov.au](mailto:kharl.turnbull@epa.nsw.gov.au)

Please Note: The EPA has introduced an electronic document management system. Please electronically submit all letters and documents for the EPA's Armidale office to our email address: [armidale@epa.nsw.gov.au](mailto:armidale@epa.nsw.gov.au). If you wish to submit a larger document (i.e. more than 10 mb in size) please provide us with an electronic copy via an alternative download method; or on a USB memory stick or DVD to: "EPA, PO Box 494, Armidale NSW 2350".



Your reference:  
Our reference: DOC15/293476-1  
Contact: Terry Mazzer  
Date: 3 August 2015

Carly McCormack  
Principal Environmental Scientist  
SMEC  
PO Box 1346  
Newcastle NSW 2300

Dear Carly

**RE Maules Creek Coal Independent Environmental Audit**

Thank you for your letter dated 31 July 2015 regarding input from the Office of Environment and Heritage (OEH) on the Maules Creek Coal Independent Environmental Audit.

Based on the information provided, OEH has no specific comments to make on the Maules Creek Coal Independent Environmental Audit at this stage. OEH looks forward to reviewing the findings of the Audit and any recommendations it may make.

Should you require further information regarding issues that are the responsibility of the OEH please contact Terry Mazzer, Conservation Planning Officer on (02) 6883 5302.

Yours sincerely,

**SONYA ARDILL**  
**Senior Team Leader Planning, North West Region**  
**Regional Operations**

## APPENDIX C AUDIT PROTOCOL

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Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Schedule 2 - Administrative Conditions								
OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT								
Project Approval 10_0138	1	In addition to meeting the specific performance criteria established under this consent, the Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the development.	The remainder fo this audit, not identification of material harm to the environment	Compliant				
OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT								
Project Approval 10_0138	2	The Proponent shall carry out the project generally in accordance with the: (a) EA; (b) statement of commitments; (c) documents titled Maules Creek Coal Mine Project Approval Modification Environmental Assessment dated April 2013, including the response to submissions dated June 2013; and (d) conditions of this approval. Notes: • The general layout of the project is shown in Appendix 2; and • The statement of commitments is reproduced in Appendix 5.	Generally in compliance with this requirement	Compliant				
Project Approval 10_0138	3	If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.	Noted					
Project Approval 10_0138	4	The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of: (a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this approval; and (b) the implementation of any actions or measures contained in these documents.	No disputes have arisen over DGs direction for reports, strategies, plans, reviews and audits resulting from this approval.	Not Triggered				
LIMITS ON APPROVAL								
Mining Operations								
Project Approval 10_0138	5	The Proponent may carry out mining operations on the site until the end of December 2034. Note: Under this approval, the Proponent is required to rehabilitate the site and carry out additional undertakings to the satisfaction of both the Director-General and the Executive Director Mineral Resources. Consequently, this approval will continue to apply in all other respects - other than the right to conduct mining operations - until the rehabilitation of the site and these additional undertakings have been carried out satisfactorily.	Not Triggered	Not Triggered				
Coal Extraction								
Project Approval 10_0138	6	The Proponent shall not extract more than 13 million tonnes of ROM coal from the site in any calendar year.	Currently running at 6mtpa, previous AEMRs report zero or much less that this number.	Compliant				
Vegetated Buffer Corridor								
Project Approval 10_0138	7	The Proponent shall not clear native vegetation from any land within 250 metres of the adjoining Boggabri Coal Mine mining lease boundary, unless: (a) the Proponent has provided an alternative area of equal or better habitat value for the purpose of providing a fully effective east-west movement corridor for native fauna; (b) the alternative area is capable of delivering this outcome before clearing commences within 250 m of the lease boundary; (c) the alternative area is under tenure arrangements that ensure its maintenance for biodiversity purposes in perpetuity, or there is an enforceable commitment to deliver this outcome; and (d) the alternative area has been endorsed by the OEH and subsequently approved by the Director-General. Notes: • The alternative area may be provided by way of offset or by way of suitable rehabilitated land within the Boggabri Coal Project site or the Maules Creek Coal Project site. • The alternative area may be provided by the Proponent or the Proponent in conjunction with the Proponent of the Boggabri Coal Project.	Biodiversity Management Plan Section 5.0 EPBC Audit	Compliant				
Coal Transport								
Project Approval 10_0138	8	The Proponent shall only transport coal from the site by rail. Note: All coal is to be transported from site via the Maules Creek rail spur line, and the shared portion of the Boggabri Coal rail spur line. The separate rail crossing over the Namoi River, as mentioned in at least one part of the EA, does not form part of the project and is not approved under this project approval.	No coal transported by Road, Rail Line in place and prep plant loadout is to the line.	Compliant				
Project Approval 10_0138	9	The Proponent shall not: (a) transport more than 12.4 million tonnes of product coal from the site in any calendar year; and (b) dispatch more than 7 laden trains from the site in a day when averaged over a calendar year; or (c) dispatch more than 10 laden trains from the site in a day. Note: For the purposes of this condition, a day refers to the 24 hours from midnight to midnight the next day.	1/4 ly reports detail coal amounts. At the current rate of production its unlikely that the train limits will be exceeded. Evidence of tracking of train movements by CCP sighted.	Compliant				
SURRENDER OF EXISTING DEVELOPMENT CONSENT								
Project Approval 10_0138	10	By the end of 2013, or as otherwise agreed by the Director-General, the Proponent shall surrender the existing development consent (ie. DA85/1819) for mining on the site in accordance with Section 104A of the EP&A Act. Prior to the surrender of this development consent, the conditions of this approval shall prevail to the extent of any inconsistency with the conditions of the development consent.	Consent not surrendered. Needs landowner consent, which has not been forthcoming. However no agreement for the delay with the DG	Not Compliant Administrative				
STRUCTURAL ADEQUACY								

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility								
					Consequence	Likelihood	Risk									
Project Approval 10_0138	11	The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA. Notes: • Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works; and • Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.	Construction certificate sighted for site buildings Occupancy Certificate for the permanent structures built to date also sighted	Compliant												
Project Approval 10_0138	12	The Proponent shall ensure that the Maules Creek rail spur line and ancillary infrastructure are designed and constructed in accordance with the relevant requirements of the current ARTC infrastructure standards, or as otherwise approved by the Director-General.	Sighted AURECPN report and approval letter from planning	Compliant												
<b>DEMOLITION</b>																
Project Approval 10_0138	13	The Proponent shall ensure that all demolition work on site is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.	No demolition to date	Not Triggered												
<b>PROTECTION OF PUBLIC INFRASTRUCTURE</b>																
Project Approval 10_0138	14	Unless the Proponent and the applicable authority agree otherwise, the Proponent shall: (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the project.	No instances of either sets of infrastructure issues occurring to date.	Not Triggered												
<b>OPERATION OF PLANT AND EQUIPMENT</b>																
Project Approval 10_0138	15	The Proponent shall ensure that all the plant and equipment used on site, or to transport coal from the site, is: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	Sighted Mechanical Engineering Management Plan and Maintenance Scheduling and Planning Procedure. No observations of inappropriat use of equipment observed in site inspections	Compliant												
<b>STAGED SUBMISSION OF STRATEGIES, PLANS AND PROGRAMS</b>																
Project Approval 10_0138	16	With the approval of the Director-General, the Proponent may submit any strategy, plan or program required by this consent on a progressive basis. Notes: • While any strategy, plan or program may be submitted on a progressive basis, the Proponent will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times; and • If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.	Noted this has occurred with a number of plans due to the delays with the approval of the LFMCS documents an eg is the Biodiversity Management Plan Section 17.0. Sighted approval letters noting staged plan development	Compliant												
<b>COMMUNITY ENHANCEMENT</b>																
Project Approval 10_0138	17	By the end of March 2013, unless the Director-General agrees otherwise, the Proponent shall enter into a planning agreement with Council in accordance with: (a) Division 6 of Part 4 of the EP&A Act; and (b) the terms of the Proponent's offer in Appendix 3.	VPA with Narrabri Shire Council, implemented 15 May 2014. No evidence of approval of an extension in time from DP&E.	Not Compliant Administrative												
<b>Schedule 3 - Environmental Performance Conditions</b>																
<b>ACQUISITION ON REQUEST</b>																
Project Approval 10_0138	1	Upon receiving a written request for acquisition from the owner(s) of the land listed in Table 1, the Proponent shall acquire the land in accordance with the procedures in conditions 8-9 of schedule 4.  <i>Table 1: Land subject to acquisition upon request</i> <table border="1" data-bbox="448 1029 974 1125"> <thead> <tr> <th>Acquisition Basis</th> <th>Land</th> </tr> </thead> <tbody> <tr> <td>Noise &amp; Air</td> <td>110-114</td> </tr> <tr> <td>Noise</td> <td>61-66, 108-109, 117-120, 123-124, 125-131, 132-140, 141-148, 149-155, 236, 256-263</td> </tr> <tr> <td>Air</td> <td>279-280</td> </tr> </tbody> </table> However, this condition does not apply if the Proponent has an agreement with the owner(s) of the relevant properties to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement. Notes: 1. To interpret the locations referred to in Table 1 see the applicable figure(s) in Appendix 4. 2. The Proponent is only required to acquire property 279-280 if the owner of the land no longer has acquisition rights under any planning approval for the Boggabri mine and/or Tarrawonga mine. 3. For the purposes of acquisition under this condition, parcels of land that are in close proximity and operated as a single agricultural enterprise should be included as part of the land to be acquired. Where the Proponent and the owner(s) cannot agree on whether non-contiguous parcels of land should be included, either party may refer the matter to the Director-General for resolution. The Director-General's decision as to the lands to be included for acquisition under the procedures in conditions 8 and 9 of Schedule 4 shall be final.	Acquisition Basis	Land	Noise & Air	110-114	Noise	61-66, 108-109, 117-120, 123-124, 125-131, 132-140, 141-148, 149-155, 236, 256-263	Air	279-280	On the 20/12/12 MCC received a letter requesting acquisition (sighted) under Condition 2 Schedule 3 DA 10_0138. The landowners property, is not listed under PA 10_0138 as incurring acquisition rights as a result of the Project. However after the submission of the EA and before PA 10_0138 was granted the landowner had lodged a Development Application for a new residence which would have been located within the 35dB noise contour. Therefore the landowners had acquisition rights under Note 2 of Condition 2 Schedule 3. On 6th March 2013, Lance Muir wrote to the landowners to begin the acquisition process prescribed by Schedule 4 Condition 8. A valuation was undertaken on 5th April 2013 and final settlement was achieved on 4th July 2014.	Compliant				
Acquisition Basis	Land															
Noise & Air	110-114															
Noise	61-66, 108-109, 117-120, 123-124, 125-131, 132-140, 141-148, 149-155, 236, 256-263															
Air	279-280															
<b>NOISE AND VIBRATION</b>																
Noise Affected Residences																

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility																																						
					Consequence	Likelihood	Risk																																							
Project Approval 10_0138	2	<p>For privately-owned residences within the project's 35dB(A) noise impact contour (see Table 2 and Appendix 4A) the owner(s) can make a written request to the Proponent for one of the following:</p> <p>(a) mitigation (such as double glazing, insulation and air conditioning) at the residence in consultation with the owner(s). These measures must be reasonable and feasible and directed towards reducing the noise impacts of the project on the residence. If within 3 months of receiving this request from the owner(s), the Proponent and owner(s) cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution; or</p> <p>(b) acquisition of the residence and land in accordance with the procedures in conditions 8-9 of Schedule 4.</p> <p><i>Table 2: Residences subject to acquisition or noise mitigation on request</i></p> <table border="1"> <thead> <tr> <th>Residences</th> </tr> </thead> <tbody> <tr> <td>61, 108, 118, 120, 126, 134, 236, 256 and 259</td> </tr> </tbody> </table> <p>Upon receiving a written request from the owner(s), the Proponent must undertake whichever option has been requested by the owner(s).</p> <p>However, this condition does not apply if the Proponent has an agreement with the owner(s) of the relevant residence to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.</p> <p>Notes:</p> <ol style="list-style-type: none"> <li>To interpret the locations referred to in Table 2 see the applicable figure(s) in Appendix 4.</li> <li>For the purposes of this condition a privately-owned residence is defined as a residence not owned by a mining company that: is regularly occupied; or is an existing residence that is not regularly occupied but for which a valid development consent exists; or is a proposed residence for which a development application has been lodged with the relevant authority prior to the date of this approval.</li> <li>For the purposes of acquisition under this condition, parcels of land that are in close proximity and operated as a single agricultural enterprise should be included as part of the land to be acquired. Where the Proponent and the owner(s) cannot agree on whether non-contiguous parcels of land should be included, either party may refer the matter to the Director-General for resolution. The Director-General's decision as to the lands to be included for acquisition under the procedures in conditions 8 and 9 of Schedule 4 shall be final.</li> </ol>	Residences	61, 108, 118, 120, 126, 134, 236, 256 and 259	<p>On the 28th April 2015 a landowner sent a text Message to the environment manager (sighted) requesting Mitigation measures due to noise impacts from road/rail spur. From this date the environment manager was in regular contact with the landowner via phone to discuss preferred options. On 12 August 2015 the landowners called to notify MCC that Boggabri Coal would be undertaking the required mitigation measures and MCC could cancel their arrangements to progress the installation of glazed windows.</p>	Compliant																																								
Residences																																														
61, 108, 118, 120, 126, 134, 236, 256 and 259																																														
<b>Maximum predicted noise levels</b>																																														
Project Approval 10_0138	3	<p>Where the owner(s) of a residence included in Table 3 of this schedule have opted for either an agreement to generate higher noise levels or noise mitigation under condition 2, and the owner(s) have reason to believe that the noise impacts at the residence are more than 3 dB(A) above the predicted noise levels for that residence (see Table 3), the owner(s) can request an independent noise impact assessment for the residence. The request shall be made in writing to the Director-General. If the Director-General considers that a noise impact assessment is warranted, then the Proponent shall commission the assessment.</p> <p>If the noise impact assessment determines that the noise generated by the project causes sustained exceedances, or is likely to cause sustained exceedances, of the predicted noise levels by more than 3 dB(A), the owner(s) may require the Proponent to acquire the residence and land in accordance with the procedures in conditions 8-9 of Schedule 4.</p> <p><i>Table 3: Maximum Predicted Noise Levels</i></p> <table border="1"> <thead> <tr> <th>Location Property ID</th> <th>Day (L<sub>equivalent</sub>)</th> <th>Evening (L<sub>equivalent</sub>)</th> <th>Night (L<sub>equivalent</sub>)</th> <th>Night (L<sub>max</sub>)</th> </tr> </thead> <tbody> <tr> <td>61</td> <td>35</td> <td>43</td> <td>43</td> <td>53</td> </tr> <tr> <td>108, 120</td> <td>35</td> <td>39</td> <td>39</td> <td>46</td> </tr> <tr> <td>118</td> <td>40</td> <td>44</td> <td>44</td> <td>45</td> </tr> <tr> <td>126</td> <td>45</td> <td>48</td> <td>48</td> <td>53</td> </tr> <tr> <td>134, 236</td> <td>35</td> <td>36</td> <td>36</td> <td>46</td> </tr> <tr> <td>256</td> <td>35</td> <td>40</td> <td>40</td> <td>50</td> </tr> <tr> <td>259</td> <td>35</td> <td>39</td> <td>39</td> <td>49</td> </tr> </tbody> </table> <p>Notes:</p> <ol style="list-style-type: none"> <li>To interpret the locations referred to in Table 3, see the applicable figure in Appendix 4</li> <li>The noise assessment must be undertaken by a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General and include either: <ul style="list-style-type: none"> <li>o sufficient monitoring at the affected residence to allow for assessment of the impacts under a range of meteorological conditions (including adverse conditions) likely to be experienced at the residence; or</li> <li>o sufficient monitoring to allow reliable prediction of the likely impacts under the range of meteorological conditions (including adverse conditions) likely to be experienced at the residence.</li> </ul> </li> <li>Monitoring should be conducted in accordance with the requirements of the NSW Industrial Noise Policy.</li> <li>Where predictions of likely impacts is to be used, either in substitution for, or in conjunction with, direct measurement of noise impacts at the residence, it must be based on sufficient monitoring data to provide a reliable estimate of the impacts (including under adverse meteorological conditions) and be derived using standard noise modelling techniques accepted by the EPA.</li> <li>The Proponent shall ensure that the requested noise impact assessment is submitted to the Director-General within 3 months of the Director-General's decision that the assessment was warranted. The Proponent shall also provide a copy of the assessment to the owner(s) of the residence at the same time it is submitted to the Director-General.</li> <li>Note 3 to condition 1 of this Schedule applies to acquisition under this condition.</li> </ol>	Location Property ID	Day (L <sub>equivalent</sub> )	Evening (L <sub>equivalent</sub> )	Night (L <sub>equivalent</sub> )	Night (L <sub>max</sub> )	61	35	43	43	53	108, 120	35	39	39	46	118	40	44	44	45	126	45	48	48	53	134, 236	35	36	36	46	256	35	40	40	50	259	35	39	39	49	<p>There have been no requests for independent noise impact assessments.</p>	Not Triggered		
Location Property ID	Day (L <sub>equivalent</sub> )	Evening (L <sub>equivalent</sub> )	Night (L <sub>equivalent</sub> )	Night (L <sub>max</sub> )																																										
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<b>Construction Noise and Vibration Criteria - Maules Creek and Boggabri Shared Rail Spur Lines</b>																																														
Project Approval 10_0138	4	<p>During the hours of:</p> <p>(a) 7 am to 6 pm Monday to Fridays, inclusive;</p> <p>(b) 8 am to 1 pm on Saturdays; and</p> <p>(c) at no time on Sundays or public holidays,</p> <p>noise from activities associated with the construction and/or upgrade of the Maules Creek rail spur line and shared section of the Boggabri rail spur line shall meet the criteria in Table 4.</p> <p><i>Table 4: Rail spur line construction noise criteria dB(A)</i></p> <table border="1"> <thead> <tr> <th>Location Property ID</th> <th>Construction Noise Criteria Day dB(A) L<sub>avg15 min</sub></th> </tr> </thead> <tbody> <tr> <td>256</td> <td>50</td> </tr> <tr> <td>259</td> <td>45</td> </tr> <tr> <td>All other privately-owned residences</td> <td>40</td> </tr> </tbody> </table> <p>Note: To interpret the locations referred to in Table 4, see the applicable figure in Appendix 4.</p>	Location Property ID	Construction Noise Criteria Day dB(A) L <sub>avg15 min</sub>	256	50	259	45	All other privately-owned residences	40	<p>Included in WHC_PLN_MC_Noise Management Plan (NMP) Section 5.1.2</p>	Compliant																																		
Location Property ID	Construction Noise Criteria Day dB(A) L <sub>avg15 min</sub>																																													
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Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility						
					Consequence	Likelihood	Risk							
Project Approval 10_0138	5	Vibration from activities associated with the construction and/or upgrade of the Maules Creek rail spur line and shared section of the Boggabri rail spur line shall comply with the following: (a) for structural damage, the vibration limits set out in the German Standard DIN 4150-3: Structural Vibration - effects of vibration on structures; and (b) for human exposure, the acceptable vibration values set out in the Environmental Noise Management Assessing Vibration: A Technical Guideline (Department of Environment and Conservation, 2006).	Criteria noted	Compliant										
Project Approval 10_0138	6	If the Proponent proposes to undertake any construction works associated with the Maules Creek rail spur line (and shared section of the Boggabri rail spur line) outside the hours specified above, then the Proponent must prepare and implement an Out of Hours Work protocol for these works to the satisfaction of the Director-General. This protocol must be prepared in consultation with the EPA and the residents who would be affected by the noise generated by these works, and be consistent with the requirements of the Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009). The Proponent shall not carry out any out of hours construction works before this protocol has been approved by the Director-General. Note: For areas where construction noise from the Maules Creek rail spur line and shared section of the Boggabri rail spur line is predicted to be at or below 35 dB(A) and/or below operational noise criteria at sensitive receptors, this is likely to provide sufficient justification for the need to operate outside of recommended standard hours as specified in the ICNG.	Audited later in the protocol as a separate management plan	Noted										
<b>Noise Criteria</b>														
Project Approval 10_0138	7	Except for the noise affected land in Table 1, the Proponent shall ensure that operational noise generated by the project does not exceed the criteria in Table 5.  Table 5: Noise criteria dB(A) <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Land</th> <th>Day/Evening/Night L<sub>day(evening)night</sub></th> <th>Night L<sub>night</sub> (1 min)</th> </tr> </thead> <tbody> <tr> <td>All privately-owned residences</td> <td>35</td> <td>45</td> </tr> </tbody> </table> Note: • Noise generated by the project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy. • Operational noise includes noise from the mining operations and the use of private roads and rail spurs. However, these noise criteria do not apply if the Proponent has an agreement with the owner/s of the relevant residence or land to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.	Land	Day/Evening/Night L <sub>day(evening)night</sub>	Night L <sub>night</sub> (1 min)	All privately-owned residences	35	45	Incorporated in NMP Section 5.1.1 and attended noise monitoring reports. There were exceedances of the limits shown though only by 1-2 dB(A) which is not considered an exceedance under the INP	Compliant				
Land	Day/Evening/Night L <sub>day(evening)night</sub>	Night L <sub>night</sub> (1 min)												
All privately-owned residences	35	45												
<b>Noise Acquisition Requirements - Residences</b>														
Project Approval 10_0138	8	If the owner(s) of a privately-owned residence, which is not within the project's 35 dB(A) noise impact contour (see condition 2, Table 2 and Appendix 4A), have reason to believe that operational noise from the project is causing the criteria in Table 5 to be exceeded at the residence, the owner(s) can request an independent noise impact assessment for the residence. The request shall be made in writing to the Director-General. If the Director-General considers that a noise impact assessment is warranted, then the Proponent shall commission the assessment. If the noise impact assessment determines that the noise generated by the project causes sustained exceedances, or is likely to cause sustained exceedances, of the criteria in Table 5, the owner(s) can make a written request to the Proponent for one of the following: (a) mitigation (such as double glazing, insulation and air conditioning) at the residence in consultation with the owner(s). These measures must be reasonable and feasible and directed towards reducing the noise impacts of the project on the residence. If within 3 months of receiving this request from the owner(s), the Proponent and owner(s) cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution; or (b) acquisition of the residence and land in accordance with the procedures in conditions 8-9 of Schedule 4. Upon receiving a written request from the owner(s), the Proponent must undertake whichever option has been requested by the owner(s). However, this condition does not apply if the Proponent has an agreement with the owner(s) of the relevant residence to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement. Notes: 1. For the purposes of this condition a privately-owned residence is defined as a residence not owned by a mining company that: is regularly occupied; or is an existing residence that is not regularly occupied but for which a valid development consent exists; or is a proposed residence for which a development application has been lodged with the relevant authority prior to the date of this approval. 2. For the purposes of acquisition under this condition, parcels of land that are in close proximity and operated as a single agricultural enterprise should be included as part of the land to be acquired. Where the Proponent and the owner(s) cannot agree on whether non-contiguous parcels of land should be included, either party may refer the matter to the Director-General for resolution. The Director-General's decision as to the lands to be included for acquisition under the procedures in conditions 8 and 9 of Schedule 4 shall be final. 3. Notes 2,3,4 and 5 of condition 3 apply to this condition.	No requests for independent noise assessment have occurred.	Not Triggered										
<b>Noise Acquisition Requirements - Land</b>														

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility				
					Consequence	Likelihood	Risk					
Project Approval 10_0138	9	<p>If the owner(s) of land containing a privately owned residence, which is not listed in Table 1, have reason to believe that operational noise from the project is causing noise levels to exceed 40 dB(A) LAeq(15 min) over more than 25% of that land, the owner(s) can request an independent noise impact assessment for the land. The request shall be made in writing to the Director-General. If the Director-General considers that a noise impact assessment is warranted, then the Proponent shall commission the assessment.</p> <p>If the noise impact assessment determines that the noise generated by the project causes sustained exceedances, or is likely to cause sustained exceedances, of the 40 dBA criteria, the owner(s) can make a written request to the Proponent for acquisition of the residence and land in accordance with the procedures in conditions 8-9 of Schedule 4.</p> <p>Upon receiving a written request from the owner(s), the Proponent must purchase the residence and land in accordance with the procedures in conditions 8-9 of Schedule 4.</p> <p>However, this condition does not apply if the Proponent has an agreement with the owner(s) of the relevant residence to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.</p> <p>Notes:</p> <ol style="list-style-type: none"> <li>For the purposes of this condition a privately-owned residence is defined as a residence not owned by a mining company that: is regularly occupied; or is an existing residence that is not regularly occupied but for which a valid development consent exists; or is a proposed residence for which a development application has been lodged with the relevant authority prior to the date of this approval.</li> <li>For the purposes of acquisition under this condition, parcels of land that are in close proximity and operated as a single agricultural enterprise should be included as part of the land to be acquired. Where the Proponent and the owner(s) cannot agree on whether non-contiguous parcels of land should be included, either party may refer the matter to the Director-General for resolution. The Director-General's decision as to the lands to be included for acquisition under the procedures in conditions 8 and 9 of Schedule 4 shall be final.</li> <li>Notes 2,3,4 and 5 of condition 3 apply to this condition.</li> </ol>	This has not occurred	Not Triggered								
<b>Cumulative Noise Criteria</b>												
Project Approval 10_0138	10	<p>Except for the land listed in Table 1, the Proponent shall ensure that the operational noise generated by the project combined with the noise generated by other mines does not exceed the criteria in Table 6 at any residence on privately-owned land.</p> <p><i>Table 6: Cumulative noise criteria dB(A) L<sub>Aeq</sub>(24hr)</i></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Land</th> <th style="text-align: center;">Day/Evening/Night L<sub>Aeq</sub>(Leq)dB</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">All privately-owned land</td> <td style="text-align: center;">40</td> </tr> </tbody> </table> <p>Notes:</p> <ul style="list-style-type: none"> <li>Cumulative noise is to be measured in accordance with the relevant requirements, and exemptions (including certain meteorological conditions), of the NSW Industrial Noise Policy.</li> <li>Operational noise includes noise from the mining operations and the use of private roads and rail spurs.</li> </ul>	Land	Day/Evening/Night L <sub>Aeq</sub> (Leq)dB	All privately-owned land	40	Cumulative noise assessed against vthese criteria in attended monitoring reports	Compliant				
Land	Day/Evening/Night L <sub>Aeq</sub> (Leq)dB											
All privately-owned land	40											
<b>Cumulative Noise Acquisition Requirements</b>												
Project Approval 10_0138	11	<p>If the owner(s) of a privately-owned residence, which is not listed in Table 1, reasonably believes that the noise limits in Table 6 are being exceeded at the residence and that the exceedance is caused by operational noise from the project and one or more other mines (including use of private roads or rail spurs), the owner(s) can request an independent noise impact assessment for the residence. The request shall be made in writing to the Director-General. If the Director-General considers that a noise impact assessment is warranted, then the Proponent shall commission the assessment.</p> <p>Where the noise impact assessment determines that the cumulative noise generated by the project combined with the noise from the other mine(s) causes, or is likely to cause, sustained exceedances of the criteria in Table 6, then the owner(s) can make a written request to the Proponent for one of the following:</p> <ol style="list-style-type: none"> <li>mitigation (such as double glazing, insulation and air conditioning) at the residence in consultation with the owner(s). These measures must be reasonable and feasible and directed towards reducing the noise impacts of the project on the residence. If within 3 months of receiving this request from the owner(s), the Proponent and owner(s) cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution; or</li> <li>acquisition of the residence and land in accordance with the procedures in conditions 8-9 of Schedule 4. Upon receiving a written request from the owner(s), the Proponent must undertake whichever option has been requested by the owner(s).</li> </ol> <p>However, this condition does not apply if the Proponent has an agreement with the owner(s) of the relevant residence to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.</p> <p>The Proponent may seek to recover an equitable share of the costs incurred from the other mines contributing to the cumulative impact. Unless otherwise agreed between the mines, the proportional contributions should be based on expert analysis of the monitoring results to assess relative contribution to the impact. In the event of a dispute between the mines the Proponent, or one of the contributing mines, may submit the matter to the Director-General for resolution. The Director-General's decision shall be final.</p> <p>Notes:</p> <ol style="list-style-type: none"> <li>For the purposes of this condition a privately-owned residence is defined as a residence not owned by a mining company that: is regularly occupied; or is an existing residence that is not regularly occupied but for which a valid development consent exists; or is a proposed residence for which a development application has been lodged with the relevant authority prior to the date of this approval.</li> <li>For the purposes of acquisition under this condition, parcels of land that are in close proximity and operated as a single agricultural enterprise should be included as part of the land to be acquired. Where the Proponent and the owner(s) cannot agree on whether non-contiguous parcels of land should be included, either party may refer the matter to the Director-General for resolution. The Director-General's decision as to the lands to be included for acquisition under the procedures in conditions 8 and 9 of Schedule 4 shall be final.</li> <li>Notes 2,3,4 and 5 of condition 3 apply to this condition.</li> <li>The noise impact assessment shall include assessment of the relative contribution of the mines to the impact at the residence.</li> </ol>	Acquisition and mitigation requests have occurred however no requests for independent noise assessments have taken place.	Not Triggered								
<b>Attenuation of Plant</b>												
Project Approval 10_0138	12	<p>The Proponent shall:</p> <ol style="list-style-type: none"> <li>ensure that: <ul style="list-style-type: none"> <li>all mining trucks and water carts used on the site are commissioned as noise suppressed (or attenuated) units;</li> <li>ensure that all equipment and noise control measures deliver sound power levels that are equal to or better than the sound power levels identified in the EA, and correspond to best practice or the application of the best available technology economically achievable;</li> <li>where reasonable and feasible, improvements are made to existing noise suppression equipment as better technologies become available; and</li> </ul> </li> <li>monitor and report on the implementation of these requirements annually on its website.</li> </ol>	<p>Initial SPL tests and an ongoing twelve monthly campaign to retest. A-weighted levels generally compliant with EA limits however some trucks have not met L weighted test criteria. Work is ongoing with the equipment manufacturer to identify areas of improvement.</p> <p>Note the site has not been in exceedance of noise criteria for any sustained period at the receiver.</p>	Not Compliant	E	2	Low					

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Project Approval 10_0138	13	The Proponent shall: (a) conduct an annual testing program of the attenuated plant on site to ensure that the attenuation remains effective; (b) restore the effectiveness of any attenuation if it is found to be defective; and (c) report on the results of any testing and/or attenuation work annually on its website.	Will be enacted after any requirement for attenuation has been identified and attenuation fitted. First twelve months of operation, annual testing not triggered.	Not triggered				
<b>Maules Creek Rail Spur Line - Noise Impacts</b>								
Project Approval 10_0138	14	The Proponent shall: (a) commission suitably qualified and experienced person/s to review the design of the Maules Creek rail spur line, and determine whether it incorporates all reasonable and feasible noise mitigation measures, including suitable measures to minimise low frequency noise; (b) implement the recommendations of this acoustic review; (c) undertake commissioning trials of the spur line to determine the optimal train speed to minimise noise impacts; and (d) following commissioning of the spur line, undertake targeted noise monitoring to determine the accuracy of predicted acoustic impacts and effectiveness of any noise reduction measures, including monitoring during adverse inversion conditions, to the satisfaction the Director-General.	A B C Compliant. Not yet conducted, recent negotiations have taken place with ARTC to get the final train speeds in place, the testing and report development will occur after that has taken place.	Not Triggered				
<b>Operating Conditions</b>								
Project Approval 10_0138	15	The Proponent shall: (a) implement best management practice to minimise the construction, operational, low frequency, road and rail traffic noise of the project; (b) operate a comprehensive noise management system on site that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this approval; (c) maintain the effectiveness of noise suppression equipment on plant at all times and ensure defective plant is not used operationally until fully repaired; (d) ensure that noise attenuated plant is deployed preferentially in locations relevant to sensitive receivers; (e) minimise the noise impacts of the project during meteorological conditions when the noise limits in this approval do not apply; (f) ensure that the Maules Creek rail spur line is only accessed by locomotives that are approved to operate on the NSW rail network in accordance with the noise limits in ARTC's EPL (No. 3142); (g) use its best endeavours to ensure that the rolling stock supplied by service providers on the rail spur line is designed, constructed and maintained to minimise noise; (h) ensure any new rail rolling stock manufactured specifically for the project is designed, constructed and maintained to minimise noise; and (i) co-ordinate the noise management on site with the noise management at other mines within the Leard Forest Mining Precinct to minimise the cumulative noise impacts of these mines, to the satisfaction of the Director-General.	a) Compliant b) Risk matrix for weather sighted, tool box talked, sighted tool box talks c) Maintenance schedule and annual testing in place d) See b) plus shut down has occurred e) system described in d and b continues in adverse weather conditions f) ARTC control this item. g) Included in haulage contracts h) No rolling stock built specifically for Maules Creek i) Strategy Drafted but not approved	Compliant				
<b>Noise Management Plan</b>								
Project Approval 10_0138	16	The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Director-General. This plan must: (a) be prepared in consultation with the EPA, and submitted to the Director-General for approval prior to the commencement of construction; (b) describe the measures that would be implemented to ensure: • best management practice is being employed; • the noise impacts of the project are minimised during meteorological conditions when the noise limits in this approval do not apply; and • compliance with the relevant conditions of this approval; (c) describe the proposed noise management system in detail; (d) include a risk/response matrix to codify mine operational responses to varying levels of risk resulting from weather conditions and specific mining activities; (e) include commitments to provide summary reports and specific briefings at CCC meetings on issues arising from noise monitoring; (f) include a monitoring program that: • uses a combination of real time and supplementary attended monitoring to evaluate the performance of the project; • adequately supports the proactive and reactive noise management system on site; • includes a protocol for determining exceedances of the relevant conditions of this approval; • includes monitoring of inversion strength at an appropriate sampling rate to determine compliance with noise limits; • evaluates and reports on the effectiveness of the noise management system on site; and • provides for the annual validation of the noise model for the project; and (g) includes a Leard Forest Mining Precinct Noise Management Strategy that has been prepared in consultation with the other coal mines in the Precinct to minimise the cumulative noise impacts of all the mines within the precinct, and includes: • a description of the measures that would be implemented to ensure that the noise management of the mines is properly co-ordinated to ensure compliance with the relevant noise criteria; • a suitable monitoring network for the precinct; • protocols for data sharing; and • procedures for identifying and apportioning the source/s and contribution/s to cumulative noise impacts for the operating mines and other sources, using the noise and meteorological monitoring network and appropriate investigative tools. Note: The Leard Forest Mining Precinct Noise Management Strategy can be developed in stages and will need to be subject to ongoing review dependent upon the determination and commencement of other mining projects in the area.	Approved NMP has been reviewed and found to satisfy conditions.	Compliant				
<b>Noise Measurement</b>								

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility																
					Consequence	Likelihood	Risk																	
Project Approval 10_0138	17	Where conditions in this approval refer to measurement of noise within the context of the NSW Industrial Noise Policy the inversion class to be applied to the project is Class G. However, the Proponent may undertake an investigation to determine whether a proposal for change in this classification could be considered for approval by the Director-General. Any such investigation must be conducted in consultation with the EPA and be conducted by a suitably qualified person whose appointment has been endorsed by the EPA and approved by the Director-General. The report and recommendation must be submitted to the EPA for endorsement prior to submission to the Director-General. If the Director-General is satisfied that the recommendation is reasonable, then the Director-General may amend the inversion class applying to the project under this approval.	Class G inversions have been accepted. Options remain for a future site-specific inversion study to be conducted.	Compliant																				
<b>BLASTING</b>																								
<b>Blasting Criteria</b>																								
Project Approval 10_0138	18	The Proponent shall ensure that the blasting on the site does not cause exceedances of the criteria in Table 7.  <table border="1" style="margin-left: auto; margin-right: auto;"> <caption>Table 7: Blasting criteria</caption> <thead> <tr> <th>Location</th> <th>Airblast overpressure (dB(L<sub>p</sub> Peak))</th> <th>Ground vibration (mm/s)</th> <th>Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td>Residence on privately owned land</td> <td>120</td> <td>10</td> <td>0%</td> </tr> <tr> <td></td> <td>115</td> <td>5</td> <td>5% of the total number of blasts over a period of 12 months</td> </tr> <tr> <td>All public infrastructure</td> <td>80</td> <td>5</td> <td>0% <small>(or alternatively a specific limit determined to the satisfaction of the Director-General by the structural design methodology in AS 2187.2-2006, or its latest revision)</small></td> </tr> </tbody> </table> However, the Proponent shall ensure that the blasting on the site does not cause exceedances of the criteria in Table 7 relevant owner or infrastructure provider/owner, and the Proponent has advised the Department in writing of the terms of this agreement.	Location	Airblast overpressure (dB(L <sub>p</sub> Peak))	Ground vibration (mm/s)	Allowable exceedance	Residence on privately owned land	120	10	0%		115	5	5% of the total number of blasts over a period of 12 months	All public infrastructure	80	5	0% <small>(or alternatively a specific limit determined to the satisfaction of the Director-General by the structural design methodology in AS 2187.2-2006, or its latest revision)</small>	Reviewed databases for results (and AEMR for 2014) and no exceedances have occurred to date	Compliant				
Location	Airblast overpressure (dB(L <sub>p</sub> Peak))	Ground vibration (mm/s)	Allowable exceedance																					
Residence on privately owned land	120	10	0%																					
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<b>Blasting Hours</b>																								
Project Approval 10_0138	19	The Proponent shall only carry out blasting on the site between 9 am and 5 pm Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays, or at any other time without the written approval of the Director-General.	No shots outside these times and days	Compliant																				
<b>Blasting Frequency</b>																								
Project Approval 10_0138	20	The Proponent may carry out a maximum of: (a) 1 blast a day; unless an additional blast is required following a blast misfire; and (b) 4 blasts a week, averaged over a calendar year; for the project. This condition does not apply to blasts that generate ground vibration of 0.5 mm/s or less at any residence on privately-owned land, or to blasts required to ensure the safety of the mine or its workers. Note: For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine.	Complies sighted database	Compliant																				
<b>Property Inspections</b>																								
Project Approval 10_0138	21	If the Proponent receives a written request from the owner of any privately-owned land within 2 kilometres of the approved open cut mining pit on site, for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection report updated, then within 2 months of receiving this request the Proponent shall: (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties, to: • establish the baseline condition of any buildings and/or structures on the land, or update the previous property inspection report; and • identify any measures that should be implemented to minimise the potential blasting impacts of the project on these buildings and/or structures; and (b) give the landowner a copy of the new or updated property inspection report. If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Director-General for resolution.	No property acquisitions relating to blasting	Not Triggered																				
<b>Property Investigations</b>																								
Project Approval 10_0138	22	If the owner of any privately-owned land claims that the buildings and/or structures on his/her land have been damaged as a result of blasting on site, then within 2 months of receiving this claim in writing from the landowner the Proponent shall: (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties, to investigate the claim; and (b) give the landowner a copy of the property investigation report. If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damages to the satisfaction of the Director-General. If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Director-General for resolution.	No requests for investigation due to blast damage	Not Triggered																				
<b>Operating Conditions</b>																								

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Project Approval 10_0138	23	During mining operations on site, the Proponent shall: (a) implement best management practice to: • protect the safety of people and livestock in the surrounding area; • protect public or private infrastructure/property in the surrounding area from any damage; and • minimise the dust and fume emissions of any blasting; and • minimise blasting impacts on heritage items in the vicinity of the site; (b) co-ordinate the timing of blasting on site with the timing of blasting at other mines within the Leard Forest Mining Precinct to minimise the cumulative blasting impacts of these mines; and (c) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site, to the satisfaction of the Director-General.	Blast management plan (looks to satisfy requirements. Approval of plan by DP&I implies satisfaction of D-G) Blast Strategy Web site blast notifications, text message 24 hours advance. Secretary's Approval of BMP (1/8/14) sighted	Compliant				
Project Approval 10_0138	24	The Proponent shall not undertake blasting on-site within 500 metres of: (a) any public road without the approval of Council; or (b) any land outside the site that is not owned by the Proponent, unless: • the Proponent has a written agreement with the relevant landowner to allow blasting to be carried out closer to the land, and the Proponent has advised the Department in writing of the terms of this agreement, or • the Proponent has: o demonstrated to the satisfaction of the Director-General that the blasting can be carried out closer to the land without compromising the safety of the people or livestock on the land, or damaging the buildings and/or structures on the land; and o updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the land.	No roads or privately owned land within 500m of blasting in current locations	Compliant				
<b>Blast Management Plan</b>								
Project Approval 10_0138	25	The Proponent shall prepare and implement a Blast Management Plan for the project to the satisfaction of the Director-General. This plan must: (a) be submitted to the Director-General for approval prior to undertaking any blasting activities on the site; (b) be prepared in consultation with the EPA and interested members of the local community potentially affected by blasting operations; (c) propose and justify any alternative ground vibration limits for public infrastructure in the vicinity of the site; (d) describe the measures that would be implemented to ensure: • best management practice is being employed; and • compliance with the relevant conditions of this approval; (e) include a road closure management plan for blasting within 500 metres of a public road, that has been prepared in consultation with Council; (f) include a specific blast fume management protocol to demonstrate how emissions will be minimised including risk management strategies if blast fumes are generated; (g) include a monitoring program for evaluating the performance of the project including: • compliance with the applicable criteria; and • minimising fume emissions from the site; and (h) include a Leard Forest Mining Precinct Blast Management Strategy that has been prepared in consultation with the other mines within the Leard Forest Mining Precinct to minimise the cumulative blasting impacts of all the mines within the precinct. Note: The Leard Forest Mining Precinct Blast Management Strategy can be developed in stages and will need to be subject to ongoing review dependent upon the determination of and commencement of other mining projects in the area.	Approval of BMP sighted (1/8/14)	Compliant				
<b>AIR QUALITY AND GREENHOUSE GAS</b>								
<b>Odour</b>								
Project Approval 10_0138	26	Unless otherwise authorised by an EPL, the Proponent shall ensure that no offensive odours are emitted from the site, as defined under the POEO Act.	No odour complaints and no odours observed on-site	Compliant				
<b>Greenhouse Gas Emissions</b>								
Project Approval 10_0138	27	The Proponent shall implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site to the satisfaction of the Director-General.	Reasonable and feasible measures discussed and observed. The key measures in place to minimise greenhouse gas emissions were identified as: - replacement of diesel generators with supplied electricity, to reduce diesel fuel use - mine planning to reduce diesel, evidenced by direct haul route from pits to dumps and hoppers	Compliant				
<b>Additional Air Quality Mitigation Upon Request</b>								

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility																							
					Consequence	Likelihood	Risk																								
Project Approval 10_0138	28	<p>Upon receiving a written request from the owner(s) of any residence on the land listed in Table 1 (on the basis of air quality) or the land listed in Table 8, the Proponent shall implement additional air quality mitigation measures (such as air filters, a first flush roof water drainage system and/or air conditioning) at the residence in consultation with the owner. These measures must be reasonable and feasible and directed towards reducing the air quality impacts of the project on the residence.</p> <p>If within 3 months of receiving this request from the owner, the Proponent and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution.</p> <p>Table 8: Land subject to additional air quality mitigation measures upon request</p> <table border="1"> <thead> <tr> <th>Mitigation Basis</th> <th>Land</th> </tr> </thead> <tbody> <tr> <td>Air</td> <td>108-109, 115-116, 121-122</td> </tr> </tbody> </table> <p>Note: To interpret the locations referred to in Table 8, see the applicable figure(s) in Appendix 4.</p>	Mitigation Basis	Land	Air	108-109, 115-116, 121-122	No requests for acquisition related to air quality from owners in the acquisition zone.	Not Triggered																							
Mitigation Basis	Land																														
Air	108-109, 115-116, 121-122																														
<b>Air Quality Criteria</b>																															
Project Approval 10_0138	29	<p>Except for the air quality affected land in Table 1, the Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not cause exceedances of the criteria listed in Table 9, Table 10 and Table 11 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.</p> <p>Table 9: Long-term criteria for particulate matter</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>Criterion</th> </tr> </thead> <tbody> <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> </tbody> </table> <p>Table 10: Short-term criteria for particulate matter</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>Criterion</th> </tr> </thead> <tbody> <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> </tbody> </table> <p>Table 11: Long-term criteria for deposited dust</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>Maximum increase in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td>Deposited dust</td> <td>Annual</td> <td>≦ 2 g/m<sup>2</sup>/month</td> <td>≦ 4 g/m<sup>2</sup>/month</td> </tr> </tbody> </table> <p>Notes to Table 9, Table 10 and Table 11:                      a Total impact (ie incremental increase in concentrations due to the project plus background concentrations due to all other sources);                      b Incremental impact (ie incremental increase in concentrations due to the project on its own);                      c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003;                      d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the Director-General. Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.                      'reasonable and feasible avoidance and mitigation measures' includes, but is not limited to, the operational requirements in condition 33 and the requirements in conditions 33 and 34 to develop and implement a real-time air quality management system that ensures effective operational responses to the risks of exceedance of the criteria.</p>	Pollutant	Averaging Period	Criterion	Total suspended particulate (TSP) matter	Annual	≦ 90 µg/m <sup>3</sup>	Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	≦ 30 µg/m <sup>3</sup>	Pollutant	Averaging Period	Criterion	Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	≦ 50 µg/m <sup>3</sup>	Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level	Deposited dust	Annual	≦ 2 g/m <sup>2</sup> /month	≦ 4 g/m <sup>2</sup> /month	<p>Maules Creek operates an air quality monitoring network. Data from the network (2014 AEMR) have been reviewed to check for compliance with these criteria. TSP concentrations are not measured directly, however annual average dust deposition levels have been below the criteria, indicating compliance with TSP criteria (NSW Minerals Council 2000). There have been no exceedances of the 24-hour or annual average PM10 criteria.</p>	Compliant				
Pollutant	Averaging Period	Criterion																													
Total suspended particulate (TSP) matter	Annual	≦ 90 µg/m <sup>3</sup>																													
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	≦ 30 µg/m <sup>3</sup>																													
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<b>Mine-Specific Air Quality Criteria</b>																															
Project Approval 10_0138	30	<p>The Proponent shall ensure that except for the air quality affected land in Table 1 (and subject to note 1 below for properties listed in Table 8), particulate matter emissions generated by the project do not exceed the criteria listed in Table 12 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.</p> <p>Table 12: Short-term criteria for particulate matter</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>Criterion</th> </tr> </thead> <tbody> <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> </tbody> </table> <p>Notes:                      1. The properties listed in Table 8 are each predicted to be impacted by an exceedance of the criteria in Table 12 on one occasion in one modelled year. For each of these properties a maximum of 5 exceedances of the criteria in Table 12 is allowed over the period covered by this approval. These allowed exceedances are limited to the project-specific emission predictions for each property and to a single exceedance for each property in any one year.                      2. As provided by the EP&amp;A Act, the criterion in Table 12 (and the exceptions in note 1) may be amended to a more stringent criterion in an EPL, after the first review of the EPL under section 78 of the POEO Act.</p>	Pollutant	Averaging Period	Criterion	Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	50 µg/m <sup>3</sup>	<p>Data from the air quality monitoring network (2014 AEMR) have been reviewed to check for compliance with these criteria. The monitoring locations are representative of nearest privately owned land. TSP concentrations are not measured directly, however annual average dust deposition levels have been below the criteria, indicating compliance with TSP criteria (NSW Minerals Council 2000). There have been no exceedances of the 24-hour or annual average PM10 criteria.</p>	Compliant																					
Pollutant	Averaging Period	Criterion																													
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	50 µg/m <sup>3</sup>																													
<b>Mine-owned Land</b>																															

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility																										
					Consequence	Likelihood	Risk																											
Project Approval 10_0138	31	The Proponent shall ensure that particulate matter emissions generated by the project do not exceed the criteria listed in Table 9, Table 10 and Table 11 at any occupied residence on any mine-owned land (including land owned by adjacent mines) unless: (a) the tenant and landowner has been notified of health risks in accordance with the notification requirements under schedule 4 of this approval; (b) the tenant on project owned land can terminate their tenancy agreement without penalty, subject to giving reasonable notice, and the Proponent uses its best endeavours to provide assistance with relocation and sourcing of alternative accommodation; (c) air mitigation measures such as air filters, a first flush roof water drainage system and/or air conditioning are installed at the residence, if requested by the tenant and landowner (where owned by another mine other than the Proponent); (d) particulate matter air quality monitoring is undertaken to inform the tenant and landowner of potential health risks; and (e) monitoring data is presented to the tenant in an appropriate format, for a medical practitioner to assist the tenant in making an informed decision on the health risks associated with occupying the property, to the satisfaction of the Director-General.	Data from the air quality monitoring network (2014 AEMR) have been reviewed to check for compliance with these criteria. The monitoring locations are representative of nearest occupied mine-owned land. The monitoring data show that there have been no exceedances of the TSP, PM10, PM2.5 or dust deposition criteria.	Compliant																														
<b>Air Quality Acquisition Criteria</b>																																		
Project Approval 10_0138	32	If particulate matter emissions generated by the project exceed the criteria, or contribute to an exceedance of the relevant cumulative criteria, in Table 13, Table 14 or Table 15, at any residence on privately-owned land or on more than 25 percent of any privately-owned land, then upon receiving a written request for acquisition from the landowner the Proponent shall acquire the land in accordance with the procedures in conditions 8-9 of schedule 4.  <table border="1" style="width: 100%; border-collapse: collapse;"> <caption>Table 13: Long-term land acquisition criteria for particulate matter</caption> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>* Criterion</th> </tr> </thead> <tbody> <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> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <caption>Table 14: Short-term land acquisition criteria for particulate matter</caption> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>* Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td> <td>24 hour</td> <td>* 150 µg/m<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> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <caption>Table 15: Long-term land acquisition criteria for deposited dust</caption> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Maximum increase in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td>* Deposited dust</td> <td>Annual</td> <td>* 2 g/m<sup>2</sup>/month</td> <td>* 4 g/m<sup>2</sup>/month</td> </tr> </tbody> </table> Notes to Table 13, Table 14 and Table 15: a Total impact (ie incremental increase in concentrations due to the project plus background concentrations due to all other sources); b Incremental impact (ie incremental increase in concentrations due to the project on its own); c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, or any other activity agreed by the Director-General.	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	* 150 µg/m <sup>3</sup>	Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	* 50 µg/m <sup>3</sup>	Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level	* Deposited dust	Annual	* 2 g/m <sup>2</sup> /month	* 4 g/m <sup>2</sup> /month	Data from the air quality monitoring network (2014 AEMR) have been reviewed to check for compliance with these criteria. The monitoring locations are representative of nearest occupied mine-owned land. The monitoring data show that there have been no exceedances of the TSP, PM10, PM2.5 or dust deposition criteria. Therefore this item is not triggered.	Compliant				
Pollutant	Averaging period	* Criterion																																
Total suspended particulate (TSP) matter	Annual	* 90 µg/m <sup>3</sup>																																
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	* 30 µg/m <sup>3</sup>																																
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<b>Operating Conditions</b>																																		
Project Approval 10_0138	33	The Proponent shall: (a) implement best management practice to minimise the off-site odour, fume and dust emissions of the project, including best practice coal loading and profiling and other measures to minimise dust emissions from coal transportation by rail; (b) operate a comprehensive air quality management system on site that uses a combination of predictive meteorological forecasting, predictive and real time air dispersion modelling and real-time air quality monitoring data to guide the day to day planning of mining operations and implementation of both proactive and reactive air quality mitigation measures (such as relocate, modify and/or suspend operations) to ensure compliance with the relevant conditions of this approval; (c) manage PM2.5 levels in accordance with any requirements of an EPL; (d) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see note d in condition 29); (e) minimise any visible off-site air pollution; (f) minimise the surface disturbance of the site generated by the project; and (g) co-ordinate the air quality management on site with the air quality management at other mines within the Leard Forest Mining Precinct to minimise the cumulative air quality impacts of the mines, to the satisfaction of the Director-General.	(a) Interviews and a site inspection was carried out to assess compliance. Each emission-generating activity in the mining operation was assessed. The evidence to suggest compliance with (a) is as follows, for each activity: - Scrapers on topsoil. Roads are designated, water spraying is carried out before mulching, roads are watered. - Drills. Water injection and curtains are used. Equipment is shutdown if not operating correctly. - Blasting. Procedures include 24 hour notification, text to stakeholders / residents, checklists used (sighted), holes are dipped for water (for management of fume). - Loading trucks. When excess dust is observed the procedures include minimising drop height, reducing swing rates, slowing production, walking equipment to another bench with different material. - Haulage by truck. Operators are encouraged to radio directly to the water carts. Fill points have been appropriately positioned around haul routes. Dust-a-Side (chemical dust suppressant) is used from December to March. - Dumping to hopper. Dust curtains and sprays inside hopper. Enclosure of hopper on 3 sides and roof. Transfer points are covered. Dumping to emplacement areas. Options in place to dump high or low, depending on the conditions. - Dozers. Moved from the top dumps depending on the weather conditions. - Wind erosion. Mulch cover used on some cleared areas. Pre-strip area is minimised. A dedicated inspector is located above the high wall to continuously observe operations and dust emissions. This inspector communicates directly to operators or the OCE in the event of potential visual dust issues. (b) The air quality management system includes observations, daily weather reports and forecasts, and ongoing analysis of trends in monitoring. There was no evidence to demonstrate that the site currently uses predictive and real time air dispersion modelling.	Not Compliant	D	4	Low																											

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
<b>Air Quality and Greenhouse Gas Management Plan</b>								
Project Approval 10_0138	34	<p>The Proponent shall prepare and implement an Air Quality and Greenhouse Gas Management Plan for the project to the satisfaction of the Director-General. This plan must:</p> <ul style="list-style-type: none"> <li>(a) be prepared in consultation with the EPA, and be submitted to the Director-General for approval prior to the commencement of construction;</li> <li>(b) describe the measures that would be implemented to ensure:                             <ul style="list-style-type: none"> <li>• best management practice is being employed;</li> <li>• the air quality impacts of the project are minimised during adverse meteorological conditions and extraordinary events; and</li> <li>• compliance with the relevant conditions of this consent.</li> </ul> </li> <li>(c) describe the proposed air quality management system;</li> <li>(d) include a risk/response matrix to codify mine operational responses to varying levels of risk resulting from weather conditions and specific mining activities;</li> <li>(e) include commitments to provide summary reports and specific briefings at CCC meetings on issues arising from air quality monitoring;</li> <li>(f) include an air quality monitoring program that:                             <ul style="list-style-type: none"> <li>• uses a combination of real-time monitors and supplementary monitors to evaluate the performance of the project;</li> <li>• adequately supports the proactive and reactive air quality management system;</li> <li>• includes PM2.5 monitoring;</li> <li>• includes monitoring of occupied project-related residences and residences on air quality affected land listed in Table 1 and Table 8, subject to the agreement of the tenant and/or landowner;</li> <li>• evaluates and reports on the effectiveness of the air quality management system;</li> <li>• includes sufficient random audit of operational responses to the real time air quality management system to determine the ongoing effectiveness of these responses in maintaining the project within the relevant criteria in this Schedule and the requirements of conditions 29 and 30 above; and</li> <li>• includes a protocol for determining any exceedances of the relevant conditions in this approval; and</li> </ul> </li> <li>(g) includes a Leard Forest Mining Precinct Air Quality Management Strategy that has been prepared in consultation with other coal mines in the Precinct to minimise the cumulative air quality impacts of all mines within the Precinct, that includes:                             <ul style="list-style-type: none"> <li>• systems and processes to ensure that all mines are managed to achieve their air quality criteria;</li> <li>• a shared environmental monitoring network and data sharing protocol;</li> <li>• control monitoring site(s) to provide real time data on background air quality levels (ie not influenced by mining from the Leard Forest Mining Precinct and representative of regional air quality);</li> <li>• a shared predictive and real time air dispersion model covering the Leard Forest Mining Precinct to be used for assessment of cumulative impacts, optimising location of the shared real time monitoring network, validation of air predictions and optimising mitigation measures; and</li> <li>• procedures for identifying and apportioning the source/s and contribution/s to cumulative air impacts for both mines and other sources, using the air quality and meteorological monitoring network and appropriate investigative tools such as modelling of post incident plume dispersion, dual synchronised monitors and chemical methods of source apportionment (where possible).</li> </ul> </li> </ul> <p>Notes:                      • The requirement for regionally based control sites can be further reviewed if a regional air monitoring network is implemented and operated by the EPA as recommended in the draft Strategic Regional Land Use Plan for New England North West.                      • The Leard Forest Mining Precinct Air Quality Management Strategy can be developed in-house and will need to be subject to separate review dependent upon the project.</p>	<p>An Air Quality and Greenhouse Gas Management Plan has been prepared to the satisfaction of the Director-General. Regulatory correspondence was sighted (letter from Planning to Maules Creek Coal, dated 11/3/14)</p>	Compliant				
<b>METEOROLOGICAL MONITORING</b>								
Project Approval 10_0138	35	<p>For the life of the project, the Proponent shall ensure that there is a meteorological station in the vicinity of the site that:</p> <ul style="list-style-type: none"> <li>(a) complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline; and</li> <li>(b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the NSW Industrial Noise Policy, unless a suitable alternative is approved by the Director-General following consultation with the EPA.</li> </ul>	<p>The weather station was inspected. Data from the weather station were inspected. Sighted compliance letter from C-Based and calibration certificate</p>	Compliant				
<b>SOIL AND WATER</b>								
Project Approval 10_0138		<p>Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Proponent is required to obtain the necessary water licences for the project.</p>	<p>Copies of water licences sighted, volumes are adequate for the levels extracted at the current development point of the mine</p>	Compliant				
<b>Water Supply</b>								
Project Approval 10_0138	36	<p>The Proponent shall ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of mining operations on site, to match its available water supply to the satisfaction of the Director-General.</p>	<p>Licenses in place</p>	Compliant				
<b>Compensatory Water Supply</b>								
Project Approval 10_0138	37	<p>The Proponent shall provide a compensatory water supply to any landowner of privately-owned land whose water supply is adversely and directly impacted (other than an impact that is negligible) as a result of the project, in consultation with NOW, and to the satisfaction of the Director-General.</p> <p>The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent to the loss attributed to the project. Equivalent water supply should be provided (at least on an interim basis) within 24 hours of the loss being identified.</p> <p>If the Proponent and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution.</p> <p>If the Proponent is unable to provide an alternative long-term supply of water, then the Proponent shall provide alternative compensation to the satisfaction of the Director-General.</p>	<p>No requests or evidence of loss of supply</p>	Compliant				
<b>Surface Water Discharges</b>								
Project Approval 10_0138	38	<p>The Proponent shall ensure that any surface water discharges of mine water from the site:</p> <ul style="list-style-type: none"> <li>(a) are of equal or better quality than the receiving waters; and</li> <li>(b) comply with the discharge limits (both volume and quality) set for the project in any EPL.</li> </ul> <p>Note: The project is based on a zero discharge basis for mine water in all modelled meteorological events, however the Department acknowledges that discharge of treated water may be required to be undertaken following very extraordinary events outside modelled data, if approved under an EPL.</p>	<p>All discharges reviewed in the Annual Returns for the EPL were compliant with the EPL.</p>	Compliant				
<b>Operating Conditions</b>								

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Project Approval 10_0138	39	<p>The Proponent shall:</p> <ul style="list-style-type: none"> <li>(a) develop a detailed soil management protocol that identifies procedures for:                             <ul style="list-style-type: none"> <li>• comprehensive soil surveys prior to soil stripping;</li> <li>• assessment of top-soil and sub-soil suitability for mine rehabilitation; and</li> <li>• annual soil balances to manage soil handling including direct respreading and stockpiling;</li> </ul> </li> <li>(b) maximise the salvage of suitable top-soils and sub-soils and biodiversity habitat components such as bush rocks, tree hollows and fallen timber for rehabilitation of disturbed areas within the site and for enhancement of biodiversity offset areas;</li> <li>(c) ensure that coal reject or any potentially acid forming interburden materials are not emplaced at elevations within the pit shell or out of pit emplacement areas where they may promote acid or sulphate species generation and migration beyond the pit shell or out of pit emplacement areas;</li> <li>(d) ensure that no water can drain from an out of pit emplacement area to any watercourse or to any land beyond the lease boundary; and</li> <li>(e) ensure that the coal barrier between the final void and any future surrounding mining operations minimises exchange of any contained groundwaters in the pit shell.</li> </ul>	<ul style="list-style-type: none"> <li>a) in the MOP</li> <li>b) salvage material collected</li> <li>c) sighted in reject disposal procedure</li> <li>d) Reviewed in site inspection, currently compliant</li> <li>e) Design is not yet to the point where this can be verified.</li> </ul>	Compliant				
<b>Water Management Plan</b>								
Project Approval 10_0138	40	<p>The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Director-General. This plan must be prepared in consultation with OEH, NOW and Namoi CMA, by suitably qualified and experienced person/s whose appointment has been approved by the Director-General, and be submitted to the Director-General for approval prior to the commencement of construction. In addition to the standard requirements for management plans (see condition 3 of schedule 5), this plan must include:</p>	<p>Plan is approved                      Consultation - NoW,OEH and LLS                      Plan Author approved</p>	Compliant				
		<p>(a) a Site Water Balance, that:</p> <ul style="list-style-type: none"> <li>• includes details of:                             <ul style="list-style-type: none"> <li>o sources and security of water supply, including contingency for future reporting periods;</li> <li>o water use on site;</li> <li>o water management on site;</li> <li>o any off-site water discharges;</li> <li>o reporting procedures, including the preparation of a site water balance for each calendar year;</li> <li>o a program to validate the surface water model, including monitoring discharge volumes from the site and comparison of monitoring results with modelled predictions; and</li> </ul> </li> <li>• describes the measures that would be implemented to minimise clean water use on site;</li> </ul>	Reviewed by surface water specialist and found compliant	Compliant				
		<p>(b) a Surface Water Management Plan, which includes:</p> <ul style="list-style-type: none"> <li>• detailed baseline data on surface water flows and quality in the water-bodies that could potentially be affected by the project;</li> <li>• detailed baseline data on hydrology across the downstream drainage system of the Namoi River floodplain from the mine site to the Namoi River;</li> <li>• a detailed description of the water management system on site, including the:                             <ul style="list-style-type: none"> <li>o clean water diversion systems;</li> <li>o erosion and sediment controls (dirty water system);</li> <li>o mine water management systems;</li> <li>o discharge limits in accordance with EPL requirements;</li> <li>o water storages;</li> <li>o mine access road and Maules Creek rail spur line;</li> </ul> </li> <li>• detailed plans, including design objectives and performance criteria for:                             <ul style="list-style-type: none"> <li>o design and management of final voids;</li> <li>o design and management for the emplacement of reject materials, sodic and dispersible soils and acid or sulphate generating materials;</li> <li>o design and management for construction and operation of the rail spur line and mine access road;</li> <li>o reinstatement of drainage lines on the rehabilitated areas of the site; and</li> <li>o control of any potential water pollution from the rehabilitated areas of the site;</li> </ul> </li> <li>• performance criteria for the following, including trigger levels for investigating any potentially adverse impacts associated with the project:                             <ul style="list-style-type: none"> <li>o the water management system;</li> <li>o downstream surface water quality;</li> <li>o downstream flooding impacts, including flood impacts due to the construction and operation of the rail spur line and mine access road, and flooding along Back Creek; and</li> <li>o stream and riparian vegetation health, including the Namoi River;</li> </ul> </li> <li>• a program to monitor:                             <ul style="list-style-type: none"> <li>o the effectiveness of the water management system; and</li> <li>o surface water flows and quality in the watercourses that could be affected by the project;</li> </ul> </li> <li>• reporting procedures for the results of the monitoring program;</li> <li>• a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the project; and</li> </ul>	<p>The Water Mnaagment Plan was found to be compliant with these requirements by the specialist surface water auditor</p>	Compliant				

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Project Approval 10_0138		<p>(c) a Groundwater Management Plan, which includes:</p> <ul style="list-style-type: none"> <li>• detailed baseline data of groundwater levels, yield and quality in the region, and privately owned groundwater bores including a detailed survey/schedule of groundwater dependent ecosystems (including stygo-fauna and Melaleuca riparian forest communities), that could be affected by the project;</li> <li>• the monitoring and testing requirements specified in the PAC recommendations for groundwater management as set out in Appendix 6;</li> <li>• detailed plans, including design objectives and performance criteria, for the design and management of:                             <ul style="list-style-type: none"> <li>o the proposed final void; and</li> <li>o coal reject and potential acid forming material emplacement;</li> </ul> </li> <li>• groundwater assessment criteria including trigger levels for investigating any potentially adverse groundwater impacts;</li> <li>• a program to monitor and assess:                             <ul style="list-style-type: none"> <li>o groundwater inflows to the open cut mining operations;</li> <li>o the seepage/leachate from water storages, emplacements, backfilled voids and the final void;</li> <li>o interconnectivity between the alluvial and bedrock aquifers;</li> <li>o background changes in groundwater yield/quality against mine-induced changes;</li> </ul> </li> <li>o the impacts of the project on:                             <ul style="list-style-type: none"> <li>- regional and local (including alluvial) aquifers;</li> <li>- groundwater supply of potentially affected landowners;</li> <li>- groundwater dependent ecosystems (including potential impacts on stygo-fauna and Melaleuca riparian forest communities) and riparian vegetation;</li> </ul> </li> <li>• a program to validate the groundwater model for the project, including an independent review of the model every 3 years, and comparison of monitoring results with modelled predictions; and</li> <li>• a plan to respond to any exceedances of the performance criteria; and</li> </ul>	The groundwater portion of the Water Management Plan complies with these requirements	Compliant				
		<p>(d) a Leard Forest Mining Precinct Water Management Strategy that has been prepared in consultation with other mines within the Precinct to:</p> <ul style="list-style-type: none"> <li>• minimise the cumulative water quality impacts of the mines;</li> <li>• review opportunities for water sharing/water transfers between mines;</li> <li>• co-ordinate water quality monitoring programs as far as practicable;</li> <li>• undertake joint investigations/studies in relation to complaints/exceedances of trigger levels where cumulative impacts are considered likely; and</li> <li>• co-ordinate modelling programs for validation, re-calibration and re-running of the groundwater and surface water models using approved mine operation plans.</li> </ul> <p>Note: The Leard Forest Mining Precinct Water Management Strategy can be developed in stages and will need to be subject to ongoing review dependent upon the determination of and commencement of other mining projects in the Precinct.</p>	The Strategy has been propeared but is not yet approved	Compliant				
<b>BIODIVERSITY</b>								
<b>Leard Forest Mining Precinct Regional Biodiversity Strategy</b>								
Project Approval 10_0138	41	<p>The Proponent shall commission and fund the preparation of a Leard Forest Mining Precinct Regional Biodiversity Strategy, jointly with all other coal mines within the Precinct. The Strategy shall be coordinated through the Department (refer condition 42 below) and be prepared by suitably qualified, experienced and independent person/s whose appointment has been endorsed by OEH and subsequently approved by the Director-General, in the following stages:</p> <p>A scoping report for development of the Strategy must be submitted, by the end of January 2013, for endorsement by OEH and subsequent approval by the Director-General. The Director-General may extend this period with the agreement of OEH. The scoping report must:</p> <p>Stage 1 – Scoping Stage</p> <p>(a) include terms of reference, scope and objectives for the Strategy, including recommendations for the Strategy’s geographic extent;</p> <p>(b) identify the ongoing functions and members of the working group (see condition 42 below);</p> <p>(c) include a project management plan of the Strategy, with a time schedule, indicative dates for working group meetings, review and milestones for completion;</p> <p>(d) include a funding program for the development of the Strategy, including provision of adequate resources for the participation of working group members; and</p> <p>(e) include a consultation/communications program for the Strategy.</p> <p>Note: The broad terms of reference must be guided by the Planning Assessment Commission (PAC) merit reviews for the Boggabri Coal Mine (February 2012) and Maules Creek Coal Mine (March 2012) – Recommendation 1 for the development of a regional biodiversity strategy.</p> <p>Stage 2 – Strategy Development</p> <p>The Strategy must be developed in accordance with the approved Scoping Stage report and be submitted, by the end of January 2014, for endorsement by OEH and subsequent approval by the Director-General. The Director-General may extend this period with agreement of OEH.</p> <p>Stage 3 – Strategy Review</p> <p>The Strategy must be reviewed by the end of December 2018, following completion of audits of the rehabilitation and Biodiversity Offset Areas required to be undertaken under approvals for coal mines within the Precinct. The review shall be conducted by suitably qualified, experienced and independent person/s whose appointment has been endorsed by OEH and subsequently approved by the DirectorGeneral. Any modifications to the Strategy arising from the review must be endorsed by OEH prior to approval by the Director-General.</p>	The Stage 1 Scoping Report was submitted in June 2013 following an extension letter received from DP&E. Letter received from DP&E in March 2014 acknowledged MCCM had met its obligations in providing Stage 1 report. Letter to MCCM from the department notifying of a time extension to the 30 June 2015 (end of the audit period) for the completion of Stage 2.	Compliant				
Project Approval 10_0138	42	The Strategy shall be prepared in collaboration with a working group containing (subject to the outcomes of the Stage 1 – Scoping Stage) representatives of the Department, OEH, DRE, Namoi CMA, Council and SEWPac and the other Leard Forest Mining Precinct mines; which shall be chaired by a suitably qualified, experienced and independent person whose appointment has been approved by the Director-General.	The working group has been established but the strategy has returned to stage 1 and is currently being negotiated	Compliant				

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Project Approval 10_0138	43	<p>The cost of preparing the Strategy, including the independent chairperson and a co-ordinator to be employed by the Department shall be shared equitably between the coal mines in the Leard Forest Mining Precinct on the basis of the approved clearing of remnant vegetation (including native grassland) by the mines, based on the following arrangements:</p> <p>(a) Stage 1 is to be initially funded by Boggabri Coal, with appropriate compensation from the Proponent made following the determination of the Maules Creek Coal and Tarrawonga Coal Projects and as per approved funding arrangements finalised under the Stage 1 Scoping Report;</p> <p>(b) Stage 2 is to be funded by all Leard Forest Mining Precinct mines based on the arrangements approved under the Stage 1 Scoping Report; and</p> <p>(c) Stage 3 is to be funded by all Leard Forest Mining Precinct mines based on recommendations in the approved Stage 2 Leard Forest Mining Precinct Regional Biodiversity Strategy.</p> <p>Note: Based on predicted clearing of native vegetation provided in the EA documents for the three projects within the Leard Forest Mining Precinct, the proposed funding split would equate to total contributions of 36% from Boggabri (clearing of 1,385 ha), 54% from Maules Creek (clearing of 2,078ha) and 10% from Tarrawonga (clearing of 397 ha). This funding arrangement may change depending upon the determination outcomes of individual projects and can be further refined in the Stage 1 Scoping Stage.</p>	Noted, costs have been shared to date, strategy is still under negotiation (scope of Stage 1)	Compliant				
<b>Biodiversity Offset Strategy</b>								
Project Approval 10_0138	44	<p>The Proponent shall implement the biodiversity offset strategy described in the EA, summarised in Table 16 and shown conceptually in Appendix 7, to the satisfaction of the Director-General.</p> 	<p>Biodiversity Management Plan Section 3.0 and Appendix B.</p> <p>Total offset area increased to 10,333 ha (BGWIP, 2015). The revised BMP (October 2014) incorporates a revised BOS and the improvements that were recommended by NSW Office of Environment and Heritage (OEH) and outlined in the letter from the Department of Planning and Environment (DP&amp;E) dated 14 May 2014.</p> <p>Not all of the implementation requirements have been met but the revised BOS is less than 12 months old</p>	Compliant				
			<p>Biodiversity Management Plan Section 3.0 and Appendix B.</p> <p>Total offset area increased to 10,333 ha (BGWIP, 2015). The revised BMP (October 2014) incorporates a revised BOS and the improvements that were recommended by NSW Office of Environment and Heritage (OEH) and outlined in the letter from the Department of Planning and Environment (DP&amp;E) dated 14 May 2014.</p> <p>Not all of the implementation requirements have been met but the revised BOS is less than 12 months old</p>	Compliant				
			<p>Biodiversity Management Plan Section 3.0 and Appendix B.</p> <p>Total offset area increased to 10,333 ha (BGWIP, 2015). The revised BMP (October 2014) incorporates a revised BOS and the improvements that were recommended by NSW Office of Environment and Heritage (OEH) and outlined in the letter from the Department of Planning and Environment (DP&amp;E) dated 14 May 2014.</p> <p>Not all of the implementation requirements have been met but the revised BOS is less than 12 months old</p>	Compliant				
<b>Revised Biodiversity Offset Strategy</b>								

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Project Approval 10_0138	45	The Proponent shall prepare and implement a revised biodiversity offset strategy for the identified offset areas in Table 16 to the satisfaction of the Director-General. The revised Strategy must: (a) not reduce the size or quality of the proposed offset areas; (b) be consistent (as far as is possible) with the recommendations and objectives of the Leard Forest Mining Precinct Regional Biodiversity Strategy; (c) be prepared in consultation with OEH, Namoi CMA, CCC, DPI Catchments and Lands and SEWPaC; (d) identify the additional low diversity derived native grassland, cultivated land and pasture improved land to be included in the offset to provide a buffer and connectivity between core remnant habitat; (e) identify the additional offset land within the zone of affectation in the Eastern and Western offset areas that has been secured by the Proponent and where properties have not been secured identify substitute areas that would provide an equivalent increase in biodiversity values; (f) avoid inclusion of any strategic agricultural land (as defined in the final New England North West Strategic Regional Land Use Plan) in the offset areas, unless it is demonstrated that the inclusion would not have any adverse impacts on agricultural production; (g) identify a minimum additional 1,000 ha of offset area targeting habitat for threatened species affected by the project which includes restoration of habitat to provide an improvement in biodiversity values; and (h) be submitted to the Director-General for approval within 30 months of the date of this approval, or within 6 months of the approval of Stage 2 of the Leard Forest Mining Precinct Regional Biodiversity Strategy (whichever is sooner) for endorsement by OEH and subsequent approval by the Director-General.	Biodiversity Management Plan Sections 3.2 and 17.1.1 Sighted approval by the DG of the BOS. The BOS will need further revision to satisfy condition 45, regarding agricultural production in offset areas. Revised Biodiversity Offset Strategy has been submitted to the DG for approval. MCCM are awaiting approval.	Compliant				
<b>Agricultural Production in Offset Areas</b>								
Project Approval 10_0138	46	Offset areas are to be managed primarily for the purposes of compensating for biodiversity impacts of the project, and improving regional biodiversity outcomes. However, to the extent that limited agricultural production on the lots purchased for offsets is compatible with these objectives, the Biodiversity Management Plan and other conditions of this approval, the Proponent shall: (a) include in the Biodiversity Management Plan (see condition 52 below) an agricultural suitability assessment of surplus land on the offset properties, in particular for proposed corridor enhancement zones; and (b) maintain the agricultural productivity of the surplus areas.	Biodiversity Management Plan Section 3.4 The BMP will need further revision to satisfy condition 46, regarding the vegetated corridor between Boggabri Coal and Maules Creek projects.	Compliant				
<b>Vegetated Corridor between Boggabri and Maules Creek Coal Projects</b>								
Project Approval 10_0138	47	For the vegetated buffer corridor required to be retained and protected under condition 7 of schedule 2 of this approval, the Proponent shall: (a) use its best endeavours to work cooperatively with the Proponent of the Boggabri Coal Project to enhance the functioning of the area as a biodiversity corridor; and (b) include in the Biodiversity Management Plan (see condition 52 below) the details as to how impacts on the corridor are to be minimised, to the satisfaction of the Director-General.	Biodiversity Management Plan Section 5.0, BMP approved by the DG.	Compliant				
<b>Threatened Species</b>								
Project Approval 10_0138	48	For the White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland Endangered Ecological Community the Proponent shall: (a) ensure that the Biodiversity Offset Strategy and site Rehabilitation Strategy is focused on protection rehabilitation, re-establishment and long-term maintenance of viable stands of this community; (b) investigate in consultation with OEH and the Namoi CMA, all factors likely to enhance or impede the effective long term restoration of degraded remnants of this EEC in offset areas or regeneration of this EEC on disturbed areas (both offset areas and the site). (c) within 24 months of the date of this approval (and if possible in conjunction with Stage 2 of the Leard Forest Mining Precinct Regional Biodiversity Strategy), submit a report of this investigation and provide an implementation plan to maximise the prospects for rehabilitation and regeneration of this EEC on the offset areas and the site, for approval by the Director-General; and (d) incorporate the approved implementation plan into the revised Biodiversity Management Plan, required under condition 52.	Biodiversity Management Plan (a) Section 3.6 (b) (c) (d) Section 17.1.2 and EEC Management Plan	Compliant				
Project Approval 10_0138	49	For all threatened species on site, the Proponent shall ensure that the Biodiversity Offset Strategy and Rehabilitation Strategy are focused on protection, rehabilitation and long-term maintenance of viable stands of suitable habitat for these species. Note: the threatened fauna species on site include: Regent Honeyeater, Fork Tailed Swift, White Throated Needle-tail, Rainbow Bee-eater, Satin Flycatcher, Speckled Warbler, Swift Parrot, Brown Treecreeper, Diamond Firetail, Grey-crowned Babbler, Hooded Robin, Little Lorikeet, Varied Sittella, White-browed Woodswallow, Black Chinned Honeyeater, Painted Honeyeater, Little Eagle, Spotted Harrier, Black Necked Stork, Square Tailed Kite, Turquoise Parrot, Barking Owl, Masked Owl, Eastern False Pipitrelle, Greater Long-eared Bat, Yellow-bellied Sheath Tail Bat, Eastern Cave Bat, Eastern Bent-wing Bat, Little Pied Bat and Koala.	Biodiversity Management Plan Section 3.6	Compliant				

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Project Approval 10_0138	50	The Proponent shall: (a) investigate, in consultation with OEH and the Namoi CMA, all factors likely to enhance or impede the effective long term provision of suitable habitat(s) for the following species: Regent Honeyeater, Speckled Warbler, Brown Treecreeper, Diamond Firetail, Grey-crowned Babbler, Hooded Robin, Little Lorikeet, Varied Sittella, Black Chinned Honeyeater, Painted Honeyeater, Little Eagle, Spotted Harrier, Turquoise Parrot, Barking Owl, Masked Owl, Eastern False Pipistrelle, Greater Long-eared Bat, Yellow-bellied Sheath Tail Bat and Little Pied Bat; (b) within 24 months of the date of this approval (and if possible, in conjunction with Stage 2 of the Leard Forest Mining Precinct Regional Biodiversity Strategy), submit a report of this investigation and provide an implementation plan to ensure delivery of suitable areas of viable habitat for the species included in (a) above, for approval by the Director-General; and (c) incorporate the approved implementation plan into the revised Biodiversity Management Plan, required under condition 52. Note: the species listed in (a) are those identified in the Director-General's Assessment Report as likely to be significantly impacted by the project.	Biodiversity Management Plan Section 17.1.2 and Threatened Species Implementation Plan	Compliant				
<b>Aquatic Habitat</b>								
Project Approval 10_0138	51	Prior to the design and construction of the permanent Namoi water pipeline and pump station, the Proponent must consult with DPI Fisheries regarding the general operation and design of the pump station and screens to minimise entrainment of fish. The Proponent must implement all reasonable and feasible recommendations from DPI Fisheries to the satisfaction of the Director-General.	Still running a temporary system, permanent design and construction not yet commenced.	Not Triggered				
<b>Biodiversity Management Plan</b>								
Project Approval 10_0138	52	The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Director-General. This plan must: (a) be prepared in consultation with OEH, SEWPaC, CCC, and the Namoi CMA, and be submitted to the Director-General for approval prior to commencement of construction; (b) describe how the implementation of the biodiversity offset strategy would be integrated with the overall rehabilitation of the site; (c) describe the short, medium, and long term measures that would be implemented to: • manage the remnant vegetation and habitat on the site and in the offset area/s (if and when applicable); and • implement the biodiversity offset strategy (if and when applicable), including detailed performance and completion criteria; (d) include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary); (e) include a detailed description of the measures that would be implemented including the procedures to be implemented for: • enhancing the quality of existing vegetation and fauna habitat; • restoring native vegetation and fauna habitat on the biodiversity areas and rehabilitation area through focusing on assisted natural regeneration, targeted vegetation establishment and the introduction of naturally scarce fauna habitat features;	Biodiversity Management Plan (a) Section 2.4 (b) Section 5.3 (c) Sections 5.0, 7.0, 9.0, 11.0 and 12.0 (d) Section 12.0 (e) Section Sections 5.0, 7.0, 9.0, 11.0 and 12.0 Sighted approval letter from DP&E	Compliant				
		<ul style="list-style-type: none"> <li>• maximising the salvage of resources within the approved disturbance area – including vegetative, top and sub-soils and cultural heritage resources – for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area;</li> <li>• collecting and propagating seed;</li> <li>• minimising the impacts on fauna on site, including undertaking pre-clearance surveys;</li> <li>• improving the connectivity and corridor function of the offset areas to provide an east/west corridor to the Namoi River and demonstrating that this corridor is enhanced and maintained;</li> <li>• managing any potential conflicts between the proposed restoration works in the biodiversity areas and any Aboriginal heritage values (both cultural and archaeological);</li> <li>• managing salinity;</li> <li>• controlling weeds and feral pests;</li> <li>• controlling erosion;</li> <li>• managing grazing and agriculture on site, including detailed assessment of the suitability of grazing for conservation management outcomes;</li> <li>• controlling access; and</li> <li>• bushfire management;</li> </ul> (f) include a seasonally-based program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria; (g) identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate against these risks; and (h) include details of who would be responsible for monitoring, reviewing, and implementing the plan. Note: The Biodiversity Management Plan and Rehabilitation Management Plan need to be substantially integrated for achieving biodiversity objectives for the rehabilitated mine-site.	- Sections 5.1.5 and 5.1.6 - Sections 5.1.8 and 5.2 - Section 5.1 and 5.4 - Section 3.8 - Sections 7.1, 9.1 and 11.1 - Sections 5.5, 5.6, 7.4, 7.5, 9.4, 9.5, 11.4 and 11.5 - Section 7.6, 9.6 and 11.6 - Sections 7.2, 9.2 and 11.2 - Section 5.7.4 - Section 5.7.1, 7.7, 9.7 and 11.7 (f) Sections 12.0 and 13.0 (g) Section 14.0 (h) Section 15.0 Most of the acts were sighted in the site inspection however some have not yet been fully implemented. As the issues are minor and they are addressed elsewhere in the audit as not compliant there is no non-compliance noted here.	Compliant				

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Project Approval 10_0138	53	The Proponent shall revise the Biodiversity Management Plan within 30 months of the date of this approval or within 6 months after the completion of Stage 2 of the Leard Forest Mining Precinct Regional Biodiversity Strategy, whichever is sooner. The revised plan must: (a) be prepared in consultation with OEH, SEWPaC, Forests NSW, DPI Catchments and Lands, the CCC and the Namoi CMA; (b) demonstrate consistency with the findings of Leard Forest Mining Precinct Regional Biodiversity Strategy; and (c) include any implementation plans arising from the studies required under conditions 48 and 50 of this approval, to the satisfaction of the Director-General.	Biodiversity Management Plan Section 17.2 Note - LFMPRBS not yet finalised or approved. Revised BMP submitted awaiting approval.	Compliant				
<b>Long Term Security of Offset</b>								
Project Approval 10_0138	54	The Proponent shall make suitable arrangements to provide appropriate long-term security for the offset areas: (a) for the offsets in Table 16 that are not subject to final approval as part of the revised Biodiversity Offset Strategy, the long-term security shall be provided by way of: • the Proponent entering into a conservation agreement or agreements pursuant to section 69B of the National Parks and Wildlife Act 1974, recording the obligations assumed by the Proponent under the conditions of this approval in relation to these offset areas, and registering the agreement(s) pursuant to section 69F of the National Parks and Wildlife Act 1974 ; or • a tenure of higher conservation status such as a National Park, or Nature Reserve, under the National Parks and Wildlife Act 1974, The conservation agreement(s) must be registered by December 2014 unless agreed otherwise by the Director-General after consultation with OEH. The conservation agreements must remain in force in perpetuity; (b) within 12 months of the approval of Stage 2 of the Leard Forest Mining Precinct Regional Biodiversity Strategy, unless otherwise agreed by the Director-General, for the offsets in Table 16 identified as subject to final approval as part of the revised Biodiversity Offset Strategy; and (c) by the end of December 2034, unless otherwise agreed by the Director-General, for the Rehabilitation Area identified in Table 16, to the satisfaction of the Director-General.	Biodiversity Management Plan Section 3.3 The long term protection is not yet in place but an extension in time was asked for and granted by the DG.	Not Triggered				
<b>Conservation Bond</b>								
Project Approval 10_0138	55	Within 36 months of the date of this approval, or within 6 months of the approval of the revised Biodiversity Management Plan required under condition 52 above (whichever is sooner), the Proponent shall lodge a Conservation and Biodiversity Bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan. The sum of the bond shall be determined by: (a) calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and (b) employing a suitably qualified quantity surveyor to verify the calculated costs to the satisfaction of the Director-General. If the offset strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Director-General, the Director-General will release the bond. If the offset strategy is not completed generally in accordance with the completion criteria in the Biodiversity Management Plan, the Director-General will call in all or part of the conservation bond, and arrange for the satisfactory completion of the relevant works. With the agreement of the Director-General, this bond may be combined with rehabilitation security deposit administered by DRE. Note: Alternative funding arrangements for long term management of the Biodiversity Offset Strategy, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement or transfer to conservation reserve estate can be used to reduce the liability of the conservation and biodiversity bond.	Biodiversity Management Plan Section 3.5 Conservation and Biodiversity Bond not yet provided to DP&E or DRE. Not 36 months since approval. Revised BMP awaiting approval.	Compliant				
<b>Biodiversity Audit</b>			Revised BMP submitted and awaiting approval.					

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Project Approval 10_0138	56	By the end of December 2017 and then every 5 years, unless the Director-General agrees otherwise, the Proponent shall commission suitably qualified, experienced and independent person/s, whose appointment has been approved by the Director-General, to undertake an audit of the revegetation of the rehabilitation area, management and restoration within the Biodiversity Offset Strategy areas to the satisfaction of the Director-General. This audit must: (a) include consultation with OEH, Namoi CMA, DPI Catchments and Lands, SEWPaC, CCC and DRE; (b) assess the performance of the revegetation in the rehabilitation area completed to date against the completion criteria in the Rehabilitation Management Plan; (c) assess the performance of management and restoration in the off-site Biodiversity Offset Strategy areas completed to date against the completion criteria in the Biodiversity Management Plan; (d) identify any measures that should be implemented to improve the performance of rehabilitation, management and restoration within the rehabilitation and biodiversity offset areas; and (e) if the completion criteria have not been met, or are not adequately trending towards being met, determine the likely ecological value of the rehabilitation and restoration once completed, and recommend additional measures to augment the Biodiversity Offset Strategy to ensure that it adequately offsets the project's impacts on biodiversity.  If the audit recommends the implementation of additional measures to augment the Biodiversity Offset Strategy in accordance with (e) above, then within 6 months of the completion of the audit the Proponent shall revise the Biodiversity Offset Strategy, in consultation with the Department, OEH and SEWPaC, and to the satisfaction of the Director-General.	Biodiversity Management Plan Section 17.3.2	Not Triggered				
<b>HERITAGE</b>								
<b>Aboriginal Heritage Conservation Strategy</b>								
Project Approval 10_0138	57	The Proponent shall prepare and implement an Aboriginal Heritage Conservation Strategy for the project and the Biodiversity Offset Strategy areas to the satisfaction of the Director-General. This Strategy must enhance and conserve the Aboriginal cultural heritage values (both cultural and archaeological) and provide for their long-term protection and management. The Strategy must: (a) be prepared by suitably qualified and experienced person/s whose appointment has been endorsed by the Director-General; (b) be prepared in consultation with OEH, the local Aboriginal community and other mines within the Leard Forest Mining Precinct, and submitted to the Director-General for approval within 18 months from the date of project approval; (c) identify the Aboriginal cultural heritage values of the Biodiversity Offset Strategy areas; (d) identify areas of high Aboriginal cultural heritage significance within both the site and the Leard Forest Mining Precinct; (e) identify a range of options for enhancing and conserving Aboriginal cultural heritage values, with specific consideration of the potential for the long-term protection and management of significant sites within either the site, the Biodiversity Offset Strategy areas or other lands within the Leard Forest Mining Precinct identified as having high cultural heritage significance to the Aboriginal community; and (f) consider cumulative impacts and potential for developing joint initiatives with other mines within the Leard Forest Mining Precinct for enhancing and conserving Aboriginal cultural heritage values.  Notes: Known Aboriginal sites are shown on the plans in Appendix 8.	The AHCS was approved within the 18 months and is awaiting approval. The AHCS is compliant with the listed requirements.	Compliant				
<b>Heritage Management Plan</b>								
Project Approval 10_0138	58	The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Director-General. This plan must: (a) be prepared by suitably qualified and experienced person/s whose appointment has been endorsed by the Director-General; (b) be prepared in consultation with the OEH, Namoi CMA and the local Aboriginal stakeholders (in relation to the management of Aboriginal heritage values); (c) be submitted to the Director-General for approval prior to any development that may impact heritage items, unless the Director-General agrees otherwise; (d) include the following for the management of Aboriginal heritage: • a detailed plan for the implementation of the approved Aboriginal Heritage Conservation Strategy; • a detailed archaeological salvage program for Aboriginal sites/objects within the approved disturbance area, including methodology and procedures/protocols for: o sub-surface testing; o staged salvage, based on anticipated mine planning; o if relevant, historic heritage salvage at the Lawler's Waterhole site; o pre-disturbance monitoring; o site assessment and reporting; o research objectives to inform knowledge of Aboriginal occupation; o protection, storage and management of salvaged Aboriginal objects; o addressing relevant statutory requirements under the National Parks and Wildlife Act 1974; and o long term protection of salvaged Aboriginal objects; • a description of the measures that would be implemented for: o protecting, monitoring and managing Aboriginal sites on the site which are outside of the approved disturbance area; o maintaining and managing reasonable access for Aboriginal stakeholders to heritage items on the site and within the Biodiversity Offset Strategy areas; o managing the discovery of any human remains or previously unidentified Aboriginal objects on site, including (in the case of human remains) stop work provisions and notification protocols; o ongoing consultation of the local Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage both on-site and within any Aboriginal heritage conservation areas; o ensuring any workers on site receive suitable heritage inductions prior to carrying out any activities which may disturb Aboriginal sites, and that suitable records are kept of these inductions; • a strategy for the storage and management of any heritage items salvaged on site, both during the project and long term; (e) include the following for the management of historic heritage: • a detailed plan of management measures for maintaining or enhancing the heritage values of heritage items on project-related land which are outside of the approved disturbance area; • a description of the measures that would be implemented for: o managing the discovery of human remains or previously unidentified heritage items on site; and o ensuring workers on site receive suitable heritage inductions prior to carrying out any development on site, and that suitable records are kept of these inductions. Note: The Department acknowledges that the initial Heritage Management Plan may not include a detailed plan for the implementation of the Aboriginal Heritage Conservation Strategy. If this occurs, the Proponent will be required to update the plan as soon as practicable following the Director-General's approval of the Aboriginal Heritage Conservation Strategy.	The Aboriginal heritage component of the condition is included in the Aboriginal Archaeological and Cultural Heritage Management Plan which has been approved by the DG. The Historic heritage has been developed as a separate plan and is now with the DP&E for approval.	Compliant				
<b>TRANSPORT</b>								
			A Historic Heritage MP is being drafted and will be submitted to the DG for approval. No development work has commenced that may impact Historic Heritage items identified in the MCC EA					

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Road Upgrade and Maintenance								
Project Approval 10_0138		Note: Under the Roads Act 1993, the Proponent may require separate approvals from RMS, NSW Forests and/or Council as the appropriate roads authorities prior to construction of, closure of or conducting mining operations within public roads.	Noted					
Project Approval 10_0138	59	The Proponent shall construct, operate and maintain the rail bridge over the Kamilaroi Highway for the shared section of the Boggabri rail spur line to the satisfaction of RMS, and shall make all necessary contributions to the costs associated with construction, maintenance and decommissioning of this bridge to the satisfaction of the Director-General. Note: all costs should be shared on an equitable basis with the proponent of the Boggabri Coal Project.	Works Authorisation Deed BCPL Executed	Compliant				
Project Approval 10_0138	60	The Proponent shall meet RMS's requirements for road intersection upgrades for all State roads used by the project, including upgrading the intersection of Manilla Road and the Kamilaroi Highway to provide a channelised right turn in accordance with Austroads guidelines. Note: Any upgrades should be undertaken on an equitable basis with the proponent of the Boggabri Coal Project.	Not yet done, preliminary studies on traffic and use of the intersection underway following the construction of the Left in/left out, adjacent the new rail overpass.	Not Triggered				
Project Approval 10_0138	61	The Proponent shall upgrade and seal the unsealed section of Manilla Road between its intersections with the Tarrawonga Coal mine access road and Barbers Lagoon Road, to the satisfaction of RMS.	Work is completed, road is a Council road. Does not require RMS approval. RMS approval not yet sought.	Not assessed				
Project Approval 10_0138	62	The Proponent shall ensure that there is no substantial access of heavy vehicles for construction activity to the site prior to the upgrade referred to in condition 61 above, to the satisfaction of the Director-General. However, the Director-General may approve heavy vehicle access to the site prior to or during this upgrade, subject to the Proponent demonstrating that dust impacts can be minimised in accordance with an approved Traffic Management Plan.	Road had minimal use at one stage of the construction access to site, there were a number of different routes to the site during construction. Complies.	Compliant				
Shuttle Bus System for Construction and Mine Workers								
Project Approval 10_0138	63	The Proponent shall ensure that construction and operational employees are predominantly transported to the site by shuttle bus, consistent with the assumptions used in the traffic study undertaken for the EA. Note: The EA assumed that 90% of construction employees and 90% of operational workers based on peak travel movements would be transported to the site by shuttle bus from Boggabri township. However, the shuttle bus service could also operate from Gunnedah and Narrabri.	Not 90%, but substantially transported by shuttle Bus, DP&E issued a PIN for this issue. Shuttle buses still in operation for the operational phase.	Not Compliant	D	2	Medium	
Traffic Management Plan								
Project Approval 10_0138	64	The Proponent shall prepare and implement a Traffic Management Plan for the project to the satisfaction of the Director-General. This plan must: (a) be prepared in consultation with the RMS, Council and Gunnedah Council; (b) be submitted to the Director-General for approval prior to the commencement of construction; (c) propose an appropriate program and schedule for works required under conditions 59 - 61 above; and (d) include: • a code of conduct for drivers of heavy vehicles; • nominated heavy vehicle access routes for construction and operational stages, including details on volumes and nature of heavy, over size and/or over mass vehicles; • measures to minimise traffic impacts at school bus pick up and drop off times; • consideration of measures to minimise dust from unsealed roads that may be used for access to the mine site; • proposed program for implementing the findings of the road safety audit identified in the EA; and • a monitoring program to audit vehicle movements against predictions in the EA.	Approval of Traffic MP sighted (from 9/8/14)	Compliant				
Monitoring of Coal Transport								
Project Approval 10_0138	65	The Proponent shall: (a) keep records of the: • amount of coal transported from the site (on a monthly basis); and • date and time of each train movement generated by the project; and (b) make these records available on its website at the end of each calendar year.	Sighted tracking records, include din AEMR which is on the website	Compliant				
Rail Transport								
Project Approval 10_0138	66	Within 12 months of the completion of the Gunnedah Traffic Study, the Proponent shall: (a) liaise with Gunnedah Shire Council regarding the study recommendations, including mitigating impacts of coal transportation by rail on road safety and congestion in the Gunnedah LGA due to closures of rail level crossings; and (b) provide a report of the outcomes of this liaison and identify reasonable and feasible proposals recommended by the Proponent and/or the Gunnedah Shire Council towards implementing the Study's recommendations, to the satisfaction of the Director-General. Note: Any contribution by the Proponent should be on an equitable basis with other coal project rail users.	No evidence provided of consultation with GSC following release of Gunnedah Traffic Study No evidence of DGs approval	Not Compliant	D	4	Low	
VISUAL Operating Conditions								

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Project Approval 10_0138	67	The Proponent shall: (a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the project; (b) ensure no outdoor lights shine above the horizontal; (c) wherever possible, ensure that mobile equipment is appropriately designed and/or retrofitted to prevent light being directed above the horizontal; (d) ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting or its latest version; (e) provide for the establishment of trees and shrubs and/or the construction of mounding or bunding: • along the access road to the mine site; • along the Maules Creek rail spur line; • around the water storage dams; and • at other areas identified as necessary for the maintenance of satisfactory visual amenity; (f) ensure that the visual appearance of all buildings, structures, facilities or works (including paint colours and specifications) is aimed at blending as far as possible with the surrounding landscape, to the satisfaction of the Director-General.	Interviewed OCE, he was able to confirm that lighting is the OCEs responsibility and demonstrate that portable light plants are set up correctly. If lighting complaints increase, the OCE checklist should be modified to ensure it covers the portable lighting plant. Fixed lighting was designed and procured with reference to AS4282 written into the specification.	Compliant				
<b>Additional Visual Impact Mitigation</b>								
Project Approval 10_0138	68	Upon receiving a written request from the owner of any residence on privately-owned land which has, or would have, significant direct views of the mining operations and infrastructure on site during the project, the Proponent shall implement additional visual impact mitigation measures (such as landscaping treatments or vegetation screens) to reduce the visibility of these mining operations and infrastructure from the residences on their properties. These mitigation measures must be reasonable and feasible, and must be implemented within a reasonable timeframe. If the Proponent and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution. Notes: • The additional visual impact mitigation measures must be aimed at reducing the visibility of the mining operations on site from significantly affected residences, and do not require measures to reduce the visibility of the mining operations from other locations on the affected properties. • The additional visual impact mitigation measures do not necessarily have to include the implementation of measures on the affected property itself (i.e. the additional measures could involve the implementation of measures outside the affected property boundary that provide an effective reduction in visual impacts). • Except in exceptional circumstances, the Director-General will not require additional visual impact mitigation to be undertaken for residences that are more than 7.5 kilometres from the mining operations.	No requests to date relating to visual impact assessment	Not Triggered				
<b>BUSHFIRE MANAGEMENT</b>								
Project Approval 10_0138	69	The Proponent shall: (a) ensure that the project is suitably equipped to respond to any fires on site; and (b) assist the Rural Fire Service, NSW Forests, emergency services and National Parks and Wildlife Services as much as possible if there is a fire in the surrounding area.	Bushfire Management plan	Compliant				
<b>WASTE</b>								
Project Approval 10_0138	70	The Proponent shall: (a) implement all reasonable and feasible measures to minimise the waste (including coal reject) generated by the project; (b) ensure that the waste generated by the project is appropriately stored, handled and disposed of; and (c) monitor and report on the effectiveness of the waste minimisation and management measures in the Annual Review.	Materials Management Plan sighted and AEMRs sighted	Compliant				
<b>REHABILITATION</b>								
Rehabilitation Objectives								

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility																		
					Consequence	Likelihood	Risk																			
Project Approval 10_0138	71	<p>The Proponent shall rehabilitate the site to the satisfaction of the Executive Director Mineral Resources. This rehabilitation must be generally consistent with the proposed Rehabilitation Strategy described in the EA and comply with the objectives in Table 17.</p> <p><i>Table 17: Rehabilitation Objectives</i></p> <table border="1"> <thead> <tr> <th>Feature</th> <th>Objective</th> </tr> </thead> <tbody> <tr> <td>Mine site</td> <td>Safe, stable and non-polluting</td> </tr> <tr> <td></td> <td>Constructed landforms drain to the natural environment.</td> </tr> <tr> <td>Final void</td> <td>Minimise the size and depth of the final void as far as is reasonable and feasible Minimise the drainage catchment of the final void as far as is reasonable and feasible</td> </tr> <tr> <td>Surface infrastructure</td> <td>To be decommissioned and removed, unless the Executive Director Mineral Resources agree otherwise.</td> </tr> <tr> <td>All land, other than the final void</td> <td>Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of:</td> </tr> <tr> <th>Feature</th> <th>Objective</th> </tr> <tr> <td></td> <td> <ul style="list-style-type: none"> <li>local native plant species; and</li> <li>a landform consistent with the surrounding environment, in accordance with the Revised Biodiversity Offset Strategy (see condition 45) and Biodiversity Management Plan (see condition 53).</li> </ul> </td> </tr> <tr> <td>Community</td> <td>Ensure public safety  Minimise the adverse socio-economic effects associated with mine closure</td> </tr> </tbody> </table> <p>Note: Appropriate non-native sterile plants may be used for stabilisation and dust suppression purposes on a temporary basis, if required.</p>	Feature	Objective	Mine site	Safe, stable and non-polluting		Constructed landforms drain to the natural environment.	Final void	Minimise the size and depth of the final void as far as is reasonable and feasible Minimise the drainage catchment of the final void as far as is reasonable and feasible	Surface infrastructure	To be decommissioned and removed, unless the Executive Director Mineral Resources agree otherwise.	All land, other than the final void	Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of:	Feature	Objective		<ul style="list-style-type: none"> <li>local native plant species; and</li> <li>a landform consistent with the surrounding environment, in accordance with the Revised Biodiversity Offset Strategy (see condition 45) and Biodiversity Management Plan (see condition 53).</li> </ul>	Community	Ensure public safety  Minimise the adverse socio-economic effects associated with mine closure	<p>MOP</p> <p>Due to the early phase of mining no bulk remediation as occurred to date only along the transport corridors and drainage lines.</p>	Compliant				
Feature	Objective																									
Mine site	Safe, stable and non-polluting																									
	Constructed landforms drain to the natural environment.																									
Final void	Minimise the size and depth of the final void as far as is reasonable and feasible Minimise the drainage catchment of the final void as far as is reasonable and feasible																									
Surface infrastructure	To be decommissioned and removed, unless the Executive Director Mineral Resources agree otherwise.																									
All land, other than the final void	Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of:																									
Feature	Objective																									
	<ul style="list-style-type: none"> <li>local native plant species; and</li> <li>a landform consistent with the surrounding environment, in accordance with the Revised Biodiversity Offset Strategy (see condition 45) and Biodiversity Management Plan (see condition 53).</li> </ul>																									
Community	Ensure public safety  Minimise the adverse socio-economic effects associated with mine closure																									
<b>Progressive Rehabilitation</b>																										
Project Approval 10_0138	72	<p>The Proponent shall rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim rehabilitation strategies shall be employed when areas prone to dust generation cannot yet be permanently rehabilitated.</p> <p>Note: It is accepted that some parts of the site that are progressively rehabilitated may be subject to further disturbance at some later stage of the development.</p>	<p>See EA for long term emplacement of materials re the final face for the community to the north. The rehab model is constrained by the lack of a mining lease to the north west of the main out of pit emplacement area.</p>	Compliant																						
<b>Rehabilitation Management Plan</b>																										
Project Approval 10_0138	73	<p>The Proponent shall prepare and implement a Rehabilitation Management Plan to the satisfaction of the Executive Director Mineral Resources. This plan must:</p> <p>(a) be prepared in consultation with the Department, Forests NSW, NOW, OEH, Namoi CMA and Council;</p> <p>(b) be submitted to the Executive Director Mineral Resources within 6 months from the date of this approval;</p> <p>(c) be prepared in accordance with any relevant DRE guideline;</p> <p>(d) describe how the rehabilitation of the site would be integrated with the implementation of the biodiversity management plan;</p> <p>(e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);</p> <p>(f) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, and address all aspects of rehabilitation including mine closure, final landform, and final land use;</p> <p>(g) include interim rehabilitation where necessary to minimise the area exposed for dust generation;</p> <p>(h) include a program to monitor, independently audit and report on the effectiveness of the measures, and progress against the detailed performance and completion criteria; and</p> <p>(i) build to the maximum extent practicable on the other management plans required under this approval.</p> <p>Note: In particular the Biodiversity Management Plan and Rehabilitation Management Plan need to be substantially integrated for achieving biodiversity objectives for the rehabilitated mine-site.</p>	<p>See MOP and BMP</p>	Compliant																						
<b>Final Void Design and Closure</b>																										

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Project Approval 10_0138	74	<p>The Proponent shall prepare and implement an updated Final Void and Mine Closure Plan (as a component of the overall Rehabilitation Management Plan required under condition 73 of schedule 3) to the satisfaction of the Executive Director Mineral Resources, following consultation with the Director-General.</p> <p>A draft plan must be prepared and submitted to the Executive Director Mineral Resources by the end of December 2020, and a final plan must be prepared and submitted to the Executive Director Mineral Resources by the end of December 2026. Each version of the plan must:</p> <p>(a) be subject to independent review and verification by suitably qualified, experienced and independent person/s (including a groundwater expert) whose appointment has been approved by the Director-General;</p> <p>(b) identify and consider:</p> <ul style="list-style-type: none"> <li>options for continued mining beyond current project life;</li> <li>interactions with the final landform of adjoining mines (including any direct or indirect interaction between final voids);</li> <li>opportunities for integrated mine planning with adjoining mines to minimise environmental impacts of the mines' final landforms;</li> <li>all reasonable and feasible landform options for the final void (including filling);</li> <li>predicted stability of the proposed landforms; and</li> <li>predicted hydrochemistry and hydrogeology (including long-term groundwater recovery and void groundwater quality);</li> </ul> <p>(c) include a detailed proposed landform design; and</p> <p>(d) demonstrate that the proposed final landform:</p> <ul style="list-style-type: none"> <li>satisfies the relevant objectives in Table 17;</li> <li>minimises the extent of any resulting pit lake;</li> <li>avoids salt scalding;</li> <li>maximises the capacity of emplaced spoil to drain to the natural environment; and</li> <li>ensures that drained waters do not adversely affect the downstream environment.</li> </ul>	Not yet commenced	Not Triggered				
<b>SOCIAL</b>								
<b>Agricultural Property on Project Owned Land</b>								
Project Approval 10_0138	75	<p>The Proponent shall use its best endeavours to ensure that the agricultural productivity of land that is project related (including remaining agricultural land on properties forming the biodiversity offset area) is maintained or enhanced.</p> <p>Note: This does not include land where disturbance is permitted under the conditions of this approval, or land that forms part of the biodiversity offset area. However, the additional low diversity derived native grassland, cultivated land and pasture improved land that forms part of the Biodiversity Offset Area for corridor enhancement will need to be further assessed for agricultural suitability and management may include both agricultural and conservation outcomes identified as part of an approved biodiversity management plan.</p>	Majority of aquired land is leased back to original owners so landuse continues as previous.	Compliant				
<b>Agricultural Production on Land Aquired Due to Impacts on Residential Receivers</b>								
Project Approval 10_0138	76	<p>The Proponent shall ensure that any properties primarily used for agricultural production that are acquired by the Proponent due to impacts on residential receivers continue to be operated and maintained for sustainable agricultural production, unless they have been incorporated into an approved biodiversity offset area. This condition ceases to have effect if the Proponent disposes of the property.</p>	Majority of aquired land is leased back to original owners so landuse continues as previous.	Compliant				
<b>Construction Workforce Accomodation</b>								
Project Approval 10_0138	77	<p>Prior to construction activities commencing, the Proponent shall prepare and implement a Construction Workforce Accommodation Plan, in consultation with Council, and to the satisfaction of the Director-General.</p> <p>The plan must:</p> <p>(a) provide details of the construction workforce numbers throughout all stages of construction including local vs. non-local hiring; and</p> <p>(b) demonstrate that the construction workforce can be suitably housed in approved accommodation facilities.</p>	Approval (5/4/13) sighted	Compliant				
<b>Social Impact Management Plan</b>								

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Project Approval 10_0138	78	The Proponent shall prepare and implement a Social Impact Management Plan for the project to the satisfaction of the Director-General to manage the potential impacts of the project. This plan must: (a) be prepared by suitably qualified and experienced person/s whose appointment has been endorsed by the Director-General; (b) be prepared in consultation with Council, Gunnedah Shire Council, the CCC, Aboriginal stakeholders and other relevant Government agencies and service providers, other mine operators in the Leard Forest Mining Precinct and submitted to the Director-General for approval within 12 months of project approval; (c) take into consideration relevant actions related to social impacts identified in the Strategic Regional Land Use Plan for New England North West; (d) identify the social impacts resulting from the various stages of the project (including construction, operational and decommissioning stages) in both the local and regional context, including but not limited to: • soft infrastructure such as housing, medical, education, childcare and emergency services; • hard infrastructure such as local and regional roads and rail; • economic/business development; • workforce demand/supply factors, such as training needs; and • labour availability impacts on other sectors, such as agricultural enterprises; (e) identify proposed initiatives for promoting workforce opportunities for residing in the area/region as opposed to FIFO/DIDO; (f) include a management and mitigation program to minimise and/or mitigate social impacts which at a minimum incorporates the socio-economic mitigation initiatives identified in the EA, and (g) include a monitoring program, incorporating key performance indicators and a review and reporting protocol, including reporting in the annual review.	Approval (22/6/15) sighted	Compliant				
<b>SCHEDULE 4</b>								
<b>ADDITIONAL PROCEDURES</b>								
<b>NOTIFICATION OF LANDOWNERS/TENANTS</b>								
Project Approval 10_0138	1	Within 3 months of the date of this approval, the Proponent shall: (a) notify in writing the owners of: • the land listed in Table 1 of schedule 3 that they have the right to require the Proponent to acquire their land at any stage during the project; • any residence on the land listed in Table 1 and 2 of schedule 3 that they have the right to request the Proponent to ask for additional noise and/or air quality mitigation measures to be installed at their residence at any stage during the project; and • any privately-owned land within 2 kilometres of the approved open cut mining pit/s that they are entitled to ask for an inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated; (b) notify the tenants of any mine-owned land of their rights under this approval; and (c) send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the owners and/or existing tenants of any land (including mine-owned land) where the predictions in the EA identify that dust emissions generated by the project are likely to be greater than the relevant air quality criteria in schedule 3 at any time during the life of the project.	Letter sighted from 23 January 2013. Mine Dust and You factsheet included.	Compliant				
Project Approval 10_0138	2	Prior to entering into any tenancy agreement for any land owned by the Proponent that is predicted to experience exceedances of the recommended dust and/or noise criteria, or for any of the land listed in Table 1 that is subsequently purchased by the Proponent, the Proponent shall: (a) advise the prospective tenants of the potential health and amenity impacts associated with living on the land, and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time); (b) advise the prospective tenants of the rights they would have under this approval; and (c) request the prospective tenants consult their medical practitioner to discuss the air quality monitoring data and predictions and health impacts arising from this information, to the satisfaction of the Director-General.	Letter sighted from 23 January 2013. Mine Dust and You factsheet included. No provision of rights (b) or direct request for consultation with medical practitioner	Not Compliant	D	2	Medium	
Project Approval 10_0138	3	As soon as practicable after obtaining monitoring results showing: (a) an exceedance of the relevant criteria in schedule 3, the Proponent shall notify the affected landowner in writing of the exceedance, and provide regular monitoring results to each of these parties until the project is complying with the relevant criteria again; and (b) an exceedance of the relevant air quality criteria schedule 3, the Proponent shall send to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land) a copy of: • the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time); and • the monitoring data, in an appropriate format so that a medical practitioner can assist the resident in making an informed decision on the health risks associated with occupation of the property.	Two exceedance of noise criteria, no notification has taken place. Levels 1-2 dB above the criteria are not a non-compliance per INP S11.1.3. Levels more than 2dB above criteria are a non-compliance. Non-compliances must be sustained and not addressed/rectified to constitute a breach of licence. However, any level above the criterion is an exceedance. Condition requires notification of exceedances, not non-compliances, so resident(s) should have been notified. Notifications may incorporate definitions of non-compliance and breach of licence condition as defined in the INP.	Not Compliant Administrative				
<b>INDEPENDENT REVIEW</b>								
Landowners								

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Project Approval 10_0138	4	<p>If an owner of privately-owned land considers the project to be exceeding the criteria in schedule 3, then he/she may ask the Director-General in writing for an independent review of the impacts of the project on his/her land.</p> <p>If the Director-General is satisfied that an independent review is warranted, then within 2 months of the Director-General's decision, the Proponent shall:</p> <p>(a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Director-General, to:</p> <ul style="list-style-type: none"> <li>• consult with the landowner to determine his/her concerns;</li> <li>• conduct monitoring to determine whether the project is complying with the relevant impact assessment criteria in schedule 3; and</li> <li>• if the project is not complying with these criteria then:                             <ul style="list-style-type: none"> <li>i. determine if the more than one mine is responsible for the exceedance, and if so the relative share of each mine towards the impact on the land;</li> <li>ii. identify the measures that could be implemented to ensure compliance with the relevant criteria; and</li> </ul> </li> </ul> <p>(b) give the Director-General and landowner a copy of the independent review.</p>	No such requests made to date	Not Triggered				
Project Approval 10_0138	5	<p>If the independent review determines that the project is complying with the relevant criteria in schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.</p> <p>If the independent review determines that the project is not complying with the relevant criteria, and that the project is primarily responsible for this non-compliance, then the Proponent shall:</p> <p>(a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent expert, and conduct further monitoring until the project complies with the relevant criteria; or</p> <p>(b) secure a written agreement with the landowner to allow exceedances of the relevant criteria, to the satisfaction of the Director-General.</p> <p>If the independent review determines that the project is not complying with the relevant acquisition criteria, and that the project is primarily responsible for this non-compliance, then upon receiving a written request from the landowner, the Proponent shall acquire all or part of the landowner's land in accordance with the procedures in condition 8-9 below.</p>	NA	Not Triggered				
Project Approval 10_0138	6	<p>If the independent review determines that the relevant criteria are being exceeded, but that more than one mine is responsible for this exceedance, then together with the relevant mine/s the Proponent shall:</p> <p>(a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent expert, and conduct further monitoring until there is compliance with the relevant criteria; or</p> <p>(b) secure a written agreement with the landowner and other relevant mine/s to allow exceedances of the relevant impact assessment criteria, to the satisfaction of the Director-General.</p> <p>If the independent review determines that the project is not complying with the relevant acquisition criteria in schedule 3, but that more than one mine is responsible for this non-compliance, then upon receiving a written request from the landowner, the Proponent shall acquire all or part of the landowner's land on as equitable a basis as possible with the relevant mine/s, in accordance with the procedures in conditions 8-9 below.</p>	NA	Not Triggered				
<b>Biodiversity &amp; Heritage</b>								
Project Approval 10_0138	7	<p>If a person has good reason to believe the Proponent is not implementing the biodiversity and/or heritage conditions in schedule 3 satisfactorily, then he/she may ask the Director-General in writing for an independent review of the matter.</p> <p>If the Director-General is satisfied that an independent review is warranted, then within 2 months of the Director-General's decision, the Proponent shall:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to:</p> <ul style="list-style-type: none"> <li>• consult with the person and/or any relevant agencies;</li> <li>• investigate the person's complaints/claims;</li> <li>• review the environmental performance of the Proponent;</li> <li>• determine whether the Proponent's performance is satisfactory or not; and if necessary</li> <li>• recommend measures to improve the Proponent's performance; and</li> </ul> <p>(b) give the Director-General and complainant a copy of the independent review.</p>	No such request has been passed from the Dept to Maules Creek	Not Triggered				
<b>LAND ACQUISITION</b>								

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Project Approval 10_0138	8	<p>Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent shall make a binding written offer to the landowner based on:</p> <ul style="list-style-type: none"> <li>(a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the project, having regard to the: <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 at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the additional mitigation measures required under condition 2 of schedule 3;</li> </ul> </li> <li>(b) the reasonable costs associated with: <ul style="list-style-type: none"> <li>• relocating within the Tamworth, Narrabri, Gunnedah or Moree local government area, or to any other local government area determined by the Director-General; and</li> <li>• obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and</li> <li>(c) reasonable compensation for any disturbance caused by the land acquisition process.</li> </ul> </li> </ul> <p>However, if at the end of this period, the Proponent and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Director-General for resolution.</p> <p>Upon receiving such a request, the Director-General shall request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:</p> <ul style="list-style-type: none"> <li>• consider submissions from both parties;</li> <li>• determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above;</li> <li>• prepare a detailed report setting out the reasons for any determination; and</li> <li>• provide a copy of the report to both parties.</li> </ul> <p>Within 14 days of receiving the independent valuer's report, the Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.</p> <p>However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Director-General for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Director-General will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions.</p> <p>Within 14 days of this determination, the Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the Director-General's determination.</p> <p>If the landowner refuses to accept the Proponent's binding written offer under this condition within 6 months of the offer being made, then the Proponent's obligations to acquire the land shall cease, unless the Director-General determines otherwise.</p>	No such requests	Not Triggered				
Project Approval 10_0138	9	The Proponent shall pay all reasonable costs associated with the land acquisition process described in condition 8 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.	NA	Not Triggered				
SCHEDULE 5								
ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING								
ENVIRONMENTAL MANAGEMENT								
Environmental Management Strategy								
Project Approval 10_0138	1	<p>The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. The strategy must:</p> <ul style="list-style-type: none"> <li>(a) be submitted to the Director-General for approval prior to the commencement of construction;</li> <li>(b) provide the strategic framework for environmental management of the project;</li> <li>(c) identify the statutory approvals that apply to the project;</li> <li>(d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;</li> <li>(e) describe the procedures that would be implemented to: <ul style="list-style-type: none"> <li>• keep the local community and relevant agencies informed about the operation and environmental performance of the project;</li> <li>• receive, handle, respond to, and record complaints;</li> <li>• resolve any disputes that may arise during the course of the project;</li> <li>• respond to any non-compliance;</li> <li>• respond to emergencies; and</li> </ul> </li> <li>(f) include: <ul style="list-style-type: none"> <li>• copies of any strategies, plans and programs approved under the conditions of this consent; and</li> <li>• a clear plan depicting all the monitoring to be carried out in relation to the project.</li> </ul> </li> </ul>	See EMS	Compliant				
Adaptive Management								
Project Approval 10_0138	2	<p>The Proponent must assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this approval and may be subject to penalty or offence provisions under the EP&amp;A Act or EP&amp;A Regulation.</p> <p>Where any exceedance of these criteria and/or performance measures has occurred, the Proponent must at the earliest opportunity:</p> <ul style="list-style-type: none"> <li>(a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur ;</li> <li>(b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other courses of action; and</li> <li>(c) implement remediation measures as directed by the Director-General, to the satisfaction of the Director-General.</li> </ul>	For the exceedances that have occurred, no actions have been required due to the 1dba non-exceedance note in the INP. Response from DG not yet received Additional measures have been implemented to manage noise, including monitoring real time noise, purchasing of additional audio equipment.	Compliant				
Management Plan Requirements								

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Project Approval 10_0138	3	The Proponent shall ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include: (a) detailed baseline data; (b) a description of: • the relevant statutory requirements (including any relevant consent, licence or lease conditions); • any relevant limits or performance measures/criteria; • the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures; (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria (d) a program to monitor and report on the: • impacts and environmental performance of the project; • effectiveness of any management measures (see c above); (e) a contingency plan to manage any unpredicted impacts and their consequences; (f) a program to investigate and implement ways to improve the environmental performance of the project over time; (g) a protocol for managing and reporting any: • incidents; • complaints; • non-compliances with statutory requirements; and • exceedances of the impact assessment criteria and/or performance criteria; and (h) a protocol for periodic review of the plan.	Various non-compliances across several management plans found, mostly around the lack of presentation of detailed baseline data.	Not Compliant Administrative				
<b>Annual Review</b>								
Project Approval 10_0138	4	By the end of March each year, the Proponent shall review the environmental performance of the project for the previous calendar year to the satisfaction of the Director-General. This review must: (a) describe the development (including any rehabilitation) that was carried out in the past calendar year, and the development that is proposed to be carried out over the current calendar year; (b) include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against the: • relevant statutory requirements, limits or performance measures/criteria; • monitoring results of previous years; and • relevant predictions in the EA; (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance; (d) identify any trends in the monitoring data over the life of the project; (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and (f) describe what measures will be implemented over the next year to improve the environmental performance of the project.	See AEMR 2014 , Measures to improve compliance included in monitoring sections. Comparison with previous years results to be included in future reports	Compliant				
<b>Revision of Strategies, Plans and Programs</b>								
Project Approval 10_0138	5	Within 3 months of the submission of an: (a) annual review under condition 4 above; (b) incident report under condition 8 below; (c) audit under condition 10 below; or (d) any modification to the conditions of this approval, the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General. Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.	Sighted Management Plan management spreadsheet Not all MPs have been revised within the 3 month period	Not Compliant Administrative				
<b>Management of Cumulative Impacts</b>								
Project Approval 10_0138	6	In conjunction with the owners of the nearby mines in the Leard Forest Mining Precinct, the Proponent shall use its best endeavours to minimise the cumulative impacts of the project on the surrounding area to the satisfaction of the Director-General.	Strategies to achieve this condition have been developed and are approved. Blasting is coordinated. BTN meeting once a month for coordination Air quality is conducted site by site. Noise, attended monitoring results are shared with the relevant parties when cumulative impacts apply.	Compliant				
<b>Community Consultative Committee</b>								

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Project Approval 10_0138	7	The Proponent shall establish and operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Director-General. This CCC must be operated in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version), and be operating within 6 months of the date of this approval. The CCC must include at least one member representing the Maules Creek community, one member from Aboriginal stakeholder groups, and seek to include some joint membership with CCCs for other operating coal mines within the Leard Forest Mining Precinct, unless otherwise agreed by the Director-General. Notes: • The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval; and • In accordance with the Department's guideline, the CCC should be comprised on an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community.	See CCC minutes, recognised Green Group was not involved in several meetings	Not Compliant	E	2	Low	
<b>REPORTING</b>								
<b>Incident Reporting</b>								
Project Approval 10_0138	8	The Proponent shall notify, at the earliest opportunity, the Director-General and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the project, the Proponent shall notify the Director-General and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.	See noise exceedances above	Compliant				
<b>Regular Reporting</b>								
Project Approval 10_0138	9	The Proponent shall provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.	CCC monitoring reports updated quarterly and EPL monthly summaries, real time air and noise	Compliant				
<b>AUDITING</b>								
<b>Independent Environmental Audit</b>								
Project Approval 10_0138	10	By the end of June 2015 and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must: (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General; (b) include consultation with the relevant agencies; (c) assess the environmental performance of the project and assess whether it is complying with the requirements in this approval, and any other relevant approvals, relevant EPL/s and/or Mining Lease (including any assessment, plan or program required under these approvals); (d) assess whether the Proponent is implementing best noise, blasting and air quality management practice; (e) investigate and report on the measures taken to minimise the noise and air quality impacts of the project during meteorological conditions and/or extraordinary events when the relevant noise and air quality limits in this approval do not apply, including: • the effectiveness of these measures in maintaining impacts within the relevant criteria in this approval and/or the limits in the relevant EPL; and • any additional measures available to mitigate impacts under such conditions; (f) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals; and (g) recommend measures or actions to improve the environmental performance of the project and/or any strategy, plan or program required under these approvals. Note: This audit team must be led by a suitably qualified auditor, and include experts in noise, air quality, ecology and any other fields specified by the Director-General.	This Audit	Compliant				
Project Approval 10_0138	11	Within 3 months of commissioning this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General, together with its response to any recommendations contained in the audit report.	This Audit	Compliant				
<b>ASSESS TO INFORMATION</b>								

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Project Approval 10_0138	12	The Proponent shall: (a) within 3 months of the date of this approval, make the following information publicly available on its website: • the EA; • all current statutory approvals for the project; • approved strategies, plans and programs required under the conditions of this consent; • a comprehensive summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this consent; • a complaints register, which is to be updated on a monthly basis; • minutes of CCC meetings; • the last five annual reviews; • any independent environmental audit, and the Proponent's response to the recommendations in any audit; • any other matter required by the Director-General; and (b) keep this information up to date, to the satisfaction of the Director-General.	a) Unable to ascertain compliance with this sub condition as there is no record of when material was posted onto the web, note that the information on the web was current at the time of the audit. b) website is up to date	Compliant				
<b>On-line Communication of Onsite Activities and Monitoring of Noise and Air Quality</b>								
Project Approval 10_0138	13	The Proponent shall, within 3 months of the date of this approval: (a) make the following information for the project publicly available on its website, on a daily basis and in a clearly understandable form: • daily weather forecasts for the coming week; • proposed operational responses to these weather forecasts; • real-time noise and air quality monitoring data (subject to any necessary caveats); and • any operational responses that were taken in response to the noise and air quality monitoring data, and (b) make provision on its website for the provision of on-line and/or email comments by members of the community regarding this information, to the satisfaction of the Director-General.	All the information is on the website but I am not able to check the 3 months time period	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Maules Creek Coal Project Environmental Assessment - Statement of Commitments								
Mining Operations								
EA Section 8 SoC	1	Aston will extract coal at a rate of up to 13 Mtpa for 21 years, generally in accordance with this EA	SEE AEMR and sighted current production figures indicating production is well below 13MTPA	Compliant				
EA Section 8 SoC	2	Aston will seek the appropriate licences and approvals as relevant to the Project and listed in Table 9.	See the rest of this audit	Compliant				
EA Section 8 SoC	3	Aston shall surrender its existing development consent DA 85/1819 following the grant of the Project Approval.	This has not yet occurred, see the PA Schedule 2 condition 10	Not Triggered				
Environmental Management								
EA Section 8 SoC	4	The proponent will develop a staged EMS in consultation with relevant regulators (and the Aboriginal community where relevant) to the approval of the DP&I which shall comprise: - Environmental Management Strategy - Environmental Monitoring Program (incorporating air quality, noise, blasting, ecology, Aboriginal heritage, surface water and groundwater) - Construction Management Plan - Air Quality Management Plan - Noise Management Plan - Flora and Fauna Management Plan (including Land Disturbance Protocol) - Biodiversity Offsets Management Plan - Rehabilitation Management Plan - Aboriginal Archaeology and Cultural Heritage Management Plan - Water Management Plan (including groundwater and surface water) - Traffic and transport management plan - Bushfire Management Plan - Hazardous Materials Management Plan	See assessment of the EMS	Compliant				
Air Quality								
EA Section 8 SoC	5	Aston will utilise leading practice technologies and initiatives as required to seek to achieve the air quality outcomes described in this EA	Leading practice has not been defined. However "best practice" (by EPA definition) dust management has been observed. The evidence to suggest "best practice" in accordance with EPA definition for dust management at NSW coal mines is as follows, for each activity: - Scrapers on topsoil. Roads are designated, water spraying is carried out before mulching, roads are watered. - Drills. Water injection and curtains are used. Equipment is shutdown if not operating correctly. - Blasting. Procedures include 24 hour notification, text to stakeholders / residents, checklists used (sighted), holes are dipped for water (for management of fume). - Loading trucks. When excess dust is observed the procedures include minimising drop height, reducing swing rates, slowing production, walking equipment to another bench with different material. - Haulage by truck. Operators are encouraged to radio directly to the water carts. Fill ponds have been appropriately positioned around haul routes. Dust-a-Side (chemical dust suppressant) is used from December to March. - Dumping to hopper. Dust curtains and sprays inside hopper. Enclosure of hopper on 3 sides and roof. Transfer points are covered. Dumping to emplacement areas. Options in place to dump high or low, depending on the conditions. - Dozers. Moved from the top dumps depending on the weather conditions. - Wind erosion. Mulch cover used on some cleared areas. Pre-strip area is minimised. A dedicated inspector is located above the high wall to continuously	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
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EA Section 8 SoC	6	regular monitoring of greenhouse gas emissions and energy efficiency initiatives to ensure that Scope 1 greenhouse gas emissions per tonne of product coal are kept to the minimum practicable level	Diesel consumption is recorded. Electricity consumption is recorded. Coal production is recorded. These data are used for calculating Scope 1 (and 2) greenhouse gas emissions under the National Greenhouse and Energy Reporting System.	Compliant				
EA Section 8 SoC	7	Aston will install a real time air quality monitoring network in consultation with OEH. Consultation will also occur with Boggabri and Tarrawonga Coal Mines in an attempt to develop an holistic network for the region	Air quality monitoring is carried out at nearest off-site private and mine owned properties	Compliant				
EA Section 8 SoC	8	Aston will install a real time meteorological monitoring system with predictive air quality modelling software capabilities at locations selected in consultation with OEH. Consultation will also occur with Boggabri and Tarrawonga Coal Mines in an attempt to develop an holistic network for the region. The monitoring component of this system will include a PM2.5 monitor at a location representative of the receivers located within the Maules Creek Community.	Real-time meteorological monitoring is carried out. Real time predictive air quality modelling is not in place. PM2.5 monitoring is carried out. Consultation with Boggabri and Tarrawonga is occurring regarding Air quality through the BTM Complex Air Quality Strategy (AQS). The predictive Air Quality monitoring software will included in the approved AQS. Air Quality monitoring data to date has not shown any elevated results above the relevant criteria attributed to Mining Operations.	Not Compliant	D	3	Low	
<b>Noise and Blasting</b>								
EA Section 8 SoC	9	Aston will implement the necessary noise control and management measures as required to seek to ensure that the EA predicted noise levels at private receivers as listed in Table 23 are not exceeded	Review of NMP and operating procedures, including response protocol for real-time triggers confirms that this SoC has been adhered to	Compliant				
EA Section 8 SoC	10	Aston will install a real time noise monitoring system at locations selected in consultation with OEH. Consultation will also occur with Boggabri and Tarrawonga Coal Mines in an attempt to develop an holistic network for the region.	The locations were included in the Noise Management Plan which was approved by DP&E. The EPA was sent the draft but chose not to comment	Compliant				
<b>Visual</b>								
EA Section 8 SoC	11	Should a landholder within 7.5km of the active mining area consider they are experiencing high visual impact as a result of the Project, Aston will carry out a specific visual assesment from the residence and develop any management and mitigation measures required in consultation with the landholder and DP&I	No such assessment requested	Not Triggered				
EA Section 8 SoC	12	Night time operations will be undertaken behind barriers, particularly in exposed areas to reduce direct night lighting impacts to neighbouring receivers	Discussed location and orientation of lighting plant with an OCE, the procedures are not documented but appear to be sound supported by compliants levels.	Compliant				
EA Section 8 SoC	13	Infrastructure lighting will consist of horizontal lights with hoods and louvers in elevated and exposed areas utilising low brightness lights to the level necessary for operational and safety requirements to minimise adverse night lighting impacts	This is compliant. However the lights above the ROM stockpile and hopper are elevated and the light spill is over a wide area. <b>Recommendation</b> The light spill should be checked from the nearest residence to the north where this light may be visible at night. If necessary (ie light is spilling off site with the potential to impact residents), reorientation of the shields may be required.	Compliant				
<b>Ecology</b>								
EA Section 8 SoC	14	Aston will design and construct the CHPP; MIA and water storages within the Project Disturbance Boundary to minimise impacts upon CEEC within the constraints of cost effective engineering practicality	This has occurred	Compliant				
EA Section 8 SoC	15	Aston will progressively rehabilitate mined areas with a focus on the reestablishment of existing forest and woodland communities.	Mining has not progressed to the point where rehab has started as there are no shaped overburden areas at present	Not Triggered				
EA Section 8 SoC	16	Aston will establish the Biodiversity Offset Strategy as described in this EA to initially maintain and ultimately improve the ecological values of the Bioregion.	BOS established in the BMP	Compliant				
<b>Aboriginal Archaeology and Cultural Heritage</b>								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
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EA Section 8 SoC	17	The salvage and the protection of all Aboriginal objects within the Project Boundary will be managed in accordance with an Aboriginal Archaeology and Cultural Heritage Management Plan to be developed in consultation with the local Aboriginal community and OEH	ACHMP established and used to manage this process	Compliant				
EA Section 8 SoC	18	Aston will consult with Boggabri Coal Mine and contribute to the establishment and ongoing funding of a keeping place for the purpose of housing salvaged Aboriginal artefacts from the local area	Keeping place committee established that includes the RAPS but a decision has not yet been made with regard to a location or other details.	Not Triggered				
EA Section 8 SoC	19	Aston will provide the opportunity for one representative of the Aboriginal community to be a member of the Maules Creek CCC	Toni Comber is the chair - see CCC minutes Toni is also the CEO of the RedChief Local Aboriginal Land Council	Compliant				
EA Section 8 SoC	20	Aston will offer training packages to members of the Red Chief Local Aboriginal Lands Council in relation to site recording, artefact recording and basic analysis	Package delivered to the RAPS during the salvage programme by the archaeologist (UniQuest). Sighted parts of the package as delivered	Compliant				
Non Indigenous Heritage								
EA Section 8 SoC	21	Aston will compile an Oral History report for any landowners which are identified to be adversely impacted by the Project and who are acquired in accordance with conditions of Project Approval	Two landowners have had their properties acquired and left the area who would fit this requirement. No oral history has been collected.	Not Compliant Administrative				
EA Section 8 SoC	22	Aston will ensure that the Heritage items located on its landholdings will be adequately managed and preserved in accordance with the requirements under the Heritage Act	Fenced, inspected, no work required	Compliant				
Water Resources								
EA Section 8 SoC	23	Aston will continue to monitor groundwater ingress and impacts on surrounding privately owned bores. In the unlikely event that it is demonstrated that water levels in existing landholder bores decline as a consequence of the Project, leading to an adverse impact on water supply, the supply will be substituted by Aston in consultation with the landholder either by deepening the bore, construction of a new bore or providing comparable water from an external source.	This has not been required	Not Triggered				
EA Section 8 SoC	24	Aston will use reasonable endeavours to develop a groundwater monitoring network to monitor the predicted groundwater impacts from mining in consultation with Boggabri Coal Mine and Tarrawonga Mine.	This has been established - see WMP	Compliant				
EA Section 8 SoC	25	Aston will conduct water quality monitoring of the seepage/runoff from the OEAs.	Sed dam 2 confirmed in interview	Compliant				
Geochemical								
EA Section 8 SoC	26	PAF coal rejects materials and the roof and floor of these PAF coal seams will be co-disposed with overburden in pit or within encapsulated cells within the Northern OEA.	The seams with higher propensity for acid forming potential are the lower seams that are not being mined yet. Reject sampling is being conducted, and reject disposal procedure has been developed	Not Triggered				
Traffic								
EA Section 8 SoC	27	Reasonable endeavours will be made to ensure that Project related traffic does not utilise the following public roads unless they are travelling to a specific destination along that route (such as residence, monitoring location, near neighbour, etc): Harparary Road from Leard Forest to the Kamilaroi Highway; Leard Forest Road between Northern Loop Road and Harparary Road; Therribri Road between the Mine Access Road and Harparary Road and the entire length of Browns Lane.	Noted, during site inspection no mine related vehicles were sighted on these roads apart from a vehicle at the water supply pipeline.	Compliant				
EA Section 8 SoC	28	Aston will use reasonable endeavours to work with other Gunnedah Basin coal projects and the relevant roads authorities in managing safety issues on the road network related to mining within the Narrabri LGA	Traffic discussed in BTM Complex meetings and traffic complaints and safety issues	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
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EA Section 8 SoC	29	Aston will use reasonable endeavours to work with other Gunnedah Basin coal miners and the ARTC to encourage management strategies to ensure that the rail network can continue to handle the forecast additional rail movements.	Whitehaven group undertake these negotiations	Compliant				
EA Section 8 SoC	30	Prior to construction of the rail spur overpass within the easement of the Kamilaroi Highway, Aston will consult with all relevant regulatory authorities and will develop a Construction Management Plan for the works (including traffic control and management) in consultation with the RTA.	This was a Boggabri Coal Management Project. MCC were not in control	Not Triggered				
Community								
EA Section 8 SoC	31	Aston will implement the management strategies as described within Section 7.20.9 of this EA, in order to monitor and address the possible impacts of the Project upon the socioeconomic environment	See SIMP	Compliant				
EA Section 8 SoC	32	Aston offers to enter into an appropriate VPA on terms it will seek to agree with NSC and GSC	VPA is in place	Compliant				
EA Section 8 SoC	33	Aston will maintain the agricultural productivity of its landholdings that are not utilised for mining or biodiversity offsets	Most agricultural land is leased back to the original owners and is still managed as it was prior to mining.	Compliant				
Reporting								
EA Section 8 SoC	34	Aston will prepare an Annual Review (which summaries monitoring results and reviews performance) and distribute it to the relevant regulatory authorities and the Maules Creek CCC	2013 and 2014 AEMRs prepared. Only 2013 available on the WHC website. Distribution to EPA, DRE, DP&E and CCC was documented	Compliant				

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11	Wet Weather Discharge Discharge water quality monitoring	Wet Weather Discharge Discharge water quality monitoring	Dam labelled "SD11" on aerial photo titled "MCC Discharge Point Monitoring Locations" (DOC 14/172909-05) submitted with the licence variation application form received by the EPA on 18 August 2014 (DOC 14/172909).																																	
EPL 20221		<table border="1"> <tr> <td>12</td> <td>Surface Water Quality Monitoring</td> <td></td> <td>Mining void (variable location) from the main mining void on the premises.</td> </tr> <tr> <td>13</td> <td>Groundwater Quality Monitoring</td> <td></td> <td>Location labelled "RB01a" on aerial photo titled "Standpipe and VWP Point Monitoring Locations" (DOC 14/172909-02) submitted with the licence variation application form received by the EPA on 18 August 2014 (DOC 14/172909).</td> </tr> <tr> <td>14</td> <td>Groundwater Quality Monitoring</td> <td></td> <td>Location labelled "RB02a" on aerial photo titled "Standpipe and VWP Point Monitoring Locations" (DOC 14/172909-02) submitted with the licence variation application form received by the EPA on 18 August 2014 (DOC 14/172909).</td> </tr> <tr> <td>15</td> <td>Groundwater Quality Monitoring</td> <td></td> <td>Location labelled "BCM01" on aerial photo titled "Standpipe and VWP Point Monitoring Locations" (DOC 14/172909-02) submitted with the licence variation application form received by the EPA on 18 August 2014 (DOC 14/172909).</td> </tr> <tr> <td>16</td> <td>Groundwater Quality Monitoring</td> <td></td> <td>Location labelled "BCM03" on aerial photo titled "Standpipe and VWP Point Monitoring Locations" (DOC 14/172909-02) submitted with the licence variation application form received by the EPA on 18 August 2014 (DOC 14/172909).</td> </tr> <tr> <td>17</td> <td>Groundwater Quality Monitoring</td> <td></td> <td>Location labelled "RE010a" on aerial photo titled "Standpipe and VWP Point Monitoring Locations" (DOC 14/172909-02) submitted with the licence variation application form received by the EPA on 18 August 2014 (DOC 14/172909).</td> </tr> </table>	12	Surface Water Quality Monitoring		Mining void (variable location) from the main mining void on the premises.	13	Groundwater Quality Monitoring		Location labelled "RB01a" on aerial photo titled "Standpipe and VWP Point Monitoring Locations" (DOC 14/172909-02) submitted with the licence variation application form received by the EPA on 18 August 2014 (DOC 14/172909).	14	Groundwater Quality Monitoring		Location labelled "RB02a" on aerial photo titled "Standpipe and VWP Point Monitoring Locations" (DOC 14/172909-02) submitted with the licence variation application form received by the EPA on 18 August 2014 (DOC 14/172909).	15	Groundwater Quality Monitoring		Location labelled "BCM01" on aerial photo titled "Standpipe and VWP Point Monitoring Locations" (DOC 14/172909-02) submitted with the licence variation application form received by the EPA on 18 August 2014 (DOC 14/172909).	16	Groundwater Quality Monitoring		Location labelled "BCM03" on aerial photo titled "Standpipe and VWP Point Monitoring Locations" (DOC 14/172909-02) submitted with the licence variation application form received by the EPA on 18 August 2014 (DOC 14/172909).	17	Groundwater Quality Monitoring		Location labelled "RE010a" on aerial photo titled "Standpipe and VWP Point Monitoring Locations" (DOC 14/172909-02) submitted with the licence variation application form received by the EPA on 18 August 2014 (DOC 14/172909).	2013-14 and 2014-15 Annual Returns sighted	Compliant								
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EPL 20221	P1.4	<p>The following point(s) in the table are identified in this licence for the purpose of the monitoring of weather parameters at the point.</p> <table border="1"> <thead> <tr> <th>EPA Identification number</th> <th>Type of Monitoring Point</th> <th>Description of Location</th> </tr> </thead> <tbody> <tr> <td>W1</td> <td>Weather analysis</td> <td>Maules Creek Coal Met Station</td> </tr> </tbody> </table>	EPA Identification number	Type of Monitoring Point	Description of Location	W1	Weather analysis	Maules Creek Coal Met Station	The meteorological station is located in accordance with P1.4	Compliant																										
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<b>3. Limit Conditions</b>																																				
<b>L1 Pollution of waters</b>																																				
EPL 20221	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.	2013-14 and 2014-15 Annual Returns sighted	Compliant																																
<b>L2 Concentration Limits</b>																																				
EPL 20221	L2.1	For each monitoring/discharge point or utilisation area specified in the table(s) below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.	2013-14 and 2014-15 Annual Returns sighted	Compliant																																

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility																								
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EPL 20221	L2.2	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.	2013-14 and 2014-15 Annual Returns sighted	Compliant																												
EPL 20221	L2.3	To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table/s.	2013-14 and 2014-15 Annual Returns sighted	Compliant																												
EPL 20221	L2.4	Water and/or Land Concentration Limits POINT 2,3,4,5,6,7,8,9,10,11 <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of Measure</th> <th>50 Percentile concentration limit</th> <th>90 Percentile concentration limit</th> <th>3DGM concentration limit</th> <th>100 percentile concentration limit</th> </tr> </thead> <tbody> <tr> <td>Oil and Grease</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>10</td> </tr> <tr> <td>pH</td> <td>pH</td> <td></td> <td></td> <td></td> <td>5.5- 8.5</td> </tr> <tr> <td>Total suspended solids</td> <td>milligrams per litre</td> <td>20</td> <td>35</td> <td></td> <td>50</td> </tr> </tbody> </table>	Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit	Oil and Grease	milligrams per litre				10	pH	pH				5.5- 8.5	Total suspended solids	milligrams per litre	20	35		50	2013-14 and 2014-15 Annual Returns sighted	Compliant				
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Total suspended solids	milligrams per litre	20	35		50																											
EPL 20221	L2.5	The Total Suspended Solids concentration limits specified for Points 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11 may be exceeded for water discharged provided that: (a) the discharge occurs solely as a result of rainfall measured at the premises that exceeds 38.4 millimetres over any consecutive 5 day period immediately prior to the discharge occurring; and (b) all practical measures have been implemented to dewater all sediment dams within 5 days of rainfall such that they have sufficient capacity to store run off from a 38.4 millimetre, 5 day rainfall event. Note: 38.4 mm equates to the 5 day 90%ile rainfall depth for Gunnehah sourced from Table 6.3a Managing Urban Stormwater: Soils and Construction Volume 1: 4th edition, March 2004.	2013-14 and 2014-15 Annual Returns sighted	Compliant																												
<b>L3 Noise Limits</b>																																
EPL 20221	L3.1	Noise generated at the premises must not exceed the noise limits in the table below. <table border="1"> <thead> <tr> <th>Locality and Location</th> <th>Day- LAeq (15 minutes)</th> <th>Evening- LAeq (15 minutes)</th> <th>Night- LAeq (15 minutes)</th> <th>Night- LA1 (1 minute)</th> </tr> </thead> <tbody> <tr> <td>All privately owned residences</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> </tbody> </table>	Locality and Location	Day- LAeq (15 minutes)	Evening- LAeq (15 minutes)	Night- LAeq (15 minutes)	Night- LA1 (1 minute)	All privately owned residences	35	35	35	45	2014-15 Annual Return: noise limit exceeded by 1dB on 22 April, 2015. Attended noise monitoring determined that exhaust and engine noise (at frequencies less than 500 Hz) was the cause of the LAeq result of 36 dB. It is noted that Chapter 11 of the NSW INP provides for an exceedance of criteria up to 2db. Non-compliances must be sustained and not addressed.	Compliant																		
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EPL 20221	L3.2	The noise limits identified in the above table do not apply at privately owned residences that are: a) identified as residences subject to acquisition or noise mitigation on request within the Project Approval Conditions (PA_0_0138); or b) subject to a private agreement, relating to the noise levels, between the licensee and the land owner.	2013-14 and 2014-15 Annual Returns sighted	Compliant																												
EPL 20221	L3.3	For the purpose of the table above: a) Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays; b) Evening is defined as the period from 6pm to 10pm; c) Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays.	2013-14 and 2014-15 Annual Returns sighted	Compliant																												
EPL 20221	L3.4	Determining Compliance To determine compliance: a) with the Leq(15 minute) noise limits in the Noise Limits table, the noise measurement equipment must be located: i) approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or ii) within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable iii) within approximately 50 metres of the boundary of a National Park or a Nature Reserve; or, iv) at an alternative location approved in writing by the EPA. b) with the LA1(1 minute) noise limits in the Noise Limits table, the noise measurement equipment must be located within 1 metre of a dwelling façade or at an alternative location approved in writing by the EPA. c) with the noise limits in the Noise Limits table, the noise measurement equipment must be located: i) at the most affected point at a location where there is no dwelling at the location; or ii) at the most affected point within an area at a location prescribed by part (a) or part (b) of this condition.	2014-15 Annual Return: "Attended noise monitoring (LAep15 minute) not conducted within 30 metres of from a dwelling façade. Attended noise monitoring (LA1minute) not conducted within 1 metre of dwelling façade" Monthly occurrence Report has been provided to EPA advising of the locations of the attended monitoring locations. Discussions are underway with EPA to reach agreement on alternative attended noise monitoring locations.	Not Compliant Administrative																												

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
EPL 20221	L3.5	The noise limits set out in the Noise Limits table apply under all meteorological conditions except for the following: a) Wind speeds greater than 3 metres/second at 10 metres above ground level. For the purposes of this condition: a) Data recorded by the meteorological station identified as EPA Identification Point(s) W1 must be used to determine meteorological conditions; and b) Temperature inversion conditions (stability category) are to be determined by the sigma-theta method referred to in Part E4 of Appendix E to the NSW Industrial Noise Policy.	2013-14 and 2014-15 Annual Returns sighted	Compliant				
EPL 20221	L3.6	For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.	2013-14 and 2014-15 Annual Returns sighted	Compliant				
<b>L4 Blasting</b>								
EPL 20221	L4.1	The overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time and at any point within 30 metres of any non project related residential building or other noise sensitive location. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	2013-14 and 2014-15 Annual Returns sighted	Compliant				
EPL 20221	L4.2	The overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) for more than five per cent of the total number of blasts over each reporting period at any time and at any point within 30 metres of any non-project related residential building or other noise sensitive location. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	2013-14 and 2014-15 Annual Returns sighted	Compliant				
EPL 20221	L4.3	Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time and at any point within 3.5 metres of any non project related residential building or other noise sensitive location. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	2013-14 and 2014-15 Annual Returns sighted	Compliant				
EPL 20221	L4.4	Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec for more than five per cent of the total number of blasts over each reporting period at any point within 3.5 metres of any non project related residential building or other noise sensitive location. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	2013-14 and 2014-15 Annual Returns sighted	Compliant				
EPL 20221	L4.5	Blasting operations on the premises must only be carried out between the hours 9am to 5pm, Monday to Saturday, inclusive.	2013-14 and 2014-15 Annual Returns sighted	Compliant				
EPL 20221	L4.6	The hours of operation for blasting operations specified in condition L4.5 may be varied if the EPA, having regard to the effect that the proposed variation would have on the amenity of the residents in the locality, gives written consent to the variation.	2013-14 and 2014-15 Annual Returns sighted	Compliant				
EPL 20221	L4.7	Blasting at the premises is limited to 1 blast on each day on which blasting is permitted. Note: Additional blasts are permitted where it is demonstrated to be necessary for safety reasons and the EPA and neighbours have been notified of the intended blast prior to the additional blast being fired. Note: This condition does not apply to blasts that generate ground vibration of 0.5 mm/s or less at any residence on privately owned land. Note: For the purpose of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine.	2013-14 and 2014-15 Annual Returns sighted	Compliant				
EPL 20221	L4.8	Condition L4.7 does not apply to blasts that generate ground vibration of 0.5 mm/s or less at any residence on privately- owned land, or to blasts required to ensure the safety of the mine or its workers. Note: For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine.	2013-14 and 2014-15 Annual Returns sighted	Compliant				
<b>L5 Other Limit Conditions</b>								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility								
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EPL 20221	L5.1	Noise from activities associated with the construction and/ or upgrade of the Maules Creek rail spur line must not exceed the noise limits in the table below.  <table border="1"> <thead> <tr> <th>Location</th> <th>Construction Noise Criteria Day LAeq (15 minute)</th> </tr> </thead> <tbody> <tr> <td>256</td> <td>50</td> </tr> <tr> <td>259</td> <td>45</td> </tr> <tr> <td>All privately owned residences</td> <td>40</td> </tr> </tbody> </table> residences that are subject to a private agreement, relating to the noise levels, between the licensee and the land owner.	Location	Construction Noise Criteria Day LAeq (15 minute)	256	50	259	45	All privately owned residences	40	2013-14 and 2014-15 Annual Returns sighted	Compliant				
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EPL 20221	L5.2	Activities associated with the construction and/ or upgrade of the Maules Creek rail spur line may only be carried on between: a) 7:00am to 6:00pm Monday to Friday; b) 8:00am to 1:00pm Saturdays; and, c) At no time on Sundays or public holidays.	2013-14 and 2014-15 Annual Returns sighted	Compliant												
EPL 20221	L5.3	The above hours of operation specified in condition L5.2 may be varied if the EPA, having regard to the effect that the proposed variation would have on the amenity of the residents in the locality, gives written consent to the variation.	2013-14 and 2014-15 Annual Returns sighted	Compliant												
<b>4 Operating Conditions</b>																
<b>O1 Activities must be carried out in a competent manner</b>																
EPL 20221	O1	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.	2013-14 and 2014-15 Annual Returns sighted	Compliant												
<b>O3 Maintenance of Plant and Equipment</b>																
EPL 20221	O2	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.	2013-14 and 2014-15 Annual Returns sighted	Compliant												
<b>O3 Dust</b>																
EPL 20221	O3	All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises.	Interviews and a site inspection was carried out to assess compliance. Each emission-generating activity in the mining operation was assessed. The evidence to suggest compliance is as follows, for each activity: - Scrapers on topsoil. Roads are designated, water spraying is carried out before mulching, roads are watered. - Drills. Water injection and curtains are used. Equipment is shutdown if not operating correctly. - Blasting. Procedures include 24 hour notification, text to stakeholders / residents, checklists used (sighted), holes are dipped for water (for management of fume). - Loading trucks. When excess dust is observed the procedures include minimising drop height, reducing swing rates, slowing production, walking equipment to another bench with different material. - Haulage by truck. Operators are encouraged to radio directly to the water carts. Fill ponds have been appropriately positioned around haul routes. Dust-a-Side (chemical dust suppressant) is used from December to March. - Dumping to hopper. Dust curtains and sprays inside hopper. Enclosure of hopper on 3 sides and roof. Transfer points are covered. Dumping to emplacement areas. Options in place to dump high or low, depending on the conditions. - Dozers. Moved from the top dumps depending on the weather conditions. - Wind erosion. Mulch cover used on some cleared areas. Pre-strip area is minimised. A dedicated inspector is located above the high wall to continuously observe operations and dust emissions. This inspector communicates directly to operators or the OCE in the event of potential visual dust issues.	2013-14 and 2014-15 Annual Returns sighted	Compliant											
<b>5 Monitoring and Recording Conditions</b>																
<b>M1 Monitoring Records</b>																
EPL 20221	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.	2013-14 and 2014-15 Annual Returns sighted	Compliant												
EPL 20221	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.	2013-14 and 2014-15 Annual Returns sighted	Compliant												

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility																																																												
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EPL 20221	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.	2013-14 and 2014-15 Annual Returns sighted	Compliant																																																																
M2 Requirement to monitor concentration of pollutants discharged																																																																				
EPL 20221	M2.1	For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:	2013-14 and 2014-15 Annual Returns sighted	Compliant																																																																
EPL 20221	M2.2	<p><b>Air Monitoring Requirements</b></p> <table border="1"> <thead> <tr> <th>POINT</th> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>18</td> <td>PM10</td> <td>micrograms per cubic metre</td> <td>Continuous</td> <td>AM-22</td> </tr> <tr> <td>19</td> <td>PM10</td> <td>micrograms per cubic metre</td> <td>Every 6 days</td> <td>AM-18</td> </tr> <tr> <td>20,21,22,23</td> <td>Particulates - Deposited Matter</td> <td>grams per square metre per month</td> <td>Monthly</td> <td>AM-19</td> </tr> </tbody> </table>	POINT	Pollutant	Units of measure	Frequency	Sampling Method	18	PM10	micrograms per cubic metre	Continuous	AM-22	19	PM10	micrograms per cubic metre	Every 6 days	AM-18	20,21,22,23	Particulates - Deposited Matter	grams per square metre per month	Monthly	AM-19	<p>Continuous samples not able to be obtained 347 samples of the required 365 samples of 24hr average PM10 measurements A power failure and electrical fault at the TEOM where continuous PM10 measurements were not able to be collected. The faults were rectified as soon as possible to reduce the amount of days the TEOM is not operating.</p>	Not Compliant	E	3	Low																																									
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	Total suspended solids	milligrams per litre	Every 2 months	Representative sample																																																																
13,14,15,16,17	Conductivity	microsiemens per centimetre	Quarterly	Representative sample																																																																
	pH		Quarterly	Representative sample																																																																
	Total dissolved solids	milligrams per litre	Quarterly	Representative sample																																																																
EPL 20221	M2.4	For the purposes of the table(s) above Special Frequency 1 means the collection of samples as soon as practicable after a discharge from points 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11 commences and in any case not more than 12 hours after a discharge commences.	2013-14 and 2014-15 Annual Returns sighted	Compliant																																																																
EPL 20221	M2.5	For the purposes of condition M2.1, this licence acknowledges that points 3, 4, 5, 6 and 7 are to be constructed from approximately Year 5 onwards. Consequently, monitoring from these points is not required until the relevant sediment dam has been constructed. The licensee is deemed to have not breached condition M2.1 of this licence where the licensee is unable to obtain the monitoring data due to the relevant sediment dam not being constructed. Note: The frequency of monitoring and the parameters to be monitored may be varied by the EPA.	2013-14 and 2014-15 Annual Returns sighted	Compliant																																																																
M3 Testing methods - concentration limits																																																																				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility																																													
					Consequence	Likelihood	Risk																																														
EPL 20221	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. Note: The Protection of the Environment Operations (Clean Air) Regulation 2010 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".	2013-14 and 2014-15 Annual Returns sighted	Compliant																																																	
EPL 20221	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.	Sewerage is a pump out system	Compliant																																																	
<b>M4 Weather Monitoring</b>																																																					
EPL 20221	M4.1	For each monitoring point specified in the table below the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.  <b>Point W1</b>  <table border="1"> <thead> <tr> <th>Parameter</th> <th>Units of Measure</th> <th>Frequency</th> <th>Averaging Period</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Temperature @ 2 metres</td> <td>°C</td> <td>Continuous</td> <td>15 minute</td> <td>AM-4</td> </tr> <tr> <td>Wind direction @ 10 metres</td> <td>°</td> <td>Continuous</td> <td>15 minute</td> <td>AM-2 &amp; AM-4</td> </tr> <tr> <td>Wind speed @ 10 metres</td> <td>m/s</td> <td>Continuous</td> <td>15 minute</td> <td>AM-2 &amp; AM-4</td> </tr> <tr> <td>Sigma theta @ 10 metres</td> <td>°</td> <td>Continuous</td> <td>15 minute</td> <td>AM-2 &amp; AM-4</td> </tr> <tr> <td>Rainfall</td> <td>mm/h</td> <td>Continuous</td> <td>1 hour</td> <td>AM-4</td> </tr> <tr> <td>Solar Radiation</td> <td>W/m<sup>2</sup></td> <td>Continuous</td> <td>15 minute</td> <td>AM-4</td> </tr> <tr> <td>Temperature @ 10 metres</td> <td>°C</td> <td>Continuous</td> <td>15 minute</td> <td>AM-4</td> </tr> <tr> <td>Additional requirements - Siting - Measurement</td> <td></td> <td></td> <td></td> <td>AM-1 &amp; AM-4 AM-2 &amp; AM-4</td> </tr> </tbody> </table>	Parameter	Units of Measure	Frequency	Averaging Period	Sampling Method	Temperature @ 2 metres	°C	Continuous	15 minute	AM-4	Wind direction @ 10 metres	°	Continuous	15 minute	AM-2 & AM-4	Wind speed @ 10 metres	m/s	Continuous	15 minute	AM-2 & AM-4	Sigma theta @ 10 metres	°	Continuous	15 minute	AM-2 & AM-4	Rainfall	mm/h	Continuous	1 hour	AM-4	Solar Radiation	W/m <sup>2</sup>	Continuous	15 minute	AM-4	Temperature @ 10 metres	°C	Continuous	15 minute	AM-4	Additional requirements - Siting - Measurement				AM-1 & AM-4 AM-2 & AM-4	The weather station was inspected. Data from the weather station were inspected. Sighted compliance letter from C-Based and calibration certificate	Compliant				
Parameter	Units of Measure	Frequency	Averaging Period	Sampling Method																																																	
Temperature @ 2 metres	°C	Continuous	15 minute	AM-4																																																	
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Additional requirements - Siting - Measurement				AM-1 & AM-4 AM-2 & AM-4																																																	
EPL 20221	M4.2	The meteorological weather station must be maintained so as to be capable of continuously monitoring the parameters specified in this section.	The weather station was inspected. Data from the weather station were inspected. Sighted compliance letter from C-Based and calibration certificate	Compliant																																																	
<b>M5 Recording of pollution complaints</b>																																																					
EPL 20221	M5.1	The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	2013-14 and 2014-15 Annual Returns sighted	Compliant																																																	
EPL 20221	M5.2	The record must include details of the following: a) the date and time of the complaint; b) the method by which the complaint was made; c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; d) the nature of the complaint; e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and f) if no action was taken by the licensee, the reasons why no action was taken.	2013-14 and 2014-15 Annual Returns sighted	Compliant																																																	
EPL 20221	M5.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	2013-14 and 2014-15 Annual Returns sighted	Compliant																																																	
EPL 20221	M5.4	The record must be produced to any authorised officer of the EPA who asks to see them.	2013-14 and 2014-15 Annual Returns sighted	Compliant																																																	
<b>M6 Telephone complaints line</b>																																																					
EPL 20221	M6.1	The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	2013-14 and 2014-15 Annual Returns sighted	Compliant																																																	
EPL 20221	M6.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	2013-14 and 2014-15 Annual Returns sighted	Compliant																																																	

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility											
					Consequence	Likelihood	Risk												
EPL 20221	M6.3	The preceding two conditions do not apply until 60 days 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.	2013-14 and 2014-15 Annual Returns sighted	Compliant															
<b>M7 Other monitoring and recording conditions</b>																			
EPL 20221	M7.1	For each monitoring point specified below, the Licensee must monitor the noise or vibration 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. Points: NM1, NM2, NM3, NM4, NM5 & NM6  <table border="1"> <thead> <tr> <th>Parameter</th> <th>Units of Measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Ambient Noise</td> <td>LAeq (15 minute) LAmax LA1 LA10 LA90 LAmin</td> <td>As outlined in condition M7.5 of this licence.</td> <td>As detailed in the most recently approved "Noise Management Plan" for the premises.</td> </tr> </tbody> </table>	Parameter	Units of Measure	Frequency	Sampling Method	Ambient Noise	LAeq (15 minute) LAmax LA1 LA10 LA90 LAmin	As outlined in condition M7.5 of this licence.	As detailed in the most recently approved "Noise Management Plan" for the premises.	2013-14 and 2014-15 Annual Returns sighted	Compliant							
Parameter	Units of Measure	Frequency	Sampling Method																
Ambient Noise	LAeq (15 minute) LAmax LA1 LA10 LA90 LAmin	As outlined in condition M7.5 of this licence.	As detailed in the most recently approved "Noise Management Plan" for the premises.																
EPL 20221	M7.2	The location of each Noise Monitoring location are labelled as "NM1", "NM2", "NM3", "NM4", "NM5" and "NM6" on the aerial photograph titled "MCC Noise Monitoring Locations" (DOC14/172909-03) submitted with the licence variation application form received by the EPA on 18 August 2014 (DOC14/172909).	2013-14 and 2014-15 Annual Returns sighted	Compliant															
EPL 20221	M7.3	For each monitoring point specified below, the Licensee must monitor the noise or vibration 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. Points: BM2 and BM3  <table border="1"> <thead> <tr> <th>Parameter</th> <th>Units of measure</th> <th>Frequency</th> <th>Sample Method</th> </tr> </thead> <tbody> <tr> <td>Blast Noise</td> <td>DB (Lin Peak)</td> <td>Every Blast</td> <td>As detailed in the most recently approved "Blast Management Plan" for the premises.</td> </tr> <tr> <td>Blast Vibration</td> <td>mm/s</td> <td>Every Blast</td> <td>As detailed in the most recently approved "Blast Management Plan" for the premises.</td> </tr> </tbody> </table>	Parameter	Units of measure	Frequency	Sample Method	Blast Noise	DB (Lin Peak)	Every Blast	As detailed in the most recently approved "Blast Management Plan" for the premises.	Blast Vibration	mm/s	Every Blast	As detailed in the most recently approved "Blast Management Plan" for the premises.	Blast noise and vibration not monitored every blast at BM3. Equipment failure.	Not Compliant	E	3	Low
Parameter	Units of measure	Frequency	Sample Method																
Blast Noise	DB (Lin Peak)	Every Blast	As detailed in the most recently approved "Blast Management Plan" for the premises.																
Blast Vibration	mm/s	Every Blast	As detailed in the most recently approved "Blast Management Plan" for the premises.																
EPL 20221	M7.4	The location of each Blast Monitoring location are labelled as "BM2" and "BM3" on the aerial photograph titled "MCC Blast Monitoring Locations" (DOC14/172909-04) submitted with the licence variation application form received by the EPA on 18 August 2014 (DOC14/172909).	2013-14 and 2014-15 Annual Returns sighted	Compliant															
EPL 20221	M7.5	To assess compliance with the noise limits presented in the Noise Limits table, attended noise monitoring must be undertaken in accordance with the condition titled Determining Compliance, outlined above, and: a) at each one of the locations listed in condition M7.1; b) occur monthly in a reporting period; c) occur during either the evening or night period as defined in the NSW Industrial Noise Policy for a minimum of: i) 1 hour during the evening or night. d) occur for two consecutive operating days.	Attended noise monitoring not conducted for 1 hour during the evening or night over consecutive days	Not Compliant	E	3	Low												
<b>6 Reporting Conditions</b>																			
<b>R1 Annual return documents</b>																			
EPL 20221	R1.1	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: a) a Statement of Compliance; and b) a Monitoring and Complaints Summary. At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.	2013-14 and 2014-15 Annual Returns sighted	Compliant															
EPL 20221	R1.2	An Annual Return must be prepared in respect of each reporting period, except as provided below. Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.	2013-14 and 2014-15 Annual Returns sighted	Compliant															
EPL 20221	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. Note: An application to transfer a licence must be made in the approved form for this purpose.	2013-14 and 2014-15 Annual Returns sighted	Compliant															

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
EPL 20221	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.	2013-14 and 2014-15 Annual Returns sighted	Compliant				
EPL 20221	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').	2013-14 and 2014-15 Annual Returns sighted	Compliant				
EPL 20221	R1.6	The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.	2013-14 and 2014-15 Annual Returns sighted	Compliant				
EPL 20221	R1.7	Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by: a) the licence holder; or b) by a person approved in writing by the EPA to sign on behalf of the licence holder.	2013-14 and 2014-15 Annual Returns sighted	Compliant				
<b>R2 Notification of environmental harm</b>								
EPL 20221	R2.1	Notifications must be made by telephoning the Environment Line service on 131 555. Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.	2013-14 and 2014-15 Annual Returns sighted	Compliant				
EPL 20221	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.	2013-14 and 2014-15 Annual Returns sighted	Compliant				
<b>R3 Written report</b>								
EPL 20221	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.	2013-14 and 2014-15 Annual Returns sighted	Compliant				
EPL 20221	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.	2013-14 and 2014-15 Annual Returns sighted	Compliant				
EPL 20221	R3.3	The request may require a report which includes any or all of the following information: a) the cause, time and duration of the event; b) the type, volume and concentration of every pollutant discharged as a result of the event; c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort; e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants; f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and g) any other relevant matters.	2013-14 and 2014-15 Annual Returns sighted	Compliant				
EPL 20221	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.	2013-14 and 2014-15 Annual Returns sighted	Compliant				
<b>7 General Conditions</b>								
<b>G1 Copy of licence kept at premises or plant</b>								
EPL 20221	G1.1	A copy of this licence must be kept at the premises to which the licence applies.	EPL is on the website and intranet.	Compliant				
EPL 20221	G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.	No such requests to date	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
EPL 20221	G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	It is available, EPL is on the website	Compliant				
<b>8 Special Conditions</b>								
<b>E1 Particulate Matter Control Best Practice Implementation - Wheel Generated Dust</b>								
EPL 20221	E1.1	The Licensee must achieve and maintain a dust control efficiency of 85% or more on all active haul roads once coal operations commence (ie post construction phase). Control efficiency is calculated as:  $CE = \frac{E \text{ (uncontrolled)} - E \text{ (controlled)}}{E \text{ (uncontrolled)}} \times 100$ Where E = the emission rate of the activity	Preparations for the field testing had commenced during the audit period. The on-ground field testing was being undertaken on 8 Aug 2015. Results from the field testing were being collated in August 2015	Compliant				
EPL 20221	E1.2	To assess compliance with Condition E1.1, the licensee must: - measure uncontrolled and controlled haul road emissions on at least 2 occasions using a mobile dust monitor; - continuously measure and record 'additional site data' including: · vehicle kilometres travelled (VKT), · meteorological conditions, · water use for dust suppression. - undertake silt content and soil moisture sampling during sampling events; and - determine if a site specific relationship can be derived between the measured control efficiency, additional site data, water use, meteorological data; and silt content and soil moisture levels. The measurement of uncontrolled and controlled haul road PM10 emissions must be undertaken under varying meteorological conditions, including at those times when analysis of meteorological data indicates that elevated levels of dust are most likely at the Premises.	Preparations for the field testing had commenced during the audit period. The on-ground field testing was being undertaken on 8 Aug 2015. Results from the field testing were being collated in August 2015. Testing is being undertaken within the due date of 31 March 2016.	Compliant				
EPL 20221	E1.3	Note: The EPA acknowledges that in order to determine uncontrolled PM10 emissions, the section of haul road to be sampled will need to be left untreated for a period of up to 12 hours prior to the sampling taking place.	Noted					
EPL 20221	E1.4	The Licensee must submit a report to the EPA which documents the results of the assessment undertaken in accordance with Condition E1.2. The report must include an assessment of: - the dust control effectiveness, - the dust levels recorded, and - any relationship established between control effectiveness and the additional site data. The report must be submitted by the Licensee to the Environment Protection Authority Regional Manager Armidale, at PO Box 494, ARMIDALE by 31 March 2015.	Report documenting the results of the assessment detailed in E1.2 are not yet submitted to the EPA, testing has only just been completed at the time of the audit. MCC has provided EPA a monitoring program for the assessment required under condition E1 and has also supplied dates that MCC will be able to provide a report on the results of the assessment. These will be included as part of the draft variation to the EPL.	Not Compliant	E	2	Low	
EPL 20221	E1.5	The report required by condition E1.4 must be made publicly available by the Licensee on the Licensee's website by (two weeks from submission date nominated in E1.4).	Testing is being undertaken within the due date of 31 March 2016	Compliant				
<b>E2 Particulate Matter Control Best Practice Implementation - Disturbing and Handling Overburden under adverse weather conditions</b>								
EPL 20221	E2.1	By 20 August 2014, the licensee must alter or cease the use of equipment on overburden and the loading and dumping of overburden during adverse weather conditions to minimise the generation of particulate matter.	Shutdown logs were inspected. These logs had reference to the weather conditions	Compliant				
EPL 20221	E2.2	To assess compliance with Condition E2.1, the Licensee must: - undertake daily visual dust level assessments, continuously record real-time PM10 levels and continuously measure and record real-time meteorological conditions; and - record changes to mining activities due to adverse weather conditions.	Shutdown logs were inspected. These logs had reference to the weather conditions	Compliant				
EPL 20221	E2.3	The Licensee must submit a report to the EPA which documents the results of the actions taken in accordance with Condition E2.2. The report must include an assessment of the effectiveness of changes made to mining activities due to adverse weather and document meteorological conditions and the resultant dust levels. The report must be submitted by the Licensee to the Environment Protection Authority Regional Manager Armidale, at PO Box 494, ARMIDALE by 31 March 2015.	Report documenting the results of the assessment detailed in E2.2. not submitted to the EPA MCCM has determined the adverse weather condition triggers and will document operational changes and their effectiveness, to include in the report required by condition E2. MCCM has also supplied dates that MCC will be able to provide a report on the results of the monitoring and actions taken relating to condition E2.	Not Compliant	E	3	Low	
EPL 20221	E2.4	The report required by Condition E2.3 must be made publicly available by the Licensee on the Licensee's website by (two weeks from submission date in E2.3 above).	It is understood that the due date for the report is 31 March 2016	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Mining Operations Plan - March 2014 - March 2016								
4 Environmental Issues Management								
4.2.1 Specific Risks Relating to Rehabilitation								
Geochemistry and Material Prone to Generating Acid Mine Drainage								
MOP (Mar14-Mar16)	4.2.1	<p>PAF materials will be managed through the following process:</p> <ul style="list-style-type: none"> <li>• Sampling will be undertaken in-pit during coal seam delineation to identify PAF material;</li> <li>• Further sampling will be undertaken while the coal is in the ROM stockpile to confirm PAF materials before it enters the CHPP;</li> <li>• Confirmed PAF coal reject materials will be buried deep in the pit or alternatively codisposed in the OEAs within encapsulated cells (to limit materials exposure to oxygen) until sufficient space in the open pit becomes available;</li> <li>• In-pit burial of PAF coal reject materials from the Braymont, Flixton, Herndale and Onavale seams in a manner that reduces the exposure to oxidising conditions. Codisposal of PAF rejects in the OEAs in encapsulated cells may need to be considered until sufficient in the open pit becomes available; and</li> <li>• Covering of PAF coal reject and PAF roof and floor materials as soon as practical with at least 5 m of NAF overburden material to minimise the length of exposure time to oxidising conditions.</li> </ul> <p>NAF materials will be managed by:</p> <ul style="list-style-type: none"> <li>• Completing soil and overburden testing to confirm geochemical and physical characteristics (as per Soil Management Protocol);</li> <li>• Placement of overburden within the OEAs in a manner that limits the risk of surface erosion; and</li> <li>• Placement of NAF coal reject materials in the open pit and/ or co-disposal with overburden.</li> </ul>	The seams with higher propensity for acid forming potential are the lower seams that are not being mine as yet.	Not Triggered				
Erosion and Sedimentation								
MOP (Mar14-Mar16)	4.2.1	<p>Sediment laden runoff from cleared areas will be managed in accordance with the WMP to ensure that downstream water quality remains within the adopted water quality compliance criteria.</p> <p>In addition, construction contractors are required to submit Construction Environmental Management Plans which include an Erosion and Sediment Control Plan, this is in accordance with Managing Urban Stormwater: Soils and Construction (Landcom, 2004).</p>	<p>Reject sampling is being conducted, and reject disposal</p> <p>See SWMP for compliance</p> <p>No evidence during the site inspection of sediment leaving site.</p> <p>Construction was completed at the time of the audit and no contractor documentation was retained by the site, the contractor CEMPs were not assessed.</p>	Compliant				
Soil Types and Suitability								
MOP (Mar14-Mar16)	4.2.1	The management of soil resources within the Project Boundary will be managed according to the Soil Management Protocol which has been developed for the Project.	Reviewed on-site - found compliant	Compliant				
Fauna & Flora								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MOP (Mar14-Mar16)	4.2.1	Clearing within the Project Boundary will take place in stages. Prior to any disturbance activities occurring within the construction area, the LDP as described within the Biodiversity Management Plan will need to be completed and signed off by the Environmental Manager. The pre-clearance ecological survey will be undertaken by a suitably qualified and experienced person (e.g. ecologist) to identify potential habitat features that will need special management during the clearing activities.	Daily clearance reports by Cumberland Ecology and clearing LDP examples sighted.	Compliant				
MOP (Mar14-Mar16)	4.2.1	Prior to clearance, infestations of significant weeds (noxious weeds or WONS) will be recorded in the LDP and mapped. If recommended by MCC's Environmental Officer or Environmental Manager, the control of weeds will be undertaken to minimise the risk of spread of weeds during clearing. Weed control measures will be species specific and will be guided by published control measures. Prior to clearing, all plant and equipment entering the site will be inspected and recommended for wash down (in designated wash down areas) as required to ensure weed material from offsite locations do not establish or spread into native vegetation within the Project Boundary. Plant and machinery will be again washed down prior to removal from site to prevent weeds from spreading into off site areas.	LDP's sighted however neither examples included consideration of weed infestations or WONS. 2014 Construction and Operation Clearance Phase Report sighted from Cumberland Ecology which outlines this though.	Not Compliant Administrative				
MOP (Mar14-Mar16)	4.2.1	Feral animals within the Project Boundary are likely to include foxes, pigs, black rats and rabbits. Management measures to control these feral animals include habitat management, storing and covering garbage, placing tree guards on young shoots in rehabilitation areas, warren ripping, shooting and fencing. Baiting using 1080, oats containing Pindone (marketed as RABBAIT™) and zinc phosphide (marketed as RATTOFF™) will also be implemented. Section 8.6 of the BMP details the Project's Feral Animal Management Strategy.	No control measures implemented by the site, landowners on lease control conduct controls, monitoring is undertaken and has not yet triggered management	Not Triggered				
MOP (Mar14-Mar16)	4.2.1	Seed collection will be undertaken throughout the year from all areas within the Project Boundary. The seed collected will be propagated for use in rehabilitation areas and other disturbed areas as part of the pre-clearing and post-clearing protocols.	An inspection has been conducted but at the time there was no seed available in the areas to be cleared Recommendation Suggest quarterly seed collection occur to ensure adequate coverage of species. The site should aim to collect such that seed does not remain in storage for over 2 years to reduce loss of fecundity. A seed collection procedure should be considered.	Not Compliant	E	3	Low	
Slopes and Slope Management								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MOP (Mar14-Mar16)	4.2.1	The Soil Management Protocol details amelioration of overburden and topsoil to be undertaken with the aim of minimising dispersion, increasing surface water filtration rates and resistance to erosion. This will better support vegetation communities and minimise surface water runoff. Specifically, OEs will be designed to avoid concentration of surface flow and subsequently reduce the potential for rill, gully and tunnel erosion. The final landform will also have a slope gradient of 10 degrees as this has been demonstrated to be stable at adjacent mine sites when combined with effective soil amelioration and revegetation.	At the moment ameliorants are spread when the topsoil is placed on the emplacement and no topsoil has been spread to date.	Not Triggered				
Air Quality								
MOP (Mar14-Mar16)	4.2.1	The Air Quality and Greenhouse Gas Management Plan developed for the Project details the management measures and monitoring program to mitigate any adverse impacts to neighbouring receivers, ensure the Project has negligible impacts on air quality and remains within the air quality predictions.	The AQGGMP has been approved by the Director-General. The EA included air quality predictions at nearest properties to the north of Maules Creek mine. Predictions for Year 5 (the closest modelled year to current operations) showed: - Maximum 24-hour average PM10 concentrations of between 50 and 100 ug/m3 - Annual average PM10 concentrations of around 30 ug/m3 The monitored PM10 concentrations are below the model predictions.	Compliant				
Surface Water								
MOP (Mar14-Mar16)	4.2.1	Surface Water will be managed according to the approved Water Management Plan, which details the systems to be put in place to manage clean water, mine water and water use during construction. The Water Management Plan also details the Surface Water Monitoring Strategy.	The sites water management is adequate and in accordance with the WMP. Noted	Compliant				
Groundwater								
MOP (Mar14-Mar16)	4.2.1	Groundwater inflows will be managed within the mine water management system as outlined above. The Water Management Plan details the Project's existing groundwater monitoring network, including baseline groundwater levels and water quality. Management and monitoring strategies are included in the Water Management Plan for managing groundwater drawdown in neighbouring privately owned bores, GDEs and groundwater inflows to pit.	Low inflows to date, See WMP No impacts or drawdown on surrounding bores	Noted				
Contaminated Land								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MOP (Mar14-Mar16)	4.2.1	A number of areas of potential hydrocarbon contamination may exist within the Project Boundary during mining activities, although a number of measures and processes will be installed and adopted to minimise contamination. These measures and processes include: <ul style="list-style-type: none"> <li>• Bunded diesel and oil tanks;</li> <li>• Compacted gravel hardstand areas;</li> <li>• Impervious refuelling, workshop and hydrocarbon storage areas;</li> <li>• Use of oil/water separators;</li> <li>• The adoption of 'dry' spill clean-up and workshop cleaning processes; and</li> <li>• Establishment of a bioremediation pad on site to allow progressive and rapid remediation of any contaminated soil on site.</li> </ul> Further detail on hydrocarbon and hazardous materials storage and handling is presented in the Maules Creek Materials Safety Management Plan.	Review the Materials Safety Management Plan  Compliant Not specifically referenced in MSMP Compliant  Not specifically referenced in MSMP  Not specifically referenced in MSMP  MSMP and PIRMP sighted	Not Compliant Administrative				
MOP (Mar14-Mar16)	4.2.1	Potential future areas of contamination are likely to be associated with maintenance workshops, designated storage areas and refuelling and filling points for: <ul style="list-style-type: none"> <li>• Diesel, bio-diesel; and</li> <li>• Hydraulic/ lubricating oils and waste oils.</li> </ul> Phase 1 and Phase 2 Assessments in accordance with requirements of the Contaminated Land Management Act 1997 and POEO Act will be undertaken and Remedial Action Plans to outline remediation works for any hydrocarbon impacted areas that will be developed and implemented, as required.	Noted, not yet required	Not Triggered				
<b>Hazardous Materials</b>								
MOP (Mar14-Mar16)	4.2.1	The Maules Creek Materials Safety Management Plan has been developed for the Project that details the management measures and monitoring to be undertaken. Principal Contractors are required to ensure that hydrocarbon products (such as diesel, oils, and greases) are transported, stored, handled, disposed and stored in a manner that minimises the potential for pollution and complies with the requirements of the Work Health and Safety Act 2011 (as the relevant legislation for dangerous goods) and AS1940 – The Storage and Handling of Flammable and Combustible Liquids.	Materials Safety Management Plan sighted	Compliant				
<b>Bushfire</b>								
MOP (Mar14-Mar16)	4.2.1	Onsite bushfires and potential bushfire hazards will be managed in accordance with the Rural Fires Act 1999. Fire management is described in the Bushfire Management Plan and Biodiversity Management Plan.	Bushfire Management Plan and Biodiversity Management Plan sighted	Compliant				
<b>5 Post Mining Land Use</b>								
<b>5.2 Post Mining Landuse Goal</b>								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MOP (Mar14-Mar16)	5.2	<p>Consistent to that described within the Maules Creek EA and as required within Conditions of PA 10_0138 and the Controlled Action approval, the proposed Post Mining Land Use for the Project is aimed at returning the area to a mixture of native vegetation communities including grassy woodland, shrubby woodland / open forest and riparian forest natural forest and woodland.</p> <p>Re-establishing these native vegetation communities within the Project Boundary together with the Biodiversity Offset Areas will enhance the biodiversity connectivity between the Namoi River to the west of the Project and the Kaputar range in the east and north east of the Project. MCC is committed to creating long term habitat corridors which will enhance the linkages between the existing undisturbed environments.</p> <p>All processes undertaken are consistent with DoE's (formerly SEWPac and formerly Department of Environment Heritage Water and the Arts) National Recovery Plan for Box Gum (DEWHA, 2010). This includes:</p> <ul style="list-style-type: none"> <li>• The rehabilitation of disturbed areas to form part of a regional East-West wildlife corridor created as part of the Biodiversity Offset Strategy. This will create a linkage to remnant vegetation between the Namoi River to the west through the Leard State Forest to the Nandewar Range to the east;</li> <li>• Revegetation of the post mine landscape with native vegetation, comprising a mixture of native grassy woodland, shrubby woodland / open forest, riparian forest vegetation types and Box Gum Woodland with fauna habitat for Threatened species to encourage the reestablishment of pre mining biodiversity values; and</li> <li>• Ensuring the sustainability of the post mining ecological values of the landscape.</li> </ul>	Noted, not yet required and the EPBC Rehabilitation Plan is not yet finalised	Not Triggered				
<b>5.3 Rehabilitation Objectives</b>								
MOP (Mar14-Mar16)	5.3	The key objective of rehabilitation of the Project Boundary is the establishment of native forests and woodlands as a final land use with a focus on the Box-Gum Woodland community to form part of the Biodiversity Offset Strategy. Rehabilitation within the Project Boundary is required to include at least 544 ha of the Box-Gum Woodland and at least 1,665 ha of supplementary habitat features according to the requirements of PA 10_0138 and the Controlled Action Approval.	Noted – these aspects are assessed in more detail in other sections of this audit.					
MOP (Mar14-Mar16)	5.3	<p>Overall, the key goal of the rehabilitation activities will be to ensure a safe, stable, adequately drained post mining landform that is consistent with local surrounding landscape.</p> <p>Long term performance goals and objectives for the Project are:</p> <ol style="list-style-type: none"> <li>1. Mitigate impacts on areas of high ecological value;</li> <li>2. Enhance local vegetation communities with the prioritisation of the reestablishment of Box-Gum Woodland CEEC;</li> <li>3. Improve the connectivity from the Namoi River to Mt Kaputar National Park; and</li> <li>4. Retain highly productive agricultural land.</li> </ol>	Noted – these aspects are assessed in more detail in other sections of this audit.					

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MOP (Mar14-Mar16)	5.3	Rehabilitation focuses on biodiversity and establishment of habitat for threatened flora and fauna species. Rehabilitation is to be consistent with SEWPaC's National Recovery Plan for White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (Box-Gum Grassy Woodland)(SEWPaC, 2010) and will be undertaken generally in accordance with the Strategic Framework for Mine Closure (ANZMEC & MCA, 2000) and the Mine Closure and Completion (DITR 2009a) and Mine Rehabilitation (DITR, 2009b) Handbooks.	Noted – these aspects are assessed in more detail in other sections of this audit.					
MOP (Mar14-Mar16)	5.3	Additional rehabilitation objectives, not included in the Project Approval, involve: <ul style="list-style-type: none"> <li>• Enabling all stakeholders to have their interests considered within the mine closure process;</li> <li>• Ensuring the mine closure process is timely, cost effective and orderly;</li> <li>• Ensuring the cost of mine closure is reflected in the budget adequately and that the community is not left with a liability;</li> <li>• Ensuring there is effective implementation of the mine closure process including adequate resources and clear accountability;</li> <li>• The establishment of a set of indicators and a rehabilitation monitoring program to ensure mine closure can be demonstrated as a successfully completed process where completion criteria are met;</li> <li>• Establishing a point where all agreed criteria is deemed successfully met by the relevant Authorities;</li> <li>• Ensuring future public health and safety, environmental resources, post mining land use and socio-economic assets are not affected in any negative way and enhanced where possible; and</li> <li>• The implementation of sustainable development considerations in corporate decision making processes and the reduction of risk through management strategies based on sound data.</li> </ul>	Noted – these aspects are assessed in more detail in other sections of this audit.					
5.3.1 Short Term Objectives								
MOP (Mar14-Mar16)	5.3.1	Rehabilitation objectives in the short term are to: <ul style="list-style-type: none"> <li>• Progressively reshape and stabilise disturbed areas;</li> <li>• Provide short-term erosion control measures;</li> <li>• Manage soil to ensure suitability and beneficial reuse during rehabilitation;</li> <li>• Ameliorate wastes and soils as necessary to address physical and chemical constraints to revegetation and erosion stability; and</li> <li>• Refine rehabilitation methods.</li> </ul>	Noted					
5.3.2 Medium Term Objectives								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MOP (Mar14-Mar16)	5.3.2	Rehabilitation objectives in the medium term will focus on: <ul style="list-style-type: none"> <li>• Establishment of the functionally important and structurally dominant species from the relevant native vegetation communities;</li> <li>• Demonstrating rehabilitation succession in comparison with analogue sites; and</li> <li>• Reducing reliance on structural drainage and erosion control methods.</li> </ul>	Noted					
<b>5.3.3 Long Term Objectives</b>								
MOP (Mar14-Mar16)	5.3.3	The longer term rehabilitation objectives are to: <ul style="list-style-type: none"> <li>• Monitor rehabilitation areas to ensure succession of planted native vegetation with functionality trending toward analogue native vegetation communities;</li> <li>• Apply adaptive management measures if natural succession is not occurring;</li> <li>• Mitigate impacts on areas of high ecological value;</li> <li>• Enhance local vegetation communities with the prioritisation of the reestablishment of Box-Gum Woodland CEEC;</li> <li>• Improve the connectivity from the Namoi River to Mt Kaputar National Park; and</li> <li>• Retain highly productive agricultural land.</li> </ul>	Noted – these aspects are assessed in more detail in other sections of this audit.					
<b>8 Rehabilitation Implementation</b>								
<b>8.2 Proposed Rehabilitation and Disturbance Activities this MOP term</b>								
MOP (Mar14-Mar16)	8.2	Temporary rehabilitation only will be undertaken in all domains to reduce the potential for soil and sediment erosion and prevent subsequent air quality and surface water issues. Further rehabilitation will be discussed in subsequent MOPs as mining progresses.	Noted					
<b>9 Rehabilitation Monitoring &amp; Research</b>								
<b>9.1 Rehabilitation Monitoring</b>								
MOP (Mar14-Mar16)	9.1	An environmental monitoring program has been developed and implemented by MCC during the planning and preparation of the Maules Creek EA. This environmental monitoring program is being enhanced by MCC throughout the preparation and implementation of the EMPs. The MCC environmental monitoring program comprises the following: <ul style="list-style-type: none"> <li>• A meteorological monitoring station (Maules Creek Automatic Weather Station (AWS)); and</li> <li>• Native vegetation monitoring locations within the Project Boundary and offset properties to quantify vegetation health, and impacts to the vegetation from the Project, including abundance of (and investigate risks posed by) exotic weeds and feral animals within the Project Boundary and offset areas.</li> </ul> Baseline monitoring will continue to be undertaken during and up to the commencement of construction and operational activities.	Quarterly Vegetation Surveys in the folder titles & Biodiversity Monitoring	Compliant				
MOP (Mar14-Mar16)	9.1	Monitoring of rehabilitation areas and analogue sites will be undertaken by specialist independent consultants on an annual basis using a modified LFA and the assessment of other indicators.	<ul style="list-style-type: none"> <li>• 53. Biodiversity Monitoring in "150825 RFIs</li> </ul>	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MOP (Mar14-Mar16)	9.1	In summary, rehabilitation monitoring will: <ul style="list-style-type: none"> <li>• Obtain data from the analogue sites to provide a range of indicator values from replicated examples of similar vegetation communities;</li> <li>• Compare rehabilitation areas to analogue sites that best represent the final land use vegetation community and management conditions to which they will be subject; and</li> <li>• Recognise the dynamic nature of ecosystems and account for:                             <ul style="list-style-type: none"> <li>o seasonal variations;</li> <li>o changing climatic conditions;</li> <li>o changing management practices; and</li> <li>o unexpected disturbance events.</li> </ul> </li> </ul>	No rehabilitation established yet, opportunity to establish reference sites is open.	Not Triggered				
MOP (Mar14-Mar16)	9.1	The monitoring program will: <ul style="list-style-type: none"> <li>• Compare results against rehabilitation objectives and targets;</li> <li>• Identify possible trends and continuous improvement;</li> <li>• Link to records of rehabilitation to determine causes and explain results;</li> <li>• Assess effectiveness of environmental controls implemented;</li> <li>• Where required, identify modifications required for the monitoring program, rehabilitation practices or areas requiring research;</li> <li>• Compare flora species present against original seed mix and/or analogue sites;</li> <li>• Assess vegetation health;</li> <li>• Assess vegetation structure (e.g. upper, mid and lower storey); and</li> <li>• Where applicable, assess native fauna species diversity and the effectiveness of habitat creation for target fauna species.</li> </ul>	No rehabilitation established yet, opportunity to establish reference sites is open.	Not Triggered				
MOP (Mar14-Mar16)	9.1	As a minimum under the long-term rehabilitation, monitoring will allow for adaptive management by reviewing substandard performance from a rehabilitation area and evaluate the probability of an event occurring; evaluating the consequence; and using a risk-based approach to determine trigger levels (both upper and lower) where response or action is required. A Trigger Action Response Plan (TARP) has been developed and implemented to respond in the event of poor rehabilitation performance or unexpected results.	No rehabilitation established yet, opportunity to establish reference sites is open.	Not Triggered				
9.1.1 Pre-clearing Vegetation Surveys								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MOP (Mar14-Mar16)	9.1.1	<p>Description A Land Disturbance Protocol (LDP), which is an environmental checklist, must be completed for each stage of clearing (BMP Appendix I). The LDP requires surveys to be undertaken to establish the following factors of the area to be cleared:</p> <ul style="list-style-type: none"> <li>• Vegetation community;</li> <li>• Fauna habitat features;</li> <li>• Areas for seed collection; and</li> <li>• Top soil and sub soil type.</li> </ul> <p>Soil testing will also be undertaken prior to vegetation stripping as per the Soil Management Protocol (Appendix G of this MOP). Frequency The LDP must be undertaken and signed off prior to each stage of clearing for the Project.</p>	Signed LDP's sighted	Compliant				
9.1.2 Resource Recovery inspections								
MOP (Mar14-Mar16)	9.1.2	<p>Description Resource recovery inspections will be undertaken during clearing to ensure available seed, topsoil, mulch and habitat logs are salvaged for utilisation in the rehabilitation of disturbed areas in accordance with the Soil Management Protocol. Frequency The resource recovery inspections will be completed prior to and during each stage of clearing. The progress and effects of recovering and reusing habitat resources are monitored and reported annually as part of the Rehabilitation Monitoring in Section 9.</p>	<p>Clearance reports (daily) and post-clearance report both by Cumberland Ecology sighted No seed collected to date though inspections were conducted. Salvaged materials sighted in site inspection</p>	Compliant				
9.1.3 Topsoil Stockpile Surveys								
MOP (Mar14-Mar16)	9.1.3	<p>Description Topsoil stockpile locations, volumes and date of soil stripping will be recorded in the Soil Stripping and Placement Plan, which is a requirement of the Soil Management Protocol. Prior to re-spreading of stockpiled topsoil, an assessment of weed infestation will be undertaken to determine if individual stockpiles require burial due to their unsuitability as a result of weed infestation. The Soil Test and Inspection Plan contained in the Soil Management Protocol sets out the testing, witness and hold point requirements for each step of the soil management process. Frequency To be undertaken during soil stripping and prior to topsoil re-spreading.</p>	2014 AEMR Table 5-1 sighted. Soil Handling and Management Plan sighted. No topsoil has yet been re-applied	Compliant				
9.1.4 Topsoil Placement Inspections								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MOP (Mar14-Mar16)	9.1.4	Description Topsoil placement inspections will be undertaken to ensure topsoil is applied to the appropriate thickness and slope and in the predetermined location as per the Soil Stripping and Placement Plan. These surveys will be undertaken by the Environment Manager. Frequency This is to be undertaken during the process of re-spreading topsoil onto proposed rehabilitation areas.	No topsoil has yet been applied.	Not Triggered				
9.1.5 Internal Rehabilitation Audit								
MOP (Mar14-Mar16)	9.1.5	An audit shall be undertaken annually by the Environment Manager (or delegate) to ensure implementation of the RMP as a whole. Non-conformance issues and corrective action requests will be identified and formally documented in the audit process.	Audit not conducted within 12 months of commencement of MOP. Section 8 of the MOP identified that no rehabilitation will be undertaken during the period but the rehabilitation plan includes other matters that have been implemented and could be audited..	Not Compliant Administrative				
9.1.6 Biodiversity Audit								
MOP (Mar14-Mar16)	9.1.6	Schedule 3, Condition 56 of PA 10_0138 requires a biodiversity audit to be undertaken by the end of December 2017, and then every five years. This audit will assess the performance of the revegetation in the rehabilitation area and the management and restoration in the off-site Biodiversity Offset Strategy areas against the corresponding completion criteria.	Not yet required	Not Triggered				
9.2 Research and Rehabilitation Trials and Use of Analogue Sites								
MOP (Mar14-Mar16)	9.2	Appropriate rehabilitation objectives and completion criteria for a mine site will be determined through comprehensive literature reviews, rehabilitation trials and the use of analogue sites. To assist rehabilitation to be effective, MCC will undertake rehabilitation trials and further research to improve the knowledge and the effectiveness of the site rehabilitation.	No trial sites on overburden available., literature reviews used to inform the development of the Rehabilitation Plan and for EPBC	Not Triggered				
MOP (Mar14-Mar16)	9.2	MCC is proposing progressive rehabilitation which will be continuously monitored to determine suitable effective rehabilitation methodologies, techniques and appropriate completion criteria. No rehabilitation is proposed during the term of this MOP, and accordingly, there will be no monitoring results to report during this MOP.	None conducted to date as no rehabilitation has been completed.	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MOP (Mar14-Mar16)	9.2	Data from analogue sites can provide suitable target values of key biophysical parameters, vegetation structures and diversity, and habitat complexity. It provides the ability to monitor rehabilitation success against true values of an existing ecosystem and the effects of climatic variations and disturbance events. These results will be used to compare against rehabilitated areas to ensure effective completion the criteria which will focus on: <ul style="list-style-type: none"> <li>• White Box Woodland regeneration;</li> <li>• Creating suitable habitat for Threatened birds and bats known to occur within the area;</li> <li>• Management of landform characteristics for certain ecological communities; and</li> <li>• Management of weed and pest species.</li> </ul>	Not yet established, when the next MOP is finalised1 March 2016, the analogue sites will be identified	Not Triggered				
10 Intervention and Adaptive Management								
10.1 Threats to Rehabilitation								
MOP (Mar14-Mar16)	10.1	MCC has completed an overarching risk assessment to identify the potential threats to the success of rehabilitation for the Project. A full copy of this risk assessment is provided in Appendix G. To ensure the overall success of the rehabilitation program, a monitoring, inspection and corrective action regime should be implemented.	Noted not yet established	Not Triggered				
MOP (Mar14-Mar16)	10.1	Outcomes of the annual rehabilitation inspections are to be recorded and any mitigation actions that are identified as part of the inspection are to be entered into the MCC Document Control recording system for implementation. Where necessary, rehabilitation procedures will be amended accordingly with the aim to continually improve rehabilitation standards.	Noted not yet established	Not Triggered				
MOP (Mar14-Mar16)	10.1	In the event that rehabilitation failure has occurred, further investigation to establish a cause and appropriate remediation strategy(s) will be undertaken. Amongst the issues to consider include the following: <ul style="list-style-type: none"> <li>• Nutrient availability;</li> <li>• pH, salinity and metal toxicity;</li> <li>• Shallow root depth;</li> <li>• Other soil limitations;</li> <li>• Insect attack;</li> <li>• Lack of N-fixing legumes;</li> <li>• Lack of organisms involved in litter breakdown (e.g. fungal fruiting bodies) and nutrient cycling (e.g. puff balls);</li> <li>• Predation;</li> <li>• Evidence of drought effects or storm damage;</li> <li>• Poor soil preparation; and</li> <li>• Weed competition.</li> </ul> The TARP developed for the Project includes actions and responses to the occurrence of these issues, in conjunction with the EMPs.	Noted not yet established	Not Triggered				
10.2 Trigger Action Response Plan								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MOP (Mar14-Mar16)	10.2	Table 19 describes the sections of the TARP developed and implemented for the Project which relate to rehabilitation.	Noted					
11 Reporting								
MOP (Mar14-Mar16)	11	An Annual Review will be submitted by the end of March each year as per Condition 4, Schedule 5 of PA 10_0138, which outlines the environmental performance of the Project over the preceding 12 month period. The Annual Review will discuss rehabilitation performance and any non-conformance issues. This will include monitoring results, statutory requirements, and a description of rehabilitation activities and measures that will be implemented over the following year. Rehabilitation performance against the key objectives and completion criteria will be an integral part of the Annual Review. All stakeholders will have access to this document on the Whitehaven website.	2013 AEMR published on 18/03/2013 and 2014 AEMR on 30/03/2014. Provided to DP&E by email on 10/04/2015. 2013 and 2014 AEMR include monitoring results, statutory requirements, performance against objectives and descriptions of rehabilitation activities. 2014 AEMR lacking on measures that will be implemented over the following year. 2013 AEMR viewed on mine website on 30/07/2015 however 2014 AEMR not uploaded at the request of DP&E.	Not Compliant Administrative				
13 Review and Implementation of the MOP								
13.1 Review of the MOP								
MOP (Mar14-Mar16)	13.1	This MOP has been prepared based on the current schedule which includes the construction phase along with the initial two years of mining operations. This MOP will be updated and submitted to DTIRIS-DRE for approval should any changes to the construction schedule or mining schedule be required or should any additional disturbance be required within the Mining Leases beyond the Disturbance Boundary provided in this MOP. As mentioned above, MCC will submit a revised MOP for DTIRIS-DREs approval prior to activities located outside of the Disturbance Boundary within the mining leases.	No changes requiring a MOP revision	Not Triggered				
13.2 Roles and Responsibilities								
MOP (Mar14-Mar16)	13.2	MCC will ensure responsibilities for achieving closure and rehabilitation objectives are assigned and clearly communicated.	Noted	Not Triggered				

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Coal Lease 375								
Notice to Landholders								
CL375	1	(a) 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. (b) If there are ten or more landholders affected, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this lease has been granted/renewed; state whether the lease includes the surface and must contain an adequate plan and description of the lease area.	ML reviewed in 2013 in the audit period. Evidence not forthcoming for either option	Not Compliant Administrative				
Environmental Harm								
CL375	2	(a) The lease holder must implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or rehabilitation of any activities under this lease. (b) For the purposes of this condition: (i) environment means components of the earth, including: (A) land, air and water, and (B) any layer of the atmosphere, and (C) any organic or inorganic matter and any living organism, and (D) human-made or modified structures and areas; and includes interacting natural ecosystems that include components referred to in paragraphs (A)–(C). (ii) harm to the environment includes any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above, includes any act or omission that results in pollution, contributes to the extinction or degradation of any threatened species, populations or ecological communities and their habitats and causes impacts to places, objects and features of significance to Aboriginal people.	See the rest of this audit where these items are covered in more detail. Generally Compliant	Compliant				
Mining Operations Plan (MOP)								
CL375	3	(a) Mining operations must not be carried out otherwise than in accordance with a Mining Operations Plan (MOP) which has been approved by the Director-General. (b) The MOP must: (i) identify areas that will be disturbed by mining operations; (ii) detail the staging of specific mining operations; (iii) identify how the mine will be managed to allow mine closure; (iv) identify how mining operations will be carried out in order to prevent and or minimise harm to the environment; (v) reflect the conditions of approval under: • the <i>Environmental Planning and Assessment Act 1979</i> • the <i>Protection of the Environment Operations Act 1997</i> • and any other approvals relevant to the development including the conditions of this lease; and • have regard to any relevant guidelines adopted by the Director-General. (c) The leaseholder may apply to the Director-General to amend an approved MOP at any time. (d) It is not a breach of this condition if: (i) the operations constituting the breach were necessary to comply with a lawful order or direction given under the <i>Mining Act 1992</i> , the <i>Environmental Planning and Assessment Act 1979</i> , <i>Protection of the Environment Operations Act 1997</i> , <i>Mine Health and Safety Act 2004 / Coal Mine Health and Safety Act 2002</i> and <i>Mine Health and Safety Regulation 2007 / Coal Mine Health and Safety Regulation 2006</i> or the <i>Occupational Health and Safety Act 2000</i> ; and (ii) the Director-General had been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out. (e) A MOP ceases to have effect 7 years after date of approval or other such period as identified by the Director-General.	The MOP is in place and approved by DRE.	Compliant				
Environmental Management Report								

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
CL375	4	(a) The lease holder must lodge Environmental Management Reports (EMR) with the Director-General annually or at dates otherwise directed by the Director-General. (b) The EMR must: (i) report against compliance with the MOP; (ii) report on progress in respect of rehabilitation completion criteria; (iii) report on the extent of compliance with regulatory requirements; and (iv) have regard to any relevant guidelines adopted by the Director-General;	See AEMRs, they comply	Compliant				
<b>Environmental Incident Report</b>								
CL375	5	(a) The lease holder must report any environmental incidents. The report must: (i) be prepared according to any relevant Departmental guidelines; (ii) be submitted within 24 hours of the environmental incident occurring; (b) For the purposes of this condition, environmental incident includes: (i) any incident causing or threatening material harm to the environment (ii) any breach of Conditions 1 to 9 and 11 to 24; (iii) any breach of environment protection legislation; or, (iv) a serious complaint from landholders or the public. (c) For the purposes of this condition, harm to the environment is material if: (i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or (ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, where loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.	See 2 noise exceedences reported to DP&E	Compliant				
<b>Additional Environmental Reports</b>								
CL375	6	Additional environmental reports may be required from time to time as directed in writing by the Director-General and must be lodged as instructed.	Noted none requested in the audit period	Not Triggered				
<b>Rehabilitation</b>								
CL375	7	Any disturbance as a result of activities under this lease must be rehabilitated to the satisfaction of the Director-General.	MOP and new MOP due next year	Compliant				
<b>Extraction Plan Condition</b>								
CL375	8	(a) In this condition: (i) <b>approved Extraction Plan</b> means a plan, being: A. an extraction plan or subsidence management plan approved in accordance with the conditions of a relevant development consent and provided to the Secretary; or B. a subsidence management plan relating to the mining operations subject to this lease: I. submitted to the Secretary on or before 31 December 2014; and II. approved by the Secretary. (ii) <b>relevant development consent</b> means a development consent or project approval issued under the <i>Environmental Planning &amp; Assessment Act 1979</i> relating to the mining operations subject to this lease. (b) The lease holder must not undertake any underground mining operations that may cause subsidence except in accordance with an approved Extraction Plan. (c) The lease holder must ensure that the approved Extraction Plan provides for the effective management of risks associated with any subsidence resulting from mining operations carried out under this lease. (d) The lease holder must notify the Secretary within 48 hours of any: (i) incident caused by subsidence which has a potential to expose any person to health and safety risks; (ii) significant deviation from the predicted nature, magnitude, distribution, timing and duration of subsidence effects, and of the potential impacts and consequences of those deviations on built features and the health and safety of any person; or (iii) significant failure or malfunction of a monitoring device or risk control measure set out in the approved Extraction Plan addressing: A. built features; B. public safety; or C. subsidence monitoring.	Site is all open cut, no requirement for an extraction plan	Not Triggered				
<b>Working Requirement</b>								

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
CL375	9	The lease holder must: (a) ensure that at least 167 competent people are efficiently employed in relation to the mining process or mining operations on the lease area OR (b) expend on operations carried out in the course of prospecting or mining the lease area, an amount of not less than \$2,922,500 per annum whilst the lease is in force. 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.	More workers present than the required amount, all competent	Compliant				
<b>Blasting</b>								
CL375	10	(a) <u>Ground Vibration</u> 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 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, Climate Change and Water.  (b) <u>Blast Overpressure</u> 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, Climate Change and Water.	No exceedences and none in the 5%	Compliant				
<b>Safety</b>								
CL375	11	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 notified in writing to the Department and filled in or otherwise rendered safe to a standard acceptable to the Director-General.	No abandoned holes, some have peizometers and other are open for other geological investigations	Compliant				
<b>Prevention of Soil Erosion and Pollution</b>								
CL375	12	Prospecting operations must be carried out in a manner that does not cause or aggravate air pollution, water (including groundwater) pollution, soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan.	Noted, MOP now in place	Compliant				
<b>Transmission lines, Communication lines and Pipelines</b>								
CL375	13	Operations must not interfere with or impair the stability or efficiency of any transmission line, communication line, pipeline or any other utility on the lease area without the prior written approval of the Director-General and subject to any conditions stipulated.	No transmission lines or utilities in areas of exploration or mining.	Not Triggered				
<b>Roads and Tracks</b>								
CL375	14	(a) The lease holder must pay to the relevant roads authority in control of the road or track the reasonable costs incurred by the roads authority in making good any damage to roads or tracks caused by operations carried out under this lease less any amount paid or payable from the Mine Subsidence Compensation Fund. (b) During wet weather the use of any road or track must be restricted so as to prevent damage to the road or track. (c) Existing access tracks should be used for all operations where reasonably practicable. New access tracks must be kept to a minimum and be positioned in order to minimise damage to the land, watercourses or vegetation. (d) Temporary access tracks must be rehabilitated and revegetated to the satisfaction of the Director-General as soon as reasonably practicable after they are no longer required under this lease.	VPA with Narrabri is partially to cover this.	Compliant				
<b>Trees and Vegetation</b>								

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
CL375	15	<p>a) The lease holder must not fell trees, strip bark or cut timber on any land subject of this lease without the consent of the landholder who is entitled to the use of the timber.</p> <p>b) The lease holder must contact Forests NSW and obtain any required permit, licence or approval before taking timber from any Crown land within the lease area.</p> <p><i>Note: Any clearing not authorised under the Act must comply with the requirements of the Native Vegetation Act 2003. Any clearing or taking of timber on Crown land is subject to the requirements of the Forestry Act 1916.</i></p> <p>subject to any conditions stipulated.</p>	Two agreements in place with Forests NSW that permit the site to operate in those areas previously controlled by Forests	Compliant				
<b>Resource Recovery</b>								
CL375	17	<p>(a) Notwithstanding any description of mining methods and their sequence or of proposed resource recovery contained within the Mining Operations Plan, if at any time the Director-General is of the opinion that minerals which the lease entitles the lease holder to mine and which are economically recoverable at the time are not being recovered from the lease area, or that any such minerals which are being recovered are not being recovered to the extent which should be economically possible or which for environmental reasons are necessary to be recovered, notice in writing to the lease holder may be given 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>	Noted, no such occurrence	Not Triggered				
<b>Indemnity</b>								
CL375	18	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.	Insurance, not environmental	Compliant				
<b>Security</b>								
CL375	19	A security in the sum of <b>\$120,000</b> must be given and maintained with the Minister by the lease holder for the purpose of ensuring the fulfilment by the lease holder of obligations under this lease.	Included in ML 1701 where security noted is \$33M	Compliant				
<b>Suspension of Mining Operations</b>								
CL375	23	The holder of a mining lease may not suspend mining operations in the mining area other than in accordance with the consent of the Minister.	No stoppage of a medium or long term basis has occurred	Complaint				
<b>Cooperation Agreement</b>								
CL375	24	<p>The lease holder must make every reasonable attempt, and be able to demonstrate their attempts, to enter into a cooperation agreement with the holder(s) of any overlapping title(s). The cooperation agreement should address but not be limited to issues such as:</p> <ul style="list-style-type: none"> <li>access arrangements.</li> <li>operational interaction procedures</li> <li>dispute resolution</li> <li>information exchange.</li> <li>well location</li> <li>timing of drilling</li> <li>potential resource extraction conflicts and</li> <li>rehabilitation issues.</li> </ul> <p><i>Note: Exploration Reports (Geological and Geophysical)</i>  <i>The lease holder must lodge reports to the satisfaction of the Director-General in accordance with section 163C of the Mining Act 1992 and in accordance with clause 27 of the Mining Regulation 2010.</i>  <i>Reports must be prepared in accordance with Exploration Reporting: A guide for reporting on exploration and prospecting in New South Wales (Department of Industry and Investment, 2010).</i></p>	NO other coal titles and there has been no notice from any other lease holders that may overlap.	Not Triggered				
<b>Trigonometrical Stations and Survey Marks</b>								

Reference	Condition	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
CL375	25	(a) A person must not remove, damage, destroy, displace, obliterate or deface any marks in connection with any trigonometrical station, permanent mark or survey mark unless authorised to do so by the Surveyor-General. (b) A person must not insert in any land any mark resembling a permanent survey mark unless authorised to do so by the <i>Surveying and Spatial Information Regulation 2006</i> . (c) At all times while exercising the powers of entry, a person must carry, and produce on demand, a certificate of authority in the form prescribed by the <i>Surveying and Spatial Information Regulation 2006</i> .	Noted					

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
EXPLORATION LICENCE CONDITIONS (COAL) 2012 (A346)								
CONDITIONS								
Prospecting operations permitted under this exploration licence								
A346	1	The licence holder may conduct Category 1 prospecting operations on the exploration licence area subject to the conditions of this licence. Note. a) The licence holder must comply with the requirements of the Act and other relevant legislation. b) Category 1 prospecting operations: i) must be of minimal environmental impact; ii) cannot be carried out in critical habitat of an endangered species, population or ecological community (identified under the Threatened Species Conservation Act 1995 or the Fisheries Management Act 1994); and iii) can not be carried out in a wilderness area (identified under the Wilderness Act 1987).	Minimal exploration in the audit period, 3 holes drilled as groundwater exploratory holes checking for GDEs	Compliant				
Prospecting operations requiring further approval								
A346	2	The licence holder must obtain the Minister's written approval prior to carrying out any of the following prospecting operations on the exploration licence area: a) Category 2 prospecting operations; and b) Category 3 prospecting operations. Note: The information required to be submitted as part of the licence holder's request for written approval under this condition is set out in the "Note" following condition 3 below.	Approvals by Mine Safety Inspector sighted.	Compliant				
A346	3	The licence holder must comply with the conditions of an approval under condition 2 when carrying out those prospecting operations. Note. In the case of prospecting operations identified in condition 2 as requiring approval by the Minister, the application for approval must be accompanied by a Surface Disturbance Notice (SON). A Review of Environmental Factors and Agricultural Impact Statement may be required for Category 2 prospecting operations if the Minister is of the opinion that the prospecting operations may result in more than minimal environmental impact. A Surface Disturbance Notice, Review of Environmental Factors and Agricultural Impact Statement are required for all Category 3 prospecting operations. If the impact of prospecting operations on the environment is determined as likely to significantly affect the environment (including critical habitat) or threatened species, populations or ecological communities, or their habitats, in terms of Part 5 of the EP&A Act, then the licence holder will be required to submit an Environmental Impact Statement (EIS). Applications may also require a Groundwater Monitoring and Modelling Plan (see condition 12)).	Approvals by Mine Safety Inspector sighted.	Compliant				
Community consultation								
A346	5	The licence holder must engage with the community in relation to the planning for and conduct of prospecting operations authorised under this exploration licence.	Report for A346 reviewed and found to be compliant with this requirement	Compliant				
A346	6	The consultation must be undertaken in accordance with the Guideline for community consultation requirements for the exploration of coal and petroleum, including coal seam gas (NSW Trade & Investment, 2012) as amended from time to time.	4/08/201Report for A346 reviewed and found to be compliant with this requirement	Compliant				
A346	7	An annual report on Community Consultation must be submitted to the Department within 28 days of the anniversary of this licence being granted, together with evidence that the consultation has been undertaken in accordance with the Guideline. Note: Copies of the Guideline are available from www.resources.nsw.qov.au	4/08/201Report for A346 reviewed and found to be compliant with this requirement	Compliant				
Access to exploration licence and relevant documents								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
A346	8	The licence holder must ensure that a copy of this exploration licence and any relevant documentation relating to the conduct of prospecting operations is: a) accessible on the site of active prospecting operations authorised by this exploration licence; and b) made available to all supervisors or other persons concerned in the day to day management of prospecting operations authorised by this exploration licence. Note: For the purposes of this condition, relevant documentation includes, but is not limited to: a) access arrangements required under Part 8 of the Act; b) exempted area consents required under section 30 of the Act; c) approvals under condition 2 of this exploration licence, and any document specified as forming part of that approval, such as a Review of Environmental Factors; and d) the approved Groundwater Monitoring and Modelling Plan under condition 12 of this exploration licence.	Exploration had ceased at the time of the audit so it was not possible to check the availability if the lease doc at the drill site, it is available at the site though	Noted				
Environmental harm								
A346	9	The licence holder must implement all reasonably practicable measures to prevent and/or minimise harm to the environment that may result from the conduct of any prospecting operations under this exploration licence.	Reviewed drill holes as part of the site inspection.	Compliant				
Erosion and sediment control								
A346	10	The licence holder must prevent erosion and pollution of watercourses resulting from the conduct of prospecting operations by implementing effective erosion and sediment control measures.	Inspected drill sites with Geologist, no evidence of sediment migration	Compliant				
A346	11	The planning, design and construction of erosion and sediment control measures must be conducted generally in accordance with Managing Urban Stormwater: Soils and Construction (DECC 2007), as amended or replaced from time to time.	Unable to verify at the time of the audit, no exploration activities	Not assessed				
Groundwater Monitoring and Modelling Plan								
A346	12	Prior to conducting prospecting operations involving the construction and use of boreholes, the licence holder must:						
A346		a) Prepare a Groundwater Monitoring and Modelling Plan in consultation with the NSW Office of Water;	See WMP	Compliant				
A346		b) Ensure that the Groundwater Monitoring and Modelling Plan: i) describes methods for identifying aquifers, their depths, behaviour, containing layers and connectivity with surrounding aquifers or surface water systems; ii) describes methods for collection of data relevant to the type, quantity and quality of water contained within aquifer systems likely to be encountered during prospecting operations; iii) provides for the future development of a conceptual model of regional groundwater behaviour; iv) provides for the future development of a calibrated computer model of regional groundwater behaviour, to enable the impacts of any proposed mining operations to be assessed; v) describes how records of all data collected will be maintained; vi) describes the staging process for implementation of the plan; and vii) is prepared in accordance with any additional requirements prescribed by the Director-General.	i) This is broadly covered. ii) Covered in WMP. iii) Yes in BTM Complex WMS iv) Yes covered in BTM Complex WMS v) Covered in WMP vi) Covered at various points thru the doc but no summary section vii) WMP is approved by the DG DP&E, there are no additional requirements from DG DRE that the audit team is aware of.	Compliant				
A346		c) The Groundwater Monitoring and Modelling Plan must address the requirements identified in b) i) to b) vii) in a level of detail commensurate with the scale, timing and potential impact of proposed operations;	Noted					
A346		d) Have the Groundwater Monitoring and Modelling Plan approved by the Minister; and	Plan is approved by the Minister	Compliant				
A346		e) Implement and comply with the approved Groundwater Monitoring and Modelling Plan.	See WMP	Compliant				
A346		Note. The Groundwater Monitoring and Modelling Plan is required to ensure: (a) there is sufficient groundwater data available to assess future operations against the Aquifer Interference Policy (NSW Office of Water, 2012), as amended or replaced from time to time; and (b) 2 years of baseline data is available prior to submitting an application for any future production operations. An application may be made to the Department at any time to vary an approved Groundwater Monitoring and Modelling Plan.	The WMP meets these requirements	Compliant				
Use of Chemicals and Fuel								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
A346	13	The licence holder must ensure that all chemicals, fuels and oils, excluding those contained within plant and equipment and those for personal use, are: a) stored and handled in accordance with the relevant Material Safety Data Sheet and Australian Standards for the material; b) stored in appropriate containers that are in good condition and labelled to clearly identify the stored product; and c) kept in a facility or area which is capable of containing at least 100% of the largest container capacity stored within that area; unless otherwise approved by the Minister.	Hazardous Substances Inspection Form sighted	Compliant				
A346	14	The licence holder must ensure that adequate spill prevention and oil absorbent materials required to manage spills and leaks for all chemicals, fuels and oils on site are readily available at all times where prospecting operations are being carried out. Equipment and/or materials to capture drips and spills must be used during transfer of chemicals, fuels and oils, and when maintaining oil or fuel filled components.	Hazardous Substances Inspection Form and Workshop Areas Inspection Checklist sighted	Compliant				
<b>Noise</b>								
A346	15	The licence holder must carry out operations in accordance with the requirements of the Interim Construction Noise Guidelines (DECC, 2009), as amended or replaced from time to time. Unless otherwise approved by the Minister, the licence holder must ensure that: a) noise levels during standard working hours do not exceed the Rating Background Level (RBL) +1 OdB at any residence or other sensitive receiver (as defined in the Interim Construction Noise Guidelines). b) noise levels outside of standard working hours do not exceed the RBL +5dB.	Earlier attended noise monitoring reports during the construction period quoted and assessed against these criteria	Compliant				
A346	16	The noise limits identified in condition 15 will not apply where the licence holder has negotiated a written agreement with: a) the relevant landholder; or b) in the case of a prospecting operation that will result in an exceedance of the criteria at a dwelling or other sensitive receiver, the resident of that dwelling or occupier of the sensitive receiver; c) to allow different limits and the licence holder complies with those limits.	No known agreements are in place	Not triggered				
<b>Vegetation Clearing</b>								
A346	17	Vegetation clearing and vegetation disturbance must be limited to the minimum extent necessary to facilitate the conduct of prospecting operations authorised by this exploration licence.  Note: Any clearing of native vegetation which is not authorised under the Mining Act 1992 is subject to the Native Vegetation Act 2003. Additional approvals may also be required before using timber from Crown land.	See MOP and also noted in site inspection, Veg is cleared for twelve months of mining due to limited clearing window, Biodiversity Management Plan	Compliant				
<b>Fire prevention</b>								
A346	18	The licence holder must take all reasonably practicable precautions against causing an outbreak of fire.	Bushfire Management Plan. Hot works permitting, vehicle standard (carry fire extinguishers)	Compliant				
A346	19	The licence holder must not burn off any grass, foliage or herbage without the consent of the landholder and the local fire authority.	No burning off on site is permitted	Compliant				
<b>Infrastructure</b>								
A346	20	The licence holder must ensure that prospecting operations do not interfere with or impair the stability or efficiency of any transmission line, communication line, pipeline or any other utility without the prior written approval of the infrastructure owner and subject to any conditions that may be stipulated by the infrastructure owner.	No transmission lines or other utilities or infrastructure impacted by the site operation	Compliant				
<b>Passage of stock</b>								
A346	21	The licence holder must permit the passage of stock through the exploration licence area and must conduct operations in a manner so as not to cause danger to travelling stock.	Noted					
A346	22	The licence holder must not interfere with or prevent the access of stock to any watering places or approaches to such watering places without the approval of the landholder.	Noted, note MMC own the land over which A346 lies.					
<b>Roads and Tracks</b>								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
A346	23	Except where otherwise approved under condition 2, the licence holder must ensure that: a) Existing roads and tracks are used in preference to constructing new roads and tracks ; b) The planning, design, construction and maintenance of unsealed roads and tracks is constructed generally in accordance with Managing Urban Stormwater: Soils and Construction, Volume 2C, Unsealed Roads (DECC 2007) as amended or replaced from time to time; and c) All water land and wetland crossing works are constructed in accordance with the requirements of the Policy and Guidelines for Fish Friendly Waterway Cross ings (NSW DPI 2003) and Why do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries 2003) as amended or replaced from time to time.	This done as much as possible given the constraints of the activities required to be conducted.	Compliant				
A346	24	The licence holder must restrict the use of any unsealed road or track during wet weather to prevent damage to that road or track unless the road or track has been designed and constructed for use in wet weather.	No exploracion works conducted on A346, various other intermittent tasks conducted in the area. No access was required in wet weather.	Compliant				
Topsoil management								
A346	25	The licence holder must ensure that all topsoil removed in the course of prospecting operations is stockpiled for later use in rehabilitating those operations.	Sighted on site and storage records reviewed - See MOP	Compliant				
Drilling								
A346	26	The licence holder must: a) Construct, maintain and decommission all boreholes and petroleum wells in accordance with standards equivalent to or exceeding the Minimum Construction Requirements for Water Bores in Australia (NUDLC 2012), as amended or replaced from time to time. Where this condition is inconsistent with other conditions set out in this exploration licence, those conditions prevail to the extent of that inconsistency.	Installation of Monitoring Bore Network and Updating Groundwater Model Report; Bore Construction Plan; Borehole Sealing Management Plan; Gas Management during Exploration Drilling report; Site Preparation and Rehabilitation Plan sighted	Compliant				
A346		b) Ensure that the construction, operation, maintenance and decommissioning of boreholes does not cause or enhance: i) hydraulic connection between aquifers; ii) contamination or cross-contamination of aquifers; iii) the escape of natural or noxious gases; iv) the uncontrolled surface discharge of ground waters; v) collapse of the surrounding surface; or vi) hazards to persons, stock and wildlife;	Installation of Monitoring Bore Network and Updating Groundwater Model Report; Bore Construction Plan; Borehole Sealing Management Plan; Gas Management during Exploration Drilling report; Site Preparation and Rehabilitation Plan sighted	Compliant				
A346		c) Before commencing any drilling within the exploration licence area, carry out an assessment of the risk of blowouts. Details of the assessment must be notified to the Department at least 7 days prior to the proposed commencement of drill ling. If this assessment indicates that there is potential for a blowout to occur, blowout prevention equipment must be installed, in accordance with the Schedule of Onshore Petroleum Exploration and Production Safety Requirements (DMR 1992), as amended or replaced from time to time;	Drilling risk assessment associated with gas flows/blowouts, notification sighted.	Compliant				
A346		d) Implement appropriate controls to manage any risks associated with natural or noxious gases, both during and after drilling;	Gas Management during Exploration Drilling report sighted.	Compliant				
A346		e) Contain all drill cuttings, fluids and groundwater returned to the surface as part of the drilling process in above-ground tanks or in-ground sumps pending recirculation or disposal. In-ground sumps must be lined with an impermeable barrier where there is a potential risk of contamination from drill cuttings or fluids;	Above ground tanks used for the most recent (in the audit period) drilling program	Compliant				
A346		f) Survey boreholes to a minimum of 0.5 metre accuracy at collar, with the survey to be carried out by a surveyor registered with the Board of Surveying and Spatial Information under the Surveying and Spatial Information Act 2002;	Borehole Sealing Management Plan sighted	Compliant				
A346		g) Remove equipment and logging tools from the borehole prior to plugging and abandonment of the borehole, unless otherwise approved by the Minister; and;	Borehole Sealing Management Plan sighted	Compliant				
A346		h) Once a borehole ceases to be used, the borehole must be completely filled with cement grout during drill rod withdrawal and plugged, un less otherwise approved by the Minister.	Complies, note some holes left open for other uses such as ground water	Compliant				
A346	27	The licence holder must report any blowout associated with prospecting operations to the Department: a) immediately; and b) provide a written report within 24 hours. Note. The licence holder should have regard to any Director-General's guidelines related to the drilling, operation and abandonment of boreholes.	No blowouts occurred.	Not Triggered				
Waste Management								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
A346	28	The licence holder must ensure that: a) the sites of prospecting operations are maintained in a clean and tidy condition at all times; b) all waste, including contaminated residues, must be collected, segregated and securely deposited in properly constructed containers and disposed lawfully; c) drill ing by-products contaminated by chemicals, oils or fuels must be collected and remediated or disposed lawfully; and d) all drill cuttings and drilling fluids not being reused in drilling operations are disposed lawfully. Note. Alternative reuse of drill cuttings and treated fluids may be approved by the Minister under condition 2 of this exploration licence.	Site Preparation and Rehabilitation Plan sighted. Email to DTIRIS sighted confirming drill cutting disposal in the Section 100 approved facility at the Narrabri Underground Operation	Compliant				
A346	29	The licence holder must maintain records of: a) all waste generated as a result of prospecting operations under this exploration licence; and b) the means of disposal of all waste. Note. Waste is regulated under the Protection of the Environment Operations Act 1997 and the NSW Waste Regulations. Contact the Local Council or the Environment Protection Authority for details of those requirements.	Site Preparation and Rehabilitation Plan sighted. Email to DTIRIS sighted confirming drill cutting disposal in the Section 100 approved facility at the Narrabri Underground Operation	Compliant				
<b>Safety</b>								
A346	30	The licence holder must notify the Department at least 7 days prior to the proposed commencement of any prospecting operation involving any drilling, blasting or other potentially hazardous operation. This notification must be made in the form approved by the Director-General.	No exploration in A346	Not Triggered				
A346	31	The licence holder must carry out operations in a manner that ensures the safety of members of the public, stock and wildlife in the vicinity of the operations.	No exploration in A346	Not Triggered				
A346	32	The licence holder must put in place measures to control safety hazards. These measures include, but are not limited to, the development of a Safety Management Plan prepared in accordance with relevant Departmental guidelines.  Note: Mining activities in NSW, including exploration, are subject to the Work Health and Safety Act 2011 which is the main Act dealing with the health, safety and welfare of persons at work. The Work Health and Safety Act 2011 is to be read in conjunction with the Coal Mine Health and Safety Act 2002 which deals with health, safety and welfare of people at work at coal operations or related places and puts in place special provisions necessary for the control of particular risks arising from the exploration for coal.	No exploration in A346	Not Triggered				
<b>Technical Manager</b>								
A346	33	The licence holder must ensure that prospecting operations are conducted, or directly supervised, by a Technical Manager, being: a) a person with tertiary qualifications in geoscience, petroleum or mining engineering; or b) a person having other qualifications or exploration experience approved by the Minister.	No exploration activities in A346	Not Triggered				
A346	34	The licence holder must advise the Minister of the name and contact details of the Technical Manager(s) within ten (10) working days of any changes to the nominated Technical Manager or their contact details.	No exploration activities in A346	Not Triggered				
<b>Cooperation with other title holders</b>								
A346	35	The licence holder must make every reasonable attempt, and be able to demonstrate their attempts, to enter into a cooperation agreement with the holder(s) of any overlapping authorisations under the Mining Act 1992 or petroleum title under the Petroleum (Onshore) Act 1991. The cooperation agreement should address but not be limited to: a) access arrangements; b) operational interaction arrangements; c) dispute resolution; d) information exchange; e) location of prospecting operations; f) timing of drilling; g) potential resource extraction conflicts; and h) integrated rehabilitation activities.	No overlapping coal leases, no contact from other lease holders in the audit period	Not Triggered				
<b>Minister's approval of change in control</b>								
A346	36	The Minister's prior written approval is required prior to: a) any change in the effective control of the licence holder; or, b) any foreign acquisition of substantial control in the licence holder.	This has not occurred in the audit period	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
A346		For the purposes of condition 36: a) There is a "change in effective control" where, after the imposition of this condition, any person: i) acquires the capacity to appoint or control at least 50% of the number of directors of the licence holder's board; ii) becomes entitled to exercise (directly or indirectly) greater than 50% of the votes entitled to be cast at any general meeting of the licence holder; or, iii) holds more than 50% of the issued share capital (other than shares issued with no rights other than to receive a specified amount in distribution) of the licence holder.	Noted					
A346	37	b) There is a "foreign acquisition of substantial control" where, after the imposition of this condition, a person: i) acquires the capacity to appoint or control at least 15% of the number of directors of the licence holder's board; ii) becomes entitled to exercise (directly or indirectly) greater than 15% of the votes entitled to be cast at any general meeting of the licence holder; iii) holds more than 15% of the issued share capital (other than shares issued with no rights other than to receive a specified amount in distribution) of the licence holder; AND the person is: i) a natural person not ordinarily resident in Australia; ii) a corporation in which a natural person not ordinarily resident in Australia or a "foreign corporation" (meaning one that is incorporated outside Australia) holds a total interest of 15% or more; iii) a corporation in which 2 or more persons, each of whom is either a natural person not ordinarily resident in Australia or a foreign corporation, hold a total interest of 40% or more; iv) the trustee of a trust estate, in which a natural person not ordinarily resident in Australia or a foreign corporation, holds a total interest of 15% or more; or, v) the trustee of a trust estate in which 2 or more persons, each of whom is either a natural person not ordinarily resident in Australia or a foreign corporation, holds a total interest of 40% or more.	Noted					
<b>Rehabilitation</b>								
A346	38	All disturbance resulting from prospecting operations carried out under this exploration licence must be rehabilitated by the licence holder to the satisfaction of the Minister.	Inspected in site inspection	Compliant				
A346	39	In rehabilitating the disturbance resulting from prospecting operations, the licence holder must ensure that: a) all machinery, buildings and other infrastructure is removed from the area; b) the area is left in a clean, tidy and stable condition c) there is no adverse environmental effect outside the disturbed area; d) the land is properly drained and protected from soil erosion; e) the land is not a potential source of pollution; f) the land is compatible with the surrounding land and land use requirements; g) the landforms, soils, hydrology and flora require no greater maintenance . than that in, or on, the surrounding land; h) the land does not pose a threat to public safety; and i) in cases where vegetation has been removed or damaged: i) where the previous vegetation was native, species used for revegetation are endemic to the area; or ii) where the previous vegetation was not native, species used for revegetation are appropriate to the area; and iii) any revegetation is of an appropriate density and diversity.	Inspected in site inspection	Compliant				
A346	40	The licence holder must ensure that all water land and wetland crossings that are disturbed during prospecting operations are rehabilitated such that the natural flow of water is unimpeded arid bank stability is maintained to prevent erosion.	Inspected in site inspection	Compliant				
A346	41	The licence holder must comply with any relevant guidelines issued by the DirectorGeneral in the rehabilitation of disturbance resulting from prospecting operations under this exploration licence.	Inspected in site inspection	Compliant				
A346	42	All rehabilitation of disturbance resulting from prospecting operations under this exploration licence must be completed before the expiry of this exploration licence or as soon as practicable following cancellation of this exploration licence, unless otherwise approved by the Minister.	License still in place	Not Triggerred				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
A346	43	Boreholes that have been abandoned as a result of previous mining or prospecting operations, and which have been opened up or used by the licence holder are subject to the conditions of this exploration licence as if the boreholes were constructed by the holder of this exploration licence .	No such actions by MCC	Not Triggered				
<b>REPORTING</b>								
<b>Environmental Management Report</b>								
A346	44	The licence holder must submit an Environmental Management Report to the Department in the following circumstances: a) where the licence holder is seeking to renew this exploration licence, an Environmental Management Report must accompany an exploration licence renewal application; or b) where the licence holder is seeking to cancel or part cancel this exploration licence, an Environmental Management Report must accompany an exploration licence cancellation application; c) where the licence holder is not seeking to renew or cancel this exploration licence, an Environmental Management Report must be submitted prior to the expiry of this exploration licence.	AU346 Report sighted from 18 March 2013 in accordance with 44(a)	Compliant				
A346	45	The report must be prepared in accordance with any Director-General's requirements for environmental and rehabilitation reporting on exploration licences and include information on all disturbance resulting from prospecting operations and rehabilitation carried out within the exploration licence area. The report must be prepared to the satisfaction of the Director-General.	AU346 Report sighted from 18 March 2013	Compliant				
<b>Environmental Incident and Complaint Reporting</b>								
A346	46	The licence holder must, in addition to the requirements under section 148 of the Protection of the Environment Operations Act 1997: a) Notify the Department of all: i) pollution incidents causing or threatening material harm to the environment; ii) breaches of the conditions of this exploration licence; and iii) breaches of environment protection legislation (as defined in the Protection of the Environment Administration Act 1991), arising in connection with prospecting operations under this exploration licence.	Noted, no such circumstances	Not Triggered				
A346		b) The notification must be given immediately, i.e. promptly and without delay, after the licence holder becomes aware of the incident, breach or complaint. Note. Refer to <a href="http://www.resources.nsw.gov.au/environment">www.resources.nsw.gov.au/environment</a> for notification contact details.	Noted, no such circumstances	Not Triggered				
A346		c) Submit an Environmental Incident and Complaints Report to the Department within seven (7) days of all: i) pollution incidents causing or threatening material harm to the environment; ii) breaches of the conditions of this exploration licence; iii) breaches of environment protection legislation (as defined in the Protection of the Environment Administration Act 1991); and iv) complaints from landholders or the public alleging environmental harm or a breach of conditions of this exploration licence or of environment protection legislation, arising in connection with prospecting operations under this exploration licence.	Noted, no such circumstances	Not Triggered				
A346		d) The Environmental Incident and Complaints Report must include: i) the details of the exploration licence; ii) contact details for the licence holder, complainant and landholder; iii) a map showing the area of concern; iv) a description of the nature of the incident or complaint, likely causes and consequences; v) a timetable showing actions taken or planned to address the incident or complaint; and vi) a summary of all previous incidents or complaints relating to prospecting operations under this exploration licence. Note. The licence holder should have regard to any relevant Director-General's guidelines in the preparation of an Environmental Incident and Complaints Report. Refer to <a href="http://www.resources.nsw.gov.au/environment">www.resources.nsw.gov.au/environment</a> for further details.	Noted, no such circumstances	Not Triggered				
<b>SECURITY</b>								
<b>Security</b>								
A346	47	This authorisation is subject to a condition that the holder of the authorisation is required to provide and maintain a security deposit to secure funding for the fulfilment of obligations of all or any kind under the authorisation, including obligations of all or any kind under the authorisation that may arise in the future.	Evidence of \$50k held by the department as security	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
A346	48	The amount of the security deposit to be provided has been assessed by the DirectorGeneral at \$50,000.	Noted					
<b>EXPLORATION MANAGEMENT</b>								
Samples								
A346	51	The licence holder must: a) if using non-core drilling methods, retain representative cuttings every one (1) metre drilled. Such samples must be at least 200 grams in dry weight, dried, stored appropriately, and securely labelled with depth limits; and b) if using core drilling methods, retain the cores (other than material required from the cores for the purpose of assay) and samples in standard modular durable core boxes and label the cores and samples after the completion of the borehole.	Not reviewed in this audit					
A346	52	Cores and samples must be made available for examination and/or sampling by officers of the Department for the purpose of analysis or other testing upon request.	Not reviewed in this audit					
A346	53	The licence holder must not dispose of the cores or samples referred to in Condition 51 without approval of the Minister and without first offering them to the Department for archival storage. If so directed, the licence holder must lodge selected core and samples with one of the Department's Core Libraries. Selected core must be lodged with the Department in standard modular core boxes. Information on the borehole and drilling depths must be clearly and permanently indicated on both the inside and outside of each box. Note: Conditions 51 and 53 do not apply to boreholes or sections of boreholes sunk in surface gravel or alluvial ground. Specifications for standard modular core boxes can be obtained by contacting the Department.	Not reviewed in this audit					
A346	54	The licence holder must undertake analyses and tests on any or all coal seams intersected in boreholes if directed to do so by the Minister.	Not reviewed in this audit					
Work Program								
A346	55	Unless otherwise approved by the Minister, the licence holder must implement and complete the work program specified in the renewal application for this exploration licence.	Noted					
<b>SPECIAL CONDITIONS</b>								
Aboriginal Land Council Notification								
A346	56	The licence holder must inform the relevant Local Aboriginal Land Council of the grant or renewal of this exploration licence within 28 days of the grant or renewal.	No evidence provided	Not Compliant Administrative				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MINING LEASE (ML 1701)								
MINING LEASE CONDITIONS 2013								
1. Notice to Landholders								
ML 1701	1a	Within a period of three months from the date of grant/renewal of this mining lease, the lease holder must serve on each landholder a notice in writing indicating that this mining lease has been granted/renewed and whether the lease includes the surface. A plan identifying each landholder and individual land parcel subject to the lease area, and a description of the lease area must accompany the notice.	MCC own all land associated with ML 1701	Not Triggered				
ML 1701	1b	If there are ten or more landholders, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this mining lease has been granted/renewed; state whether the lease includes the surface and must contain a plan and description of the lease area. If a notice is made under condition 1 (b), compliance with condition 1 (a) is not required.	MCC own all land associated with ML 1701	Not Triggered				
2. Rehabilitation								
ML 1701	2	Any disturbance resulting from the activities carried out under this mining lease must be rehabilitated to the satisfaction of the Minister.	Noted, no exploration under this lease	Not Triggered				
3. Mining Operations Plan and Annual Rehabilitation Report								
ML 1701	3a	The lease holder must comply with an approved Mining Operations Plan (MOP) in carrying out any significant surface disturbing activities, including mining operations, mining purposes and prospecting. The lease holder must apply to the Minister for approval of a MOP. An approved MOP must be in place prior to commencing any significant surface disturbing activities, including mining operations, mining purposes and prospecting.	See MOP	Compliant				
ML 1701	3b	The MOP must identify the post mining land use and set out a detailed rehabilitation strategy which: (i) identifies areas that will be disturbed; (ii) details the staging of specific mining operations, mining purposes and prospecting; (iii) identifies how the mine will be managed and rehabilitated to achieve the post mining land use; (iv) identifies how mining operations, mining purposes and prospecting will be carried out in order to prevent and or minimise harm to the environment; and (v) reflects the conditions of approval under: • the Environmental Planning and Assessment Act 1979; • the Protection of the Environment Operations Act 1997; and • any other approvals relevant to the development including the conditions of this mining lease.	See MOP	Compliant				
ML 1701	3c	The MOP must be prepared in accordance with the ESG3: Mining Operations Plan (MOP) Guidelines September 2013 published on the Department's website at <a href="http://www.resources.nsw.gov.au/environment">www.resources.nsw.gov.au/environment</a>	See MOP	Compliant				
ML 1701	3d	The lease holder may apply to the Minister to amend an approved MOP at any time.	Noted					
ML 1701	3e	It is not a breach of this condition if: (i) the operations which, but for this condition 3(e) would be a breach of condition 3(a), were necessary to comply with a lawful order or direction given under the Environmental Planning and Assessment Act 1979, the Protection of the Environment Operations Act 1997, the Mine Health and Safety Act 2004 I Coal Mine Health and Safety Act 2002 and Mine Health and Safety Regulation 2007 I Coal Mine Health and Safety Regulation 2006 or the Work Health and Safety Act 2011; and (ii) the Minister had been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out.	Noted					
ML 1701	3f	The lease holder must prepare a Rehabilitation Report to the satisfaction of the Minister. The report must: (i) provide a detailed review of the progress of rehabilitation against the performance measures and criteria established in the approved MOP; (ii) be submitted annually on the grant anniversary date (or at such other times as agreed by the Minister); and (iii) be prepared in accordance with any relevant annual reporting guidelines published on the Department's website at <a href="http://www.resources.nsw.gov.au/environment">www.resources.nsw.gov.au/environment</a> .  Note: The Rehabilitation Report replaces the Annual Environmental Management Report.	See AEMR	Compliant				
4. Compliance Report								
ML 1701	4a	The lease holder must submit a Compliance Report to the satisfaction of the Minister. The report must be prepared in accordance with any relevant guidelines or requirements published by the Minister for compliance reporting.	Lease has not been in place for 12 months, this will occur in Nov 2015	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
ML 1701	4b	The Compliance Report must include: (i) the extent to which the conditions of this mining lease or any provisions of the Act or the regulations applicable to activities under this mining lease, have or have not been complied with; (ii) particulars of any non-compliance with any such conditions or provisions, (iii) the reasons for any such non-compliance; (iv) any action taken, or to be taken, to prevent any recurrence, or to mitigate the effects, of that non-compliance.	Lease has not been in place for 12 months, this will occur in Nov 2015	Not Triggered				
ML 1701	4c	The Compliance Report must be lodged with the Department annually on the grant anniversary date for the life of this mining lease.	Lease has not been in place for 12 months, this will occur in Nov 2015	Not Triggered				
ML 1701	4d	In addition to annual lodgement under condition 4(c) above, a Compliance Report: (i) must accompany any application to renew this mining lease under the Act; (ii) must accompany any application to transfer this mining lease under the Act; and (iii) must accompany any application to cancel, or to partially cancel, this mining lease under the Act.	Lease has not been in place for 12 months, this will occur in Nov 2015	Not Triggered				
ML 1701	4e	Despite the submission of any Compliance Report under (c) or (d) above, the titleholder must lodge a Compliance Report with the Department at any date or dates otherwise required by the Minister.	No such requests	Not Triggered				
ML 1701	4f	A Compliance Report must be submitted one month prior to the expiry of this mining lease, where the licence holder is not seeking to renew or cancel this mining lease.	Not yet required	Not Triggered				
<b>5. Environmental Incident Report</b>								
ML 1701	5a	The lease holder must notify the Department of all: (i) breaches of the conditions of this mining lease or breaches of the Act causing or threatening material harm to the environment; and (ii) breaches of environmental protection legislation causing or threatening material harm to the environment (as defined in the Protection of the Environment Operations Act 1997), arising in connection with significant surface disturbing activities, including mining operations, mining purposes and prospecting operations, under this mining lease. The notification must be given immediately after the lease holder becomes aware of the breach. Note. Refer to <a href="http://www.resources.nsw.gov.au/environment">www.resources.nsw.gov.au/environment</a> for notification contact details.	No breaches to date	Not Triggered				
ML 1701	5b	The lease holder must submit an Environmental Incident Report to the Department within seven (7) days of all breaches referred to in condition 5(a)(i) and (ii). The Environmental Incident Report must include: (i) the details of the mining lease; (ii) contact details for the lease holder; (iii) a map identifying the location of the incident and where material harm to the environment has or is likely to occur; (iv) a description of the nature of the incident or breach, likely causes and consequences; (v) a timetable showing actions taken or planned to address the incident and to prevent future incidents or breaches referred to in 5(a). (vi) a summary of all previous incidents or breaches which have occurred in the previous 12 months relating to significant surface disturbing activities, including mining operations, mining purposes and prospecting operations under this mining lease.  Note. The lease holder should have regard to any relevant Director General's guidelines in the preparation of an Environmental Incident Report. Refer to <a href="http://www.resources.nsw.gov.au/environment">www.resources.nsw.gov.au/environment</a> for further details.	No such incidents	Not Triggered				
ML 1701	5c	(c) In addition to the requirements set out in conditions 5(a) and (b), the lease holder must immediately advise the Department of any notification made under section 148 of the Protection of the Environment Operations Act 1997 arising in connection with significant surface disturbing activities including mining operations, mining purposes and prospecting operations, under this mining lease.	No exploration activities to date	Not Triggered				
<b>6. Extraction Plan</b>								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
ML 1701	6a	In this condition: (i) approved Extraction Plan means a plan, being: A. an extraction plan or subsidence management plan approved in accordance with the conditions of a relevant development consent and provided to the Secretary; or B. a subsidence management plan relating to the mining operations subject to this lease: I. submitted to the Secretary on or before 31 December 2014; and II. approved by the Secretary. (ii) relevant development consent means a development consent or project approval issued under the Environmental Planning & Assessment Act 1979 relating to the mining operations subject to this lease.	Not required	Not Triggered				
ML 1701	6b	The lease holder must not undertake any underground mining operations that may cause subsidence except in accordance with an approved Extraction Plan.	Not required	Not Triggered				
ML 1701	6c	The lease holder must ensure that the approved Extraction Plan provides for the effective management of risks associated with any subsidence resulting from mining operations carried out under this lease.	Not required	Not Triggered				
ML 1701	6d	The lease holder must notify the Secretary within 48 hours of any: (i) incident caused by subsidence which has a potential to expose any person to health and safety risks; (i i) significant deviation from the predicted nature, magnitude, distribution, timing and duration of subsidence effects, and of the potential impacts and consequences of those deviations on built features and the health and safety of any person; or (iii) significant failure or malfunction of a monitoring device or risk control measure set out in the approved Extraction Plan addressing: A. built features; B. public safety; or C. subsidence monitoring.	Not required	Not Triggered				
<b>7. Resource Recovery</b>								
ML 1701	7	The lease holder must optimise recovery of the minerals that are the subject of this mining lease to the extent economically feasible.	Noted					
<b>8. Group Security</b>								
ML 1701	8	The lease holder is required to provide and maintain a security deposit to secure funding for the fulfilment of obligations of all or any kind under the mining lease, including obligations of all or any kind under the mining lease that may arise in the future. The amount of the security deposit to be provided as a group security has been assessed by the Minister at \$33,390,000.  The leases covered by the group security include: Coal Lease 375 (Act 1973) This group security is extended to apply to this lease.	Sighted Bank Guarantees	Compliant				
<b>9. Cooperation Agreement</b>								
ML 1701	9	The lease holder must make every reasonable attempt, and be able to demonstrate its attempts, to enter into a cooperation agreement with the holder(s) of any overlapping title(s). The cooperation agreement should address but not be limited to issues such as: • access arrangements • operational interaction procedures • dispute resolution • information exchange • well location • timing of drilling • potential resource extraction conflicts; and • rehabilitation issues.	No overlapping coal titles, no contact with any other title holders	Not Triggered				
<b>SPECIAL CONDITIONS</b>								
ML 1701		Note: The standard conditions apply to all mining leases. The Division of Resources & Energy (DRE) reserves the right to impose special conditions, based on individual circumstances, where appropriate.	Noted					
<b>10. Prescribed Dam</b>								
ML 1701	10a	Notwithstanding any Mining Operations Plan, the lease holder must not mine within any part of the lease area which is within the Maules Creek Notification Area (Maules Creek Raw Water Dam 2 and Maules Creek Water Dam 2) without the prior written approval of the Minister and subject to any conditions stipulated.	Written approval sighted	Compliant				
ML 1701	10b	Where the lease holder desires to mine within the notification area he or she must: (i) at least twelve (12) months before mining is to commence or such lesser time as the Minister may permit, notify the Minister of the desire to do so. A plan of the mining system to be implemented must accompany the notice; and (ii) provide such information as the Minister may direct.	Written approval sighted	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
ML 1701	10c	<p>The Minister must not, except in the circumstances set out in sub-paragraph (ii), grant approval unless sub-paragraph (i) of this paragraph has been complied with.</p> <p>This sub-paragraph is complied with if:</p> <p>(i) the Dams Safety Committee as constituted by Section 7 of the Dams Safety Act 1978 and the owner of the dam have been notified in writing of the desire to mine referred to in paragraph (b).</p> <p>(ii) the notifications referred to in clause (a) are accompanied by a description or plan of the area to be mined.</p> <p>(iii) the Director-General has complied with any reasonable request made by the Dams Safety Committee or the owner of the dam for further information in connection with the mining proposal.</p> <p>(iv) the Dams Safety Committee has made its recommendations concerning the mining proposal or has informed the Minister in writing that it does not propose to make any such recommendations; and</p> <p>(v) where the Dams Safety Committee has made recommendations the approval is in terms that are:</p> <ul style="list-style-type: none"> <li>- in accordance with those recommendations; or</li> <li>- where the Minister does not accept those recommendations or any of them - in accordance with a determination under sub-paragraph (ii) of this paragraph.</li> </ul> <p>(vi) Where the Minister does not accept the recommendations of the Dams Safety Committee or where the Dams Safety Committee has failed to make any recommendations and has not informed the Minister in writing that it does not propose to make any recommendations, the approval shall be in terms that are, in relation to matters dealing with the safety of the dam:</p> <ul style="list-style-type: none"> <li>- as determined by agreement between the Minister and the Minister administering the Dams Safety Act 1978; or</li> <li>- in the event of failure to reach such agreement - as determined by the Premier.</li> </ul>	Written approval sighted	Compliant				
ML 1701	10d	<p>The Minister, on notice from the Dams Safety Committee, may at any time or times:</p> <p>(i) cancel any approval given where a notice pursuant to Section 18 of the Dams Safety Act 1978 is given.</p> <p>(ii) suspend for a period of time, alter, omit from or add to any approval given or conditions imposed.</p>	Noted					
<b>Exploration Reporting</b>								
ML 1701		<p>Note.: Exploration Reports (Geological and Geophysical)</p> <p>The lease holder must lodge reports to the satisfaction of the Minister in accordance with section 163C of the Mining Act 1992 and in accordance with clause 57 of the Mining Regulation 2010.</p> <p>Reports must be prepared in accordance with Exploration Reporting: A guide for reporting on exploration and prospecting in New South Wales (Department of Trade and Investment; Regional Infrastructure and Services 2010).</p>	Lease has not been in place for over twelve months	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Maules Creek Coal Project (EPBC 2010/5566)								
Conditions attached to the approval								
Disturbance Areas								
EPBC 2010/5566	1	The person taking the action must not clear more than 544 hectares (ha) of the EPBC listed White Box—Yellow Box—Blakely's Red Gum Grassy Woodland and Derived Native Grassland critically endangered ecological community within the Maules Creek project area, as identified in Attachment A of these conditions.	Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "complies. The extent of the White Box—Yellow Box—Blakely's Red Gum Grassy Woodland and Derived Native Grassland critically endangered ecological community (Box—Gum Woodland CEEC) is shown on mine plans and less than 544 ha has been cleared up until 30 March 2015."	Compliant				
EPBC 2010/5566	2	The person taking the action must not clear more than 1665 ha of habitat for the regent honeyeater ( <i>Anthochaera phrygia</i> ; formerly <i>Xanthomyza phrygia</i> ), swift parrot ( <i>Lathamus discolor</i> ) or greater long-eared bat ( <i>Nyctophilus corbeni</i> ), within the Maules Creek project area. The 1665 ha of habitat specified includes the 544 ha of the critically endangered ecological community at condition 1.	Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "complies. The extent of the habitat for these three species (i.e. forest and woodland) is shown on mine plans and less than 1,665 ha has been cleared up until 30 March 2015."	Compliant				
EPBC 2010/5566	3	The person taking the action must submit a Biodiversity Corridor plan for the approval of the Minister within three months of the date of this approval. The plan must address the following matters: a. protection of native vegetation of a total width of 500 metres (m) where the Maules Creek coal lease boundary is adjacent to the Boggabri coal mine lease boundary; b. maintenance in perpetuity of this area as a biodiversity corridor, and c. evidence that the biodiversity corridor will be protected in perpetuity through a legal mechanism that would provide the equivalent protection of a conservation covenant. The approved Biodiversity Corridor must be implemented.	Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "complies. The Biodiversity Corridor Plan was submitted to DoE in May 2013, approval by the Minister is pending."	Compliant				
EPBC 2010/5566	4	The person taking the action is required to submit a Conservation and Biodiversity Bond under condition 55 of the NSW state government project approval dated 23 October 2012 (Application 10_0138). It is noted that this bond may be combined with the rehabilitation security deposit as required by the NSW Trade & Investment - Division of Resources and Energy under the NSW Mining Act 1992. The person taking the action must submit details of this bond and the rehabilitation security deposit, to the Minister. If the Minister is not satisfied that the bond and the rehabilitation security deposit lodged by the person taking the action is adequate to provide for the implementation of the requirements referred to under conditions 3, 17, 25- 28 the Minister may require the person taking the action establish an additional bond or equivalent financial instrument in trust, under conditions approved in writing by the Minister.	Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "The NSW state government project approval requires the Conservation and Biodiversity Bond to be submitted for State approval in October 2015. Once approved, the details of this bond will be provided to DoE."	Not Triggered				
EPBC 2010/5566	5	The person taking the action must provide a map to the Minister showing the area of the biodiversity corridor within the Maules Creek coal mine lease boundary within one month of this approval decision and detail the amount (in hectares) of White Box—Yellow Box— Blakely's Red Gum Grassy Woodland and Derived Native Grassland critically endangered ecological community and habitat or potential habitat for the regent honeyeater, swift parrot and greater long-eared bat within this area.	Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "complies. Submitted to DoE in March 2013."	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
EPBC 2010/5566	6	The person taking the action must submit to the Minister for approval, within three months of the commencement of the action, an approach that: a. limits the maximum disturbance (in hectares) specified for each of the years 5, 10, 15 and 21 from the date of this approval of the White Box—Yellow Box—Blakely's Red Gum Grassy Woodland and Derived Native Grassland ecological community and the habitat or potential habitat for the regent honeyeater, swift parrot and greater long-eared bat; b. incorporates an analysis, undertaken by independent ecological experts approved by the Department, that demonstrates the maximum disturbance limits which will minimise any impacts on relevant matters of national environmental significance; c. demonstrates collaboration with the person taking the action to develop and operate the Boggabri Coal Project (ERBC 2009/5256), in order to minimise progressive project area disturbance limits across both sites. The progressive disturbance limits are to be reflected in the development of the Leard Forest Mining Precinct Biodiversity Strategy.	Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "complies. Submitted to DotE in March 2014 and approval by the Minister is pending."	Compliant				
EPBC 2010/5566	7	The person taking the action must not clear more than the maximum project area disturbance limits specified for each of the years 5, 10, 15 and 21 as described in condition 6, unless otherwise approved by the Minister.	Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "complies. The disturbance limits were submitted to DotE in March 2014 and approval by the Minister is pending."	Compliant				
EPBC 2010/5566	8	The person taking the action must publish the analysis under condition 6 on their website.	"The analysis was submitted to DotE in March 2014 and approval by the Minister is pending. Once approved the analysis will be published on web site." EPBC Audit	Compliant				
<b>Direct Offsets</b>								
EPBC 2010/5566	9	The person taking the action must register a legally binding conservation covenant over offset areas of no less than: a. 9,334 ha of an equivalent or better quality of habitat for the regent honeyeater, swift parrot and greater long-eared bat; and b. 5,532 ha of an equivalent or better quality of the White Box—Yellow Box— Blakely's Red Gum Grassy Woodland and Derived Native Grassland ecological community. Note: the 5,532 ha of White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland ecological community may be included within the 9,334 ha of offset area for the threatened species if it meets the listing criteria for the EPBC-listed critically endangered ecological community as defined in the EPBC listing advice for that community and the requirements of condition 9.	Biodiversity management Plan Sections 3.3, 3.6 and 3.7 and Appendix B  Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "The offset areas subject to Approval Decision EPBC 2010/5566 are required to be protected by a legally binding covenant in perpetuity by 11 February 2018 (Approval Condition 13)."	Not Triggered				
EPBC 2010/5566	10	The person taking the action must verify through independent review the quantity and condition class of White Box—Yellow Box—Blakely's Red Gum Grassy Woodland and Derived Native Grassland ecological community and the quantity and quality of habitat for the regent honeyeater, swift parrot and greater long-eared bat within all proposed offset areas including those proposed in the Environmental Assessment, as defined at Attachment C of these conditions, and any additional offsets as required at condition 9. Details of all independently verified offset areas must be submitted to the Minister for approval by 30 December 2013. The findings of the independent review must be published on the proponent's website.	Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "complies. Submitted to DotE in December 2013."	Compliant				
EPBC 2010/5566	11	If the independent review finds that the offset areas do not meet the requirements of conditions 9, 12 a and 12 b, then additional areas must be included in the offset areas until all relevant criteria under these conditions are met.	Submitted to DotE in December 2013 and April 2014.	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
EPBC 2010/5566	12	The offset areas must be of an overall equivalent or better quality than the areas being cleared. This means: a. for White Box—Yellow Box—Blakely's Red Gum Grassy Woodland and Derived Native Grassland ecological community, offset areas must meet the definition of the ecological community described in the listing advice, and must be of an overall equivalent or better condition class than the areas being cleared, based on the proportion of each condition class represented and other relevant ecological attributes; b. for the threatened species, the quality of the habitat for the species, taking account of its ecological requirements, must be equivalent to or better than the areas being cleared.	Independent review of offset submitted as per condition 10 and 11 above.	Compliant				
EPBC 2010/5566	13	The mechanism/s for registering a legally binding covenant must provide protection for the offset areas in perpetuity and be registered within 5 years of the date of this approval.	Not required until February 2018.	Not Triggered				
EPBC 2010/5566	14	If the person taking the action proposes to undertake any action within areas secured under condition 9, other than those management activities related to managing the offset areas or as set out in the conditions approval, then approval to undertake that action must be obtained in writing from the Minister. In seeking the Minister's approval, the person undertaking the action must provide a detailed assessment of the area where the action is proposed to take place and an assessment of all associated adverse impacts on matters of national environmental significance. If the Minister agrees to the action within the offset areas, the area identified for the action must be excised from the offset area and alternative offsets secured by the person taking the action at a ratio of at least 20:1 in relation to the impact on matters of national environmental significance.	Security not required until February 2018.	Not Triggered				
<b>Indirect Offsets</b>								
EPBC 2010/5566	15	To compensate for the loss of the White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland ecological community and habitat for the regent honeyeater, swift parrot and greater long-eared bat the person taking the action must submit to the Minister for approval, within 2 years of the date of this approval, a project plan to invest \$1 million for research that will identify effective methodologies for achieving rehabilitation and restoration of functioning White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland ecological community on mining sites. The research must be undertaken by a third party and be available to Industry and governments generally. The approved project plan must be implemented.	Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "complies. Submitted to DotE in Feb 2015.."	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
EPBC 2010/5566	16	To compensate for the loss of the habitat for the regent honeyeater, swift parrot and greater long-eared bat the person taking the action must provide \$1,500,000 million over the life of the approval (comprising \$500,000 for each of the regent honeyeater, swift parrot and greater long-eared bat), to deliver activities that implement priority recovery actions consistent with National Recovery Plans and as agreed with the relevant Recovery Planning Teams for the regent honeyeater, swift parrot and greater long-eared bat. A detailed project plan governing the timing of the \$1,500,000 funding for the activities and outcomes must be developed. The project plan must be submitted to the Minister for approval within 2 years of the date of this approval, or otherwise agreed in writing by the Minister. The approved project plan must be implemented.	An extension of time until 30 December 2015 has been granted by the delegate of the Minister as the National Recovery Plans for the Greater Long-eared Bat and Regent Honeyeater Recovery Plans have not been finalised.	Compliant				
<b>Offset Management Plan</b>								
EPBC 2010/5566	17	The person taking the action must submit to the Minister for approval an Offset management plan for all of the offset areas, specified in condition 9, within 12 months of the date of this approval. The approved Offset management plan must be implemented. Note: for consistency, the proponent may develop a Biodiversity Management plan that includes the requirements set for managing offsets and set out in these conditions, to align with the requirements of the NSW state government Project Approval dated 23 October 2012 (application number 10_0138) and this approval.	Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "complies. Originally submitted to DoE in February 2014 as part of the Biodiversity Management Plan and approval by the Minister is pending. A revision of the Biodiversity Management Plan was submitted to DoE in March 2015."	Compliant				
EPBC 2010/5566	18	The Offset management plan must include, but not be limited to, the following: a) a text description and map which clearly defines the location and boundaries of the offset areas. This must be accompanied by the offset attributes and shapefiles; b) a description of the methodology and results of surveys measuring the baseline ecological conditions in the offset areas. This must be consistent with the State and Transition Model and include but not be limited to: i. the extent and condition of all vegetation communities, including a description of the structure, floristics and tree age class representation of each community; ii. the extent and condition class of all areas of the White Box—Yellow Box—Blakely's Red Gum Grassy Woodland and Derived Native Grassland ecological community; iii. surveys targeting the regent honeyeater, swift parrot and greater long-eared bat; iv. the extent and quality of all areas of habitat for the regent honeyeater, swift parrot and greater long-eared bat; v. the location of all survey sites (including co-ordinates); vi. photo reference points at survey sites. c) clearly defined ecological management objectives for the offset areas; d) detailed description of all ecological management activities proposed to be undertaken, including maps and/or diagrams showing areas to be managed and the timing of the proposed activities; e) details of ongoing ecological monitoring programs, performance criteria, targets and provisions for adaptive management, including but not limited to: j. a set of measurable ecological indicators for detecting changes to the White Box—Yellow Box—Blakely's Red Gum Grassy Woodland and Derived Native Grassland ecological community, including those that may be ascribed to ongoing water stress;	Biodiversity Management Plan (a) Section 3.0 and Figure 3 (b) Appendix D provides the methodology and summary of ecological surveys conducted on the offset properties. Further surveys will be undertaken as a component of the monitoring program (Sections 13.2 and 13.3) (i) Sections 3.0, 6.0, 8.0, 10.0 and maps therein. Data is provided in Appendix D (ii) Section 3.7 and Appendix D (iii) Section 13.3 and Appendix D (iv) Section 3.6 and Appendix B (v) Sections 13.2 and 13.3, and Appendix D (vi) Sections 13.2 and 13.3 (c) Sections 1.3, 3.0, 7.0, 9.0 and 11.0 (d) Sections 7.0, 9.0, 11.0 and 12.0 (e) Sections 12.0 and 13.0 (f) Section 13.0  See above cell	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
		ii. a monitoring plan to assess the success of the management activities measured against the baseline condition. The monitoring must be statistically robust and able to quantify change in the condition of the White Box—Yellow Box—Blakely's Red Gum Grassy Woodland and Derived Native Grassland ecological community and habitat for the regent honeyeater, swift parrot and greater long-eared bat. This should include the use of control sites and periodic ecological surveys to be undertaken by a qualified ecologist; iii. a list of performance criteria based on the ecological management objectives for the White Box—Yellow Box—Blakely's Red Gum Grassy Woodland and Derived Native Grassland ecological community and habitat for the regent honeyeater, swift parrot and greater long-eared bat; iv. measures to exclude weeds from all offset areas for the period covered by this approval; v. a description of the potential risks to successful management against the performance criteria, and a description of the contingency measures that would be implemented to mitigate against these risks; vi. a process by which to report to the department the progress of management activities undertaken in the offset areas and the outcome of those activities, including identifying any need for improved management and activities to undertake such improvement. f) details of all parties responsible for management, monitoring and implementing the management activities, including their position or status as a separate contractor. g) details of the funding requirements for the ongoing management activities, including an estimate of the costs of the activities and details of the parties responsible for funding the activities.	(ii) Section 13 (iii) Section 12.0 (iv) Sections 7.4, 9.4 and 11.4 (v) Table 14.1 (vi) Section 17.2.2 (f) Section 15.0 (g) Section 3.5  See above cell	Compliant				
EPBC 2010/5566	19	Unless otherwise agreed to in writing by the department, the baseline surveys for threatened species must be conducted in accordance with the department's Survey Guidelines for Australia's Threatened Birds and the Survey Guidelines for Australia's Threatened Bats. Subsequent monitoring must be carried out annually at the same time of year as the baseline surveys, unless otherwise agreed to in writing by the department.	Biodiversity Management Plan Section 13.3.4 and Appendix D  Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "complies. Surveys undertaken in line with these guidelines"	Compliant				
Surface and Groundwater Management Plans								
EPBC 2010/5566	20	The person taking the action must provide to the Minister for approval, the surface and groundwater management plans as identified in condition 36 of the NSW state government Project Approval dated 23 October 2012 (application number 10_0138). The surface and groundwater management plans must be approved by the Minister prior to commencement of construction.	Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "complies. Submitted to DotE in 2013. Letter approving the WMP was received from the Minister in July 2013. The letter also states that conditions 20, 21 and 22 have been met."	Compliant				
EPBC 2010/5566	21	The surface and groundwater management plans must be consistent with the National Water Quality Management Strategy.	Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "complies. Submitted to DotE in 2013. Letter approving the WMP was received from the Minister in July 2013. The letter also states that conditions 20, 21 and 22 have been met."	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
EPBC 2010/5566	22	The person taking the action must, prior to commencement of construction, in collaboration with the proponent to develop and operate the Boggabri Extension (ERBC 2009/5256) and any other approved mines within 20 kilometres (km) of the project area, provide written advice to the Minister demonstrating how the NSW government approved surface and groundwater management plans (condition 20), addresses the cumulative impact of groundwater drawdown as a result of mining and how this may impact on the consequent health of the remnant native vegetation in the Leard State Forest, the Leard State Conservation Area and surrounding areas. In particular the advice must address the following matters; a. maximum amount of allowable drawdown in the alluvial aquifer b. drawdown in hard rock c. trigger levels pertaining to drawdown in the alluvial aquifer when corrective actions will be required to be undertaken d. identify the depth of root zone of the native vegetation e. monitoring to assess the ongoing quality and quantity of both surface and groundwater to identify impacts on the native vegetation.	Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "complies. Submitted to DotE in 2013. Letter approving the WMP was received from the Minister in July 2013. The letter also states that conditions 20, 21 and 22 have been met."	Compliant				
EPBC 2010/5566	23	The person taking the action must within 6 months of the date of this approval, or such other timeframe specified by the Minister, provide to the Minister a report on: a. any updated modelling of surface and groundwater impacts that has been undertaken in preparing the surface and groundwater management plans b. how the surface and groundwater management plans addressed groundwater and surface water impacts on matters of national environmental significance.	Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "complies. Submitted to DotE in February 2014 in accordance with revised timeframe."	Compliant				
<b>Leard Forest Mining Precinct Regional Biodiversity Strategy</b>								
EPBC 2010/5566	24	The person taking the action must implement the regional biodiversity strategy as required under condition 41 of the NSW state government project approval dated 23 October 2012 (application number 10_0138). The required scoping report for the development of the strategy must be submitted to the Minister for approval on or before 31 July 2013. The approved strategy must be implemented.	Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "complies. A Stage 1 scoping report was submitted to the DotE in June 2013 and approval by the Minister is pending.	Compliant				
<b>Mine site rehabilitation</b>								
EPBC 2010/5566	25	To mitigate the impacts to the White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland and the habitat of the regent honeyeater, swift parrot and greater long-eared bat, the person taking the action must, within 12 months of the commencement of construction, submit to the Minister for approval a mine site rehabilitation plan for the progressive rehabilitation and revegetation of no less than 1665 ha of native forest and woodland (less the portion included in the biodiversity corridor identified in condition 3) in the project area including 544 ha using species consistent with a White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland Ecological Community. This approved mine site rehabilitation plan must be implemented.	Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "Complies. The Mine Site Rehabilitation Plan was submitted to DotE in December 2014 and approval by the Minister is pending."	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
EPBC 2010/5566	26	The person taking the action must: a. rehabilitate the site to be consistent with the proposed rehabilitation strategy as provided in the Environmental Assessment and, as required under the NSW State Government approval dated 23 October 2012 (Application 10_0138); and b. not replace top soil and sub soil layers at a depth less than the minimum depths determined through pre-stripping soil surveys as described in condition 27(c). Note: the NSW state government Project Approval dated 23 October 2012 (application number 10_0138) conditions require pre-stripping soil surveys and inventories to inform the availability, rehanding, stockpiling and management of soils, and maximising the salvaging of soil to be used, in the rehabilitation of the site.	Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "Complies. The Mine Site Rehabilitation Plan was submitted to DotE in December 2014 and approval by the Minister is pending."	Compliant				
EPBC 2010/5566	27	The mine site rehabilitation plan must include, at a minimum, the following information: a. targets and performance indicators to achieve effective restoration of potential habitat for the regent honeyeater, swift parrot and greater long-eared bat and White Box—Yellow Box—Blakely's Red Gum Grassy Woodland and Derived Native Grassland ecological community, including weed management; b. details of the vegetation communities to be rehabilitated and the timing of progressive rehabilitation (commencing as soon as practicable following disturbance); c. detailed soil depth surveys and analysis to inform the effective placement and restoration of soils underlying the proposed rehabilitation sites; including mapping of soils across the disturbance sites and soil sampling at no less than one sample point per 20 ha of each soil type identified. Sampling must identify; type, depth, water holding capacity, structure and physio-chemical properties of each of the soil and subsoil layers; d. processes and methodologies for the removal, storage and re-layering of the top soil and sub soil layers underlying the disturbed sites being prepared for rehabilitation. These processes and methodologies must ensure the replacement of top soil and sub soil layers:	Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "Complies. The Mine Site Rehabilitation Plan was submitted to DotE in December 2014 and approval by the Minister is pending."	Compliant				
		<ul style="list-style-type: none"> <li>meet the minimum depth requirements determined from sampling outcomes as identified in condition 27(c); and</li> <li>replicate other existing soil parameters including, but not limited to, soil type, water holding capacity, structure and physio-chemical properties.</li> </ul> 6. a process to report annually to the department the rehabilitation management actions undertaken and the outcome of those actions, and the mechanisms to be used to identify the need for improved management; f. a description of the potential risks to successful management and rehabilitation on the project site, including weed invasion, and a description of the contingency measures that would be implemented to mitigate these risks; g. details of long-term management and protection of the mine site, including details of the commitment of funds to achieve this.	Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "Complies. The Mine Site Rehabilitation Plan was submitted to DotE in December 2014 and approval by the Minister is pending."	Compliant				
EPBC 2010/5566	28	The mine site rehabilitation plan must be subject to an independent review by a qualified ecologist prior to being submitted to the Minister for approval. The findings of the independent review must be published on the proponent's website.	Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "Complies. The Mine Site Rehabilitation Plan (and independent review report) was submitted to DotE in December 2014 and approval by the Minister is pending."	Compliant				
Final Landform								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
		Note: for consistency, the person taking the action may develop a single mine rehabilitation plan to align with the requirements, including timing of reporting, of the NSW State Government approval dated 23 October 2012 (Application 10_0138) and this approval. The Offset Management Plan and the Rehabilitation management Plan need to be substantially integrated for achieving biodiversity objectives for the rehabilitated mine-site.						
EPBC 2010/5566	29	The person taking the action must undertake rehabilitation to ensure the final landform provides the optimum opportunity for the successful restoration of native forest and woodland including the critically endangered White Box—Yellow Box—Blakely's Red Gum Grassy Woodland and Derived Native Grassland ecological community. Note: for consistency, the proponent may develop a single mine rehabilitation plan to align with the requirements of the NSW Government and this approval. The Offset Management Plan and the Rehabilitation management Plan need to be substantially integrated for achieving biodiversity objectives for the rehabilitated mine-site.	Refer condition 25	Compliant				
EPBC 2010/5566	30	The person taking the action must undertake rehabilitation to ensure the final void and landform minimises the extent of any resulting pit lake, avoids salt scalding and ensures that drained waters do not adversely affect the downstream environment and avoids any impacts on matters of national environmental significance. Note: the State approval conditions for project 10_0138 require the preparation and implementation of an updated Final Void and Mine Closure Plan that considers interactions with the adjoining mines, including interaction between final voids, opportunities for integrated mine planning with adjoining mines to minimise environmental impacts, all reasonable and feasible landform options for the final void (including filling) and predicted hydrochemistry and hydrogeology (including long-term groundwater recovery and void groundwater quality).	Condition will be considered when developing the Final Void and Mine Closure Plan required by the end of December 2020.	Not Triggered				
Survey data								
EPBC 2010/5566	31	All survey data collected for the project must be recorded so as to conform to data standards notified from time to time by the department. When requested by the department, the proponent must provide to the department all species and ecological survey data and related survey information from ecological surveys undertaken for matters of national environmental significance. This survey data must be provided within 30 business days of request, or in a timeframe agreed to by the department in writing. The department may use the survey data for other purposes.	Biodiversity Management Plan Section 17.2.4 DotE has not requested species and ecological survey data.	Not Triggered				
EPBC 2010/5566	32	In the event that any additional matters of national environmental significance are recorded within the project area and a significant impact on the matter/s is likely, the department must be notified in writing within 14 days of the matter/s being recorded. In accordance with condition 37, the Minister may request that the person taking the action revise any relevant plans to ensure better protection of the relevant matter/s.	Notification of Tylophora linearis was provided in March 2014.	Compliant				
Reporting and auditing								
EPBC 2010/5566	33	Within 14 days after the commencement of construction, the person taking the action must advise the department in writing of the actual date of commencement of construction.	Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "Complies. The DotE was advised in December 2013 that construction commenced in December 2013."	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
EPBC 2010/5566	34	By the end of March of each year after the commencement of the action, the person taking the action must publish a report on their website addressing compliance with the conditions of this approval over the previous 12 months, including implementation of any management plans as specified in the conditions. Non-compliance with any of the conditions of this approval must be reported to the department at the same time as the compliance report is published.	Biodiversity Management Plan Section 17.2.3  Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "Complies. The first compliance report was published in March 2014. The next compliance report is due in March 2016.	Compliant				
EPBC 2010/5566	35	Upon the direction of the Minister, the person taking the action must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the Minister. The independent auditor must be approved by the Minister prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister.	Biodiversity Management Plan Section 17.3.1  No audit has been requested.	Not Triggered				
EPBC 2010/5566	36	If the person taking the action wishes to carry out any activity otherwise than in accordance with the plans, as specified in the conditions, the person taking the action must submit to the department for the Minister's written approval a revised version of that plan. The varied activity shall not commence until the Minister has approved the revised plan in writing. The Minister will not approve a revised plan, unless the revised plan would result in an equivalent or improved environmental outcome. If the Minister approves the revised plan that plan must be implemented in place of the plan originally approved.	Biodiversity Management Plan Section 17.1  Revised plans as necessary have been submitted to the minister.	Compliant				
EPBC 2010/5566	37	If the Minister believes that it is necessary or convenient for the better protection of listed threatened species and communities or listed migratory species to do so, the Minister may request that the person taking the action make specified revisions to the management plan specified in the conditions and submit the revised plan for the Minister's written approval. The person taking the action must comply with any such request. The revised approved plan must be implemented. Unless the Minister has approved the revised plan then the person taking the action must continue to implement the originally approved plan, as specified in the conditions.	Biodiversity Management Plan Section 17.1.4  Approval Decision EPBC 2010/556 Compliance Report 2014 sighted - "Complies. In May 2014, DotE requested a revised Offset Management Plan and Mine Rehabilitation Management Plan to address Tylophora linearis. A revised Biodiversity Management Plan was provided in July 2014 (and in March 2015) and the Mine Site Rehabilitation Plan was provided in December 2014."	Compliant				
EPBC 2010/5566	38	38. If, at any time after 5 years from the date of this approval, the person taking the action has not substantially commenced the action, then the person taking the action must not substantially commence the action without the written agreement of the Minister.	Construction commenced in December 2014.  Mining operations commenced in August 2014.	Compliant				
Publication of plans								
EPBC 2010/5566	39	The person taking the action must maintain accurate records substantiating all activities and outcomes associated with or relevant to the above conditions of approval, including measures taken to implement the management plans required by this approval, and make them available upon request to the department. Such records may be subject to audit by the department or an independent auditor in accordance with section 458 of the Environment Protection and Biodiversity Conservation Act 1999, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the department's website. The results of audits may also be publicised through the general media.	Biodiversity Management Plan Section 17.2.4  EPBC Audit 2014: <i>DotE has not requested records.</i> "Complies"	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
EPBC 2010/5566	40	Unless otherwise agreed to in writing by the Minister, the person taking the action must publish all management plans referred to in these conditions of approval on their website. Each management plan must be published on the website within 1 month of being approved.	Biodiversity Management Plan Section 17.2 Approved management plans will be published on <a href="http://www.whitehavencoal.com.au">www.whitehavencoal.com.au</a>	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
WHC_PLN_MC Environmental Management Strategy								
4.2 Training and Competencies								
WHC_PLN_MC_EMS	4.2	MCC will implement an extensive training program to promote environmental awareness and understanding of individual responsibility. All contractors and personnel will undergo an induction level of training as a prerequisite to commencing work on site, with records of induction attendance maintained by the Work Health and Safety Team.	Environmental awareness training material for inductions sighted	Compliant				
WHC_PLN_MC_EMS	4.2	In addition to the induction course, environmental awareness and understanding will be maintained and improved by implementing a regular Tool Box Talk Program.	Environment staff present on environmental issues regularly at the pre-start meetings and at tool box talks when required	Compliant				
WHC_PLN_MC_EMS	4.2	Targeted environmental training will be provided for specific individuals or teams where certain roles or operational areas present a high environmental risk.	MCCM has developed Management Plans to address the High environmental risks identified in the EA. These are covered in the WHC Generic & MCC specific inductions. Additional awareness training is provided through toolbox talks, pre-starts & briefing notes that target environmental risks eg watercart usage & noise (as provided). Other High environmental risk activities such as Arch salvage & Ecology are conducted by suitably qualified and trained sub-consultants. The Real-Time noise level SMS trigger system and associated assessment. Procedure for Noise SMS Trigger has been circulated to all relevant personnel including OCEs, safety, training and operations departments.	Compliant				
WHC_PLN_MC_EMS	4.2	A record of training including personal development undertaken will be recorded in a Responsibility Matrix. Copies of education and training qualifications will be maintained in personnel files accessible on site. The Responsibility Matrix will be updated on an ongoing basis as required with changes to positions, roles and staff, and training or other personal development undertaken.	Records of induction and competency training kept but there is no Responsibility Matrix as described here. There are responsibility matrices in the back of all the EMPs but not in this form.	Not Compliant Administrative				
4.3 Communication								
4.3.1 Internal Communication								
WHC_PLN_MC_EMS	4.3.1	Information about the organisation's environmental aspects and environmental management system will be communicated internally among all levels and functions of the Project.	Risk assessment conducted to inform the site specific Induction which is completed by a employees. The Risk Assessment drives the EMPs and Procedures that are updated as risks are identified and then passed through the workplace.	Compliant				
4.3.2 Internal Environmental Incident Reporting								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
WHC_PLN_MC_EMS	4.3.2	All environmental incidents will be reported as soon as possible using the Incident Report Form.	Minor onsite Environmental Incidents are reported to the Environmental Team and are responded to immediately. However no formal record keeping system currently being utilised.	Not Compliant Administrative				
WHC_PLN_MC_EMS	4.3.2	All environmental incidents are managed by the Environmental Manager and will be lodged in the Incident Register.	Minor onsite Environmental Incidents are reported to the Environmental Team and are responded to immediately. However no formal record keeping system currently being utilised.					
WHC_PLN_MC_EMS	4.3.2	A summary of any environmental incidents that occur during the operations will be reported within the Annual Review.	"No incidents" reported in 2013 AEMR (3.10; 3.11; 3.14). 2014 AEMR: "No incidents" (3.9; 3.10). Fire reported in 3.13.	Compliant				
4.3.3 External Consultation								
WHC_PLN_MC_EMS	4.3.3	Whitehaven will implement external communication avenues to ensure up to date information on the Project activities, management systems and environmental performance are readily available to the public.	CCC and website, stakeholder meetings and presentations	Compliant				
4.3.4 Community Consultative Committee								
WHC_PLN_MC_EMS	4.3.4	The Project will establish a MCC Community Consultative Committee (CCC) in accordance with Schedule 5, Condition 7 of PA 10_0138. The CCC will include at least one member representing the Maules Creek community, one member from the Aboriginal stakeholder groups an independent chairperson and representatives who also form part of the CCCs for surrounding mining operations.	CCC Minutes	Compliant				
4.3.5 Complaints Handling and Response								
WHC_PLN_MC_EMS	4.3.5	The Project will continue to maintain a community contact line (Phone number 1800 MAULES, 1800 628 537.) for members of the public to lodge complaints and raise concerns associated with the Project. The community contact line will be regularly advertised in the local newspaper with members of the local community encouraged to utilise the resource.	Yes, on the website. Group advert for all Whitehaven Sites	Compliant				
WHC_PLN_MC_EMS	4.3.5	All complaints received will be recorded on the Complaints Form and lodged in the Complaints Register. All external complaints and issues will be managed and resolved by the Environment Manager.	The complaints are entered directly into the register there is a community comment / complaint form on the website that is then entered into the register.	Compliant				
4.3.6 Annual Environmental Management Report								
WHC_PLN_MC_EMS	4.3.6	An Annual Review will be prepared by the end of March each year. The Annual Review will summarise the key Project activities and environmental performance for the preceding 12 month period. The Annual Review will also outline any proposed revision of any strategies, plans and programs.	2013 AEMR prepared 18/03/2014. 2014 AEMR (version 1) prepared 30/03/2015.  Inclusion requirements noted and viewed in each.	Compliant				
4.4 EMS Documentation								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
WHC_PLN_MC_EMS	4.4	The Environmental Manager will maintain a Register of EMS Documents which will list policies, manuals, procedures, plans, external documents, registers, forms, templates and records relevant to the environmental management system. The register will detail the Whitehaven reference number, name, description, responsibility, last updated date, date required for review and comments.	The EMS register exists and lists a large number of documents that are relevant to the environmental management of the site. It does not list external documents.	Not Compliant Administrative				
4.5 Document Control								
WHC_PLN_MC_EMS	4.5	All EMS documentation will be subject to an extensive review process to ensure guidelines and internal policy managing environmental aspects meet any legislative requirements and remain Project specific.	The register listed the review status of each document and noted those that were due or overdue for review.	Compliant				
WHC_PLN_MC_EMS	4.5	The Environmental Manager will be responsible for managing any changes to EMS documents. Should any revisions be required, notices of significant changes to documents will be promoted through toolbox talks and additional training sessions where required. Earlier versions of a revised document will be stored as a record in an Archived Documents and Records folder on the internal WHC server, to which only the Environmental Manager and the system administrator have access.	This occurs - confirmed through interviews and discussions with other staff.	Compliant				
4.6 Operations Control								
WHC_PLN_MC_EMS	4.6	A suite of procedures and forms will be developed to assist with the implementation and recording of onsite activities and will be available on the WHC intranet for ease of access and use by Project personnel. These procedures and forms are also detailed in the Register of EMS Documents. Where a procedure does not exist for an activity, an appropriate risk assessment is required to be undertaken prior to commencement of the work. This will help identify any potential hazards/risks to the environment.	Sighted through out the audit	Compliant				
4.7 Emergency Response								
WHC_PLN_MC_EMS	4.7	MCC will regularly review and, where necessary, revise its emergency preparedness and response procedures. Emergency response texts for incidents such as fire drills will be regularly undertaken and recorded by the EGM Projects Delivery in the Incident Report Register. Should an emergency incident occur, these procedures will be implemented to ensure the response is practical and appropriate in practice.	The OHS team run regular drills in emergency response and use the outcomes of these drills to revise and maintain the Emergency Response Plan.	Compliant				
5.0 Environmental Monitoring, Corrective Action and Auditing								
5.1 Monitoring and Measurement								
WHC_PLN_MC_EMS	5.1	MCC will ensure that all monitoring and measurement equipment is calibrated and verified and appropriately maintained when conducting monitoring and measurements as prescribed by PA 10_0138. Monitoring results and performance, applicable operational controls and progress in achieving the objectives and targets shall be documented and recorded.	Sighted calibration records for HiVols, Weather station, pumping flow meter and TEOMS	Compliant				
5.2 Non-Conformance and Corrective & Preventative Action								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
WHC_PLN_MC_EMS	5.2	The Project will implement a process for taking corrective and preventative actions against identified and potential non-compliances. Should an environmental non-conformance occur, an Incident and Investigation Form will need to be completed	Incidents dealt with above, preventative actions include actions to reduce air quality and noise issues through the Dispatch person at the lookout, removing sediment from basins etc Incident Reporting Form not use in all cases.	Not Compliant Administrative				
5.3 Control of Records								
WHC_PLN_MC_EMS	5.3	The Environmental Manager is responsible for recording and maintaining accurate records of all parameters recorded as part of the environmental monitoring undertaken for the Project. Regular reporting of monitoring results is also published on the WHC website to provide transparency on the environmental performance of the Project.	Results viewed on the WHC website on 30/07/2015 from May 2014 - June 2015 inclusive	Compliant				
5.4 EMS Internal Audits								
WHC_PLN_MC_EMS	5.4	Internal Environmental Audits shall be conducted by Project personnel including the Environmental Manager and the relevant Managers or their delegates. The Internal Environmental Audit shall be conducted for individual departments in accordance with an agreed schedule on an annual basis. The Internal Environmental Audit will require the completion of an Internal Environmental Audit Report.	No audits have been conducted in accordance with this commitment. Regular environmental reviews and inspections are undertaken that fulfill this requirement but not in compliance with this requirement.	Not Compliant Administrative				
6 Review and Improvement								
6.1 Management Review								
WHC_PLN_MC_EMS	6.1	This EMS will be reviewed on an annual basis by the Senior Management team (as managed by the Environmental Manager) to ensure that it will be adequate for the upcoming operations and to ensure that adequate resources are allocated to environmental management to affirm continual improvement.	EMS document on WHC website was last updated 23/04/2013.	Not Compliant Administrative				
6.2 Review								
WHC_PLN_MC_EMS	6.2	This EMS will be reviewed following an annual review, incident report, audit, and modification of approval. It will be updated every five years, or as required. The review will include an assessment of the effectiveness of the established system and its performance against the objectives and performance outcomes.	Final version published on 23/04/2013.	Not Compliant Administrative				
8 Dispute Resolution								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
WHC_PLN_MC_EMS	8	<p>In the event that any complainant does not consider MCC's response or reactions adequately address their concerns, the following procedure will be adopted.</p> <p>1. A meeting will be convened with the Project Manager and/or Environmental Manager to seek resolution to the matter. The complainant will be provided with a written response from MCC detailing the results of investigations to date and the agreed actions to be taken in respect of the measures to be implemented.</p> <p>2. On implementation of the nominated measures, a further meeting will be convened to seek advice of satisfaction or otherwise as to the outcomes.</p> <p>If, after 21 days following Steps 1 and 2, the complainant believes the matter remains unresolved and no further agreement can be reached as to additional measures to be undertaken, the matter will be referred to the Director General.</p>	No such issues in the audit period	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility																							
					Consequence	Likelihood	Risk																								
Environmental Monitoring Program - Contained within the Environmental Management Strategy																															
5.0 Environmental Monitoring, Corrective Action and Auditing																															
5.1 Monitoring and Measurement																															
WHC_PLN_MC_EMS	5.1	MCC have developed an extensive environmental monitoring program within and surrounding the Project area in accordance with PA 10_0138 and the EA. Various monitoring programs for specific environmental impacts are detailed in the relevant EMPs. The Environmental Monitoring Program consolidates the monitoring requirements for the Project. This program is briefly summarised in Table 4.	Noted																												
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Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
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		Note: Table 4 will be revised and updated accordingly following any revisions of the monitoring programs detailed in individual Management Plans.	Noted					
		MCC will ensure that all monitoring and measurement equipment is calibrated and verified and appropriately maintained when conducting monitoring and measurements as prescribed by PA 10_0138. Monitoring results and performance, applicable operational controls and progress in achieving the objectives and targets shall be documented and recorded.	Calibration certification sighted for monitoring equipment installed	Compliant				
		For each relevant monitoring and measurement activity, the following will be undertaken: <input checked="" type="checkbox"/> Identify and document the information to be obtained; <input checked="" type="checkbox"/> Specify and document monitoring procedures, including locations, frequencies, nature of measurement, accuracy expected and the means of interpreting and using the data; <input checked="" type="checkbox"/> Specify and document equipment calibration procedures and records; <input checked="" type="checkbox"/> Document actions to be taken when non-conformances occur and/or performance criteria are breached; and <input checked="" type="checkbox"/> Safeguard measurement systems from unauthorised adjustments, damage or use.	Results viewed on the WHC website on 30/07/2015 from May 2014 - June 2015 inclusive	Compliant				
		The Environmental Manager is responsible for recording and maintaining accurate documentation of all parameters recorded as part of the environmental monitoring undertaken for the Project within a suitable system. Section 5.3 details the monitoring records and reporting requirements.	Results viewed on the WHC website on 30/07/2015 from May 2014 - June 2015 inclusive	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
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WHC_PLN_MCC_Noise Management Plan								
2.0 STATUTORY REQUIREMENTS AND COMMITMENTS								
2.3 Commitments Made in Environmental Assessment								
	2.3	MCC will install a real time noise monitoring system at locations selected in consultation with EPA, as presented within this NMP.	3 real-time devices installed	Compliant				
4.0 APPROVED NOISE AND VIBRATION								
4.1 Construction Noise and Vibration								
		Time periods approved for construction include: • Rail spur line construction hours between 7:00 am to 6:00 pm Monday to Friday inclusive and 8:00 am to 1:00 pm on Saturday; and • Other construction activities for the Project may occur 24 hours per day, 7 days per week.	Noted					
		In accordance with Schedule 3, Condition 6, an Out of Hours Work (OOHW) Protocol will be prepared for any work on the construction of the rail spur that is proposed to occur in the periods outside those permissible.	This has been completed. See OOHW	Compliant				
		The OOHW Protocol will be develop in consultation with EPA and the residents who would be affected by the noise generated from these works and approved by the Director General prior to carrying out any works beyond the permissible hours.	Approval letter sighted	Compliant				
		The OOHW Protocol will be implemented for any construction works on the Maules Creek Rail Spur that will occur outside the hours detailed above and will include the following: • Details of work to be completed during OOHW; • Noise modelling of proposed activities to determine that the proposed activities can be undertaken, whilst meeting the relevant criteria; • Monitoring throughout the work at nearest residence/s to ensure the relevant criteria is being met; • Communicating night time works to residents that occur within 2 km of the proposed night time work area; and • Provide contact details of the construction superintendent to residents with 2 km of the proposed work area.	Included in the OOHW	Compliant				
4.2 Operational Noise Emissions								
	4.2	MCC will continue to liaise and consult with the owners of the properties where effects of operational noise have been identified.	Ongoing, as required.	Compliant				
	4.2	a review of the rail spur design will be undertaken by a suitably qualified and experienced person to determine whether it incorporates reasonable and feasible noise mitigation measures, including suitable measures to minimise low frequency noise as required by Schedule 3 Condition 14 of the approval.	Review conducted by Aurecon, approved by DP&E	Compliant				
	4.2	Upon the completion of construction activities, MCC will undertake commissioning trials to determine the optimal train speeds to minimise noise impacts. Noise monitoring of the rail spur will also be undertaken to determine the accuracy of predicted acoustic impacts and effectiveness of any noise reduction measures, including monitoring during adverse inversion conditions.	Not yet conducted, discussions continuing to facilitate the optimum train speed trials with service providers, the testing and report development will occur after that has taken place.	Not triggered				
5.0 Noise Management Operational Noise Emissions								
	5.0	As required by Schedule 3, Condition 14 (b) of the approval, MCC will operate a omprehensive noise management system on site.	Monthly monitoring records sighted.	Compliant				
5.1.1 Noise and Vibration Monitoring								
	5.1.1	Construction noise and vibration levels will be measured on a monthly basis at residences in close proximity to the proposed construction activities that MCC has agreements for access to. Various real time monitoring units will also be installed during the construction phase and prior to operations.	Monthly attended monitoring at six locations. Three real-time units installed and operating.	Compliant				
	5.1.1	Once the real time monitoring units are installed and commissioned, they will also be used to manage and monitor noise emissions from the construction activities.	RT3 is used for this purpose under an alert protocol	Compliant				
	5.1.1	Operational noise levels are to be measured continuously at strategic locations around the site using unattended equipment, and, by attended monitoring at regular intervals.	Monthly attended monitoring at six locations. Three real-time units installed and operating.	Compliant				
5.1.2 Attended Monitoring								
	5.1.2	Attended monitoring is required to assess compliance with regulatory limits. The limits relevant to this management plan cover the following aspects: • Construction noise: Noise from road and rail construction; • Construction vibration: Vibration, not from blasting, from road and rail construction; • Operational noise: Noise from site activities only; and • Cumulative noise: Simultaneous noise from multiple mines.	Construction, operational, cumulative noise monitoring reports sighted	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
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5.1.2		Construction noise and vibration monitoring is to be undertaken one day per month. Noise monitoring will be conducted at the nearest residences to the activity that MCC has an agreement to access within two kilometres of construction current at that time.	Monitoring was undertaken at appropriate locations.	Compliant				
5.1.2		Vibration monitoring will only be required at residences within 500 metres of construction current at that time.	Noted	Not triggered				
5.1.2		Notwithstanding the above, operational noise monitoring is to be undertaken three evenings and nights per quarter. This monitoring will occur nominally once per month.	Monthly evening/night monitoring has been conducted	Compliant				
5.1.2		the data from real time monitors will be reviewed to determine any potential impacts, where this data shows elevated noise levels, an investigation will be undertaken and further attended noise monitoring will be implemented to ensure the Project remains compliant.	Trigger responses are documented	Compliant				
5.1.2		Operational noise monitoring locations will be reviewed and where necessary modified as a result of monitoring results, changes to the mining operations or, changes in land ownership.	Not yet triggered	Not triggered				
5.1.2		Attended noise monitoring reports will include a comparison of measured noise levels to all relevant criteria detailed in the current approval and EPL as detailed in Sections 2.2 and 2.2.5.	Comparison with criteria is included in monitoring reports	Compliant				
5.1.2		Vibration monitoring will be conducted in accordance with 'Assessing Vibration: a technical guideline' (EPA, 2006).	Not applicable	Not triggered				
<b>5.1.2 Unattended Monitoring</b>								
		Continuous unattended noise monitoring (referred to in the approval as 'real time' monitoring) is required as a management tool to satisfy the requirements of Schedule 3, Conditions 15 b) and e) and Condition 16 b), of the approval.	Real-time noise monitoring network in place	Compliant				
		Any unattended data will be collected and stored on site for a minimum period of 4 years to allow a data trend analysis to be completed as required.	Noted. Can be reviewed for the next audit period	N/A				
		The following data parameters (as returned from each unattended monitoring site and the site weather station) will be trended in real time and display available in the operation dispatch area as a management tool: <ul style="list-style-type: none"> <li>• omnidirectional low pass LA90 + 3 dB (estimated total mining LAeq);</li> <li>• wind speed;</li> <li>• wind direction;</li> <li>• atmospheric stability class;</li> <li>• the relevant impact criterion; and</li> <li>• the relevant cumulative criterion.</li> </ul>	All required parameters are displayed	Compliant				
		These triggers will be reviewed on a regular basis and updated as required following reviews of monitoring results and/or community complaints.	Mining commenced October 2014. Refining of triggers to be informed by accumulation of data.	Not triggered				
		Once a noise notification is triggered, the system will send an SMS to the Open Cut Examiner (OCE) and CHPP supervisor.	Notifications are sent via SMS	Compliant				
		A data evaluation will be undertaken by the OCE or delegate within one half hour of notification receipt.	Prompt response observed by audit team	Compliant				
		A response, if required, will be undertaken by the OCE or delegate, or the CHPP supervisor or delegate, within one hour of each notification as per the procedures in Section 5.2.2 of this document.	Implemented	Compliant				
		Implementation of management and control measures will be the responsibility of the OCE and/or CHPP supervisor and would typically involve relocation or shutdown of equipment suspected of being responsible for elevated off-site noise levels. A reassessment of noise levels will be required after each relocation/shutdown to determine effectiveness of that action.	Audit team observed shutdowns and slow ramping up of operations to ensure compliance	Compliant				
<b>5.1.4 Sound Power Control</b>								
	5.4.1	It is important that plant sound power is regularly checked and, any noncompliant item is modified and/or repaired as necessary as per Schedule 3, Condition 12 of the approval.	Plant measurements confirm compliance with A-weighted sound power levels.	Compliant				
	5.4.1	Regular auditing of the rail provider will be undertaken by MCC to ensure rolling stock is designed, constructed and maintained to minimise noise as far as reasonable and feasible.	Subject to negotiations with ARTC as and when required	Not triggered				
<b>5.1.5 Proactive Noise Planning</b>								
	5.1.5	Condition 15 (f) of Schedule 3 requires an "annual validation of the noise model for the project". A regularly updated site noise model will be used for proactive operational planning. Validation of the model and of the effectiveness of that aspect of site noise control is to be conducted using attended and unattended monitoring data. As such, the annual validation will be an ongoing process that is reported annually.	No reference found in either 2013 AEMR or 2014 AEMR to annual validation of noise modelling. Important for operations, so first model should be conducted during 2015 calendar year.	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
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5.2 Reactive Measures								
5.2.1 Community Complaint Received								
5.2.1		All responses to community complaints will be in accordance with the procedure described in the Maules Creek Environmental Management Strategy and as described in Chapter 6.0.	Responses are as described	Compliant				
5.2.1.1		In the event of a community complaint about previous operations (complaint received post-event), all relevant information pertaining to the time of alleged noise nuisance is to be gathered as follows: <ul style="list-style-type: none"> <li>• locations and quantities of mining plant operational;</li> <li>• meteorological conditions; and</li> <li>• noise monitoring data from nearest real-time noise monitor.</li> </ul> Using the above data an assessment is to be made as to the validity of the noise complaint.	Responses are as described	Compliant				
5.2.2 Unattended Noise Monitoring Notification Received								
5.2.2		If the notification system is triggered by Project related activities, production will modify operations until such time as compliance is achieved.	Audit team observed shutdowns and slow ramping up of operations to ensure compliance	Compliant				
5.2.2		After each unattended monitoring notification that was determined to be a noise criterion exceedance, the following actions are to take place: <ul style="list-style-type: none"> <li>• check proactive planning was undertaken;</li> <li>• check proactive plan was implemented;</li> <li>• determine if actual meteorological conditions were as predicted;</li> <li>• evaluate effectiveness of production changes; and</li> <li>• implement any identified procedural improvements as described below in the risk/response matrix.</li> </ul>	Actions were as described for event on 22 April 2015, as detailed in Annual return	Compliant				
5.2.3 Attended Monitoring Exceedance Measured								
5.2.3		Any exceedance of a noise criterion is to be investigated immediately. The acoustic consultant undertaking the attended monitoring is to contact the Environmental Manager to advice of the recorded results and to discuss possible changes to operations (with reference to, but not limited to actions listed in the risk response matrix) that should lead to compliance. A remeasure is required to evaluate the effectiveness of any change implemented.	Not yet triggered due to short period of operation. Field personnel can't confirm compliance or otherwise. Suggest rewording to reflect "elevated levels possibly indicative of potential exceedance" or similar. After actions have been taken to reduce noise, the subsequent measurement should be the one included in the report after analysis by the consultant.	Compliant				
5.2.4 Attenuation of Plant								
5.2.4		any plant items found to operate with sound powers greater than those specified in Section 4.2 will be withdrawn from service to allow rectification. In accordance with the approval, items will need testing to ensure compliance with limits before being re-accepted for use on site.	Plant measurements confirm compliance with A-weighted sound power levels.	Compliant				
6.0 COMPLAINT RESPONSE PROTOCOL								
		MCC will keep a legible record of specific details relating to any community complaint including: <ul style="list-style-type: none"> <li>• the nature of the complaint;</li> <li>• the method of the complaint, e.g. telephone or via email through the Whitehaven website;</li> <li>• relevant monitoring results, including meteorological conditions at the time of the incident;</li> <li>• site investigation outcomes and specific data as detailed in Sections 5.2.1 above;</li> <li>• site activity and activity changes; and</li> <li>• any necessary actions assigned.</li> </ul>	2014 and 2015 Complaints registers viewed. Relevant monitoring results, site investigation outcomes and site activity/activity changes not explicitly referred to but documented elsewhere.	Compliant				
		Records of complaints will be maintained in the complaints register database and kept on file for a period of no less than five years.	Complaints registers viewed	Compliant				
		MCC maintains a 24-hour complaints hotline (1800 Maules) to respond to any complaints from neighbouring residents or interested stakeholders.	Complaints registers viewed	Compliant				
		The complaints hotline is advertised in the local media on at least a quarterly basis and is available on the Whitehaven website and in community newsletters.	Hotline is advertised on the website and community newsletters. Local media frequency verified at interview, site adverts with other Whitehavens ites.	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
		Complaints received relating to current noise emissions will be dealt with immediately by the supervisor on shift to ensure an investigation into the complaint is instigated immediately and the operations modified as required.	Audiot personnel observed this process in action.	Compliant				
		For other less critical complaints, the complainants will be contacted within 24 hours of the initial complaint to gather additional information. Every effort will be made to ensure that concerns are addressed in a manner that facilitates a mutually acceptable outcome for both the complainant and MCC.	Audiot personnel observed this process in action.	Compliant				
		Any operational responses, as a result of a complaint and the subsequent investigation will be updated on the Whitehaven website.	Operational responses reported for real-time air quality, noise and weather forecasts on the website, as well as actions in response to complaints.	Compliant				
		If any complaints are received from residences listed in Conditions 1 to 3, Schedule 3, of the approval, then an investigation into the complaints will be conducted and negotiations for mitigation or acquisition will be suggested.	Complaint investigation has not found excessive noise levels so need to negotiate has not been triggered.	Compliant				
		If any complaints are received from residences not listed in Conditions 1 to 3, Schedule 3, of the approval, they will be made aware of their rights as set out in Conditions 8, 9 and 11, Schedule 3, of the approval.	Complaint investigation has not found excessive noise levels so need to negotiate has not been triggered.	Compliant				
<b>7.0 REPORTING AND REVIEW</b>								
<b>7.1.1 Scheduled Reporting</b>								
	7.1.1	MCC's environmental noise performance is reported a number of ways. External reporting includes: <ul style="list-style-type: none"> <li>• an Annual Review (AR);</li> <li>• quarterly updates of monitoring results on the Whitehaven website; and</li> <li>• Community Consultative Committee (CCC) meetings.</li> <li>• Updates on the Whitehaven website of operational responses to weather forecasts, noise monitoring results and plant attenuation implementation and testing results</li> <li>• Notification of monitoring results to affected receivers</li> </ul>	2013 and 2014 AEMRs include noise reporting. Quarterly updates available from Q3 2014 onwards CCC meeting minutes on website Operational responses updated with daily updates on website Whilst no formal notification was provided MCC has met with the resident and discussed these monitoring results. Ongoing discussions are being held with the resident.	Compliant				
	7.1.1	A summary report on any noise issues identified during monitoring will be provided on the Whitehaven website and at CCC meetings.	Quarterly monitoring summaries available from Q3 2014 onwards on website. Noise results presented at CCC meetings as per minutes.	Compliant				
	7.1.1	A copy of the AR will be forwarded to relevant stakeholders including, but not limited to DP&I, EPA, NOW, OEH, Narrabri Shire Council and members of the CCC. The AR will also be placed on the Whitehaven website.	the 2013 AEMR available on the website, but not 2014 AEMR. Councils did not receive a copy	Not Compliant Administrative				
<b>7.1.2 Exceedance Reporting</b>								
	7.1.2	In the event it is determined that an exceedance of a noise criterion has occurred, at the earliest opportunity (as soon as practicable) MCC will notify to NSW DP&I, EPA and other relevant agencies.	Mine can only notify agencies if exceedance is brought to their attention by their noise consultant in a timely manner.	Compliant				
	7.1.2	In accordance with Schedule 5, Condition 8 of the approval, MCC will, within 7 days of exceedance date, notify the NSW DP&I and other relevant agencies. MCC will submit a written report that: <ul style="list-style-type: none"> <li>• describes the date, time, and nature of the exceedance;</li> <li>• identifies the cause (or likely cause) of the exceedance;</li> <li>• describes what action has been taken to date; and</li> <li>• describes the proposed measures to address the exceedance.</li> </ul>	April 2015 It is noted that report was received on the 29th and was submitted to the Department & EPA on the following day. June 2015 Annual return for MCGM reporting period was between 1May 2014 to 1 May 2015. As such it is not included in this Annual Return. The noise levels recorded above the criteria in June were provided to EPA and DoPE on the 6th July 2015 , following discussions regarding the reporting requirements of exceedances within 2 dB of the relevant criteria.	Not Compliant	E	1	Medium	
<b>7.2 Plan Reviews</b>								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
	7.2	In accordance with Schedule 5, Condition 5 of the approval, this NMP will be reviewed within 3 months of any annual review, incident report, audit or modification to conditions. Should this review identify any requirement to change the NMP, this document will be updated accordingly in accordance with the approval.	NMP last published 18/02/2014.  No evidence of a review if no revision taken place since publication of 2014 AEMR and 2014 AEMR	Not Compliant Administrative				
<b>8.0 CUMULATIVE NOISE</b>								
	8.0	The real time noise monitoring network will comprise up to 7 omni-directional noise monitors. These will be located around the sites with: <ul style="list-style-type: none"> <li>• up to 3 east of Boggabri Coal and Tarrawonga Coal;</li> <li>• up to 2 south of Boggabri Coal and Tarrawonga Coal;</li> <li>• 1 southwest of Boggabri Coal and Maules Creek; and</li> <li>• 1 west of Boggabri Coal and Maules Creek.</li> </ul> Of these, however, only those west (120) and southwest (256) of Boggabri Coal and Maules Creek will be relevant for cumulative noise from Maules Creek	Three real-time noise monitors have been commissioned as Maules Creeks' contribution to the cumulative monitoring network	Compliant				
	8.0	This NMP will be updated following the finalisation and the relevant Government approval of the BTM Precinct Noise Management Strategy	BTM Precinct Noise strategy not yet approved by DP&I	Not triggered				

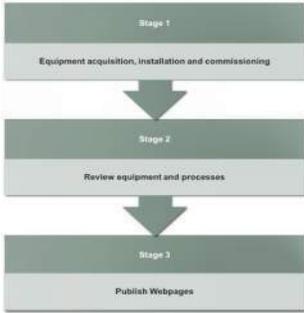
Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Noise Management Strategy - For Boggabri - Tarrawonga - Maules Creek Complex (March 2014)								
3 Noise Criteria								
3.1 Cumulative noise assessment criteria								
Noise Management Strategy - March 2014	3.1	<p>Cumulative noise assessment criteria are contained in the most recent Boggabri Coal Project Approval (09_0182, 18 July 2012), the Maules Creek Coal Project Approval (10_0138, 23 October 2012) and the Tarrawonga Coal Project Approval (11_0047, 22 January 2013). Except for the noise affected land identified in Condition 3 of Project Approval 09_0182, Table 1 of Project Approval 10_0138, and Table 1 of Project Approval 11_0047, each mine is required to ensure that the operational noise generated by their respective project, combined with the noise generated by other mines in the BTM Complex, does not exceed the criteria in Table 3.1 at any residence on privately owned land.</p>	Noted					
Noise Management Strategy - March 2014	3.1	Cumulative noise assessment and acquisition criteria applicable to each mine in the BTM Complex will be addressed in each mine's individual NMP.	Noted this is addressed	Compliant				
4 Monitoring								
Noise Management Strategy - March 2014	4	The mines of the BTM Complex already have comprehensive noise management systems in place. The existing noise monitoring network will be upgraded to reflect the implementation of the BTM Complex cumulative noise monitoring network.	Not yet implemented as the strategy is still in draft.	Not Applicable				
4.1 Existing monitoring network								
Noise Management Strategy - March 2014	4.1	Both Boggabri Coal Mine (BCM) and Tarrawonga Coal Mine (TCM) have noise monitoring programs in place with attended and unattended (in the case of BCM) noise monitoring conducted on a quarterly basis. A noise monitoring program has been developed for MCC and is outlined in its NMP.	Noted					
4.2 Cumulative noise monitoring								
Noise Management Strategy - March 2014	4.2	<p>The requirements of the cumulative monitoring network at the BTM Complex are to:</p> <ul style="list-style-type: none"> <li>- facilitate compliance with existing and likely future consent conditions</li> <li>- allow proactive management and real-time noise monitoring to assist in day to day operations of each mine site</li> <li>- develop an integrated and coordinated approach to noise management of the BTM Complex</li> <li>- potentially consolidate existing monitoring</li> <li>allow for predictive meteorological forecasting to guide operations</li> <li>- include procedures for identifying the source(s) and contribution(s) to cumulative noise impacts for mines and other sources</li> <li>include appropriate investigative tools such as noise modelling.</li> </ul>	Noted					
4.2.1 Real-time monitoring								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Noise Management Strategy - March 2014	4.2.1	A real-time monitoring network will be sourced and installed. The chosen system will have capabilities of sufficient resolution to allow noise emissions from each mine to be accurately determined. Four permanent real-time noise monitors will be installed as part of the Strategy, this will include a combination of the following: - one at the Wongalea (Morris) property in the W Zone (predominantly MCC and BCM noise) - one at Warriahdool (Younger) property north of the MCC project, - one unit at Olivedene (Bastardo) west of BCM and MCC - one at either the Sylvania, Goonbri or Matong property in the E Zone (predominantly BCM and TCM noise).	Not yet implemented as the strategy is still in draft.	Not Applicable				
Noise Management Strategy - March 2014	4.2.1	As part of the proposed real-time monitoring network, two additional mobile real-time units may also be employed to variously monitor cumulative coal haulage noise impacting on SW Zone receivers, noise impacts at the nearest privately owned receivers to the MCC in the NE, NW and SW zones, at a receiver in the S zone during the prevailing winter NW winds, or to investigate noise complaints from any receiver.	Not yet implemented as the strategy is still in draft.	Not Applicable				
Noise Management Strategy - March 2014	4.2.1	The BTM Complex is working with noise specialists to determine the best configuration of monitors for the combined monitoring network.	Noted					
4.5 Predictive and real-time noise management								
4.5.1 Overview of requirements								
Noise Management Strategy - March 2014	4.5.1	A key method to ensure that noise management systems maintain standards of best available technology is to incorporate predictive and real-time reactive capability. It is proposed that a predictive and reactive noise management system be implemented for the BTM Complex that personnel will use to: - assess potential offsite impacts and evaluate community risk in advance and subsequently in real-time - develop a history/library of community impacts and noise incidents and events - evaluate community complaints and determine if BTM Complex activities may have caused an impact - accept information and data inputs from various instruments and data sources (e.g. web services, real-time monitoring, and/or emissions estimates based on activity data) - provide recommendations with respect to abatement or avoidance of potential issues and operational requirements based on outputs of the system	Not yet implemented as the strategy is still in draft.	Not Applicable				
4.5.2 Components								
Noise Management Strategy - March 2014	4.5.2	It is proposed that the predictive and reactive noise management system will include: - a predictive component using forecast weather data - a reactive component using real-time meteorology and noise monitoring - short term tiered trigger levels and notifications for managing potential impacts - a daily forecast report providing information on temperature inversions, wind conditions at various heights, noise risk, and recommended control actions.	Not yet implemented as the strategy is still in draft.	Not Applicable				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Noise Management Strategy - March 2014	4.5.2	It is extremely important to maintain periodic review of any real-time noise management system to ensure that the system is operating using: - validated meteorological forecasts - data from calibrated monitoring equipment - accurate noise emission levels, informed by routine attended monitoring.	Noted					
Noise Management Strategy - March 2014	4.5.2	Periodic reviews of the model will be quarterly initially, extending to annually once performance is viewed to be satisfactory. Data inputs to the system will be updated quarterly to account for any changes to mine plans or other parameters that have bearing on model performance.	Noted					
4.5.3 Predictive Forecast Meteorology								
Noise Management Strategy - March 2014	4.5.3	It is proposed that a predictive forecast meteorology system be implemented based on the Weather Research & Forecasting (WRF) model, specifically for the BTM Complex, and a website be developed to make data immediately available for each of the mine sites, with half hourly forecasts up to 48 hours in advance. This system will download global meteorological data and forecasts on a daily basis and process and run the WRF model to produce the information required for input into a realtime 3D dispersion model.	Not yet implemented as the strategy is still in draft.					
Noise Management Strategy - March 2014	4.5.3	Once this meteorological system is configured and operating, the outcomes will be evaluated by a competent meteorologist or atmospheric science professional quarterly against actual meteorological measurements and the meteorological system will be validated and improved, where possible.	Noted					
4.5.4 Local observed meteorology								
Noise Management Strategy - March 2014	4.5.4	Data from local automatic weather stations will be used to validate the predictive meteorological forecast data as time elapses.	Noted					
Noise Management Strategy - March 2014	4.5.4	Meteorological instrumentation or data communications equipment will be reviewed to confirm that the right quality of data is available to the system.	Noted					
4.5.5 Integrated real-time monitoring data								
Noise Management Strategy - March 2014	4.5.5	To enable real-time reactive feedback from the system, a connection will be established to receive a data feed from weather stations in the BTM network. A connection will also be established to monitoring equipment located upwind and downwind of noise sources. These data feeds will be connected to the system from a central data repository or directly to loggers on permanent in-field equipment.	Not yet implemented as the strategy is still in draft.	Not Applicable				
Noise Management Strategy - March 2014	4.5.5	As required, the system will be connected with operational and other environmental data and management information systems. Real-time noise management capability builds on the information gained from predictive systems to proactively manage noise. The system will be improved further by incorporating real-time sound recording to identify the instantaneous main source of high emissions. Protocols will be put in place to immediately react to rising noise levels, e.g. automated notices sent to nominated mining personnel to alert the need to respond with control/mitigation, and focus can be given to the most significant identified noise source.	Noted					

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Noise Management Strategy - March 2014	4.5.5	Real-time noise monitoring data will be used primarily to determine when noise emissions are approaching compliance and to allow sufficient time to manage noise generating activities from the operations so that the criteria are not breached.	Noted					
4.5.6 System Outputs								
Noise Management Strategy - March 2014	4.5.6	Once the predictive and reactive system is implemented and configured as described above, a range of user interfaces or simple reports or templates can be generated and used as part of standard operating procedure. Some system outputs that will be required include: - Daily forecast reports providing information on temperature inversions, wind conditions, noise risk, and recommended control actions. - Graphical representation of the forecasted meteorology and real-time monitoring data via the system's web interface. - Capability to analyse and confirm the likely source(s) of noise. This functionality is critical in apportioning responsibility to operations for mitigating noise emissions. - Automated alerts for relevant operations personnel so that the agreed protocol for reacting to a potential noise issue can be activated. These alerts may be generated as SMS or email messages, or by other systems integrated into operating processes (depending on needs). Alerts will be stored in the system for analysis, which will assist in refining trigger criteria over time.	Noted					
4.6 Mitigation								
4.6.1 Trigger levels								
Noise Management Strategy - March 2014	4.6.1	Trigger levels are proposed to be communicated via SMS, email and/or other systems integrated into operating processes (depending on needs). The following trigger levels are currently proposed for the system: 'Investigation' level criteria will be triggered initially when any of the real time monitors reaches a level 3 dB below the cumulative noise criteria. Investigation into the trend of increased noise levels will be conducted upon reaching this trigger level. This investigation will involve: - comparing the low-pass LAeq level with the total LAeq level to determine whether mine noise (predominantly lower-frequency) is a likely cause of elevated noise levels - listening to the most recent audio files to see if the source(s) of the increasing noise can be identified - reviewing meteorological data to determine whether increasing noise levels may be due to wind or temperature inversions. 'High' level criteria will be triggered initially when any of the real time monitors reaches a level 1 dB below the cumulative noise criteria. Implementation of individual mine noise mitigation actions will be instigated upon reaching this trigger level.	Noted, Maules Creek had trigger levels and alarms in place at the time of the audit but does not coordinate the results with the surrounding mines					

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Noise Management Strategy - March 2014	4.6.1	Once the real-time noise management system is operational, trigger levels will be reviewed, updated and refined following a review of the data and calibration of the system. If the trigger levels are not appropriate to site operations (too many or too few investigation or action responses) they will be reviewed and updated. Different trigger levels may be set for each monitoring location within the cumulative network, for example be set lower for monitoring locations closer to noise sources. Trigger levels will also be regularly assessed as part of the ongoing review of this plan.	Noted					
4.6.2 Processes to mitigate outcomes								
Noise Management Strategy - March 2014	4.6.2	The noise investigation instigated by the cumulative noise trigger levels will highlight which mine(s) is the cause of the increasing noise levels and the relevant mine(s) will also have individual trigger levels, based on their own noise criteria, which will be significantly lower than the cumulative noise triggers.	Noted					
Noise Management Strategy - March 2014	4.6.2	Processes to mitigate noise outcomes associated with operations are addressed in each sites individual NMPs. Examples of best practice mitigation options are: - moving identified sources to locations that are more distant from, or geographically shielded from, the receiver - stopping the activity/plant - installing temporary noise barriers - re-aligning directional sources (e.g., drills) so that the quietest side faces the noise-affected receiver(s).	Noted					
Noise Management Strategy - March 2014	4.6.2	Operational activities will be ranked based on noise generation potential. Of particular importance is the consideration of wind direction information provided by the predictive meteorology forecast and the local weather data. Receivers which are generally NW of the BTM Complex (nearest to the MCC) will be the potentially most affected during the prevailing S-SE winds during the warmer months. Conversely, the prevailing N-NW winds during the cooler months will reduce noise for receivers NW of the Complex and increase noise levels at receivers generally south of the Complex.	Noted					
Noise Management Strategy - March 2014	4.6.2	The "impact potential" rankings will be used as the basis for pro-actively scheduling operational activities when noise generation is predicted to reach trigger levels. Examples of pro-active mitigation measures are: - ensuring plant achieves required noise specification - making high-level and low-level OEAs available simultaneously. The low-level (often in-pit) emplacements can be used under inversion and adverse wind conditions - suspending the use of identified major noise sources (e.g., dozers on top of emplacement areas) until after nocturnal inversions have lifted	Noted					
Noise Management Strategy - March 2014	4.6.2	Noise generation assessment will be undertaken by experienced site personnel with the assistance of various specialists as required (e.g. environmental and acoustic specialists).	Noted, as is currently the position.	Compliant				
4.7 Communication								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Noise Management Strategy - March 2014	4.7	Regular meetings are being held (and will continue to be held at least quarterly) between BTM personnel to discuss various cumulative impacts. This includes discussing real-time and attended monitoring results and future operational events. Meeting minutes will continue to be documented and retained at each site.	These meetings occur monthly and all environmental issues are discussed.	Compliant				
Noise Management Strategy - March 2014	4.7	Trigger levels will initiate internal communication between the BTM mines to allow the BTM Complex to implement individual management measures in order to minimise noise generation.	Noted					
Noise Management Strategy - March 2014	4.7	When noise criteria are identified as exceeded, discussions will be held between BTM and the agencies and affected landholders (where an exceedance occurs on privately-owned land) advised.	Noted					
4.8 Reporting								
Noise Management Strategy - March 2014	4.8	Internal management reports will be prepared regularly, noting performance against triggers and criteria.	Noted					
Noise Management Strategy - March 2014	4.8	External reporting will be undertaken by all mines within the BTM Complex and include: - Updates on individual Company websites - Presentations to Community Consultative Committees (CCCs) - Annual Environmental Management Reports (AEMRs)/Annual Reviews - exceedance reporting.	As per other documents, this is generally complied with, exceptions noted elsewhere in the audit.					
5 Implementation								
5.1 Staged approach								
Noise Management Strategy - March 2014	5.1	<p>A staged approach will be taken to install the equipment and systems which are additional to individual mine's existing noise monitoring systems. This staged approach of implementation is detailed in Figure 5.1 and described in the following sections.</p>  <p>Figure 5.1 Staged approach to implementation</p>	Noted					
5.1.1 Stage 1 - Equipment acquisition, installation and commissioning								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Noise Management Strategy - March 2014	5.1.1	Stage 1 will include the acquisition, installation and commissioning of the proposed permanent realtime directional noise monitors. This equipment will complement the existing mobile real-time noise monitor owned by BCPL and TCPL.	Noted					
5.1.2 Stage 2 - Review equipment and processes								
Noise Management Strategy - March 2014	5.1.2	Within three months of the installation and commissioning of Stage 1 equipment the following will be reviewed: - performance and reliability of the cumulative noise monitoring equipment - triggers proposed in this Strategy - central data repository and data interface.	Noted					
5.1.3 Stage 3 - Publish webpages								
Noise Management Strategy - March 2014	5.1.3	Each mine site will establish or update an existing Company webpage. The webpage will present the summarised and validated results of the real-time noise monitoring on a monthly basis.	Noted					
6 Document Control								
6.1 Review and revision								
Noise Management Strategy - March 2014	6.1	This NMS, its operation and implementation, will be reviewed and revised at least every two years or on an 'as required' basis to incorporate improvements identified by the BTM Complex or appropriate requirements of government agencies. The NMS will be reviewed and updated at the end of each stage of the project rollout	Noted	Not Applicable				
Noise Management Strategy - March 2014	6.1	In accordance with the project approvals, the NMS will also be revised within three months of: - an annual review - incident threatening material harm, requiring notification of the Director-General / relevant agencies - statutory audit - modification of project approval.	Noted	Not Applicable				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility															
					Consequence	Likelihood	Risk																
WHC_PLN_MC_Blast Management Plan																							
2.0 Statutory Requirements and Commitments																							
2.2 Project Approval Conditions																							
2.2.1 Blast Criteria																							
Blast MP (21/07/2014)	2.2.1	<p>Table 1 Blasting Criteria</p> <p><b>Approval Condition</b></p> <p>Schedule 3 Blasting Blasting Criteria</p> <p>18. The proponent shall ensure that the blasting on site does not cause exceedances on the criteria in Table 7.</p> <p><b>Table 7: Blasting criteria</b></p> <table border="1"> <thead> <tr> <th>Location</th> <th>Airblast overpressure (dBP (Lin Peak))</th> <th>Ground Vibration (mm/s)</th> <th>Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td></td> <td>120</td> <td>10</td> <td>0%</td> </tr> <tr> <td>Residence on privately owned land</td> <td>115</td> <td>5</td> <td>5% of the total number of blasts over a period of 12 months.</td> </tr> <tr> <td>All public infrastructure</td> <td>-</td> <td>50 (or alternatively a specific limit determined to the satisfaction of the Director-General by the structural design methodology in AS 2197.2-2006, or its latest version</td> <td>0%</td> </tr> </tbody> </table>	Location	Airblast overpressure (dBP (Lin Peak))	Ground Vibration (mm/s)	Allowable exceedance		120	10	0%	Residence on privately owned land	115	5	5% of the total number of blasts over a period of 12 months.	All public infrastructure	-	50 (or alternatively a specific limit determined to the satisfaction of the Director-General by the structural design methodology in AS 2197.2-2006, or its latest version	0%	No exceedances	Compliant			
Location	Airblast overpressure (dBP (Lin Peak))	Ground Vibration (mm/s)	Allowable exceedance																				
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Blast MP (21/07/2014)	2.2.1	<p><b>Approval Condition</b></p> <p>However, these criteria do not apply if the Proponent has a written agreement with the relevant owner or infrastructure provider / owner, and the Proponent has advised the Department in writing of the terms of this agreement.</p> <p><b>Blasting Hours</b></p> <p>19. The Proponent shall only carry out blasting on the site between 9am and 5pm Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays, or at any other time without the written approval of the Director-General.</p> <p><b>Blasting Frequency</b></p> <p>20. The Proponent may carry out a maximum of:</p> <ul style="list-style-type: none"> <li>(a) 1 blast a day, unless an additional blast is required following a blast misfire; and</li> <li>(b) 4 blasts a week, averaged over a calendar year;</li> </ul> <p>for the project.</p> <p>This condition does not apply to blasts that generate ground vibration of 0.5mm/s or less at any residence on privately-owned land, or to blasts required to ensure the safety of the mine or its workers.</p> <p>Note: For the purpose of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine.</p>	No exceedances	Compliant																			
2.2.2 Blast Control and Management																							
Blast MP (21/07/2014)	2.2.2	<p>Table 2 Blast Management Measures</p> <p><b>Approval Condition</b></p> <p>Schedule 3 Property Inspections</p> <p>21. If the Proponent receives a written request from the owner of any privately-owned land within 2 kilometres of the approved open cut mining pit on site, for a property inspection to establish the baseline condition of any buildings and / or structures on his / her land, or to have a previous property inspection report updated, then within 2 months of receiving this request the Proponent shall:</p> <ul style="list-style-type: none"> <li>(a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties, to: <ul style="list-style-type: none"> <li>• establish the baseline condition of any buildings and / or structures on the land, or update the previous property inspection report; and</li> <li>• identify any measures that should be implemented to minimise the potential blasting impacts of the project on these buildings and / or structures; and</li> </ul> </li> <li>(b) give the landowner a copy of the new or updated property inspection report.</li> </ul> <p>If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Director-General for resolution.</p>	No request for acquisition.	Not Triggered																			
Blast MP (21/07/2014)	2.2.2	<p><b>Approval Condition</b></p> <p>resolution.</p> <p><b>Property Investigations</b></p> <p>22. If the owner of any privately-owned land claims that the buildings and / or structures on his / her land have been damaged as a result of blasting on site, then within 2 months of receiving this claim in writing from the landowner the Proponent shall:</p> <ul style="list-style-type: none"> <li>(a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties, to investigate the claim; and</li> <li>(b) give the landowner a copy of the property investigation report.</li> </ul> <p>If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damages to the satisfaction of the Director-General.</p> <p>If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Director-General for resolution.</p>	No requests for property acquisitions	Not Triggered																			

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility	
					Consequence	Likelihood	Risk		
Blast MP (21/07/2014)	2.2.2	<p><b>Operating Conditions</b></p> <p>23. During mining operations on site, the Proponent shall:</p> <p>(a) Implement best management practice to:</p> <ul style="list-style-type: none"> <li>protect the safety of people and livestock in the surrounding area;</li> <li>protect public or private infrastructure/property in the surrounding area from any damage; and</li> <li>minimise the dust and fume emissions of any blasting; and</li> <li>minimise blasting impacts on heritage items in the vicinity of the site.</li> </ul> <p>(b) coordinate the timing of blasting on site with the timing of blasting at other mines within the Leard Forest Mining Precinct to minimise the cumulative blasting impacts of these mines; and</p> <p>(c) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site, to the satisfaction of the Director-General.</p> <p>24. The Proponent shall not undertake blasting on-site within 500 metres of:</p> <p>(a) any public road without the approval of Council; or</p> <p>(b) any land outside the site that is not owned by the Proponent, unless:</p> <ul style="list-style-type: none"> <li>the Proponent has a written agreement with the relevant landowner to allow blasting to be carried out closer to the land, and the Proponent has advised the Department in writing of the terms of this agreement; or</li> <li>the Proponent has:                             <ul style="list-style-type: none"> <li>demonstrated to the satisfaction of the Director-General that the blasting can be carried out close to the land without compromising the safety of the people or livestock on the land; or damaging the buildings and / or structures on the land; and</li> <li>updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the land.</li> </ul> </li> </ul>	<p>Section 3.0 and 4.0</p> <p>Section 5.0</p>	During the site inspection a blast was observed from a sentry position, the protocols used satisfy this requirement.	Compliant				
Blast MP (21/07/2014)	2.2.2	<p><b>Approval Condition</b></p> <p><b>Blast Management Plan</b></p> <p>25. The Proponent shall prepare and implement a Blast Management Plan for the project to the satisfaction of the Director-General. This plan must:</p> <p>(a) be submitted to the Director-General for approval prior to undertaking any blasting activities on the site;</p> <p>(b) be prepared in consultation with the EPA and interested members of the local community potentially affected by blasting operations;</p> <p>(c) propose and justify any alternative ground vibration limits for public infrastructure in the vicinity of the site;</p> <p>(d) describe the measures that would be implemented to ensure:</p> <ul style="list-style-type: none"> <li>best management practice is being employed; and</li> <li>compliance with the relevant conditions of this approval;</li> </ul> <p>(e) include a road closure management plan for blasting within 500 metres of a public road; that has been prepared in consultation with Council;</p> <p>(f) include a specific blast fume management protocol to demonstrate how emissions will be minimised including risk management strategies if blast fumes are generated;</p> <p>(g) include a monitoring program for evaluating the performance of the project including:</p> <ul style="list-style-type: none"> <li>compliance with the applicable criteria; and</li> <li>minimising fume emissions from the site; and</li> </ul> <p>(h) include a Leard Forest Mining Precinct Blast Management Strategy that has been prepared in consultation with the other mines within the Leard Forest Mining Precinct to minimise the cumulative blasting impacts of all the mines within the precinct.</p> <p><i>Note: The Leard Forest Mining Precinct Blast Management Strategy can be developed in stages and will need to be subject to ongoing review dependent upon the determination of and commencement of other mining projects in the area.</i></p>	BLMP Reference This document	This document, cross check with this requirement a) compliant b) compliant c) Not triggered d) compliant e) Compliant f) compliant g) compliant h) Compliant	Compliant				
3 Blast Management Measures									
Blast MP (21/07/2014)	3	<p>Notwithstanding, best practice control of ground vibration, overpressure, fly rock and blast fume will be achieved through procedures and safeguards including:</p> <ul style="list-style-type: none"> <li>Best practice blast design and drill and blast practice in accordance with Australian Standard AS 2187.2 2006 'Storage and Use of Explosives';</li> <li>Pre-blast assessment for each blast and review of blast exclusion zones and fume management zone;</li> <li>Use of a forecast meteorological system for blast scheduling, including consideration of wind speed, direction and shear as well as strength of temperature inversions;</li> <li>Management of blast fume in accordance with the Code of Good Practice: Prevention and Management of Blast Generated NOx Gases in Surface Blasting (Australian Explosives Industry and Safety Group Inc., 2011); and</li> <li>Consideration of cumulative impacts with adjacent mines.</li> </ul>	All of these requirements have been observed or documentary evidence sighted at some point through this audit	Compliant					
3.1 Blast Design									
Blast MP (21/07/2014)	3.1	Blasts will be designed to meet best management practices to ensure the Blasting Criteria in the PA 10_0138 Schedule 3 Condition 18 are met. A suitably qualified Mine Engineer, Geologist or driller will consider the Codes of Practice when undertaking blast designs.	Noted, Blast Superintendent fills this role	Compliant					

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Blast MP (21/07/2014)	3.1	To ensure compliance with regulatory limits, and to minimise the likelihood of blast impact, all blast designs will consider: <ul style="list-style-type: none"> <li>The suitability of the planned blast location regarding proximity to roads and adjoining non-mine owned land;</li> <li>Expected offsite vibration levels calculated based on conservative assumptions, which will be reviewed with blast history;</li> <li>Limiting the maximum instantaneous charge (MIC) as appropriate to minimise vibration whilst ensuring the require rock breakage;</li> <li>The adequacy of stemming and suitability of material used;</li> <li>Appropriate initiation delays and detonation system;</li> <li>Dewatering requirements and selection of appropriate explosives types with regard to water resistance;</li> <li>Sleep time of loaded blasts;</li> <li>Drilling accuracy and that adequate front row burden remains; and</li> <li>Blast hole loading procedures.</li> <li>Surface water and ground water in relation to selection of blasting products and potential for fume.</li> </ul>	Site uses monitors design uses a prediction tool. Site rule for MIC is used. Stemming is in the design and site D&B people load to stemming height not bomb volume. Delays and detonator use observed on site. Holes are dewatered and different explosives used to counter fume, no fume events so far. ANFO less than a week, other explosives have been tolerance to moisture and can remain in the ground linger, manufacturers recommendations	Compliant				
3.1.1 Drill and Blast Practices								
Blast MP (21/07/2014)	3.1.1	MCC will therefore ensure all drill and blast crew are adequately trained in and understand the following drill and blast practices and associated issues: <ul style="list-style-type: none"> <li>Drill report assessment;</li> <li>Preparation and management of blasting work areas including drainage, grading, barricading, isolation and exclusion of non-authorized personnel from blasting work areas;</li> <li>Safe transport and handling of explosives and blasting accessories;</li> <li>Security requirements in relation to explosives, blasting work areas and explosives magazines;</li> <li>Blast hole monitoring prior to loading;</li> <li>Explosive selection;</li> <li>Explosive loading procedures, including primer placement;</li> <li>Blast hole loading sequence;</li> <li>Recognition and management of critical risks such as hot blast holes;</li> <li>Blast hole dewatering requirements;</li> <li>Detection, prevention and management of water inflow to blast holes;</li> <li>Management of blast holes that may have slumped after being loaded;</li> </ul>	Extensive training occurs, there is a hierarchy of responsibility with respect to the design and implementation of blast designs with training to suit the task levels	Compliant				
Blast MP (21/07/2014)	3.1.1	<ul style="list-style-type: none"> <li>Hole stemming;</li> <li>Sleep time;</li> <li>Exclusion zone determination and management, including searching and clearance procedures;</li> <li>Management zone determination;</li> <li>Blast guard posting;</li> <li>PPE including personnel monitors;</li> <li>Changes to conditions after explosives loading;</li> <li>Blast initiation warning system;</li> <li>Blast initiation system and procedures;</li> <li>Post blast gases identification, rating and reporting;</li> <li>Detection and management of misfired explosives;</li> <li>Meteorological influences; and</li> <li>Emergency response.</li> <li>Modelling of each blast for Vibration, Overpressure, and potential for Fume with check sheets.</li> <li>Review blast designs to manage vibration and overpressure wave front reinforcement in direction of neighbouring properties.</li> </ul>		Compliant				
3.2 Blast Scheduling								
Blast MP (21/07/2014)	3.2	Blasting activities for the Project will be scheduled to occur within the hours described in PA10_0138 Schedule 3 Conditions 19.	Blasting occurs 30 minutes either side of 1.00pm ro fit in with the other BTM complex sites.	Compliant				
Blast MP (21/07/2014)	3.2	A blast schedule will be prepared weekly to ensure: <ul style="list-style-type: none"> <li>Cumulative impacts are minimised;</li> <li>Public notification is able to be achieved in a timely and efficient manner;</li> <li>Personnel involved in other construction activities in the near vicinity to the proposed blasting areas can schedule their work in consideration of proposed blasting;</li> <li>Blasts are planned to occur in allowable hours; and</li> <li>No more than the weekly allowable number of blasts as described in PA 10_0138 Schedule 3 Condition 20 are carried out (subject to the exception where blasts resulting in &lt;0.5 mm/sec are not included in the total).</li> </ul>	This occurs examples sighted. Weekly limits not exceeded	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
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Blast MP (21/07/2014)	3.2	Blast scheduling will be informed by a meteorological forecasting model, used to predict the optimum periods for blasting based on favourable weather conditions.	This occurs	Compliant				
Blast MP (21/07/2014)	3.2	Where a planned blast event is either 30 minutes prior or 30 minutes after the planned event a new notification will be issued by SMS or phone call.	This occurs	Compliant				
<b>3.2.1 Cumulative Blast Scheduling</b>								
Blast MP (21/07/2014)	3.2.1	Cumulative operational blasting will be monitored and managed using the communication protocol between Maules Creek Coal, Boggabri Coal and Tarrawonga Coal (BTM Complex) known as the BTM Complex Blast Management Strategy (BLMS). It replaces the Leard Forest Mining Precinct Blast Management Strategy which is required in the approval by Schedule 3, Condition 25 (h).	This occurs	Compliant				
Blast MP (21/07/2014)	3.2.1	Protocols described in the BLMS will be used with the BLMP to ensure that blasting is coordinated to avoid cumulative impacts on sensitive receivers.	This occurs	Compliant				
Blast MP (21/07/2014)	3.2.1	The key management measure for the mitigation of cumulative blast impacts will be the scheduling of blasts to prevent overlap between blast timing on adjacent mines.	This occurs	Compliant				
<b>3.3 Pre-Blast Assessment</b>								
Blast MP (21/07/2014)	3.3	Prior to each blast, a pre-blast assessment will be undertaken to ensure meteorological conditions are suitable and used to determine/review the blast exclusion zone and fume management zone. The pre-blast assessment will be informed by the predictive management system as outlined in PAEHolmes (2012).	Sighted blast checklist	Compliant				
Blast MP (21/07/2014)	3.3	Meteorological conditions will be reviewed (wind speed, direction and inversion strength) to ensure the forecast model is accurate and meteorological conditions are suitable before approval to blast. Records of each pre-blast assessment will be retained.	Sighted blast checklist	Compliant				
Blast MP (21/07/2014)	3.3	During the pre-blast assessment if a very low wind speed, less than 1.5m/s is detected, further consideration will be given to other factors, such as wind direction, inversions (cold air), unstable conditions e.g. storms and chance of fume production. If it is likely that a level 3 Fume event will be produced and could potentially leave site, in the direction of a possible receiver than blasting will be avoided. If blasting is required due to safety concerns positive contact will be made with neighbours prior to initiating blast.	Consideration is given to these items, there have been no issues to date	Compliant				
Blast MP (21/07/2014)	3.3	During a high wind event, 8m/s or above over successive 5 minute periods, MCC will not initiate a blast to minimise potential dust from leaving site.	Blast checklist	Compliant				
Blast MP (21/07/2014)	3.3	Complete a blast design check sheet for approval of blast design. Check sheet to include modelling of Vibration, Overpressure and potential for fume for each blast.	This occurs interview with Blast Superintendent	Compliant				
<b>3.3.1 Management of Fly rock</b>								
Blast MP (21/07/2014)	3.3.1	Prior to each blast, a safety exclusion zone will be determined to ensure protection to people and livestock, with an appropriate margin of safety added to the anticipated fly rock range.	Observed during blast onsite	Compliant				
<b>3.3.2 Public Safety</b>								
Blast MP (21/07/2014)	3.3.2	Sentries, warning signs and warning barriers will be utilised on access roadways to address public safety when conducting blasts in proximity to forest areas.	Observed during blast onsite	Compliant				
<b>3.4 Blast Fume Management</b>								
<b>3.4.1 Blast Fume Prevention</b>								
Blast MP (21/07/2014)	3.4.1	Blast fume prevention measures that would be implemented as standard are: <ul style="list-style-type: none"> <li>• Formulation of explosive products to an appropriate oxygen balance to reduce the likelihood of fumes. MCC will work with the manufacturer and/or supplier to ensure products are authorised and come with appropriate quality control systems to ensure specifications are met;</li> <li>• Reviewing geological conditions in the formulation of blast designs;</li> <li>• Reviewing ground conditions (e.g. presence of clay or loose/broken ground);</li> <li>• Minimising the time between drilling and loading, and loading and shooting of the blast; and</li> <li>• Consideration of meteorological conditions in blast scheduling.</li> </ul>	These actions are carried out in the blast planning by the Blast Superintendent, confirmed at interview.	Compliant				
Blast MP (21/07/2014)	3.4.1	Additionally, to minimise the likelihood of post-blast fume, the following measures will be undertaken: <ul style="list-style-type: none"> <li>• Blast sequences will be designed to minimise blasting without a free face;</li> <li>• Explosive product will be selected with consideration of the likelihood of moisture down hole (including the presence of clay strata); and</li> <li>• Shot firer procedures will include measures to avoid product contamination during hole loading.</li> </ul>	These actions are carried out in the blast planning by the Blast Superintendent, confirmed at interview.	Compliant				

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Blast MP (21/07/2014)	3.4.1	Dust and NOx fume impacts from blast events will be managed using the predictive and real-time air quality management system described in Section 3.3 of the AQGHGMP, as follows: <ul style="list-style-type: none"> <li>The predictive meteorological component will be used to schedule daily blasts under the most favourable meteorological conditions (for example wind conditions that would transport fumes away from receptors). This is limited in its ability for cumulative scheduling across all three sites.</li> <li>The system will also be developed to provide daily predictions of blast fume and blast overpressure based on specific information for each blast.</li> </ul> ☑ Predicted blast fume pathway, ground level concentrations (glc) and exclusion zones (based on glc). ☑ Predicted blast over pressure impacts.	This occurs, sighted the information and confirmed with interview of Blast Superintendent	Compliant																
<b>3.4.2 Blast Fume Safety Management Protocol</b>																				
Blast MP (21/07/2014)	3.4.2	Any shot expected to produce fume that is in close proximity to the any public areas will require a road closure as per MCC - Traffic Management Plan.	Not occurred	Not Triggered																
Blast MP (21/07/2014)	3.4.2	A minimum 500 m exclusion zone is the standard for MCC however may be extended to any distance at the shotfirer's discretion.	Noted																	
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	Supervisor:	Notify Explosives Supplier of fume event to aid in investigation and communication. The following fume events shall be raised as incidents: - a blast rated 3 when leaving site or 4 or 5 on the blast fume rating scale; - the visible fume cloud travels beyond the blast exclusion zone; - when any person has been directly exposed to fumes Note that a road closed for the purpose of blasting is considered part of the site. The following factors should be considered for inclusion in any post-blast incident report: - date and time of blast; - explosives type, quantity, initiation type; - ground geology (soft, faults, wet); - post-blast NOx gas rating, e.g. 0 – 5 & A-C; - duration of any post-blast NOx gas event (measure of time to disperse); - direction of movement of any post-blast NOx plume; - movement of any post-blast NOx gas plume relative to the established exclusion zone and any established management zone (ie maintained within, exceeded); - climate conditions, including temperature, humidity, wind speed and direction, cloud cover, rain; - results/readings of any NOx monitoring equipment employed for the blast; - video results of blast where relevant.															
Blast MP (21/07/2014)	3.4.2	<table border="1"> <tr> <td>Environmental Coordinator</td> <td>Notify the Department of Planning and Environment of any blast producing post blast fume that rates 3 when leaving the site, and any blast that rates 4 or 5. Where the fume leaves the site and has the potential to cause material harm (to the public/environment), immediately notify the following as per the Pollution Incident Response Plan: - EPA Environmental Line (131 555) - DP&amp;E (02 6575 3402) - Ministry of Health (Newcastle Public Health Unit (02 4624 6477) - Workcover (13 10 50) - Namabri Council (02 6578 7290, a/h 02 6572 1400) Fire and Rescue NSW (000)</td> </tr> <tr> <td>Superintendent</td> <td>Escalate fume events to Mining Manager &amp; [Upper Hunter Environmental Services]</td> </tr> <tr> <td>Mining Manager</td> <td>Reporting of fume events to Mines Inspectorate as appropriate.</td> </tr> </table>	Environmental Coordinator	Notify the Department of Planning and Environment of any blast producing post blast fume that rates 3 when leaving the site, and any blast that rates 4 or 5. Where the fume leaves the site and has the potential to cause material harm (to the public/environment), immediately notify the following as per the Pollution Incident Response Plan: - EPA Environmental Line (131 555) - DP&E (02 6575 3402) - Ministry of Health (Newcastle Public Health Unit (02 4624 6477) - Workcover (13 10 50) - Namabri Council (02 6578 7290, a/h 02 6572 1400) Fire and Rescue NSW (000)	Superintendent	Escalate fume events to Mining Manager & [Upper Hunter Environmental Services]	Mining Manager	Reporting of fume events to Mines Inspectorate as appropriate.	This is done through both the design and loading / implementation phases of blasting	Compliant							
Environmental Coordinator	Notify the Department of Planning and Environment of any blast producing post blast fume that rates 3 when leaving the site, and any blast that rates 4 or 5. Where the fume leaves the site and has the potential to cause material harm (to the public/environment), immediately notify the following as per the Pollution Incident Response Plan: - EPA Environmental Line (131 555) - DP&E (02 6575 3402) - Ministry of Health (Newcastle Public Health Unit (02 4624 6477) - Workcover (13 10 50) - Namabri Council (02 6578 7290, a/h 02 6572 1400) Fire and Rescue NSW (000)																
Superintendent	Escalate fume events to Mining Manager & [Upper Hunter Environmental Services]																
Mining Manager	Reporting of fume events to Mines Inspectorate as appropriate.																
<b>3.6 Blast Impact on Heritage Features</b>																	
Blast MP (21/07/2014)	3.6	The following blast related measures will be implemented for the management of the protected Aboriginal archaeological and historical sites:															
Blast MP (21/07/2014)	3.6	<ul style="list-style-type: none"> <li>During blast planning, sites that are within 500m of the blast will be reviewed against predictive vibration modelling to ensure they are protected,</li> <li>Regular visual monitoring will be conducted at sites.</li> <li>Although flyrock damage is considered a low risk, management measures to protect the identified sites will be explored.</li> </ul>	This occurs	Compliant													
<b>3.7 Construction Blast Management</b>																	
Blast MP (21/07/2014)	3.7	All blasting activities during construction will occur at distances greater than 500 m from any State Forest land, privately owned residences and neighbouring public infrastructure, including roads.	Construction is completed, no complaints from the construction period and blasting was outside these separation distance requirements	Compliant													
Blast MP (21/07/2014)	3.7	Principal contractors will be appointed by MCC to undertake the construction activities for the Project. The principal contractor, including drill and blast contractor will be required to develop appropriate blast management procedures for approval prior to commencing any blasting on site. MCC will review the blast management procedures to ensure compliance with the MCC approved management plans and best practice blast guidelines outlined above.	Noted														
Blast MP (21/07/2014)	3.7	MCC will liaise with the neighbouring mine Boggabri Coal regarding blasting activities within 500m of shared Project Boundaries to ensure no adverse impacts are experienced by either Project.	Noted														
<b>4.0 Monitoring</b>																	
<b>4.1 Monitoring of Blast Vibration and Overpressure</b>																	
Blast MP (21/07/2014)	4.1	Blast monitoring units capable of recording overpressure and vibration in accordance with the requirements of Australian Standard AS 2187.2-2006 'Explosives—Storage and use Part 2: Use of explosives' will be used at the locations listed in Table 3 below and shown on Figure 3 (Appendix E).	The units comply according to documentation provided by supplier and installer	Compliant													

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility										
					Consequence	Likelihood	Risk											
Blast MP (21/07/2014)	4.1	<table border="1" style="margin-left: auto; margin-right: auto;"> <caption>Table 4 Blast Monitoring Unit Locations</caption> <thead> <tr> <th>Location ID</th> <th>Location No</th> </tr> </thead> <tbody> <tr> <td>EM1</td> <td>134</td> </tr> <tr> <td>EM2</td> <td>122</td> </tr> <tr> <td>EM3</td> <td>108</td> </tr> <tr> <td>EM4</td> <td>236</td> </tr> </tbody> </table>	Location ID	Location No	EM1	134	EM2	122	EM3	108	EM4	236	The figure in the Blast MP supports this	Compliant				
Location ID	Location No																	
EM1	134																	
EM2	122																	
EM3	108																	
EM4	236																	
Blast MP (21/07/2014)	4.1	Temporary monitors will be used to record blast vibration at any non-mine owned infrastructure where blast design indicates 50 mm/second, or an otherwise agreed criterion, might be approached.	This has not been required	Not Triggered														
Blast MP (21/07/2014)	4.1	Similarly, temporary monitoring locations, if required for complaint monitoring, may be utilised at or near residences in close proximity to northern site boundary. These temporary locations will be positioned as near to the identified location, but on the mine side of the property, to accurately reflect the blast impacts at the proposed location.	Not yet required	Not Triggered														
<b>4.2 Blast Fume Monitoring</b>																		
Blast MP (21/07/2014)	4.2	All blasts will be video recorded with records retained onsite.	Observed onsite	Compliant														
Blast MP (21/07/2014)	4.2	All significant blast fume events will be investigated to identify the likely causes and possible strategies to address those causes during future blasts. The involvement of the explosive manufacturer or supplier will be sought in investigations of this nature.	No significant blast fume events to date	Compliant														
<b>4.2.1 Training</b>																		
Blast MP (21/07/2014)	4.2.1	MCC will ensure all employees and contractors involved in the blasting process have the necessary training, including: <ul style="list-style-type: none"> <li>the identification and rating of post-blast fume;</li> <li>the toxicology of such gas emissions;</li> <li>potential causal factors;</li> <li>appropriate control measures;</li> <li>site specific blasting operation procedures;</li> <li>reporting procedures for post-blast fume; and</li> <li>emergency response procedures for post-blast NOx gases.</li> </ul>	These actions are appropriately management through training and a hierarchy of management.	Compliant														
<b>4.2.2 Record Keeping</b>																		
Blast MP (21/07/2014)	4.2.2	The documentation and records used for the preparation and firing of a blast will be retained in the Drill and Blast Office. All identified post-blast fume will be logged and reported. Video recordings will be retained and stored.	This occurs documentation sighted	Compliant														
<b>5.0 Consultation</b>																		
<b>5.1 Neighbouring Mines</b>																		
Blast MP (21/07/2014)	5.1	The key management measure for the mitigation of cumulative blast impacts will be scheduling of blasts to ensure each mine fires their blast at separate times. At least 24 hours' notice will be provided prior to a proposed blast. If there is no conflict regarding the scheduled blast times, there will be no further correspondence. If there are conflicting blast times between the mines, a revised schedule for firing the blasts will be agreed upon. The schedule will be developed to ensure blasts are fired with a considerable time gap between them to reduce any potential cumulative impacts.	This occurs, see BTM Complax Blast Strategy for evidence	Compliant														
Blast MP (21/07/2014)	5.1	If a late change to the blasting schedule is required, consultation will occur with other mines to confirm no overlap with the new blasting schedule prior to notification of new blast time.	This occurs, see BTM Complax Blast Strategy for evidence	Compliant														
<b>5.2 Community Consultation</b>																		
Blast MP (21/07/2014)	5.2	The public will have access to the blasting schedule via the company website (www.whitehavencoal.com.au). Additionally, the schedule may be distributed via e-mail and fax to organisations and individuals if this is their preference. It should be noted that the weekly schedule may be varied depending on external factors including variable weather, which may require a blast to be delayed or brought forward.	Website shows next scheduled blast. When checked on 30/07/2015, next blast scheduled read Tuesday 28/07/2015.	Compliant														
Blast MP (21/07/2014)	5.2	MCC will set up a Short Message Service (SMS) to contact local residents 24 hours prior to the planned blast event. If required relevant residents as requested can be contacted by telephone prior to each blast in order to prevent surprise and to maintain good working relationships. A list of residents will be determined through consultation with the relevant residents and the MCC Community Consultation Committee.	This occurs, extensive list of recipients from the community and neighbouring mines sighted	Compliant														
Blast MP (21/07/2014)	5.2	If MCC expect a fume event to occur and require to blast due to safety reasons, positive communication with potentially affected receivers will take place. MCC will identify the potential path of the plume and contact those people that could be affected by the fume.	To date no extensive fume event has been predicted nor has one occurred	Not Triggered														

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Blast MP (21/07/2014)	5.2	Notification of blasting events that require road closures will be via the above channels (part of the weekly schedule information), and in accordance with the Road Closure Management Plan.	No road closures required	Not Triggered				
5.3 Road Closure								
Blast MP (21/07/2014)	5.3	As such, the measures described below will not be required for the term of this plan. However in the instance that blasting activities may be required within 500 m of a public road, the following requirements will be addressed.	No road closures required	Not Triggered				
Blast MP (21/07/2014)	5.3	If any blast is planned to be within 500 metres of a public road, then a road closure is required in accordance with a Road Closure Plan that is to be developed in consultation with Narrabri Shire Council.	No road closures required	Not Triggered				
Blast MP (21/07/2014)	5.3	Road closure will only be performed by personnel trained and qualified in traffic control. These people will wear appropriate high visibility clothing and have direct communication with the shotfirers to minimise delay and, to advise of any exclusion zone breach.	No road closures required	Not Triggered				
Blast MP (21/07/2014)	5.3	All signage placement and associated traffic control procedures will be in accordance with a plan approved by Narrabri Shire Council for that section of road.	No road closures required	Not Triggered				
Blast MP (21/07/2014)	5.3	A safety check will be made to ensure the road is clear of debris after blasting and prior to road re-opening. If required, a grader will be on standby to remove any larger debris and small debris will be removed by hand.	No road closures required	Not Triggered				
6.0 Response Procedures								
6.1 Exceedance Protocol								
Blast MP (21/07/2014)	6.1	In the event that blast monitoring results identify an exceedance of the criteria outlined in Section 4.0 and those outlined in condition 18 of the Project Approval an investigation will be initiated which will include consultation with mine engineers, geologists, drill and blast consultants and explosive manufacturers.	This has not occurred	Not Triggered				
6.2 Blast Complaint								
Blast MP (21/07/2014)	6.2	In the event of a community complaint about blasting, all relevant information pertaining to the time of alleged blast nuisance is to be gathered as follows: <ul style="list-style-type: none"> <li>• Blast location and details;</li> <li>• Meteorological conditions at the time of the blast; and</li> <li>• Data from nearest blast monitors.</li> </ul>	This occurs	Compliant				
Blast MP (21/07/2014)	6.2	Using the above data, an assessment is to be made as to the validity of the complaint and responded to in accordance with Section 6.3.	This occurs, complaints have been followed through the process.	Compliant				
Blast MP (21/07/2014)	6.2	If there is any claim that property has been damaged then, as per approval Condition 22, Schedule 3, an inspection is required as follows: "...within 2 months of receiving this claim in writing from the landowner the Proponent shall: (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties, to investigate the claim; and (b) give the landowner a copy of the property investigation report."	This has not occurred	Compliant				
Blast MP (21/07/2014)	6.2	Disputes regarding the selection of a suitably qualified inspector, or the inspection findings, will be referred to the Director General of DP&E for resolution.	No disputes to date	Not Triggered				
6.3 Complaint Response Protocol								
Blast MP (21/07/2014)	6.3	MCC will keep a legible record of specific details relating to any community complaint including: <ul style="list-style-type: none"> <li>• The nature of the complaint;</li> <li>• The method of delivery of the complaint, e.g. telephone;</li> <li>• Relevant monitoring results, including meteorological conditions at the time of the incident;</li> <li>• Site investigation outcomes and specific data as detailed in Section 6.0 above;</li> <li>• Site activity and activity changes; and</li> <li>• Any necessary actions assigned.</li> </ul>	Sighted Complaint register	Compliant				
Blast MP (21/07/2014)	6.3	Records of complaints will be maintained in the complaints register database and kept on file for a period of no less than five years.	5 years not up yet	Not Triggered				
Blast MP (21/07/2014)	6.3	Operational changes made in response to blast monitoring data will be listed on the Whitehaven website as required by Condition 13, Schedule 5, of the approval.	There have been no operational changes required	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Blast MP (21/07/2014)	6.3	MCC maintains a 24-hour complaints hotline (1800 Maules) to respond to any complaints from neighbouring residents or interested stakeholders. The complaints hotline is advertised in the local media on at least a quarterly basis and is available on the Whitehaven website and in community newsletters.	Hotline number is available on WHC website, Whitehaven Group advert regularly in local paper	Compliant				
Blast MP (21/07/2014)	6.3	Where possible, complainants will be contacted immediately to gather additional information. Every effort will be made to ensure that concerns are addressed in a manner that facilitates a mutually acceptable outcome for both the complainant and MCC.	No direct blast complaints, all blast complaints have been through EPA	Not Triggered				
<b>6.4 Emergency Response</b>								
Blast MP (21/07/2014)	6.4	When a significant blast fume event is seen leaving the site, an emergency response will be triggered. Attempts will be made to contact all persons in the path of the plume. Communication to offsite persons and agencies will be conducted by the MCC Environment and Community team.	This has not yet occurred	Not Triggered				
Blast MP (21/07/2014)	6.4	Should an individual be exposed to blast fume, that individual should seek immediate medical advice and treatment.	This has not yet occurred	Not Triggered				
<b>6.5 Property Inspections</b>								
Blast MP (21/07/2014)	6.5	In accordance with condition 21 of the Project Approval, MCC will, upon request, complete a property inspection to establish baseline conditions for all buildings and structures within 2 km of the approved open cut.	No such requests	Not Triggered				
Blast MP (21/07/2014)	6.5	In accordance with condition 22 of the Project Approval, subsequent property inspection will be organised, upon request, for any buildings or structures (for which baseline conditions have been established) that have been damaged as a result of blasting at the Project.	No such requests	Not Triggered				
<b>7.0 Reporting and Review</b>								
<b>7.1 Reporting</b>								
<b>7.1.1 Scheduled Reporting</b>								
Blast MP (21/07/2014)	7.1.1	MCC's environmental performance is reported a number of ways. External reporting includes: <ul style="list-style-type: none"> <li>• An Annual Review (AR);</li> <li>• Monthly updates of monitoring results on the Whitehaven website; and</li> <li>• Community Consultative Committee (CCC) meetings.</li> </ul>	AEMR's completed for 2013 and 2014, monthly monitoring published on the WHC website from May 2014-June 2015. CCC minutes and monitoring results shown at CCC available on website	Compliant				
Blast MP (21/07/2014)	7.1.1	A summary report on any blasting issues identified during monitoring will be provided at CCC meetings.	None identified	Not Triggered				
Blast MP (21/07/2014)	7.1.1	The AR will, in accordance with the requirements of Schedule 5, Condition 4 of the approval: a) describe the development ... that was carried out in the past calendar year, and the development that is proposed to be carried out over the current calendar year; (b) include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against the : <ul style="list-style-type: none"> <li>• relevant statutory requirements, limits or performance measures/criteria;</li> <li>• monitoring results of previous years; and</li> <li>• relevant predictions in the EA;</li> </ul> (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance; (d) identify any trends in the monitoring data over the life of the project; (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and (f) describe what measures will be implemented over the next year to improve the environmental performance of the project.	See PA AEMR requirements for verification, fails at point f).	Not Compliant Administrative				
Blast MP (21/07/2014)	7.1.1	Additionally, the AR will include details on plant attenuation works undertaken during that year as required by Schedule 3, Condition 13 c), of the approval.	No attenuation done on site to date, all factory fitted. Suggest this is removed from the BMP, the issue is managed in the Noise MP.	Not Triggered				
Blast MP (21/07/2014)	7.1.1	A copy of the AR will be forwarded to relevant stakeholders including, but not limited to DRE, DP&I, NOW, OEH, EPA, Narrabri Shire Council and members of the CCC. The AR will also be placed on the Whitehaven website.	2013 AEMR but not 2014 AEMR on WHC website. Email sighted (10/04/2015) forwarding the 2014 AEMR to DP&E, DRE, EPA. No evidence provided that NOW, OEH, Council and CCC were also forwarded AEMR. No records sighted on 2013 AEMR forwarding.	Not Compliant Administrative				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility																
					Consequence	Likelihood	Risk																	
<b>7.1.2 Exceedance Reporting</b>																								
Blast MP (21/07/2014)	7.1.2	In the event it is determined that an exceedance of a blast criterion has occurred, at the earliest opportunity (as soon as practicable) MCC will notify to NSW DP&E, EPA and other relevant agencies. In accordance with Schedule 4, Condition 3 a), of the approval, affected landowners will also be notified (in writing) of the exceedance and the results of any subsequent monitoring until such time as compliance is achieved.	This has not occurred	Not Triggered																				
Blast MP (21/07/2014)	7.1.2	In accordance with Schedule 5, Condition 8 of the approval, MCC will, within 7 days of exceedance date, notify the NSW DP&E and other relevant agencies. MCC will submit a written report that: <ul style="list-style-type: none"> <li>• Describes the date, time, and nature of the exceedance;</li> <li>• Identifies the cause (or likely cause) of the exceedance;</li> <li>• Describes what action has been taken to date; and</li> <li>• Describes the proposed measures to address the exceedance.</li> </ul>	This has not occurred	Not Triggered																				
<b>7.2 Plan Reviews</b>																								
Blast MP (21/07/2014)	7.2	In accordance with Schedule 5, Condition 5 of the approval, this BLMP will be reviewed within 3 months of any AR, incident report, audit or modification to conditions. Should this review identify any requirement to change the BLMP, this document will be updated accordingly in accordance with the approval.	This has not been required, BLMP now being updated	Not Triggered																				
Blast MP (21/07/2014)	7.2	Additionally, this BLMP may be reviewed and revised in accordance with a requirement issued under condition 4 of Schedule 2 of the approval.	This has not been required, BLMP now being updated in accordance with this condition (post audit period)	Not Triggered																				
Blast MP (21/07/2014)	7.2	The BLMP will be reviewed against blasting performance following 3 months of operational blasts. This is to determine if the plan is working as per predicted or if changes are required.	This occurred, the review was not documented	Not Compliant Administrative																				
<b>8.0 Roles and Responsibilities</b>																								
Blast MP (21/07/2014)	8	<table border="1"> <caption>Table 5 Roles and Responsibilities</caption> <thead> <tr> <th>Role or Responsibility</th> <th>Person/People</th> <th>Timing</th> </tr> </thead> <tbody> <tr> <td>Implementation of management plan</td> <td>Environment &amp; Heritage Manager</td> <td>Ongoing</td> </tr> <tr> <td>Data review</td> <td>Drill and Blast Engineer</td> <td>Quarterly</td> </tr> <tr> <td>Blast design (including fume management)</td> <td>Drill and Blast Engineer</td> <td>Each blast</td> </tr> <tr> <td>Minimise fume impacts</td> <td>Environment &amp; Heritage Officers (receptors off site) and shot firer (receptors on site)</td> <td>Each blast where receptors are within 3000 metres</td> </tr> </tbody> </table>			Role or Responsibility	Person/People	Timing	Implementation of management plan	Environment & Heritage Manager	Ongoing	Data review	Drill and Blast Engineer	Quarterly	Blast design (including fume management)	Drill and Blast Engineer	Each blast	Minimise fume impacts	Environment & Heritage Officers (receptors off site) and shot firer (receptors on site)	Each blast where receptors are within 3000 metres	Noted				
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Minimise fume impacts	Environment & Heritage Officers (receptors off site) and shot firer (receptors on site)	Each blast where receptors are within 3000 metres																						
Blast scheduling	Drill and Blast Engineer	Weekly																						
Manage blast monitoring network	Environment & Heritage Officer	Ongoing																						
Fume monitoring	Drill and Blast Engineer	Each blast																						
Blast MP (21/07/2014)	8	Blast notification	Drill and Blast Engineer	Weekly	Noted																			
		Road Closure	Drill and Blast Engineer	As required																				
		Respond to community complaint	Environment & Heritage Officer	As required																				
Blast MP (21/07/2014)	8	Scheduled reporting	Environment & Heritage Manager	Quarterly and annually	Noted																			
		Exceedance reporting	Environment & Heritage Manager	As required																				
		Plan reviews	Environment & Heritage Manager	Annually or as otherwise required																				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility																
					Consequence	Likelihood	Risk																	
<b>Blast Management Strategy - July 2014</b>																								
<b>3 Regional Strategies</b>																								
Blast Management Strategy - July 2014	3	The conditions of approval for the Boggabri Coal Mine and Maules Creek Coal specifically require the three mines of the BTM Complex produce joint strategies for: - noise management - blast management - air quality management - water management - regional biodiversity (developed over 3 stages) - biodiversity offsets.	Noted																					
Blast Management Strategy - July 2014	3	Additionally, the conditions require cooperation and consultation between the mines with respect to: - Aboriginal heritage conservation - operational noise and air quality management, including online communications of onsite activities and monitoring; operating conditions and reactive dust management; and air quality and Greenhouse Gas (GHG) management - transport, specifically options for transporting workers - management of social impacts - membership of Community Consultative Committees (CCC).	This occurs to a limited extent	Compliant																				
<b>4 Blasting criteria</b>																								
<b>4.2 Maules Creek Coal</b>																								
Blast Management Strategy - July 2014	4.2	The relevant blasting criteria have been extracted from the most recent BCPL Project Approval, and are summarised in Table 4.1.  <b>Table 4.2 Maules Creek Coal blasting assessment criteria</b> <table border="1"> <thead> <tr> <th>Location</th> <th>Airblast overpressure (dB(Lin Peak))</th> <th>Ground vibration (mm/s)</th> <th>Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td>Residence on privately owned land</td> <td>120 115</td> <td>10 5</td> <td>0% 5% of the total number of blasts over a period of 12 months</td> </tr> <tr> <td>All public infrastructure</td> <td>-</td> <td>50 (or alternatively a specific limit determined to the satisfaction of the Director-General by the structural design methodology in AS2187.3-2006, or its latest version)</td> <td>0%</td> </tr> </tbody> </table>	Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance	Residence on privately owned land	120 115	10 5	0% 5% of the total number of blasts over a period of 12 months	All public infrastructure	-	50 (or alternatively a specific limit determined to the satisfaction of the Director-General by the structural design methodology in AS2187.3-2006, or its latest version)	0%	Noted, these are the same criteria at each site.	Compliant								
Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance																					
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Blast Management Strategy - July 2014	4.2	The process for day to day management of compliance with respect to these conditions is outlined in the BCPL Blast Management Plan (BLMP).	Noted																					
<b>4.4 BTM Complex</b>																								
Blast Management Strategy - July 2014	4.4	Table 4.4 summarises the current assessment criteria for the three mines of the BTM Complex.  <b>Table 4.4 BTM Complex blasting assessment criteria</b> <table border="1"> <thead> <tr> <th>Criteria</th> <th>Boggabri</th> <th>Tarrowonga</th> <th>Maules Creek</th> </tr> </thead> <tbody> <tr> <td>Blasting Hours</td> <td>9AM – 5PM</td> <td>9AM – 5PM</td> <td>9AM – 5PM</td> </tr> <tr> <td>Blasting Days</td> <td>Monday to Saturday inclusive, excluding public holidays. Blasting outside of these days require written approval of the Director-General</td> <td>Monday to Saturday inclusive, and no blasting is allowed on Sundays, public holidays or at any other time without the written approval of the Director-General</td> <td>Monday to Saturday, excluding Sundays and public holidays unless prior approval from Office of Environment and Heritage (OEH) is given.</td> </tr> <tr> <td>Blasting Frequency</td> <td>1 blast per day, unless an additional blast is required following a blast misfire; and 4 blasts a week, averaged over a calendar year (i.e. maximum of 208 blasts per annum).</td> <td>1 blast per day, unless an additional blast is required following a blast misfire.</td> <td>Up to an average of 4 blasts per week, or approximately 200 blasts per calendar year.</td> </tr> </tbody> </table>	Criteria	Boggabri	Tarrowonga	Maules Creek	Blasting Hours	9AM – 5PM	9AM – 5PM	9AM – 5PM	Blasting Days	Monday to Saturday inclusive, excluding public holidays. Blasting outside of these days require written approval of the Director-General	Monday to Saturday inclusive, and no blasting is allowed on Sundays, public holidays or at any other time without the written approval of the Director-General	Monday to Saturday, excluding Sundays and public holidays unless prior approval from Office of Environment and Heritage (OEH) is given.	Blasting Frequency	1 blast per day, unless an additional blast is required following a blast misfire; and 4 blasts a week, averaged over a calendar year (i.e. maximum of 208 blasts per annum).	1 blast per day, unless an additional blast is required following a blast misfire.	Up to an average of 4 blasts per week, or approximately 200 blasts per calendar year.	Noted see Blast MP					
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<b>5 Blast monitoring</b>																								
<b>5.1 Existing monitoring network</b>																								
Blast Management Strategy - July 2014	5.1	The mines of the BTM Complex already have comprehensive blast management systems in place. The existing blast monitoring network will continue to be used.	This continues to be used	Compliant																				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Blast Management Strategy - July 2014	5.1	It is expected that little change will be required to the existing blast monitoring network to continue to ensure compliance with respect to blasting in the BTM Complex. However, there will need to be additional cooperation between mines of the BTM Complex, to minimise the potential for cumulative impacts. Protocols described in this BLMS will be used with the existing monitoring programs to ensure that blasting schedules are coordinated to avoid cumulative impacts on sensitive receivers.	Noted					
5.2 Predictive forecast meteorology								
Blast Management Strategy - July 2014	5.2	It is proposed that more extensive changes will be made to the air quality networks within the BTM Complex in order to manage compliance. The changes, which are detailed in the BTM Complex Air Quality Strategy, include a proposed predictive forecast meteorology system, with half hourly forecasts up to 48 hours in advance. This system will download global meteorological data and forecasts on a daily basis that will be used to guide the planning of blasting activities.	Noted AQS not yet approved or in place	Not Triggered				
Blast Management Strategy - July 2014	5.2	Once the proposed meteorological system is configured and operating, the outcomes will be evaluated by a competent meteorologist or atmospheric science professional against actual meteorological data and the meteorological system will be validated and improved, where possible.	Noted AQS not yet approved or in place	Not Triggered				
6 Cumulative blast management								
6.1 Mitigation of cumulative blast impacts								
Blast Management Strategy - July 2014	6.1	The key management measure for the mitigation of cumulative blast impacts will be scheduling of blasts to ensure each mine fires their blast at a separate times. Processes to mitigate blasting impacts associated with operations will be addressed in each mines' individual BLMPs. Each mine has or will develop a BLMP that outlines a consistent approach for the scheduling of blasts in consultation with other mines in the BTM Complex.	This now occurs and is working successfully.	Compliant				
Blast Management Strategy - July 2014	6.1	At least 24 hours' notice will be provided prior to a proposed blast. If there is no conflict regarding the scheduled blast times, there will be no further correspondence. If there are conflicting blast times between the mines, a revised schedule for firing the blasts will be agreed upon. The schedule will be developed to ensure blasts are fired with a considerable time gap between them to reduce any potential cumulative impacts.	Blast notification occurs in accordance with this	Compliant				
Blast Management Strategy - July 2014	6.1	If a late change to the blast schedule has occurred on any operation, outside the 30 minutes prior or 30 minutes after the scheduled time, then the mine operator is required to communicate these changes to the other operations. This will avoid any blasts to occur concurrently and avoid the cumulative impact of blast ground vibration and overpressure.	This occurs, and is detailed in the Blast MP, any change in these times will result in the entire blast notification list being notified.	Compliant				
Blast Management Strategy - July 2014	6.1	Cumulative air quality impacts will be dependent on blast locations, metrological conditions, time of blast events and dispersion of individual dust and fumes from each blast. A predictive forecasting tool will be investigated by the BTM complex which may assist in scheduling of blast events across the Complex.	Not Yet implemented as the AQBTM Complex has not been approved or implemented	Not Triggered				
6.2 Communication								
Blast Management Strategy - July 2014	6.2	Regular meetings will be held by the BTM Complex to discuss monitoring results and future operational events. Meeting minutes will be documented and distributed to each site.	Monthly meetings occur, minutes sighted	Compliant				
Blast Management Strategy - July 2014	6.2	When blasting criteria are identified as exceeded, discussions will be held within the BTM Complex and the agencies and affected landholders (where an exceedance occurs on privately-owned land).	No exceedances have occurred since the implementation of the Strategy	Compliant				
Blast Management Strategy - July 2014	6.2	The mines of the BTM Complex will also, if required, share baseline property inspection reports that are completed at the request of neighbouring landholders, in accordance with each site's Project Approval. Process to identify main source of blasting impacts	This has not occurred	Not Triggered				
Blast Management Strategy - July 2014	6.2	If there is uncertainty around the source of a blasting related incident (e.g. exceedance of assessment criteria or damage to a neighbouring building or other infrastructure), a meeting will be held by the BTM Complex representatives to review relevant data and investigate the cause of the incident. If the cause cannot be determined, then the BTM Complex will engage a suitably qualified expert to undertake an independent blast impact investigation. The outcomes of the investigation will help determine the responsibility of the mines for any corrective actions.	Sites have to date been able to agree on sources of blasts that have resulted in complaints.	Not Triggered				
6.3 Blasting related incidents								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
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Blast Management Strategy - July 2014	6.3	Blasting related incidents such as misfires or exceedances of assessment criteria will be reported and managed in accordance with each mines' BLMP and incident management process. Incidents will be managed in accordance with the requirements of the Protection of the Environment Operations Act 1997, Coal Mine Health and Safety Act 2002 and Coal Mine Health and Safety Act Regulation 2006.	Noted					
<b>6.4 Reporting</b>								
Blast Management Strategy - July 2014	6.4	Management reports will be prepared regularly, noting performance against criteria. External reporting will include: - individual Company websites - Community Consultative Committees (CCCs) - Annual Environmental Management Reports (AEMRs) - annual returns - exceedance reporting.	WHC website includes monitoring result May 2014 - June 2015 inclusive. CCC include monitoring results and quarterly summaries AEMR 2014 includes performance against criteria, as do annual returns (monitoring commenced Feb 2014) No exceedance reporting specifically for blasting viewed (AEMR 2014 states "All blast monitoring results were well below the applicable vibration and noise criteria.")	Compliant				
<b>7 Corrective and preventative actions</b>								
<b>7.1 Blasting criteria exceedance</b>								
Blast Management Strategy - July 2014	7.1	If the monitoring results of a blast identify an exceedance of the mines relevant criteria, written notification of the exceedance will be provided to the other mines within the BTM complex, in addition to any investigation undertaken according to the respective mine's BLMP.	No exceedances	Not Triggered				
<b>7.2 Unpredicted contingency</b>								
Blast Management Strategy - July 2014	7.2	Unpredicted events, such as storms or earth tremors, will be identified and reported as impacting on vibration results on a case by case basis.	Noted					
<b>8 Document control</b>								
Blast Management Strategy - July 2014	8	The BLMS has been developed with the input of representatives of BCPL, TCM and MCC.	Noted					
<b>8.1 Review and revision</b>								
Blast Management Strategy - July 2014	8.1	The BLMS will be reviewed and revised at least every two years or on an 'as required' basis to incorporate improvements identified by the BTM Complex or appropriate requirements of government agencies. It will be the collective responsibility of the BTM Complex to review the BLMS.	Not yet required	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
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WHC_PLN_MC_Air Quality and Greenhouse Gas Management Plan								
3 Air Quality Management Actions								
3.1 Construction Phase Dust Management								
3.1.3 Clearing/Excavation								
Air Quality and Greenhouse Gas Management Plan	3.1.3	Emissions can be effectively controlled by increasing the moisture content of the soil / surface. Other controls that will be undertaken include: <ul style="list-style-type: none"> <li>• Modify working practices by limiting excavation during periods of high winds; and</li> <li>• Limiting the extent of clearing of vegetation and topsoil to the designated footprint required for construction and appropriate staging of any clearing.</li> </ul>	Evidenced by: <ul style="list-style-type: none"> <li>- watering of surfaces</li> <li>- shutdown logs which reference the meteorological conditions</li> <li>- clearing which has been done only to the extent necessary</li> </ul>	Compliant				
3.1.5 Vehicle, Trucks and Heavy Plant and Equipment Movement								
Air Quality and Greenhouse Gas Management Plan	3.1.5	"Vehicles travelling over paved or unpaved surfaces tend to produce wheel generated dust. The following measures will be implemented during construction to minimise dust emissions from these activities: <ul style="list-style-type: none"> <li>• All vehicles on-site will be confined to designated routes outlined in the Traffic Management Plan with speed limits enforced in accordance with the Traffic Management Plan;</li> <li>• Trips and trip distances will be controlled and reduced where possible, for example by coordinating delivery and removal of materials to avoid unnecessary trips;</li> <li>• Trucks delivering material to site will have their loads covered;</li> <li>• When conditions are excessively dusty and windy and dust can be seen leaving the work site, a water truck (for water spraying of travel routes) will be used;</li> <li>• Wheel generated dust emissions due to construction employees travelling to and from the site will be minimised through the use of shuttle buses, which will be operated in accordance with the statement of commitments to ensure 90% of construction staff use this service;</li> <li>• Trucks and plant on-site will be well maintained in accordance with the manufacturer's specification;</li> <li>• Registered road vehicles with smoky exhausts (more than 10 seconds) shall be stood down for maintenance, in accordance with the POEO Clean Air Regulations; and</li> <li>• Tracks from the Project out onto public roads will be managed using a wheel wash or shaker grid."</li> </ul>	Activities to control wheel generated dust were checked and found to be consistent with "best practice" as defined by the EPA. Some commitments could not be checked during the audit, but there was no evidence to suggest non-compliance.	Compliant				
3.1.6 Wind Erosion								
Air Quality and Greenhouse Gas Management Plan	3.1.6	Wind erosion from exposed ground will be limited by avoiding unnecessary vegetation clearing and ensuring rehabilitation occurs as quickly as possible.	Evident by site observations	Compliant				
Air Quality and Greenhouse Gas Management Plan	3.1.6	Wind erosion from temporary stockpiles will be limited by minimising the number of stockpiles on-site and minimising the number of work faces on stockpiles.	Evident by site observations	Compliant				
Air Quality and Greenhouse Gas Management Plan	3.1.6	Permanent stockpiles will be stabilised or covered.	Inactive stockpiles along the road corridor have been seeded	Compliant				
3.1.7 Railway Construction								
Air Quality and Greenhouse Gas Management Plan	3.1.7	The following measures will be implemented during the construction of the rail spur and loop: <ul style="list-style-type: none"> <li>• Modify working practices by limiting clearing and excavation during periods of high winds;</li> <li>• Limiting the extent of clearing of vegetation and topsoil to the designated footprint required for the rail corridor; and</li> <li>• Use of water sprays during rail construction for dusty activities such as ballast dumping and compacting.</li> </ul>	Rail spur had been constructed by the time of the audit. No exceedances of air quality criteria were measured during the construction period	Compliant				
3.1.8 Material Handling								
Air Quality and Greenhouse Gas Management Plan	3.1.8	Unloading of dusty material / loads will be minimised by reducing drop heights and application of water sprays where required.	Discussed and observed	Compliant				
3.1.9 Training								
Air Quality and Greenhouse Gas Management Plan	3.1.9	All construction staff and contractors will receive training in dust management as part of the OHS inductions and toolbox meetings.	Training materials sighted	Compliant				
3.1.10 Other								
Air Quality and Greenhouse Gas Management Plan	3.1.10	Under no circumstances will any material be burnt on-site.	No evidence to suggest non-compliance	Compliant				
3.2 Operations Phase Dust Management								

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Air Quality and Greenhouse Gas Management Plan	3.2.1	<table border="1"> <caption>Table 3.2: Dust Emissions - Corrective Measures</caption> <thead> <tr> <th>Trigger/Measure</th> <th>Measure</th> <th>Responsibility</th> </tr> </thead> <tbody> <tr> <td>Visible dust from haul roads</td> <td>Relocate water cart operations to control haul road dust</td> <td>All personnel</td> </tr> <tr> <td>High winds (to be defined during monitoring program under Dust Sup (PSP))</td> <td>Relocate overburden emplacement operations away from elevated levels</td> <td>Manager Mining</td> </tr> <tr> <td>Dust emissions are above the height of drill rig wheel arch</td> <td>Ensure water application is adequate during drilling</td> <td>Drill Operators</td> </tr> <tr> <td>Excessive dust generation from exposed material stockpiles or other exposed areas</td> <td>Increase watering Temporarily rehabilitate exposed material that is not being utilized for extended periods of time.</td> <td>Manager Mining</td> </tr> <tr> <td>Excessive/prolonged generation of exhaust fumes</td> <td>Ensure equipment is maintained to manufacturer specifications Avoid exposure of equipment to sensitive receptors Turn equipment engines off when not required</td> <td>Manager Mining</td> </tr> <tr> <td>Air quality complaints received from the public</td> <td>Investigation into activities occurring at the time with reference to meteorological conditions and dust levels measured by monitoring equipment. Where the investigation can identify the activity which results in the complaints, modified or additional mitigation measures will be developed or campaign monitoring instigated.</td> <td>Manager Environment</td> </tr> </tbody> </table>	Trigger/Measure	Measure	Responsibility	Visible dust from haul roads	Relocate water cart operations to control haul road dust	All personnel	High winds (to be defined during monitoring program under Dust Sup (PSP))	Relocate overburden emplacement operations away from elevated levels	Manager Mining	Dust emissions are above the height of drill rig wheel arch	Ensure water application is adequate during drilling	Drill Operators	Excessive dust generation from exposed material stockpiles or other exposed areas	Increase watering Temporarily rehabilitate exposed material that is not being utilized for extended periods of time.	Manager Mining	Excessive/prolonged generation of exhaust fumes	Ensure equipment is maintained to manufacturer specifications Avoid exposure of equipment to sensitive receptors Turn equipment engines off when not required	Manager Mining	Air quality complaints received from the public	Investigation into activities occurring at the time with reference to meteorological conditions and dust levels measured by monitoring equipment. Where the investigation can identify the activity which results in the complaints, modified or additional mitigation measures will be developed or campaign monitoring instigated.	Manager Environment	Measures were observed	Compliant																																													
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3.3 Predictive and Real Time Air Quality Management																																																																						
Air Quality and Greenhouse Gas	3.3	Specific risk response reports will be generated daily in the predictive and real-time air quality	A predictive and real-time air quality	Compliant																																																																		
Air Quality and Greenhouse Gas Management Plan	3.3	<p>The daily risk response report will:</p> <ul style="list-style-type: none"> <li>Provide forecast meteorological conditions for coming day</li> <li>Daily dust risk forecasts.</li> <li>Identify the level of risk (low, medium, high)</li> <li>Outline specific management actions or response.</li> </ul> <p>The meteorology and real-time triggers will also be continuously reviewed as part of the predicted and real-time air quality management system.</p>	Dust risk, from a weather forecast, is assessed on a daily basis. Example daily forecasts were sighted	Compliant																																																																		
3.4 Predictive and Real Time Air Quality Management System																																																																						

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Air Quality and Greenhouse Gas Management Plan	3.4	The implementation of the Predictive and Real Time Air Quality Management System will commence once the BTM strategy has been finalised and approved by DPI, expected mid-2014. The implementation of the system will be staged as follows, but will be fully operational prior to the commencement of mining operations: <ul style="list-style-type: none"> <li>• System planning, including equipment mobilisation/ordering (8-12 weeks);</li> <li>• Equipment installation (1-2 weeks);</li> <li>• System configuration (2-4 weeks);</li> <li>• System testing (1-2 weeks); and</li> <li>• System "Go-live".</li> </ul>	A predictive and real-time air quality management system is in place	Compliant				
3.4.1 Central data repository								
Air Quality and Greenhouse Gas Management Plan	3.4.1	Air quality monitoring data from the three sites will be stored in a central repository.	Air quality monitoring data are stored in a central repository	Compliant				
Air Quality and Greenhouse Gas Management Plan	3.4.1	The data will be available for use by each site and can be viewed in various formats on a web server which will be accessed via the internet to display the data in real-time.	Data are available to download using a website with login credentials	Compliant				
Air Quality and Greenhouse Gas Management Plan	3.4.1	Non validated air quality data will be updated daily to a publically accessible website, including a summary of the operational response to elevated levels.	Pm10 air quality data (average for 24hr period updated daily on the website ( <a href="https://www.whitehavencoal.com.au/environment/maules_creek_site_monitoring_reporting.cfm">https://www.whitehavencoal.com.au/environment/maules_creek_site_monitoring_reporting.cfm</a> ) including operational response (none required when viewed on 30/07/2015)	Compliant				
3.4.2 Overview of requirements								
Air Quality and Greenhouse Gas Management Plan	3.4.2	A predictive and reactive air quality management system will be implemented for B-T-M that personnel will use to: <ul style="list-style-type: none"> <li>• Assess potential offsite impacts and evaluate community risk in advance and subsequently in real-time;</li> <li>• Perform scenario modelling under predicted adverse or other operating conditions;</li> <li>• Develop a history / library of community impacts and air quality incidents and events;</li> <li>• Evaluate community complaints and determine if B-T-M activities may have caused an impact;</li> <li>• Accept information and data inputs from various instruments and data sources (eg. web services, real-time monitoring, and/or emissions estimates based on activity data); and</li> <li>• Provide recommendations with respect to abatement or avoidance of potential issues and operational requirements based on outputs of the system.</li> </ul>	The air quality management system used at Maules Creek Mine is not as detailed as described here. There is no evidence of "scenario modelling", a system to accept "emissions estimates based on activity data" or a system which provides "recommendations with respect to abatement or avoidance of potential issues and operational requirements based on outputs of the system". It is understood the predictive air quality modelling is being investigated, but at this stage is not in place. This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				
3.4.3 Components								
Air Quality and Greenhouse Gas Management Plan	3.4.3	The predictive and reactive air quality management system will include: <ul style="list-style-type: none"> <li>• A predictive component: using forecast weather data and dispersion modelling;</li> <li>• A reactive component: using real-time meteorology, air quality monitoring and dispersion modelling;</li> <li>• A non steady state air quality dispersion model (that is capable of processing data at a sub-hourly time interval);</li> <li>• Short term tiered trigger levels and notifications for managing potential impacts; and</li> <li>• A daily forecast report: providing information on temperature inversions, wind conditions at various heights, dust risk, and recommended control actions.</li> </ul> The system requires reliable and frequent data communications from monitoring equipment and weather stations and will be maintained and supported to ensure that the information it provides is reliable and as accurate as possible. It is extremely important to maintain periodic review of any real-time air quality system to ensure that the system is operating using: <ul style="list-style-type: none"> <li>• Validated meteorological forecasts;</li> <li>• Data from calibrated monitoring equipment;</li> <li>• Accurate varying emission rates, informed by campaign monitoring where necessary; and</li> <li>• Accurate emission source parameters, i.e. updated as the mine plan evolves.</li> </ul>	There is no evidence of a system which includes predictive air quality modelling based on a non steady state air quality dispersion model, as described in this section of the AQHGMP. This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				
3.4.4 Forecast Meteorology								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Air Quality and Greenhouse Gas Management Plan	3.4.4	A predictive forecast meteorology system will be implemented based on the Weather Research & Forecasting (WRF) model and CALMET, specifically for B-T-M, and a website will be developed to make data immediately available for sites, with half hourly forecasts up to 48 hours in advance.	WHC website ( <a href="https://www.whitehavencoal.com.au/environment/maules_creek_site_monitoring_reporting.cfm">https://www.whitehavencoal.com.au/environment/maules_creek_site_monitoring_reporting.cfm</a> ) provides 7 day forecast but only for 9am and 3pm intervals. This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				
Air Quality and Greenhouse Gas Management Plan	3.4.4	This system will download global meteorological data and forecasts on a daily basis and process and run the model to produce the information required for input to a real-time 3D dispersion model.	A site specific meteorological forecast system with these capabilities is not in place.	Not Triggered				
Air Quality and Greenhouse Gas Management Plan	3.4.4	Once this meteorological system is configured and operating, the outcomes will be evaluated by a competent meteorologist or atmospheric science professional against actual meteorological and dust measurements and the meteorological system will be validated and improved, where possible.	There is no evidence to suggest that this evaluation has been carried out, since a predictive air quality model is not in place	Not Triggered				
<b>3.4.5 Local observed meteorology</b>								
Air Quality and Greenhouse Gas Management Plan	3.4.5	Data from local automatic weather stations will be used to validate the predictive meteorological forecast data as time elapses.	There is no evidence to suggest that this validation has been carried out, since a predictive air quality model is not in place. This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				
<b>3.4.6 Integrated real-time monitoring data</b>								
Air Quality and Greenhouse Gas Management Plan	3.4.6	A connection will be established to receive a data feed from weather stations in the B-T-M network. A connection will also be established to monitoring equipment located upwind and downwind of dust sources.	There is no evidence to suggest that this connection is in place, since a predictive air quality model is not in place. This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				
Air Quality and Greenhouse Gas Management Plan	3.4.6	As required, the system will be connected with operational and other environmental data and management information systems such as SCADA, laboratory data, field monitoring and continuous systems.	This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				
Air Quality and Greenhouse Gas Management Plan	3.4.6	The system will be improved further by incorporating real-time modelling and analysing modelled source contributions in real-time to identify the instantaneous main source of high emissions.	There is no evidence to suggest that this action has been carried out, since a predictive air quality model is not in place. This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				
<b>3.4.7 Air quality dispersion model</b>								
Air Quality and Greenhouse Gas Management Plan	3.4.7	The dispersion model will: <ul style="list-style-type: none"> <li>• Be a non-steady state model;</li> <li>• Accommodate reliable, rapid-update data feed;</li> <li>• Assimilate multiple data sources;</li> <li>• Be accessible – for integration to a system; and</li> <li>• Be validated.</li> </ul>	A predictive and real-time air quality dispersion model with these features is not in place. This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				
Air Quality and Greenhouse Gas Management Plan	3.4.7	The B-T-M system will use the WRF/CALMET/CALPUFF modelling system.	A predictive and real-time air quality dispersion model with these features is not in place. This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				
Air Quality and Greenhouse Gas Management Plan	3.4.7	The CALPUFF model will be configured to use the CALMET data and a connection to ambient monitoring station data would also be established.	A predictive and real-time air quality dispersion model with these features is not in place. This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Air Quality and Greenhouse Gas Management Plan	3.4.7	Source emissions data will also be configured to be processed and modelled in CALPUFF.	A predictive and real-time air quality dispersion model with these features is not in place This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				
3.4.8 Predictive and reactive triggers								
Air Quality and Greenhouse Gas Management Plan	3.4.8	Predictive and 'real-time' reactive triggers will be built into the system.	Predictive and real-time reactive triggers are not built into a site specific air quality dispersion model This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				
Air Quality and Greenhouse Gas Management Plan	3.4.8	Initially predictive triggers will be set for typical meteorological conditions that are known to have adverse impacts on air quality due to dust generated during mining operations. Over time predictive triggers can be updated for conditions resulting in observed increases in dust impacts.	Predictive and real-time reactive triggers are not built into a site specific air quality dispersion model This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				
Air Quality and Greenhouse Gas Management Plan	3.4.8	Reactive triggers will be set to alert operations when monitoring data for short term average periods indicate that the 24-hour air quality criteria may be breached at areas of relevant exposure.	Predictive and real-time reactive triggers are not built into a site specific air quality dispersion model This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				
Air Quality and Greenhouse Gas Management Plan	3.4.8	The real-time dust monitoring system will be used to trigger when controls need to be instigated.	Predictive and real-time reactive triggers are not built into a site specific air quality dispersion model This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				
Air Quality and Greenhouse Gas Management Plan	3.4.8	SMS and email alerts will be sent to relevant personnel and monitoring data will be displayed in near real-time on a customised web based reporting system.	Predictive and real-time reactive triggers are not built into a site specific air quality dispersion model This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				
Air Quality and Greenhouse Gas Management Plan	3.4.8	Associated with each trigger level (i.e. low, medium, high) is a response which will inform the course of action taken by the relevant personnel.	Predictive and real-time reactive triggers are not built into a site specific air quality dispersion model This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				
Air Quality and Greenhouse Gas Management Plan	3.4.8	Preliminary predictive and reactive triggers are outlined in the risk response matrix (refer Figure 16), along with the actions/response associated with increasing risk levels. These triggers and responses will be built into the real-time dust management system.	Predictive and real-time reactive triggers are not built into a site specific air quality dispersion model This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				
Air Quality and Greenhouse Gas Management Plan	3.4.8	Predictive and reactive triggers will be reviewed regularly, and be based on the initial air quality data collected during commissioning of air quality monitoring equipment as well as ongoing monitoring results.	Predictive and real-time reactive triggers are not built into a site specific air quality dispersion model This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				
3.4.9 System outputs								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Air Quality and Greenhouse Gas Management Plan	3.4.9	Some system outputs that will be required include: <ul style="list-style-type: none"> <li>• A daily forecast report providing information on temperature inversions, wind conditions, dust risk, and recommended control actions.</li> <li>• Graphical representation of the forecasted meteorology and real-time monitoring data via the system's web interface.</li> <li>• Capability to analyse and confirm the likely source(s) of dust and path(s) that it may have travelled. This functionality is critical in apportioning responsibility to operations for mitigating emissions.</li> <li>• Automated alerts for relevant operations personnel so that the agreed protocol for reacting to a potential dust issue can be activated. These alerts may be generated as SMS or email messages, or by other systems integrated into operating processes (depending on needs). Alerts would be stored in the system for analysis, which would assist in refining trigger criteria over time.</li> </ul>	A predictive system with these features is not in place This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				
Air Quality and Greenhouse Gas Management Plan	3.4.9	Daily forecast reports will provide information on temperature lapse rate, in accordance with Condition 35 (b) of the Project Approval.	A predictive system with these features is not in place This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				
Air Quality and Greenhouse Gas Management Plan	3.4.9	Daily forecast reports will also allow for planning for adverse meteorological conditions, in accordance with Condition 33 (d) of the Project Approval.	A predictive system with these features is not in place This commitment is derived from the AQ Strategy which has not been approved or implemented.	Not Triggered				
<b>3.5 Additional Air Quality Mitigation Upon Request</b>								
Air Quality and Greenhouse Gas Management Plan	3.5	In accordance with Project Approval Schedule 3, condition 28, if the owner of any residence on land listed in Table 1 (on the basis of air quality) or Table 8 of the Project Approval provides a written request to MCC for additional air quality mitigation measures to be implemented to their property, MCC will implement those additional air quality mitigation measures at the residence in consultation with the owner. MCC will implement measures that are reasonable and feasible and directed towards reducing air quality impacts from the Project.	No requests have been made	Not Triggered				
<b>3.6 Notification of Landholders or Tenants</b>								
Air Quality and Greenhouse Gas Management Plan	3.6	Prior to entering into a tenancy agreement for land owned by MCC that is predicted to experience exceedances of the recommended noise and dust criteria, MCC will advise the prospective tenants of the potential health and amenity impacts associated with living on the land and provide a copy of the "Mine Dust and You" factsheet	Letter sighted from 23 January 2013	Not Compliant	D	2	Medium	
Air Quality and Greenhouse Gas Management Plan	3.6	MCC will advise the prospective tenants of the rights that they have under the Project Approval.	Letter included factsheet but not explicit rights of landowners					
Air Quality and Greenhouse Gas Management Plan	3.6	MCC will also request the prospective tenants to visit their medical practitioner to discuss the air quality monitoring data and predictions and the health impacts arising from that information.	Letter included factsheet but not explicit requirement to consult medical practitioner					
Air Quality and Greenhouse Gas Management Plan	3.6	Any tenancy agreement that MCC implement will be undertaken to the satisfaction of the Director-General.	This has not occurred					
Air Quality and Greenhouse Gas Management Plan	3.6	Should monitoring results show that the relevant criteria listed in the Project Approval be exceeded, MCC will as soon as practicable notify the landholder(s) whose land which the monitoring has shown an exceedance in writing and provide regular monitoring results to these landholder(s) until the Project has demonstrated compliance with the relevant criteria.	No exceedances to date					
Air Quality and Greenhouse Gas Management Plan	3.6	MCC will send any affected landholder(s) a copy of the "Mine Dust and You" fact sheet and monitoring data in an appropriate format.	Fact sheet sighted in initial notification to landholders and to subsequent landowners as required.					
<b>3.7 Blast Fume Management</b>								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Air Quality and Greenhouse Gas Management Plan	3.7	Impacts from blast events (dust and NOx fume) will be managed using the predictive and real-time air quality management system described in Section 3.4 as follows: • The predictive meteorological component will be used to schedule daily blasts under the most favourable meteorological conditions (for example wind conditions that would transport fumes away from receptors). This is limited in its ability for cumulative scheduling across all three sites. • The system will also be developed to provide daily predictions of blast fume and blast overpressure based on specific information for each blast. - Predicted blast fume pathway, ground level concentrations (glc) and exclusion zones (based on glc). - Predicted blast over pressure impacts.	A predictive system with these features is not in place This commitment is derived from the AQ Strategy which has not been approved or implemented. The Blast Management Plan outlines additional measures implemented to manage blast events.	Not Triggered				
<b>3.8 Coal Transportation</b>								
Air Quality and Greenhouse Gas Management Plan	3.8	An industry wide approach to evaluating management options for fugitive emissions from coal transportation is currently underway. Prior to commencement of coal transportation, Maules Creek Coal will review recommendations from this study. Within a two year time frame from when coal transportation commences, Maules Creek Coal will instigate investigations into the feasibility of the recommended management measures.	Coal Transport commenced December 2014	Not Triggered				
<b>4.0 GREENHOUSE GAS MANAGEMENT</b>								
Air Quality and Greenhouse Gas Management Plan	4.0	Greenhouse Gas management for the Maules Creek Coal Project will focus on emissions management and reductions associated with: • Electricity usage in the CHPP; and • Diesel consumption by mining vehicles and plant.	Noted					
<b>4.1 Electricity</b>								
Air Quality and Greenhouse Gas Management Plan	4.1	Reductions in electricity use during operations will be achieved as follows: • The energy efficiency of all new electrical equipment will be considered during procurement. • Use of variable speed drives on pumps and conveyors in the CHPP; • Avoiding idle running of conveyors in the CHPP; and • Turning off unnecessary lighting around the mine site consistent with safety requirements. Ongoing reduction in electricity usage will be investigated based on energy saving projects in accordance with requirements of the Commonwealth Energy Efficiency Opportunity Act, 2006	2014 AEMR outlines actions taken during reporting period (first year of operations) and outlines action for 2015 reporting period.	Compliant				
<b>4.2 Diesel Consumption</b>								
Air Quality and Greenhouse Gas Management Plan	4.2	Reductions in diesel use during operations will be achieved as follows: • The fuel efficiency of all mobile and fixed equipment will be considered during procurement. • Ensure dump trucks are fully loaded for each load prior to hauling to maximise productivity and efficiency with regard to the amount of fuel used per unit of material moved; and • Investigate biodiesel use and where possible source from local and sustainable agricultural resources.	2014 AEMR outlines actions taken during reporting period (first year of operations) and outlines action for 2015 reporting period.	Compliant				
<b>4.3 Reporting</b>								
Air Quality and Greenhouse Gas Management Plan	4.3	WHC will assess energy usage from all aspects of its operations, including the Maules Creek Coal Mine, and publicly report the results of energy efficiency assessments, and the opportunities that exist for energy efficiency projects with a financial payback of up to four years.	Noted. Suitable projects to be identified as operations progress.	Not triggered				
Air Quality and Greenhouse Gas Management Plan	4.3	As part of its obligations under the EEO Program, WHC has set up an internal steering committee with the objective of identifying and implementing GHG mitigation initiatives.	Noted					
Air Quality and Greenhouse Gas Management Plan	4.3	Greenhouse Gas emissions and performance will be reported within the Annual Review, including any energy savings projects that have been implemented or plan to be implemented in the following year.	Diesel, explosives and fugitive emissions reported in 2013 AEMR (3.12) and 2014 AEMR (3.11). No actions proposed in 2013 AEMR but actions proposed in 2014 AEMR for 2015 reporting period.	Compliant				
<b>5.0 AIR QUALITY MONITORING PROGRAM</b>								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility																		
					Consequence	Likelihood	Risk																			
Air Quality and Greenhouse Gas Management Plan	5.0	The existing air quality monitoring network has been upgraded to reflect the following objectives: <ul style="list-style-type: none"> <li>To assess operational compliance with the criteria outlined in the Project Approval;</li> <li>To integrate with the predictive and real-time dust management system; and</li> <li>To form part of a cumulative air quality monitoring network for B-T-M.</li> </ul>	Noted																							
<b>5.1 Cooperative Real Time Monitoring</b>																										
Air Quality and Greenhouse Gas Management Plan	5.1	The cumulative strategy defines Zones 1 through Zone 10, nominated for cumulative air quality monitoring. These zones allow for the analysis of upwind concentrations along the north/south and southeast/northwest axis that correspond to the prevailing wind directions. This layout ensures that upwind/downwind PM10 concentrations are measured for management purposes and correspond to areas that are predicted to be impacted by B-T-M operations. Zones 1 through Zone 4 are recommended in the cumulative strategy as approximate locations of real-time PM10 / PM2.5 monitors.	Monitors are in place which would allow for upwind / downwind analysis	Compliant																						
Air Quality and Greenhouse Gas Management Plan	5.1	Continuous real-time instruments (TEOMs) have been installed at location representative of these zones.	Monitors are in place	Compliant																						
Air Quality and Greenhouse Gas Management Plan	5.1	In accordance with condition 34 (f), the proposed monitoring locations include the properties / land identified in Table 1 of the Project Approval, as follows: <ul style="list-style-type: none"> <li>Land ID 110 – 114 – assessed by monitoring equipment installed at “Murphy” and Fairfax Public School. Representative of Zones 3, 4 and 8.</li> <li>Land ID 279 – 280 - assessed by monitoring equipment installed at “Tarrawonga”. Representative of Zone 1.</li> </ul> <table border="1" data-bbox="514 690 997 876"> <caption>Table 5.1: Overview of real-time compliance monitoring</caption> <thead> <tr> <th>Site</th> <th>Instrument and Parameter</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>Fairfax Public School</td> <td>TEOM - PM<sub>10</sub> and PM<sub>2.5</sub></td> <td>Existing location representative of cumulative monitoring Zone 4</td> </tr> <tr> <td>“Murphy” 110/114</td> <td>TEOM - PM<sub>10</sub> and PM<sub>2.5</sub></td> <td>Proposed location representative of cumulative monitoring Zone 3</td> </tr> <tr> <td>“Flitton” -</td> <td>TEOM - PM<sub>10</sub> and PM<sub>2.5</sub></td> <td>Existing location representative of (close to) cumulative monitoring Zone 2</td> </tr> <tr> <td>“Tarrawonga” – 279</td> <td>TEOM - PM<sub>10</sub> and PM<sub>2.5</sub></td> <td>Existing location representative of cumulative monitoring Zone 1</td> </tr> <tr> <td>Mobile Site</td> <td>Real-time portable instrument for PM<sub>10</sub></td> <td>Trailer mounted mobile air quality monitoring station used for campaign monitoring at receptors such as “Compton” – 122 or mine owned occupied residences.</td> </tr> </tbody> </table>	Site	Instrument and Parameter	Comment	Fairfax Public School	TEOM - PM <sub>10</sub> and PM <sub>2.5</sub>	Existing location representative of cumulative monitoring Zone 4	“Murphy” 110/114	TEOM - PM <sub>10</sub> and PM <sub>2.5</sub>	Proposed location representative of cumulative monitoring Zone 3	“Flitton” -	TEOM - PM <sub>10</sub> and PM <sub>2.5</sub>	Existing location representative of (close to) cumulative monitoring Zone 2	“Tarrawonga” – 279	TEOM - PM <sub>10</sub> and PM <sub>2.5</sub>	Existing location representative of cumulative monitoring Zone 1	Mobile Site	Real-time portable instrument for PM <sub>10</sub>	Trailer mounted mobile air quality monitoring station used for campaign monitoring at receptors such as “Compton” – 122 or mine owned occupied residences.	Monitors are in place	Compliant				
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<b>5.1 Other Monitoring Requirements</b>																										
Air Quality and Greenhouse Gas Management Plan	5.1	The following additional equipment is installed / consolidated for B-T-M: <ul style="list-style-type: none"> <li>Additional or consolidation of three dust gauges to monitor dust deposition;</li> <li>The Maules Creek HVAS would be relocated to property ID 225 (Zone 10);</li> <li>Installation of portable real-time PM10 monitors for day to day operational dust management (e.g. e-samplers);</li> </ul>	The current monitoring is providing information that is used for day to day operational management.	Compliant																						
<b>5.2 Dust Deposition</b>																										
Air Quality and Greenhouse Gas Management Plan	5.2.2	The existing four (4) Maules Creek dust deposition monitoring locations will be retained for the operational monitoring.	In place	Compliant																						
Air Quality and Greenhouse Gas Management Plan	5.2.2	As part of the Cumulative Air Quality Monitoring Plan, data sharing agreements would allow the Maules Creek Coal mine to access dust deposition monitoring from other locations for management and compliance reporting purposes.	Monitoring can be accessed if required	Compliant																						
<b>5.2.3 Portable Boundary Real Time Monitoring</b>																										
Air Quality and Greenhouse Gas Management Plan	5.2.3	B-T-M will also install portable real-time PM10 monitors (i.e. e-samplers) for day to day dust management at appropriate locations closer to mining operations.	The current monitoring is providing information that is used for day to day operational management.	Compliant																						
<b>5.2.4 Regional Monitoring (control site)</b>																										
Air Quality and Greenhouse Gas Management Plan	5.2.4	Approval conditions require control monitoring sites to provide real time data on background air quality levels that are not influenced by mining from the Leard Forest Mining Precinct.	The current monitoring includes locations which, depending on the conditions, will be upwind of mining activities to allow for determination of background levels for a specific dust event	Compliant																						
Air Quality and Greenhouse Gas Management Plan	5.2.4	As an interim control site, reference will be made to EPA monitoring data collected at Tamworth, which would provide an indication of regional air quality not influenced by mining from the Leard Forest Mining Precinct.	EPA currently manages the Tamworth monitoring site	Compliant																						
<b>5.3 Blast Monitoring</b>																										
Air Quality and Greenhouse Gas Management Plan	5.3	Assessment of visual NOx fume will be undertaken as per Appendices 2 and 3 of the Code of Good Practice (Australian Explosives Industry and Safety Group Inc., 2011), including video recording of blasts and reviewing for formation and transport of blast fume.	Blasts are videoed and there is a system amongst blast observers including the sentries to monitor blast plumes.	Compliant																						

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility										
					Consequence	Likelihood	Risk											
Air Quality and Greenhouse Gas Management Plan	5.3	A blast fume rating scale will be logged for each blast using procedures outlined in the Code of Good Practice (Australian Explosives Industry and Safety Group Inc. 2011).	This occurs, evidenced by the inspection reports noting the rating of fume for each blast.	Compliant														
<b>5.4.1 Particulate Matter Control Best Practice Implementation - Wheel Generated Dust</b>																		
Air Quality and Greenhouse Gas Management Plan	5.4.1	<p>Condition E1 (Particulate Matter Control Best Practice Implementation - Wheel Generated) requires that MCC must achieve and maintain a dust control efficiency of 85% or more on all active haul roads and requires the licensee to prepare a Monitoring Program to assess compliance with this condition.</p> <p>The monitoring plan developed by MCC for E1 is summarised as follows:</p> <table border="1"> <caption>Table 5.2: Overview of monitoring program for E1</caption> <thead> <tr> <th>Task</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Planning and information gathering</td> <td> <ul style="list-style-type: none"> <li>Analyse meteorological data to determine suitable periods for monitoring</li> <li>Identify representative haul roads for monitoring (controlled and uncontrolled)</li> </ul> </td> </tr> <tr> <td>Haul road monitoring</td> <td> <ul style="list-style-type: none"> <li>PM emissions from haul roads will be measured using a mobile sampling system on controlled and uncontrolled sections of road.</li> </ul> </td> </tr> <tr> <td>Data analysis and presentation</td> <td> <p>Determine control efficiency using the formula:</p> <math display="block">\text{Control Efficiency} = \frac{\text{Emissions}_{\text{uncontrolled}} - \text{Emissions}_{\text{controlled}}}{\text{Emissions}_{\text{uncontrolled}}} \times 100</math> </td> </tr> <tr> <td>Key Performance Indicators (KPIs)</td> <td> <ul style="list-style-type: none"> <li>Primary KPI (PM-control efficiency of 85% determined directly through haul road monitoring)</li> <li>Secondary KPI (water rate) based on a correlation between PM-control efficiency and the watering application rate.</li> </ul> </td> </tr> </tbody> </table>	Task	Description	Planning and information gathering	<ul style="list-style-type: none"> <li>Analyse meteorological data to determine suitable periods for monitoring</li> <li>Identify representative haul roads for monitoring (controlled and uncontrolled)</li> </ul>	Haul road monitoring	<ul style="list-style-type: none"> <li>PM emissions from haul roads will be measured using a mobile sampling system on controlled and uncontrolled sections of road.</li> </ul>	Data analysis and presentation	<p>Determine control efficiency using the formula:</p> $\text{Control Efficiency} = \frac{\text{Emissions}_{\text{uncontrolled}} - \text{Emissions}_{\text{controlled}}}{\text{Emissions}_{\text{uncontrolled}}} \times 100$	Key Performance Indicators (KPIs)	<ul style="list-style-type: none"> <li>Primary KPI (PM-control efficiency of 85% determined directly through haul road monitoring)</li> <li>Secondary KPI (water rate) based on a correlation between PM-control efficiency and the watering application rate.</li> </ul>	Preparations for the field testing had commenced during the audit period. The on-ground field testing was being undertaken on 8 Aug 2015. Results from the field testing were being collated in August 2015	Compliant				
Task	Description																	
Planning and information gathering	<ul style="list-style-type: none"> <li>Analyse meteorological data to determine suitable periods for monitoring</li> <li>Identify representative haul roads for monitoring (controlled and uncontrolled)</li> </ul>																	
Haul road monitoring	<ul style="list-style-type: none"> <li>PM emissions from haul roads will be measured using a mobile sampling system on controlled and uncontrolled sections of road.</li> </ul>																	
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Key Performance Indicators (KPIs)	<ul style="list-style-type: none"> <li>Primary KPI (PM-control efficiency of 85% determined directly through haul road monitoring)</li> <li>Secondary KPI (water rate) based on a correlation between PM-control efficiency and the watering application rate.</li> </ul>																	
<b>5.4.2 Particulate Matter Control Best Practice Implementation - Disturbing and Handling Overburden under Adverse Weather Conditions</b>																		
Air Quality and Greenhouse Gas Management Plan	5.4.2	<p>Condition E2 (Particulate Matter Control Best Practice Implementation - Disturbing and Handling Overburden under Adverse Weather Conditions) states that MCC must alter or cease the use of equipment on overburden and loading dumping overburden during adverse weather conditions, and requires the licensee to prepare a Monitoring Program to assess compliance with this condition.</p> <p>The monitoring plan developed by MCC for E2 is summarised as follows:</p> <table border="1"> <caption>Table 5.3: Overview of monitoring program for E2</caption> <thead> <tr> <th>Actions</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> <li>Identify adverse meteorological conditions based on modelling of overburden activities and off-site impacts</li> <li>Use the on-site meteorological station to measure for adverse meteorological conditions</li> <li>Develop a Trigger Action Response Plan (TARP) for periods of adverse conditions</li> <li>Minimisation of dust emissions by altering overburden handling activities during adverse conditions</li> <li>KPIs included measurements of off-site dust concentrations and observations of visual dust.</li> </ul> </td> </tr> </tbody> </table>	Actions	<ul style="list-style-type: none"> <li>Identify adverse meteorological conditions based on modelling of overburden activities and off-site impacts</li> <li>Use the on-site meteorological station to measure for adverse meteorological conditions</li> <li>Develop a Trigger Action Response Plan (TARP) for periods of adverse conditions</li> <li>Minimisation of dust emissions by altering overburden handling activities during adverse conditions</li> <li>KPIs included measurements of off-site dust concentrations and observations of visual dust.</li> </ul>	See PEL Report on adverse weather conditions, currently 6m/s prepare and 8m/s act.  SL: shutdown logs were inspected. These logs had reference to the weather conditions	Compliant												
Actions																		
<ul style="list-style-type: none"> <li>Identify adverse meteorological conditions based on modelling of overburden activities and off-site impacts</li> <li>Use the on-site meteorological station to measure for adverse meteorological conditions</li> <li>Develop a Trigger Action Response Plan (TARP) for periods of adverse conditions</li> <li>Minimisation of dust emissions by altering overburden handling activities during adverse conditions</li> <li>KPIs included measurements of off-site dust concentrations and observations of visual dust.</li> </ul>																		
<b>7.0 COMPLAINTS HANDLING</b>																		
Air Quality and Greenhouse Gas Management Plan	7.0	<p>Any complaint received relating to any air quality issues will be managed in accordance with the Maules Creek Coal Complaint Handling and Response processes as outline in the MCC Environmental Management Strategy.</p> <p>As a minimum, records of the complaint will include:</p> <ul style="list-style-type: none"> <li>Date and time the complaint was logged;</li> <li>Personal details provided by the complainant;</li> <li>Nature of the complaint;</li> <li>Action taken regarding the complaint, or if no action was taken, the reason why; and</li> <li>Follow-up contact with the complainant.</li> </ul>	Complaint records were sighted	Compliant														
<b>8.1 Online Reporting</b>																		
Air Quality and Greenhouse Gas Management Plan	8.1	<p>In accordance with Schedule 5 Condition 13, daily updates will be provided on a publically available website, including:</p> <ul style="list-style-type: none"> <li>Daily weather forecasts.</li> <li>Planned operational responses to daily forecasts.</li> <li>Real-time(Daily non-validated air quality monitoring data from compliance sites.</li> <li>Actual operational responses to elevated dust levels.</li> <li>Full validated summary reports will be made available on a monthly basis.</li> </ul>	All items viewed on WHC website on 30/07/2015. Monthly monitoring available from May 2014 - June 2015 inclusive.	Compliant														
<b>8.2 Protocol for Determining Exceedances</b>																		

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Air Quality and Greenhouse Gas Management Plan	8.2	Where results are above the levels indicated for the Impact Assessment Criterion, the following additional analysis will be used to determine if the project exceeded the criteria or contributed to an exceedance of the criteria. <ul style="list-style-type: none"> <li>Investigate if any potential contamination of sample may have occurred and if the monitoring results are validated.</li> <li>Investigate the meteorological data for the relevant period to determine dominant wind direction, average wind speeds, percentage calm conditions (&lt; 0.5 m/s) and significant periods of moderate winds (&gt; 5.4 m/s).</li> <li>Compare the upwind, downwind and regional monitoring data for the same period.</li> <li>Obtain operations activity logs for the elevated level day to determine what activities were occurring and characterise the activities based on being wind speed independent, wind speed dependent or wind erosion sources.</li> <li>On the basis of wind speed, direction and the upwind and downwind results, determine the likelihood of the site causing or contributing to elevated levels above the Impact Assessment Criteria.</li> </ul>	Not triggered	Not triggered				
Air Quality and Greenhouse Gas Management Plan	8.2	The real time air quality management will provide a data repository for all data required for the compliance evaluation, including monitoring data, meteorological data and activity and operational response logs.	A repository is in place as described	Compliant				
<b>8.3 Annual Review</b>								
Air Quality and Greenhouse Gas Management Plan	8.3	By the end of March each year, the proponent shall review the environmental performance of the project (including air quality) for the previous calendar year. The air quality component of the annual review and annual environmental monitoring report (AEMR) would include: <ul style="list-style-type: none"> <li>A comprehensive review of the air quality monitoring results and complaints and comparison against: <ul style="list-style-type: none"> <li>relevant statutory requirements, limits or performance measures/criteria;</li> <li>monitoring results of previous years; and</li> <li>relevant predictions in the EA;</li> </ul> </li> <li>Any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;</li> <li>Any trends in the monitoring data over the life of the project;</li> <li>Any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and</li> <li>Measures will be implemented over the next year to improve the air quality performance of the project.</li> </ul> Annual Review and AEMR will be sent to the relevant agencies for review.	2013 AEMR (3.2) and 2014 AEMR (3.2) review air quality.  2013 AEMR (published 18/03/2014) and 2014 AEMR (version 1 published 30/03/2015).  Project too young to identify long-term data trends (2014 AEMR, 3.2.9).  No discrepancies yet identified between predicted and actual (2014 AEMR, 3.2.9)  2014 AEMR briefly outlines measures at a general level, nothing specific (3.2.9)  Evidence of distribution, sighted	Compliant				
<b>8.4 Incident Reporting / Affected Residences</b>								
Air Quality and Greenhouse Gas Management Plan	8.4	In accordance with Schedule 5 Condition 8 of the Approval and under section 148 of the Protection of the Environment Operations Act 1997 (POEO Act) the Director General and all relevant agencies will be immediately informed of any incident that has caused, or threatens to cause, material harm to the environment.	This occurred for the 2 noise "exceedences", no air quality exceedences	Compliant				
<b>8.5 Community Consultation</b>								
Air Quality and Greenhouse Gas Management Plan	8.5	A Community Consultative Committee (CCC) must be operated for the duration of the project. Regular briefings to the CCC would be provided, including a summary of results from all air quality monitoring for the project.	CCC minutes sighted	Compliant				
<b>8.6 Auditing</b>								
Air Quality and Greenhouse Gas Management Plan	8.6	By the end of 2015 and every 3 years thereafter an Independent Environmental Audit of the project would be conducted.	Noted, this audit	Compliant				
<b>8.7 Review</b>								
Air Quality and Greenhouse Gas Management Plan	8.7	Within 3 months of the submission of an annual review, incident report, audit or any modification to the conditions of this approval, the AQGHGMP would be reviewed and if necessary revised.	AQGHGMP published on 19/02/2014 but review post 2013 AEMR and 2014 AEMR required, if not revision. No system for recording reviews of documentation. Recommendation Made	Not Compliant Administrative				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility																							
					Consequence	Likelihood	Risk																								
Air Quality Management Strategy - March 2014																															
3 Air quality strategy criteria																															
3.1 Air quality assessment criteria																															
Air Quality Management Strategy - March 2014	3.1	<p>The conditions require that BCPL,MCC and TCM must ensure particulate emissions generated by BTM Complex operational activities do not exceed the criteria listed in Tables 3.1 to 3.3 at any residence on privately-owned land or on more than 25 per cent of any privately owned-land.</p> <p><b>Table 3.1 Long term criteria for particulate matter</b></p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Parameter Unit</th> <th>Criteria</th> </tr> </thead> <tbody> <tr> <td>24-hour average particulate (PM<sub>10</sub>) mass</td> <td>µg/m<sup>3</sup></td> <td>150 µg/m<sup>3</sup></td> </tr> <tr> <td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td> <td>Annual</td> <td>150 µg/m<sup>3</sup></td> </tr> </tbody> </table> <p><b>Table 3.2 Short term criteria for particulate matter</b></p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Parameter Unit</th> <th>Criteria</th> </tr> </thead> <tbody> <tr> <td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td> <td>24 hour</td> <td>150 µg/m<sup>3</sup></td> </tr> </tbody> </table> <p><b>Table 3.3 Long term criteria for equivalent dust</b></p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Parameter Unit</th> <th>Maximum Average to Exceed at 25% of Population</th> <th>Criteria at 25% of Population</th> </tr> </thead> <tbody> <tr> <td>Equivalent Dust</td> <td>Annual</td> <td>12 µg/m<sup>3</sup> average</td> <td>12 µg/m<sup>3</sup> average</td> </tr> </tbody> </table> <p><small>Notes on Tables 3.1, 3.2 and 3.3: 1. The criteria are based on the Australian Standard AS/NZS 3580:2001. 2. The criteria are based on the Australian Standard AS/NZS 3580:2001. 3. The criteria are based on the Australian Standard AS/NZS 3580:2001. 4. The criteria are based on the Australian Standard AS/NZS 3580:2001. 5. The criteria are based on the Australian Standard AS/NZS 3580:2001. 6. The criteria are based on the Australian Standard AS/NZS 3580:2001. 7. The criteria are based on the Australian Standard AS/NZS 3580:2001. 8. The criteria are based on the Australian Standard AS/NZS 3580:2001. 9. The criteria are based on the Australian Standard AS/NZS 3580:2001. 10. The criteria are based on the Australian Standard AS/NZS 3580:2001.</small></p>	Parameter	Parameter Unit	Criteria	24-hour average particulate (PM <sub>10</sub> ) mass	µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	150 µg/m <sup>3</sup>	Parameter	Parameter Unit	Criteria	Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	150 µg/m <sup>3</sup>	Parameter	Parameter Unit	Maximum Average to Exceed at 25% of Population	Criteria at 25% of Population	Equivalent Dust	Annual	12 µg/m <sup>3</sup> average	12 µg/m <sup>3</sup> average	Maules Creek operates an air quality monitoring network. Data from the network (2014 AEMR) have been reviewed to check for compliance with these criteria. TSP concentrations are not measured directly, however annual average dust deposition levels have been below the criteria, indicating compliance with TSP criteria (NSW Minerals Council 2000). There have been no exceedances of the 24-hour or annual average PM10 criteria.	Compliant				
Parameter	Parameter Unit	Criteria																													
24-hour average particulate (PM <sub>10</sub> ) mass	µg/m <sup>3</sup>	150 µg/m <sup>3</sup>																													
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	150 µg/m <sup>3</sup>																													
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Equivalent Dust	Annual	12 µg/m <sup>3</sup> average	12 µg/m <sup>3</sup> average																												
4 Monitoring																															
Air Quality Management Strategy - March 2014	4	The mines of the BTM Complex already have comprehensive air quality monitoring systems in place. It is proposed that the existing air quality monitoring network will be upgraded to reflect the implementation of the BTM Complex cumulative air quality monitoring network.	Maules Creek operates an air quality monitoring network. Data from other sites (Boggabri and Tarrawonga) can be obtained on request	Compliant																											
4.2 Proposed cumulative monitoring network																															
Air Quality Management Strategy - March 2014	4.2	<p>The requirements of the cumulative monitoring network at the BTM Complex are to:</p> <ul style="list-style-type: none"> <li>- facilitate compliance with existing and likely future consent conditions</li> <li>- allow proactive management and real-time dust monitoring to assist in day to day operations of each mine site</li> <li>- develop an integrated and coordinated approach to air quality management of the BTM Complex</li> <li>- consolidate existing monitoring</li> <li>- allow for predictive meteorological forecasting</li> <li>- include procedures for identifying and apportioning the source(s) and contribution(s) to cumulative air impacts for mines and other sources, using the air quality and meteorological monitoring network</li> <li>- include appropriate investigative tools such as modelling of post incident plume dispersion.</li> </ul>	The air quality monitoring network can be used to address this strategy	Compliant																											

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Air Quality Management Strategy - March 2014	4.2	The BTM Complex monitoring network will include: Installation of four TEOMs, which include: - one TEOM at Bradshaw's, next to the Fairfax Public School - one TEOM at the Flixton property south east of TCM - one TEOM south of the Boggabri Coal Mine and TCM at the "Tarrawonga" property and - one TEOM (proposed to be located) at the northwest of the Maules Creek Coal Mine at the "Murphy" property. All TEOMs will measure PM10, with at least one capable of measuring PM2.5. All but the "Murphy" TEOM has been installed to date.	Maules Creek operates an air quality monitoring network which is consistent with this strategy	Compliant				
Air Quality Management Strategy - March 2014	4.2	- Installation of four portable real-time PM10 monitors for day to day operational dust management (e.g. e-samplers or equivalent).	Maules Creek operates an air quality monitoring network which is used for day to day operational dust management. While the monitors can be moved if necessary, they are considered permanent however and do not strictly address the "portable" intent of this strategy. The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period, so the lack of a predictive system including a predictive AQ model will be found not triggered.	Not Triggered				
Air Quality Management Strategy - March 2014	4.2	- Implementation of a web based system to manage real-time monitoring data (as well as weather, emissions and modelled predictions for air quality and noise).	Real-time monitoring data can be accessed by Maules Creek systems, but not for real-time emissions and modelled predictions. The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period, so the lack of a predictive system including a predictive AQ model will be found not triggered.	Not Triggered				
Air Quality Management Strategy - March 2014	4.2	Relocation of one HVAS: - the Boggabri HVAS should be moved from the "Merriown" residence to a location in the proximity of the "Roma / Glenhope" residences to the southwest of its current location. - the exact locations of the HVAS will need to be negotiated with landowners.	Maules Creek operates an air quality monitoring network which is consistent with this strategy	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Air Quality Management Strategy - March 2014	4.2	Review of the locations for dust deposition gauges. This will consider recent mine plan modifications, which may require the relocation of existing dust deposition gauges to accommodate mining activity, as well as improvements to the coverage of the dust deposition matrix around the BTM Complex by sharing the available network. It is likely that some of the dust deposition gauges that are currently located within mining leases or along the project boundaries could be moved to locations between the BTM Complex operations and nearest residences such that the array of dust deposition gauges better captures potential emissions under all wind directions.	Maules Creek operates an air quality monitoring network which is consistent with this strategy	Compliant				
4.2.1 Real-time monitors								
Air Quality Management Strategy - March 2014	4.2.1	It is important to understand the different roles of monitors in the cumulative network. The real-time monitors for compliance purposes (e.g. TEOMs) will be fixed at the locations outlined above (and shown in Figure 4-1) and will be capable of measuring PM10 and PM2.5. The monitors will be used to demonstrate compliance with air quality criteria and be fixed at relevant locations of exposure. They will also be used to determine (in real time) if pre-defined trigger levels have been breached and when additional dust control is required.	Maules Creek operates an air quality monitoring network which is consistent with this strategy	Compliant				
4.2.2 Portable real-time PM10 monitors								
Air Quality Management Strategy - March 2014	4.2.2	The BTM Complex proposes to install up to four portable real-time PM10 monitors (e-samplers or equivalent) initially for day to day dust management. It is intended that these portable monitors will be placed at appropriate locations closer to mining operations. The portable monitoring locations will move periodically as BTM Complex mining operations progress. Their locations will take account of a number of factors, such as: - seasonally predominant daily wind patterns - the relative locations of each mines highest controllable dust generating sources - practicality of locating monitoring equipment close to the mining operations.	Maules Creek operates an air quality monitoring network which is used for day to day operational dust management. While the monitors can be moved if necessary, they are considered permanent however and do not strictly address the "portable" intent of this strategy. The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period, so the lack of a predictive system including a predictive AQ model will be found not triggered.	Not Triggered				
4.3 Regional monitoring (control site)								
Air Quality Management Strategy - March 2014	4.3	As an interim control site, reference will be made to EPA monitoring data collected at Tamworth, which will provide an indication of regional air quality not influenced by mining from the BTM Complex.	Tamworth OEH data can be accessed by Maules Creek Coal	Compliant				
4.4 Responsibility of the individual mines								
Air Quality Management Strategy - March 2014	4.4	Each mine shares responsibility for the maintenance, calibration, repair, operating costs and site access agreements for the operation of the monitoring network. Arrangements have been confirmed between the mines regarding the ongoing logistics of operating the monitoring network.	Noted					
4.5 Data management and interpretation								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Air Quality Management Strategy - March 2014	4.5	It is proposed that air quality monitoring data from the three mine sites will be stored in a central data repository. The data will be available for use by each mine site and will be able to be viewed in various formats on a secure website to display the data in real-time.	No "one" central repository, holding data from all three sites is in place. Data from each other's sites can be accessed on request The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period, so the lack of a predictive system including a predictive AQ model will be found not triggered.	Not Triggered				
Air Quality Management Strategy - March 2014	4.5	Air quality data will be summarised, validated and available for the public and agencies on a monthly basis, via each mine site's website. The availability of this data will be staged, as detailed in Section 6.1, as the air quality monitoring system is installed, commissioned and proven.	Monthly data are published on the mine websites	Compliant				
4.6 Predictive and real-time air quality management								
4.6.1 Overview of requirements								
Air Quality Management Strategy - March 2014	4.6.1	It is proposed that a predictive and reactive air quality management system will be implemented for the BTM Complex that personnel will use to: - assess potential offsite impacts and evaluate community risk in advance and in real-time - perform scenario modelling under predicted adverse or other operating conditions - develop a log of community complaints and air quality events - evaluate community complaints and determine if BTM Complex activities may have caused an impact - accept information and data inputs from various instruments and data sources (e.g. web services, real-time monitoring, and/or emissions estimates based on activity data) - provide alerts and recommendations with respect to abatement or avoidance of potential issues and operational requirements based on outputs of the system.	A system with these features is not in place The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period, so the lack of a predictive system including a predictive AQ model will be found not triggered.	Not Triggered				
4.6.2 Components								
Air Quality Management Strategy - March 2014	4.6.2	It is proposed that the predictive and reactive air quality management system will include: - a predictive component: using forecast weather data and dispersion modelling - a reactive component: using real-time meteorology, air quality monitoring and dispersion modelling - a non-steady state air quality dispersion model (that is capable of processing data at a sub-hourly time interval) - short term tiered trigger levels and notifications for managing potential impacts - a daily forecast report: providing information on temperature inversions, wind conditions at various heights, dust risk, and recommended control actions.	A system with these features is not in place The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period, so the lack of a predictive system including a predictive AQ model will be found not triggered.	Not Triggered				

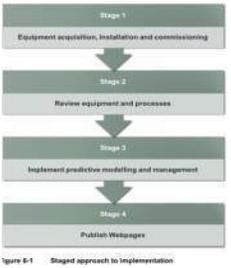
Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Air Quality Management Strategy - March 2014	4.6.2	It is extremely important to maintain periodic review of any forecast and real-time air quality system to ensure that the system is operating using: - validated meteorological forecasts - data from calibrated monitoring equipment - accurate varying emission rates, informed by campaign monitoring where necessary - accurate emission source parameters, i.e. updated as the mine plan evolves.	A system with these features is not in place The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period, so the lack of a predictive system including a predictive AQ model will be found not triggered.					
4.6.3 Predictive forecast meteorology								
Air Quality Management Strategy - March 2014	4.6.3	It is proposed that a predictive forecast meteorology system be implemented based on the Weather Research & Forecasting (WRF) model and CALMET, specifically for the BTM Complex, and a website be developed to make data immediately available for each of the mine sites, with half hourly forecasts up to 48 hours in advance. This system will download global meteorological data and forecasts on a daily basis and process and run the WRF model to produce the information required for input to a real-time 3D dispersion model. An example of a forecast and dust risk summary is presented in Figure 4-2.	A system with these features is not in place The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period, so the lack of a predictive system including a predictive AQ model will be found not triggered.	Not Triggered				
Air Quality Management Strategy - March 2014	4.6.3	Once this meteorological system is configured and operating, the outcomes will be evaluated by a competent meteorologist or atmospheric science professional against actual meteorological and dust measurements and the meteorological system will be validated and improved, where possible.						
4.6.4 Local observed meteorology								
Air Quality Management Strategy - March 2014	4.6.4	Data from local automatic weather stations will be used to validate weather forecasting model performance over time.	Validation of the system described has not been carried out The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period, so the lack of a predictive system including a predictive AQ model will be found not triggered.	Not Triggered				
Air Quality Management Strategy - March 2014	4.6.4	Meteorological instrumentation or data communications equipment will be reviewed to confirm that the right quality of data is available to the system.	Maules Creek operates an Australian Standard compliant weather station	Compliant				
4.6.5 Integrated real-time monitoring data								
Air Quality Management Strategy - March 2014	4.6.5	To enable real-time reactive feedback from the system, it is proposed that a connection be established to receive a data feed from weather stations and air quality monitoring equipment in the BTM Complex network.	A system with these features is not in place The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period, so the lack of a predictive system including a predictive AQ model will be found not triggered.	Not Triggered				
4.7 Predictive and reactive triggers								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility								
					Consequence	Likelihood	Risk									
Air Quality Management Strategy - March 2014	4.7	Predictive and 'near real-time' reactive triggers will be configured in the system. These triggers will be initially set based on analysis of the available monitoring data and experience from other similar operations where these systems are operating.	A predictive system with these triggers is not in place The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period, so the lack of a predictive system including a predictive AQ model will be found not triggered.													
Air Quality Management Strategy - March 2014	4.7	An example of Investigation and Action trigger levels are shown in Table 4-1. These trigger levels have been set based on real-time monitoring data recorded at the Fairfax Public School. The relationship between peak 1-hour PM10 concentrations and mean 24-hour PM10 concentrations are analysed to determine the level of 1-hour PM10 concentrations that may result in elevated 24-hour PM10 concentrations.  <table border="1"> <caption>Table 4.1 Investigation and trigger levels</caption> <thead> <tr> <th>Action level</th> <th>Trigger level</th> <th>Description/Action required</th> </tr> </thead> <tbody> <tr> <td>Investigation</td> <td>1-hour average PM10 concentration above 100 µg/m<sup>3</sup></td> <td>Relevant personnel are required to identify what activities are occurring and notify plant/equipment operators that dust emissions may be elevated and additional dust controls may need to be implemented. Preparatory measures will be implemented or ready to be implemented.</td> </tr> <tr> <td>Action</td> <td>Consecutive 1-hour average PM10 concentration above 150 µg/m<sup>3</sup></td> <td>Relevant personnel are required to implement controls such as additional water spraying or modifying work practices.</td> </tr> </tbody> </table>	Action level	Trigger level	Description/Action required	Investigation	1-hour average PM10 concentration above 100 µg/m <sup>3</sup>	Relevant personnel are required to identify what activities are occurring and notify plant/equipment operators that dust emissions may be elevated and additional dust controls may need to be implemented. Preparatory measures will be implemented or ready to be implemented.	Action	Consecutive 1-hour average PM10 concentration above 150 µg/m <sup>3</sup>	Relevant personnel are required to implement controls such as additional water spraying or modifying work practices.					
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Action	Consecutive 1-hour average PM10 concentration above 150 µg/m <sup>3</sup>	Relevant personnel are required to implement controls such as additional water spraying or modifying work practices.														
Air Quality Management Strategy - March 2014	4.7	It is important to note that once the real-time air quality management system is operational, trigger levels will be reviewed, updated and refined following a review of the data and calibration of the system.														
Air Quality Management Strategy - March 2014	4.7	If the trigger levels are not appropriate to site operations, for example, there are too many or too few investigation or action responses, they will be reviewed and updated. Different trigger levels may be set for each monitoring location within the cumulative network. For example, they may be set higher for monitoring locations closer to dust sources. Trigger levels will also be regularly assessed as part of the ongoing review of this plan.														
Air Quality Management Strategy - March 2014	4.7	Actual predictive and reactive triggers will be reviewed regularly, and be based on the initial air quality data collected during commissioning of air quality monitoring equipment as well as ongoing monitoring results.		Not Triggered												

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Air Quality Management Strategy - March 2014	4.7	SMS and email alerts will be sent to relevant personnel and monitoring data will be displayed in near realtime on a customised web based reporting system.						
Air Quality Management Strategy - March 2014	4.7	Real-time dust management alerts are sent if the trigger conditions outlined above are met. The notification will also identify which criteria have triggered the alert.						
Air Quality Management Strategy - March 2014	4.7	Alerts will be sent when a new level is triggered, i.e. subsequent time periods that result in the same dust level will not generate multiple warnings. When the conditions increase to a higher alert level or when conditions return to a lower alert level, the system will send a new notification alerting all relevant personnel to the new dust management alert level.						
Air Quality Management Strategy - March 2014	4.7	All alerts are recorded by the system in an alert log that can be analysed at any time to identify trends or patterns in alerts that may lead to improvements in operational planning and/or dust control that is focussed on certain areas of operations or times of the day.						
5 Corrective and preventative actions								
5.1 Process to identify main source of dust impacts								
Air Quality Management Strategy - March 2014	5.1	It is proposed that the reactive component of the dust management system will be designed to process real-time data from PM10 monitors and weather stations. It will generate outputs (such as those outlined in Section 4.7.1) that are used with predetermined triggers to assess the potential for dust impacts from operations. The system will notify operators when triggers are activated. The system will be used to analyse and provide information on potential dust sources that are responsible for the increase in monitored dust.	A predictive system with these features is not in place The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period, so the lack of a predictive system including a predictive AQ model will be found not triggered.					
Air Quality Management Strategy - March 2014	5.1	For the BTM Complex, real-time monitors will be used to measure PM10 concentrations at a number of locations around the operations (for example as shown in Figure 4-1). The dust monitoring data will be sent in short time steps to a web server where it will be processed by the air quality management system. Trigger levels will be set for the real-time monitors (i.e. TEOMs and portable samplers). As the system operates over time the trigger levels will be refined through consideration of historical data and any other relevant observations.		Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Air Quality Management Strategy - March 2014	5.1	If a real-time monitor triggers an alert, the system will query the monitoring data to determine if mining operations are upwind of the triggered monitor. If so, it will be used to assess whether activities occurring between upwind and downwind monitors are creating an increased level of dust that has set off an alert. The system will use available weather data to determine the likely area of the operations that contains the dust generating source. This can be done by activating a reverse trajectory analysis of the plume that has triggered an alert.						
5.2 Mitigation								
Air Quality Management Strategy - March 2014	5.2	Processes to mitigate air quality outcomes associated with operations are addressed in each mine sites individual AQGHGMPs.	Outcomes are not available because the stated predictive system is not in place The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period, so the lack of a predictive system including a predictive AQ model will be found not triggered.	Not Triggered				
Air Quality Management Strategy - March 2014	5.2	Each mines rankings will be used as the basis for scheduling operational activities or increasing dust control measures to mitigate risks when dust generation is predicted to reach trigger levels.	Rankings are not available because the stated predictive system is not in place The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period, so the lack of a predictive system including a predictive AQ model will be found not triggered.					
Air Quality Management Strategy - March 2014	5.2	Dust generation assessment will be undertaken by experienced site personnel with the assistance of various specialists (e.g. operations, environment and air quality specialists) as required.	Assessment is not available because the stated predictive system is not in place The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period, so the lack of a predictive system including a predictive AQ model will be found not triggered.					
5.3 Communication								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Air Quality Management Strategy - March 2014	5.3	Regular meetings will be held by nominated personnel representing each of the mines in the BTM Complex (at least quarterly) to discuss predictive model outcomes, monitoring results and future operational events. Meeting minutes will be documented and retained at each mine site.	Meetings are held but discussion of predictive model outcomes cannot be on the agenda since the stated predictive system is not in place The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period, so the lack of a predictive system including a predictive AQ model will be found not triggered.	Not Triggered				
Air Quality Management Strategy - March 2014	5.3	The trigger levels will initiate internal communication within the BTM Complex to allow the complex to implement management measures in order to reduce dust generation.	Triggers levels are not available as intended, since the stated predictive system is not in place The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period, so the lack of a predictive system including a predictive AQ model will be found not triggered.					
Air Quality Management Strategy - March 2014	5.3	When air quality criteria are identified as exceeded, discussions will be held within the BTM Complex, regulatory agencies and affected landholders (where an exceedance occurs on privately-owned land).	Predictions of compliance with the criteria are not available, since the stated predictive system is not in place The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period, so the lack of a predictive system including a predictive AQ model will be found not triggered.					
5.4 Reporting								
Air Quality Management Strategy - March 2014	5.4	Internal management reports will be prepared regularly, noting performance against triggers and criteria.	Monitoring data are reported monthly	Compliant				
Air Quality Management Strategy - March 2014	5.4	External reporting will include: - updates on individual company websites - presentations to Community Consultative Committees (CCCs) - Annual Environmental Management Reports (AEMRs)/Annual Reviews - exceedance reporting, as required.	These reports are available on the Maules Creek mine website	Compliant				
6 Implementation								
6.1 Staged approach								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Air Quality Management Strategy - March 2014	6.1	<p>It is proposed that a staged approach will be taken to install the equipment and systems which are additional to individual mine's existing air quality monitoring systems.</p>  <p>Figure 4-1 Staged approach to implementation</p>	The predictive modelling and management element is not in place as intended The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period, so the lack of a predictive system including a predictive AQ model will be found not triggered.	Not Triggered				
6.1.1 Stage 1 - Equipment acquisition, installation and commissioning								
Air Quality Management Strategy - March 2014	6.1.1	Four real-time portable PM10 monitors are proposed that will be acquired and commissioned at locations relevant to current mining operations, as part of the day to day management of real-time dust. An indicative layout of these monitors is also shown in Figure 4-1. The installation of these portable PM10 monitors will be reviewed as part of Stage 2, to ensure they allow sufficient coverage to achieve the required monitoring goals. The configuration may change over time as each mining pit develops.	Maules Creek operates an air quality monitoring network which is used for day to day operational dust management. The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period. The lack of portable units is not currently preventing compliance with site AQ criteria.	Not Triggered				
6.1.2 Stage 2 - Review equipment and processes								
Air Quality Management Strategy - March 2014	6.1.2	Within three months of the installation and commissioning of Stage 1 equipment the following will be reviewed: - performance and reliability of the cumulative air quality monitoring equipment - triggers proposed in this protocol - central data repository and data interface.	The staged approach to install equipment and systems has not been completed as proposed  The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period.	Not Triggered				
Air Quality Management Strategy - March 2014	6.1.2	Each mine's respective air quality management plans will be updated at the end of each stage to ensure consistency with the AQMS. This will include a review of trigger action response plans (TARPs).						
6.1.3 Stage 3 - Implement predictive modelling and management								
Air Quality Management Strategy - March 2014	6.1.3	Within six months of the installation and commissioning of Stage 1 equipment the predictive modelling system will have been acquired, installed and commissioned.	A predictive modeling system is not in place as proposed  The AQS is not yet approved, MCCM operate systems that are keeping air quality criteria within approval conditions at present and through the audit period, so the lack of a predictive system including a predictive AQ model will be found not triggered.	Not Triggered				
Air Quality Management Strategy - March 2014	6.1.3	This system's performance will be reviewed every three months and validation reports will be produced.						
6.1.4 Stage 4 - Publish webpages								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Air Quality Management Strategy - March 2014	6.1.4	Each mine site will establish or update an existing Company webpage.	Monitoring data are reported monthly to websites	Compliant				
Air Quality Management Strategy - March 2014	6.1.4	The webpage will present the summarised and validated results of the real-time air quality monitoring on a monthly basis.	Monitoring data are reported monthly to websites	Compliant				
Air Quality Management Strategy - March 2014	6.1.4	Air quality monitoring data must be reviewed via formal quality assurance processes before it can be considered valid data.	Monitoring data are validated before being reported monthly to websites	Compliant				
Air Quality Management Strategy - March 2014	6.1.4	Continuous data collected by the real-time monitors will undergo preliminary data validity checks (for example, to identify outliers, negatives etc.), however until formal validation/ratification has been conducted any continuous data reported to the community will need to be considered preliminary and subject to further validation.	Monitoring data are validated before being reported monthly to websites	Compliant				
7 Document Control								
7.1 Review and revision								
Air Quality Management Strategy - March 2014	7.1	This AQMS, its operation and implementation, will be reviewed and revised at least every two years or on an 'as required' basis to incorporate improvements identified by the BTM Complex or appropriate requirements of government agencies. The AQMS will be reviewed and updated at the end of each stage of the project rollout, as described in Section 6.1.	Revision dates sighted	Compliant				
Air Quality Management Strategy - March 2014	7.1	In accordance with the project approvals, the AQMS will also be revised within three months of: - an annual review - incident threatening material harm, requiring notification of the Director-General / relevant agencies - statutory audit - modification of project approval.	Noted					

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility																		
					Consequence	Likelihood	Risk																			
WHC_PLN_MCC_Water Management Plan																										
4.0 SURFACE WATER MANAGEMENT PLAN																										
4.4 Performance Criteria																										
WHC_PLN_MCC_Water Management Plan	4.4	<table border="1"> <thead> <tr> <th colspan="3">Table 4.6 Performance Criteria</th> </tr> <tr> <th>Objective</th> <th>Target</th> <th>KPI</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Minimise draw from the Namoi River</td> <td>Maximise recycling of water.</td> <td>All water collected in coal-affected areas such as coal stockpile and the open cut pit is returned to the Mine Water Dam for reuse in mine water management system.</td> </tr> <tr> <td>Minimise high quality water usage.</td> <td>Water from Mine Water Dam prioritised for CHPP and dust suppression.</td> </tr> <tr> <td rowspan="2">Maintain water quality downstream</td> <td>No releases of mine water from site.</td> <td>No discharges at Mine Water Dam spillway.</td> </tr> <tr> <td>Any water quality discharge from sediment dams comply with EPL conditions.  No adverse impact on receiving water quality.</td> <td>Any overflows from licensed discharge points comply with conditions specified in EPL 2021.  Surface Water Monitoring Plan developed and implemented.  An investigation is undertaken to assess potential environmental impacts of the project where discharge from the site occurs and monitored downstream pollutant concentrations exceed both the monitored upstream pollutant concentrations and trigger levels specified in Table 4.10.</td> </tr> <tr> <td>Manage water levels in mine</td> <td>Cease all pumped inflows to</td> <td></td> </tr> </tbody> </table>	Table 4.6 Performance Criteria			Objective	Target	KPI	Minimise draw from the Namoi River	Maximise recycling of water.	All water collected in coal-affected areas such as coal stockpile and the open cut pit is returned to the Mine Water Dam for reuse in mine water management system.	Minimise high quality water usage.	Water from Mine Water Dam prioritised for CHPP and dust suppression.	Maintain water quality downstream	No releases of mine water from site.	No discharges at Mine Water Dam spillway.	Any water quality discharge from sediment dams comply with EPL conditions.  No adverse impact on receiving water quality.	Any overflows from licensed discharge points comply with conditions specified in EPL 2021.  Surface Water Monitoring Plan developed and implemented.  An investigation is undertaken to assess potential environmental impacts of the project where discharge from the site occurs and monitored downstream pollutant concentrations exceed both the monitored upstream pollutant concentrations and trigger levels specified in Table 4.10.	Manage water levels in mine	Cease all pumped inflows to		<p>Used sediment basins as best they could, no mine ingress water, mostly from the Namoi in the first year. One discharge event. Sediment dams. Minimise flooding, one water complaint where a farmer complained about water runoff but it was not substantiated and site was not developed enough to have had an impact. Pump and pipeline have had minimal disturbance. Raw water and Mine water dams have just been completed and filled.</p>	Compliant			
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4.5 Surface Water Monitoring

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility																											
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	4.5.1	MCC has previously monitored 9 surface water locations in the Maules Creek Mine vicinity (as detailed in Section 4.1.2). The Surface Water Monitoring Plan (SWMP) will include the continued monitoring of a number of these sites to monitor surface water flows and quality upstream and downstream of the mine.	This is correct, see Cbased reports	Compliant																																																																
	4.5.1	All samples should be collected in a manner consistent with the Approved Method for Sampling and Analysis of Water Pollutants in NSW (DEC, 2004).	See Cbased Reports	Compliant																																																																
		Surface water monitoring at SW4, SW5, SW8 and SW9 (which are part of the BTM Complex MWS cumulative monitoring network) will be undertaken in accordance with the BTM Complex WMS. The BTM Complex Monitoring Suite will consist of: • Field parameters, including pH, electrical conductivity, temperature, dissolved oxygen, turbidity, ORP; • TSS; • Oil and grease; • Nutrients, including total phosphorous, reactive phosphorous and total nitrogen; and • Metals, including: Aluminium; Arsenic (as III); Arsenic (as V); Boron; Cadmium; Chromium (Cr VI); Copper; Iron; Lead; Manganese; Mercury; Nickel; Selenium (total); Silver; and Zinc.	Cbased reports confirm the analysis is conducted	Compliant																																																																
		Data from monitoring stations maintained by NOW will also be used to supplement the monitoring program and supply further information on water flows in the Namoi River.	Used for application to pump	Compliant																																																																
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	5.2.1	Rainfall runoff which drains into the mining area and runoff from disturbed areas that comes into contact with coal, such as the ROM and product stockpiles, will be diverted to the Mine Water Dam for re-use on site.	Note in site inspection	Compliant				
	5.2.1	Runoff from undisturbed lands is collected and diverted, or pumped around the mining operation into natural drainage lines.	Note in site inspection	Compliant				
	5.2.1	Runoff from disturbed and rehabilitated areas is collected in sediment dams to allow the settlement of suspended solids.	Note in site inspection	Compliant				
	5.2.1	Usage Captured runoff water will be primarily used for coal processing and dust suppression. Secondary runoff from the vehicle wash down areas is treated by an oil and grease separator prior to re-use in the mine water management system.	This occurs, confirmed in interview	Compliant				
5.2.2 Groundwater Inflow								
	5.2.2	Groundwater seepage at Maules Creek will be dewatered from the pit via an in-pit pump where it is pumped to the Mine Water Dam and then reused on site. This water will be used for dust management purposes and as a water source for the CHPP.	Not yet required very little pit water to date	Not Triggered				
5.2.3 CHPP Process Water								
	5.2.3	mine affected water will be re-used on site wherever possible.	Mine water will be pumped to the Mine Water Dam	Compliant				
	5.2.3	The water balance model and WMP will be updated following the completion of water use efficiency investigations of the CHPP.	The CHPP has not been commissioned as yet	Not Triggered				
5.2.4 Water Licences								
	5.2.4	Water required from external sources will be obtained under appropriate Water Access Licences and will be accessed in accordance with the requirements of existing Water Sharing Plans, including adherence to total daily extraction limits.	Licenses in place	Compliant				
5.2.5 Treated Water								
	5.2.5	MCC will also operate an on-site Water Treatment Plant which allows for the treatment of some of the water pumped from the Namoi River and other sources for non-potable and potable use.	At Present this infrastructure is not in place. Since the site still has some construction and reorganisation go. This has not been implemented yet.	Not Triggered				
5.2.6 Waste Water								
	5.2.6	MCC will operate a Sewage Treatment Plant, which treats sewage from the office buildings on site and recycles the effluent water into the water management system.	At Present this infrastructure is not in place. Since the site still has some construction and reorganisation go. This has not been implemented yet.	Not Triggered				
5.2.7 Potable Water								
	5.2.7	Potable water will be either trucked to site by a local water carrier as required or treated to potable usage onsite and stored in water tanks supplying the main office and work shop areas.	Potable water is trucked in at present	Compliant				
5.4 Water Balance Model Validation								
	5.4	The site water balance will be reviewed and updated as additional and / or newer information becomes available with the progression of the mine. Recording the following parameters will assist in validating the assumptions of the water balance model, particularly the AWBM runoff parameters: <ul style="list-style-type: none"> <li>• dam and in-pit volumes;</li> <li>• site rainfall;</li> <li>• volume of any offsite discharges;</li> <li>• pump rates between storages;</li> <li>• actual demand rates for CHPP makeup water, industrial use, dust suppression and vehicle wash down during operation of the mine;</li> <li>• flow in Back Creek to assess catchment yields;</li> <li>• actual groundwater inflow rates during mining; and</li> <li>• general mine site water management practices.</li> </ul>	This has not yet occurred, the mine has not advanced significantly yet.	Not Triggered				
6.0 GROUNDWATER MANAGEMENT PLAN								
6.2.3 Cumulative Impacts and Monitoring Locations								

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6.2.4 Groundwater Level Monitoring Plan																																																																																																																																															
6.2.4		Electronic water level loggers will be progressively installed during 2014 in all existing and future monitoring bores.	Vibrating wire piezometers installed, loggers yet to be ordered and installed in holes that hold water	Not Compliant	E	3	Low																																																																																																																																								
6.2.4		Downloads and database updates will occur monthly, and record interval times should be synchronised for all bores.	This occurs, see CCC reports and AEMRs	Compliant																																																																																																																																											
6.2.4		Registered private bores identified as being within the simulated zone of depressurisation will be inspected to determine if the bores are still operational and in-use. Monitoring will continue in conjunction with the landholders.	Done 6 monthly and results provided to landowners	Compliant																																																																																																																																											
6.2.5 Groundwater Quality Monitoring Plan																																																																																																																																															
6.2.5		In order to establish baseline groundwater quality data, water samples will be collected from the monitoring bores on a three monthly basis for the first 12 months of sampling, while ongoing sampling should be collected on a six monthly basis. Collected samples will be analysed in the laboratory for: <ul style="list-style-type: none"> <li>pH, EC, TDS</li> <li>major cations and anions;</li> <li>nutrients - ammonia, nitrate, nitrite; and</li> <li>metals – aluminium, arsenic, barium, boron, cadmium, copper, iron, lead, lithium, manganese, molybdenum, nickel and zinc.</li> </ul>	Monthly at present, attempting to gather background data	Compliant																																																																																																																																											

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
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	6.2.5	All groundwater sampling will be conducted in accordance with the following guidelines: <ul style="list-style-type: none"> <li>• Murray Darling Basin Groundwater Quality Sampling Guidelines Technical Report No. 3; and</li> <li>• Groundwater Sampling and Analysis: A Field Guide (Geoscience Australia, 2009).</li> </ul>	Neither guideline referenced in Cbased reports. Only the following referenced: AS/NZS5667.1-1998 - Guidance on the Design of Sample Programs, Sampling Techniques and the Preservation and Handling of Samples AS/NZS5667.11-1998 - Water Quality Sampling—Guidance on sampling of ground waters	Not Compliant Administrative				
	6.2.5	The water quality monitoring will continue for the life of the mining operation.	Noted					
<b>6.3.1 Neighbouring Privately Owned Bores</b>								
	6.3.1	Groundwater levels and quality will be monitored in selected private bores which are relatively close to the mining area. The monitoring frequency and analytical testing will be the same as for the existing monitoring bore network	None have been selected as most of the nearby bores are now mine owned therefore there is a good coverage on the near site GW	Compliant				
	6.3.1	Should drawdown attributable to mining be detected within any private bores within the predicted zone of depressurisation, the need to expand the bore census beyond the area visited as part of the 2011 EA will be assessed. A more expansive bore census will also be undertaken should any updates to the groundwater model indicate a more extensive zone of depressurisation.	No drawdown detected as yet.	Not Triggered				
<b>6.3.2 Groundwater Inflows to Pit</b>								
	6.3.2	Monitoring of groundwater inflows into the pit will be undertaken to provide data to validate the groundwater model and to assist in the accounting for "water take" from the relevant groundwater water source as per requirements under the Water Management Act 2000.	Little inflow to pit but sampling has occurred.	Compliant				
	6.3.2	Pit seepage monitoring program will include: <ul style="list-style-type: none"> <li>• recording of the time, location and volume of any unexpected increased groundwater outflow from the highwall and endwall;</li> <li>• measurement of all water pumped from the pits particularly using flow meters or other suitable gauging apparatus;</li> <li>• monitoring of water pumped from the pits for the same analytical suite outlined in Section 6.2.5.</li> <li>• correlation of rainfall records with pit seepage records so groundwater and surface water can be separated; and</li> <li>• monitoring of coal moisture content.</li> </ul>	No unexpected inflows Water pumped was estimated, small volumes though and sediment laden so a gauge would likely fail in that environment. Analytes tested for the full suite There is little pit water inflow at present so pit water is assumed to be all rainfall Coal moisture is monitored	Compliant				
	6.3.2	Water that presents to the open cut pit will be pumped to the Mine Water Dam for reuse in the mine water management system.	This occurs	Compliant				
	6.3.2	A pan evaporation rate, corrected for the shading on the pit face, will be applied across the area of exposed coal seams below the saturated zone during each mine strip to estimate the volume of groundwater evaporated.	No inflows at present	Not Triggered				
<b>6.3.3 Groundwater Dependent Ecosystems</b>								
	6.3.3	Monitoring of water levels in the bores along Back Creek will continue for the life of the Project.	Noted					
	6.3.3	Maules Creek Coal will implement a monitoring program for Stygofauna within the bores in the vicinity of the Maules Creek Coal Mine. A single round of monitoring of Stygofauna will be undertaken across the alluvial groundwater monitoring network as described in Section 6.2.3 and listed in Table 6.4.	Has not yet occurred	Not Triggered				
<b>6.3.4 Impact Assessment Criteria</b>								
	6.3.4	The relevant predictions from the Groundwater Impact Assessment that will be monitored and reviewed throughout the operations including: <ul style="list-style-type: none"> <li>• Average groundwater seepage rates typically ranging between 0.5 ML/day and 2.5 ML/day</li> <li>• Average loss of recharge to the neighbouring alluvial aquifers gradually increasing to 50 ML/year at end of mining;</li> <li>• Groundwater levels within the alluvial aquifers not changing beyond the natural rates of fluctuation as a result of the Maules Creek Coal Mine;</li> <li>• Groundwater pressures within the coal seam Permian coal measures declining in the vicinity of the mining operations as mining progresses; and</li> <li>• Water quality of the Permian coal seam aquifer being unaffected by the Maules Creek Coal Project.</li> </ul>	This has not yet been necessary as the oit has not progressed to a depth whereby significant GW impacts could eventuate.	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility																				
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	6.3.4	Groundwater quality will be monitored against trigger levels generated in accordance with the control chart assessment procedure.	This is conducted	Compliant																								
	6.3.4	The metals data will be compared to the most appropriate trigger levels for stock, domestic, irrigation and aquatic ecosystems.	This is conducted	Compliant																								
<b>6.3.5 Data Management and Reporting</b>																												
	6.3.5	Data management and annual reporting will include: <ul style="list-style-type: none"> <li>• Review of depressurisation of coal measures and drawdown within alluvial aquifers;</li> <li>• Comparison of observed depressurisation with model predictions;</li> <li>• Review of data and comparison to the defined trigger levels;</li> <li>• Actions and responses taken if trigger levels are exceeded; and</li> <li>• Review of trigger levels and baseline data.</li> </ul> Further to this, the digital groundwater monitoring data will be provided to the local NOW hydrologist.	2013 AEMR (3.5) and 2014 AEMR (3.5) state that not enough mining had been completed to determine impact. Digital groundwater monitoring data has not yet been provided to the local NOW hydrologist	Compliant																								
<b>6.3.6 PAC Recommendations</b>																												
	6.3.6	The recommendations of the study will be implemented within the first five years of mining to meet the requirements of the PAC.	5 years not yet completed	Not Triggered																								
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	6.3.6	The study will include collecting core samples for permeability testing, XRD-XRF analyses, batch reaction testing and hydro chemical modelling.	This is done, interview with geologist	Compliant																								
	6.3.6	The core testing and XRD-XRF analyses will be undertaken in conjunction with exploration drilling programs to be undertaken during the initial years of mining operations.	This is done, interview with geologist	Compliant																								
<b>6.4 Validation of Groundwater Model</b>																												
	6.4	As required by Schedule 3, Condition 40(c) of PA 10_0138, Maules Creek Coal will commission an Independent Consultant to complete a review of the groundwater monitoring results against the predictions made within the groundwater model versus the model.	2013 AEMR (3.5.12) states not enough mining has occurred to impact groundwater to compare against modelled levels.	Not Triggered																								
	6.4	This review will be commissioned annually.	2014 AEMR (3.5.12) states not enough mining has occurred to impact groundwater to compare against modelled levels.	Not Triggered																								
	6.4	Should the annual review indicate that the observed versus modelled data is diverging the groundwater model will be progressively updated and refined to ensure that any possible impacts can be predicted. This model recalibration and validation will be required prior to an independent review every three years.	See above	Not Triggered																								
<b>7.0 SURFACE AND GROUNDWATER RESPONSE PLAN</b>																												
<b>7.1 Criteria Exceedance Protocol</b>																												
	7.1	In accordance with Condition 40 of Schedule 3 of PA 10_0138, should an exceedance of the monitoring criteria listed in this WMP occur, then MCC will follow the procedure outlined in Table 7.1.	No exceedances	Not Triggered																								
	7.1	<table border="1"> <caption>Table 7.1 Exceedance Response Protocol</caption> <thead> <tr> <th>Stage</th> <th>Procedure</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Confirm the timing of the exceedance(s)</td> </tr> <tr> <td>2</td> <td>Confirm the general location of the exceedance(s)</td> </tr> <tr> <td>3</td> <td>Confirm the climatic conditions at the time of the exceedance(s) (where relevant)</td> </tr> <tr> <td>4</td> <td>Identify any potential contributing factors</td> </tr> <tr> <td>5</td> <td>Assess the monitoring results for any anomalies or causes</td> </tr> <tr> <td>6</td> <td>Develop appropriate mitigation and management strategies</td> </tr> <tr> <td>7</td> <td>Implement the mitigation and management strategies</td> </tr> <tr> <td>8</td> <td>Review of follow up results</td> </tr> <tr> <td>9</td> <td>Report the exceedance to the appropriate regulatory authorities.</td> </tr> </tbody> </table>	Stage	Procedure	1	Confirm the timing of the exceedance(s)	2	Confirm the general location of the exceedance(s)	3	Confirm the climatic conditions at the time of the exceedance(s) (where relevant)	4	Identify any potential contributing factors	5	Assess the monitoring results for any anomalies or causes	6	Develop appropriate mitigation and management strategies	7	Implement the mitigation and management strategies	8	Review of follow up results	9	Report the exceedance to the appropriate regulatory authorities.	Noted					
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<b>7.2 Unforeseen Impacts</b>																												
	7.2	The procedure outlined in Table 7.2 will be followed in the event that any unforeseen surface or groundwater impacts are detected.	The procedure is not yet required	Not Triggered																								

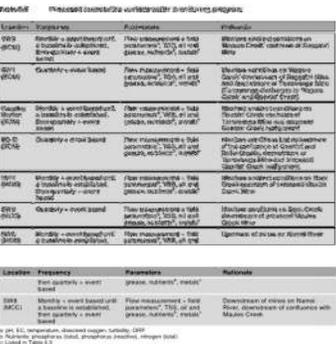
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<b>8.0 REPORTING AND REVIEW</b>																		
<b>8.1 Water Management Plan Review</b>																		
	8.1	<p>In accordance with Schedule 5, Condition 4 of PA 10_0138, MCC will submit by the end of March each year (or other such timing as agreed by the Director-General) an Annual Review for the previous calendar year to the Director-General of DP&amp;I, which will fulfil the reporting requirements listed in that condition. The review will include:</p> <ul style="list-style-type: none"> <li>• review of the monitoring results and complaints records of the development over the past year, which includes a comparison of these results against the:                             <ul style="list-style-type: none"> <li>• relevant statutory requirements, limits or performance measures/criteria;</li> <li>• monitoring results of previous years; and</li> <li>• relevant predictions in the EIS.</li> </ul> </li> <li>• check of the calibration parameters of the water balance model to ensure that the model adequately simulates observed conditions on site;</li> <li>• identification any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;</li> <li>• identification any trends in the monitoring data over the life of the development;</li> <li>• identification any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and</li> <li>• description of measures that will be implemented over the next year to improve the performance of the water management system.</li> </ul>	The AEMR complies with this requirement, predictions in EIS are not able to be confirmed due to lack of pit inflow.	Compliant														
	8.1	Water Management Plan will be reviewed within three months of the submission of the Annual Review and updated to the satisfaction of the Director-General where necessary.	Published on 31/03/2014. No Evidence of a formal review being undertaken	Not Compliant Administrative														
	8.1	The plan will also be reviewed within three months of an incident report (as specified in the consent conditions and the EPL), the completion of an independent environmental audit or any modification to the consent conditions.	No relevant incident reports	Compliant														
	8.1	Following the review process, actions will be taken to address any recommendations, within three months of the finalised review.	Noted															
	8.1	As part of the WMP review process, MCC will provide a report to the Minister (or their delegate) administering the EPBC Act 1999, on any updated water modelling that has been undertaken and how the WMP address groundwater and surface water impacts on matters of national environmental significance in accordance with approval EPBC 2010/5566 Condition 23.	No updated modelling	Not Triggered														
<b>8.2 Reporting an Incident</b>																		
	8.2	In accordance with Schedule 5, Condition 8 of PA 10_0138, MCC shall notify the Director-General and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment at the earliest opportunity, and shall notify of any other incident as soon as practicable.	No such incident	Not Triggered														
	8.2	Within 7 days of the date of the incident, MCC shall provide the Director-General and any relevant agencies with a detailed report on the incident and such further reports as may be requested.	No such incident	Not Triggered														
<b>8.3 Public Access to Information</b>																		
	8.3	In accordance with Schedule 5, Condition 9 of PA 10_0138, MCC will regularly (at least every six months) prepare a summary of monitoring results and make these publicly available at the mine site and on the Maules Creek website.	Monthly monitoring results available on the website from May 2014 - June 2015 inclusive. Quarterly summaries of monitoring presented to the CCC available on the website for Q3 2014, Q4 2014 and Q1 2015 but none before that.	Compliant														
	8.3	A summary of groundwater monitoring completed and the results will be included in the Annual Review.	2013 AEMR (3.5.7) and 2014 AEMR (3.5.9) report results for groundwater monitoring.	Compliant														

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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Water Management Strategy - March 2013	3.3	<p>Table 3.1 below sets out the water access licence (WAL) types and volumes currently held by BCM, TCM and MCC.</p> <table border="1"> <thead> <tr> <th>Water Access Licence</th> </tr> </thead> <tbody> <tr> <td>Upper Lander Water</td> <td>4</td> <td>Agalpa</td> <td>WAL 10001</td> <td>100</td> <td>100</td> </tr> <tr> <td>Upper Lander Water</td> <td>4</td> <td>Agalpa</td> <td>WAL 10002</td> <td>100</td> <td>100</td> </tr> <tr> <td>Upper Lander Water</td> <td>4</td> <td>Agalpa</td> <td>WAL 10003</td> <td>100</td> <td>100</td> </tr> <tr> <td>Upper Lander Water</td> <td>4</td> <td>Agalpa</td> <td>WAL 10004</td> <td>100</td> <td>100</td> </tr> <tr> <td>Upper Lander Water</td> <td>4</td> <td>Agalpa</td> <td>WAL 10005</td> <td>100</td> <td>100</td> </tr> <tr> <td>Upper Lander Water</td> <td>4</td> <td>Agalpa</td> <td>WAL 10006</td> <td>100</td> <td>100</td> </tr> <tr> <td>Upper Lander Water</td> <td>4</td> <td>Agalpa</td> <td>WAL 10007</td> 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10011	100	100	Upper Lander Water	4	Agalpa	WAL 10012	100	100	Upper Lander Water	4	Agalpa	WAL 10013	100	100	Upper Lander Water	4	Agalpa	WAL 10014	100	100	Upper Lander Water	4	Agalpa	WAL 10015	100	100	Upper Lander Water	4	Agalpa	WAL 10016	100	100	Upper Lander Water	4	Agalpa	WAL 10017	100	100	Upper Lander Water	4	Agalpa	WAL 10018	100	100	Upper Lander Water	4	Agalpa	WAL 10019	100	100	Upper Lander Water	4	Agalpa	WAL 10020	100	100	Upper Lander Water	4	Agalpa	WAL 10021	100	100	Upper Lander Water	4	Agalpa	WAL 10022	100	100	Upper Lander Water	4	Agalpa	WAL 10023	100	100	Upper Lander Water	4	Agalpa	WAL 10024	100	100	Upper Lander Water	4	Agalpa	WAL 10025	100	100	Upper Lander Water	4	Agalpa	WAL 10026	100	100	Upper Lander Water	4	Agalpa	WAL 10027	100	100	Upper Lander Water	4	Agalpa	WAL 10028	100	100	Upper Lander Water	4	Agalpa	WAL 10029	100	100	Upper Lander Water	4	Agalpa	WAL 10030	100	100	Upper Lander Water	4	Agalpa	WAL 10031	100	100	Upper Lander Water	4	Agalpa	WAL 10032	100	100	Upper Lander Water	4	Agalpa	WAL 10033	100	100	Upper Lander Water	4	Agalpa	WAL 10034	100	100	Upper Lander Water	4	Agalpa	WAL 10035	100	100	Upper Lander Water	4	Agalpa	WAL 10036	100	100	Upper Lander Water	4	Agalpa	WAL 10037	100	100	Upper Lander Water	4	Agalpa	WAL 10038	100	100	Upper Lander Water	4	Agalpa	WAL 10039	100	100	Upper Lander Water	4	Agalpa	WAL 10040	100	100	Upper Lander Water	4	Agalpa	WAL 10041	100	100	Upper Lander Water	4	Agalpa	WAL 10042	100	100	Upper Lander Water	4	Agalpa	WAL 10043	100	100	Upper Lander Water	4	Agalpa	WAL 10044	100	100	Upper Lander Water	4	Agalpa	WAL 10045	100	100	Upper Lander Water	4	Agalpa	WAL 10046	100	100	Upper Lander Water	4	Agalpa	WAL 10047	100	100	Upper Lander Water	4	Agalpa	WAL 10048	100	100	Upper Lander Water	4	Agalpa	WAL 10049	100	100	Upper Lander Water	4	Agalpa	WAL 10050	100	100	Upper Lander Water	4	Agalpa	WAL 10051	100	100	Upper Lander Water	4	Agalpa	WAL 10052	100	100	Upper Lander Water	4	Agalpa	WAL 10053	100	100	Upper Lander Water	4	Agalpa	WAL 10054	100	100	Upper Lander Water	4	Agalpa	WAL 10055	100	100	Upper Lander Water	4	Agalpa	WAL 10056	100	100	Upper Lander Water	4	Agalpa	WAL 10057	100	100	Upper Lander Water	4	Agalpa	WAL 10058	100	100	Upper Lander Water	4	Agalpa	WAL 10059	100	100	Upper Lander Water	4	Agalpa	WAL 10060	100	100	Upper Lander Water	4	Agalpa	WAL 10061	100	100	Upper Lander Water	4	Agalpa	WAL 10062	100	100	Upper Lander Water	4	Agalpa	WAL 10063	100	100	Upper Lander Water	4	Agalpa	WAL 10064	100	100	Upper Lander Water	4	Agalpa	WAL 10065	100	100	Upper Lander Water	4	Agalpa	WAL 10066	100	100	Upper Lander Water	4	Agalpa	WAL 10067	100	100	Upper Lander Water	4	Agalpa	WAL 10068	100	100	Upper Lander Water	4	Agalpa	WAL 10069	100	100	Upper Lander Water	4	Agalpa	WAL 10070	100	100	Upper Lander Water	4	Agalpa	WAL 10071	100	100	Upper Lander Water	4	Agalpa	WAL 10072	100	100	Upper Lander Water	4	Agalpa	WAL 10073	100	100	Upper Lander Water	4	Agalpa	WAL 10074	100	100	Upper Lander Water	4	Agalpa	WAL 10075	100	100	Upper Lander Water	4	Agalpa	WAL 10076	100	100	Upper Lander Water	4	Agalpa	WAL 10077	100	100	Upper Lander Water	4	Agalpa	WAL 10078	100	100	Upper Lander Water	4	Agalpa	WAL 10079	100	100	Upper Lander Water	4	Agalpa	WAL 10080	100	100	Upper Lander Water	4	Agalpa	WAL 10081	100	100	Upper Lander Water	4	Agalpa	WAL 10082	100	100	Upper Lander Water	4	Agalpa	WAL 10083	100	100	Upper Lander Water	4	Agalpa	WAL 10084	100	100	Upper Lander Water	4	Agalpa	WAL 10085	100	100	Upper Lander Water	4	Agalpa	WAL 10086	100	100	Upper Lander Water	4	Agalpa	WAL 10087	100	100	Upper Lander Water	4	Agalpa	WAL 10088	100	100	Upper Lander Water	4	Agalpa	WAL 10089	100	100	Upper Lander Water	4	Agalpa	WAL 10090	100	100	Upper Lander Water	4	Agalpa	WAL 10091	100	100	Upper Lander Water	4	Agalpa	WAL 10092	100	100	Upper Lander Water	4	Agalpa	WAL 10093	100	100	Upper Lander Water	4	Agalpa	WAL 10094	100	100	Upper Lander Water	4	Agalpa	WAL 10095	100	100	Upper Lander Water	4	Agalpa	WAL 10096	100	100	Upper Lander Water	4	Agalpa	WAL 10097	100	100	Upper Lander Water	4	Agalpa	WAL 10098	100	100	Upper Lander Water	4	Agalpa	WAL 10099	100	100	Upper Lander Water	4	Agalpa	WAL 10100	100	100	Noted					
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Water Management Strategy - March 2013	4.1.1	Contaminated water, containing suspended solids and soluble salts, will be generated from coal stockpiles and the mining void, as well as groundwater inflows to the mining void. In addition, dirty water containing suspended solids will be generated from runoff from disturbed areas within the mine sites, including from infrastructure areas, unshaped spoil dumps and haul roads. For all mines, contaminated water will be retained onsite for use, and dirty water will be retained in settlement ponds prior to discharge or on-site use.	Comment Water from dirty catchments should not be discharged from site unless tested and found to meet discharge requirements.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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Water Management Strategy - March 2013	4.3	All site water management plans for the BTM Complex mines aim to: - divert clean runoff from undisturbed catchment areas around the mine workings into local creeks ('Nagero Creek' for BCM, 'Nagero', Bollol and Goonbri Creeks for TCM, and Back Creek for MCC) or for use on-site, where appropriate licences are held. Clean water may also be stored temporarily for subsequent controlled discharge into local creeks if immediate diversion is not feasible	Noted																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Water Management Strategy - March 2013	4.3	- capture dirty water from disturbed areas in sedimentation dams. If the water quality meets licence requirements, and the water is not required for use on site, it will be discharged into the local creeks	Noted					
Water Management Strategy - March 2013	4.3	- use dirty water wherever possible for coal processing and dust suppression	Noted					
Water Management Strategy - March 2013	4.3	- use imported water as follows: --> for BCM, use imported raw water for potable water, vehicle wash down and construction activities, as well as to meet dust suppression and coal processing demands when there is a site water deficit --> for TCM, use imported raw water for portable water, and use groundwater from a licensed production bore with an annual entitlement of 50ML during protracted dry periods --> for MCC, use imported raw water from an existing high security licence for 3000 ML/yr from the Namoi River for vehicle wash-down, construction activities and potable water, as well as for other site water deficits.	Noted					
5.2.1 Surface water								
Surface water flow and use								
Water Management Strategy - March 2013	5.2.1	The objectives of surface water flow and use monitoring are: - to provide baseline surface water flow data upstream of each mining operation over time	Noted					
Water Management Strategy - March 2013	5.2.1	- to record changes in surface water flows downstream of each mine over time	Noted					
Water Management Strategy - March 2013	5.2.1	- to record changes in downstream surface water flows in local creeks resulting from the cumulative impacts of mining operations	Noted					
Water Management Strategy - March 2013	5.2.1	- to record changes in downstream surface water flows in the Namoi river resulting from the cumulative impacts of all BTM Complex mine operations	Noted					
Water Management Strategy - March 2013	5.2.1	- to facilitate surface water hydraulic and/or hydrologic model evolution	Noted					
Water Management Strategy - March 2013	5.2.1	- to allow assessment of surface water access impacts on other users	Noted					
Water Management Strategy - March 2013	5.2.1	- as required by licence conditions, to record surface water volumes pumped from the Namoi River accurately in terms of volume and timing of pumping for input into mine water balances, and to quantify opportunities for water sharing between mines.	Noted					
surface water quality								
Water Management Strategy - March 2013	5.2.1	The objectives of surface water quality monitoring are: - to provide baseline surface water flow data upstream of each mining operation over time for a range of informative and diagnostic parameters	Noted					
Water Management Strategy - March 2013	5.2.1	- to record mining-induced changes in surface water quality in space and time	Noted					
Water Management Strategy - March 2013	5.2.1	- to assess whether any changes in surface water quality with time occur during and after mining, and whether such changes are likely to have a material effect on environmental values.	Noted					
5.2.2 Groundwater monitoring objectives								
Groundwater levels								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Water Management Strategy - March 2013	5.2.2	The objectives of groundwater level monitoring are (as outlined by Heritage Computing, 2012): - to provide baseline pre-mining groundwater levels in space and time	Noted					
Water Management Strategy - March 2013	5.2.2	- to quantify natural time variations in groundwater levels	Noted					
Water Management Strategy - March 2013	5.2.2	- to record mining-induced changes in groundwater levels in space and time	Noted					
Water Management Strategy - March 2013	5.2.2	- to provide a foundation for characterisation of aquifer and aquitard properties by numerical model calibration	Noted					
Water Management Strategy - March 2013	5.2.2	- to facilitate groundwater model evolution through verification of simulated heads against those measured	Noted					
Water Management Strategy - March 2013	5.2.2	- to reveal mining-induced changes in groundwater flow directions and hydraulic gradients	Noted					
Water Management Strategy - March 2013	5.2.2	- to provide evidence for the degree of stream-aquifer interaction, especially losses of stream water, and whether the losses are permanent or temporary	Noted					
Water Management Strategy - March 2013	5.2.2	- to allow assessment of potential impacts on groundwater dependent ecosystems	Noted					
Water Management Strategy - March 2013	5.2.2	- to allow assessment of yield/drawdown impacts on other groundwater users	Noted					
Water Management Strategy - March 2013	5.2.2	- to monitor post-mining rates of groundwater pressure recovery.	Noted					
Groundwater quality								
Water Management Strategy - March 2013	5.2.2	The objectives of groundwater quality monitoring are (as outlined by Heritage Computing, 2012): - to provide baseline pre-mining groundwater quality data in space and time	Noted					
Water Management Strategy - March 2013	5.2.2	- to quantify natural changes in groundwater quality in time and space	Noted					
Water Management Strategy - March 2013	5.2.2	- to record mining-induced changes in groundwater quality in space and time	Noted					
Water Management Strategy - March 2013	5.2.2	- to facilitate confirmation or revision of the conceptual model for chemical evolution and groundwater flow directions	Noted					
Water Management Strategy - March 2013	5.2.2	- to assess whether any changes in groundwater quality with time occur during and after mining, and whether such changes are likely to have a material effect on beneficial uses	Noted					
Water Management Strategy - March 2013	5.2.2	- in the case of open cut pits, to establish whether enhanced rainfall recharge through backfill provides a freshening effect on groundwater, or instead mobilises latent chemicals	Noted					
Water Management Strategy - March 2013	5.2.2	- in the case of a water-filled final void, to assess the risk of migration of saline void waters during the post-mining recovery phase whenever such waters are not contained as a groundwater sink	Noted					
Water Management Strategy - March 2013	5.2.2	- to assess whether acid rock drainage has occurred	Noted					
Water Management Strategy - March 2013	5.2.2	- to assess whether tailings dams are leaking.	Noted, no tailings dams proposed at MCC					
Groundwater seepage								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Water Management Strategy - March 2013	5.2.2	The objectives of groundwater seepage monitoring are (as outlined by Heritage Computing, 2012): - to accurately record water volumes pumped from open cut pits, in terms of volume and timing of pumping, so that an assessment can be made of groundwater seepage through water balance modelling (allowing for evaporative losses and surface water inputs)	Noted					
Water Management Strategy - March 2013	5.2.2	- to develop a profile of mine inflow rates and variations with time as input to the mine water management systems	Noted					
Water Management Strategy - March 2013	5.2.2	- to facilitate groundwater model evolution through verification of simulated inflows against those measured or estimated.	Noted					
<b>Groundwater use</b>								
Water Management Strategy - March 2013	5.2.2	The objectives of groundwater usage monitoring are (as outlined by Heritage Computing, 2012): - to record pumped groundwater volumes accurately in terms of volume and timing of pumping where dewatering bores are in use	Noted					
Water Management Strategy - March 2013	5.2.2	- to record pumped groundwater volumes accurately in terms of volume and timing of pumping from production bores operated or owned by the mine	Noted					
Water Management Strategy - March 2013	5.2.2	- to provide input information into ongoing groundwater model simulations	Noted					
Water Management Strategy - March 2013	5.2.2	- if declining water levels in a monitoring bore occur, to allow informed cause-and-effect analysis in establishing whether the cause is mining or abstraction from a bore.	Noted					
<b>5.3 Proposed BTM Complex cumulative impact monitoring networks</b>								
<b>5.3.1 Surface water</b>								
Water Management Strategy - March 2013	5.3.1	The proposed cumulative surface water monitoring program does not supersede surface water management plans currently in place. Rather the program has been developed to work in parallel. The monitoring locations selected for the cumulative monitoring network are part of the existing networks of each mine, with the exception of "Gauging Station"	Noted					

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Water Management Strategy - March 2013	5.3.1	<p>The monitoring parameters and frequencies proposed for the cumulative surface water monitoring network are preliminary and draft in nature. The proposed cumulative monitoring program will form part of discussions with NOW and each mine as part of the consultation process required in the Project Approval.</p> 	Noted					
5.3.2 Groundwater								
Groundwater levels and quality								
Water Management Strategy - March 2013	5.3.2	A program has been developed by Heritage Computing (2012) to monitor and manage the cumulative impacts on groundwater conditions as a result of mining within the BTM Complex.	Noted					
Water Management Strategy - March 2013	5.3.2	The program proposes a network of monitoring bores and VWPs to monitor regional groundwater conditions, in addition to existing monitoring bore networks (see Table 5.2 in Section 5.1.2). Some sites selected for groundwater quality monitoring are aligned with existing bores that monitor alluvial aquifers, with the new bores placed to monitor underlying aquifers at the same location. Some sites are selected for water level monitoring only. All bores are recommended to have automatic dataloggers installed to collect continuous water level data, which can be downloaded during sampling rounds.	Noted					
Groundwater seepage and use								
Water Management Strategy - March 2013	5.3.2	Monitoring of water accumulating in open cut pits is proposed across the BTM Complex to provide a dataset for periodic water balance modelling.	Noted					
6.1 Existing trigger levels and responses								
6.1.1 Surface water								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility																											
					Consequence	Likelihood	Risk																												
Water Management Strategy - March 2013	6.1.1	<p>A trigger event is also considered to occur when water quality between SW2 (upstream) and SW1 (downstream) differ by more than 20%. The intent of the variance check is to ensure trigger events occur where significant changes in water chemistry are evident over a short section of the creek line even though the actual stated parameter may be exceeded (Parsons Brinckerhoff, 2012).</p> <p><b>Table 6.1 Boggabri surface water triggers</b></p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>100<sup>th</sup> percentile</th> </tr> </thead> <tbody> <tr> <td>Discharge quality</td> <td></td> </tr> <tr> <td>Oil and grease (mg/L)</td> <td>10</td> </tr> <tr> <td>pH</td> <td>6.5-8.5</td> </tr> <tr> <td>Total suspended solids (mg/L)<sup>a</sup></td> <td>50</td> </tr> <tr> <td>Ammonia quality</td> <td></td> </tr> <tr> <td>Phosphorus (Total)</td> <td>0.18</td> </tr> <tr> <td>Nitrogen (Total)</td> <td>0.72</td> </tr> <tr> <td>EC (µS/cm)</td> <td>350</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Parameter</th> <th>100<sup>th</sup> percentile</th> </tr> </thead> <tbody> <tr> <td>pH</td> <td>6.5-8.5</td> </tr> <tr> <td>Total suspended solids (mg/L)</td> <td>110</td> </tr> <tr> <td>Nitrate (mg/L)</td> <td>TBC<sup>b</sup></td> </tr> <tr> <td>Reactive Phosphorus (mg/L)</td> <td>TBC<sup>b</sup></td> </tr> </tbody> </table> <p><small>a: TSS concentration limits for any weather discharge points may be exceeded by water discharge provided that the discharge occurs solely as a result of rainfall measured at the premises for which the exceedance occurs, provided that the discharge occurs prior to discharge planning and all practical measures have been implemented to minimise the discharge of sediment from within 10 days of rainfall such that they have sufficient capacity to store run-off from a 10 day 100 year event.</small></p> <p><small>b: There are no ANZECC guideline values for these parameters and trigger levels should be set on an interim water quality data once sufficient data is available.</small></p>	Parameter	100 <sup>th</sup> percentile	Discharge quality		Oil and grease (mg/L)	10	pH	6.5-8.5	Total suspended solids (mg/L) <sup>a</sup>	50	Ammonia quality		Phosphorus (Total)	0.18	Nitrogen (Total)	0.72	EC (µS/cm)	350	Parameter	100 <sup>th</sup> percentile	pH	6.5-8.5	Total suspended solids (mg/L)	110	Nitrate (mg/L)	TBC <sup>b</sup>	Reactive Phosphorus (mg/L)	TBC <sup>b</sup>	Noted, not yet enacted				
Parameter	100 <sup>th</sup> percentile																																		
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Nitrate (mg/L)	TBC <sup>b</sup>																																		
Reactive Phosphorus (mg/L)	TBC <sup>b</sup>																																		
Water Management Strategy - March 2013	6.1.1	Trigger levels for surface water quality have not yet been set for MCC. It is anticipated that these will be included in a water management plan specific to MCC, when final approval for the Project has been granted and an EPL has been issued.	Noted																																
Water Management Strategy - March 2013	6.1.1	Surface water flow monitoring is not part of the current TCM Surface Water Management Plan (Whitehaven Coal, 2011), and has not specifically been recommended for Maules Creek in the EA (WRM, 2011). TCM is updating its WMP to include monitoring of surface water flow in Goonbri Creek as a means of identifying the contribution of surface water discharge that TCM makes to stream flows in Goonbri Creek during significant rainfall events.	Noted																																
Response Plans																																			

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Water Management Strategy - March 2013	6.1.1	An exceedance response protocol for both surface water and groundwater has been developed as part of the MCC water management plan. The surface water response plan for MCC is generally consistent with the overall BTM Complex surface water response strategy (outlined in Section 0). Key features of the MCC exceedance response protocol are: Confirm the timing of the exceedance(s) Confirm the general location of the exceedance(s) Confirm the climatic conditions at the time of the exceedance(s) (where relevant) Identify any potential contributing factors Assess the monitoring results for any anomalies or causes Develop appropriate mitigation and management strategies Implement the mitigation and management strategies Review of follow up results Report the exceedance to the appropriate regulatory authorities.	Noted					
Water Management Strategy - March 2013	6.1.1	In the event that any unforeseen surface water impacts are detected the aforementioned protocol will extend to include the following steps: Review the unforeseen impact, including consideration of: Any relevant monitoring data; and Current mine activities and land management practices in the relevant catchment Commission an investigation into the unforeseen impact by an appropriate specialist selected in consultation with appropriate regulatory authorities Develop appropriate ameliorative measures based on the results of the above investigations, in consultation with the relevant authorities Implement additional monitoring where relevant to measure the effectiveness of the ameliorative measures.	Noted					
6.1.2 Groundwater								
Trigger levels								
Groundwater quality								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Water Management Strategy - March 2013	6.1.2	The MCC Water Management Plan indicates groundwater quality will be monitored against trigger levels generated in accordance with the control chart assessment procedure. The control chart assessment procedure is based on the geometric mean and standard deviation(s) for initial, validated baseline water quality data (i.e. EC). Once mining commences, monitoring results for each parameter (i.e. EC) is plotted against time, with control limits of mean +1s, mean +2s and mean +3s. Control criteria are set such that one observation above mean +3s, or two consecutive observations above mean +2s, or five successive observations above mean +1s would constitute a trigger alarm. If there is a period of no alarms (i.e. after 12 observations), the mean and standard deviation could be recalculated and the control lines adjusted to provide better precision.	Noted					
Groundwater levels								
Water Management Strategy - March 2013	6.1.2	Similar to BCM, the MCC Water Management Plan sets triggers for groundwater levels on the basis of the statistical 5th and 95th percentile value for the available dataset at each monitoring location. The MCC Water Management Plan indicates groundwater quality will be monitored against trigger levels generated in accordance with the control chart assessment procedure. The control chart assessment procedure is based on the geometric mean and standard deviation(s) for initial, validated baseline water quality data (i.e. EC). Once mining commences, monitoring results for each parameter (i.e. EC) is plotted against time, with control limits of mean +1s, mean + 2s and mean + 3s. Control criteria are set such that one observation above mean + 3s, or two consecutive observations above mean + 2s, or five successive observations above mean + 1s would constitute a trigger alarm. If there is a period of no alarms (i.e. after 12 observations), the mean and standard deviation could be recalculated and the control lines adjusted to provide better precision	Noted					
Water Management Strategy - March 2013	6.1.2	To counteract spurious measurements, which could occur for example during maintenance of a sensor or downloading or water sampling, a 7-day average will be calculated to cover such events. In addition, to ensure the "breach" of a trigger is sustained and is therefore significant, a 1-month exceedance duration will be adopted to allow water levels to stabilise. This would "trigger" an investigation in the first instance, not an immediately reportable incident.	Noted					
Response Plans								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Water Management Strategy - March 2013	6.1.2	The MCC Water Management Plan indicates that should an exceedance of the monitoring criteria in the WMP occur, then the Proponent will: 1 Confirm the timing of the exceedance(s) 2 Confirm the general location of the exceedance(s) 3 Confirm the climatic conditions at the time of the exceedance(s) (where relevant) 4 Identify any potential contributing factors 5 Assess the monitoring results for any anomalies or causes 6 Develop appropriate mitigation and management strategies 7 Implement the mitigation and management strategies 8 Review follow up results 9 Report the exceedance to the appropriate regulatory authorities.	Noted					
6.2 Cumulative impact management objectives and triggers								
6.2.1 Surface water								
Surface water quantity								
Water Management Strategy - March 2013	6.2.1	The surface water quantity objectives adopted by this strategy are as follows, and have been adapted from the objectives contained in the WSP for the Namoi Unregulated and Alluvial Water Sources 2012, and from the Namoi Catchment Action Plan: to protect, preserve, maintain and enhance the important river flow dependent ecosystems	Noted					
Water Management Strategy - March 2013	6.2.1	- to ensure mine water use does not result in average surface water flow in local creeks being less than 66% of natural (pre-development) condition, with a sensitivity to natural frequency and duration	Noted					
Water Management Strategy - March 2013	6.2.1	- to minimise mine impacts on basic landholder rights, including: --> landholder extractions from local creeks --> flows to harvestable rights stock watering dams	Noted					
Water Management Strategy - March 2013	6.2.1	- to ensure mine water use does not result in the total water use within the Maules Creek unregulated river water source exceeding the long term average annual extraction limit identified for that water source in the WSP for the Namoi Unregulated and Alluvial Water Sources	Noted					
Water Management Strategy - March 2013	6.2.1	- to minimise the impacts of altered flood flows on catchment landholders	Noted					
Water Management Strategy - March 2013	6.2.1	- to provide opportunities for enhanced market based trading of access licences and water allocations between BTM Complex mines	Noted					
Water Management Strategy - March 2013	6.2.1	- to contribute to the maintenance of water quality in the local creeks and the Namoi River.	Noted					
6.2.2 Groundwater								
Groundwater quality								
Water Management Strategy - March 2013	6.2.2	The groundwater quality objectives of this strategy are: - to maintain the most sensitive identified beneficial use (or EV) of all groundwater systems potentially affected by the BTM Complex operations, consistent with the NSW State Groundwater Quality Protection Policy	Noted					
Water Management Strategy - March 2013	6.2.2	- within this, to maintain the annual average EC values within the historical 95th percentile.	Noted					

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Groundwater quantity								
Water Management Strategy - March 2013	6.2.2	The groundwater quantity objectives adopted by this strategy are as follows, and have been adapted from the objectives contained in the WSPs for the Upper and Lower Namoi Groundwater Sources, and the Murray-Darling Basin Porous Rock Groundwater Sources, as well as from the Namoi Catchment Action Plan: - to protect the structural integrity of the alluvial aquifers by ensuring mining activities and their groundwater extraction do not result in more than minimal alluvial aquifer compaction, aquitard compaction or land subsidence	Noted					
Water Management Strategy - March 2013	6.2.2	- to account for all BTM Complex groundwater use and quantity impacts through the statutory licensing and allocation systems	Noted					
Water Management Strategy - March 2013	6.2.2	- to ensure there are no long-term declines in alluvial groundwater levels resulting from BTM Complex mining activities and their groundwater extraction	Noted					
Water Management Strategy - March 2013	6.2.2	- to maintain basic landholder rights access to groundwater sources that may be impacted by the BTM Complex mines	Noted					
Water Management Strategy - March 2013	6.2.2	- to identify and offset any unacceptable interference to irrigation bore supply in groundwater sources that may be impacted by the BTM Complex mines	Noted					
Water Management Strategy - March 2013	6.2.2	- to provide opportunities for enhanced market based trading of groundwater access licences and groundwater allocations between BTM Complex mines.	Noted					
Water Management Strategy - March 2013	6.2.2	- to minimise the impact of changes to groundwater levels and flows resulting from BTM Complex activities on groundwater dependent ecosystems, including vegetation	Noted					
6.3 Proposed BTM Complex cumulative impact mitigation								
6.3.1 Surface water								
Trigger levels								
Groundwater quantity								
Water Management Strategy - March 2013	6.3.1	Proposed trigger levels for ambient surface water quality are based on the WQOs, ANZECC (2000) guidelines and available ambient data for the BTM Complex, as outlined in Table 6.5. Table 6.5 sets out the concentrations of key water quality parameters given in each of the WQOs, ANZECC (2000) guidelines and available ambient data. The proposed trigger values are based on the cumulative management objectives discussed in Section 6.2.1. It is proposed that the ambient surface water trigger levels be reviewed once further data becomes available with continued monitoring.	Noted					

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility																																																																																																																																	
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Water Management Strategy - March 2013	6.3.1	<p><b>Table 6.5 Proposed BTM Complex ambient surface water quality trigger levels</b></p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>WQO<sup>a</sup></th> <th>ANZECC<sup>b</sup></th> <th>Historical upstream<sup>c</sup></th> <th>Proposed trigger</th> </tr> </thead> <tbody> <tr> <td>Total Phosphorus (µg/L)</td> <td>25</td> <td>20</td> <td>110-360</td> <td>110-360</td> </tr> <tr> <td>Total Nitrogen (µg/L)</td> <td>250</td> <td>250</td> <td>500-3000</td> <td>500-3000</td> </tr> <tr> <td>Turbidity (NTU)</td> <td>≤25</td> <td>≤25</td> <td>1300</td> <td>1300</td> </tr> <tr> <td>EC (µS/cm)</td> <td>30-350</td> <td>30-350</td> <td>33-275</td> <td>30-350</td> </tr> <tr> <td>Dissolved oxygen (% saturation)</td> <td>90-110</td> <td>90-110</td> <td>NA</td> <td>90-110</td> </tr> <tr> <td>pH</td> <td>6.5-8.6</td> <td>6.6-8.6</td> <td>5.9-7.8</td> <td>5.9-8.0</td> </tr> <tr> <td>Total suspended solids (mg/L)</td> <td>≤40</td> <td>NA</td> <td>32-200<sup>d</sup></td> <td>32-200</td> </tr> <tr> <td>Nitrate (mg/L)</td> <td>NA</td> <td>NA</td> <td>TBC<sup>e</sup></td> <td>TBC<sup>e</sup></td> </tr> <tr> <td>Reactive phosphorus (mg/L)</td> <td>NA</td> <td>NA</td> <td>TBC<sup>e</sup></td> <td>TBC<sup>e</sup></td> </tr> <tr> <td>Aluminium (µg/L)</td> <td>Refer to ANZECC</td> <td>158</td> <td>2160</td> <td>2160</td> </tr> <tr> <td>Arsenic (As III) (µg/L)</td> <td>Refer to ANZECC</td> <td>360</td> <td>NA</td> <td>360</td> </tr> <tr> <td>Arsenic (As V) (µg/L)</td> <td>Refer to ANZECC</td> <td>140</td> <td>NA</td> <td>140</td> </tr> <tr> <td>Boron (µg/L)</td> <td>Refer to ANZECC</td> <td>1300</td> <td>NA</td> <td>1300</td> </tr> <tr> <td>Cadmium (µg/L)</td> <td>Refer to ANZECC</td> <td>0.4</td> <td>NA</td> <td>0.4</td> </tr> <tr> <td>Chromium (Cr VI) (µg/L)</td> <td>Refer to ANZECC</td> <td>40</td> <td>NA</td> <td>40</td> </tr> <tr> <td>Copper (µg/L)</td> <td>Refer to ANZECC</td> <td>2.9</td> <td>NA</td> <td>2.9</td> </tr> <tr> <td>Iron (µg/L)</td> <td>Refer to ANZECC</td> <td>NA</td> <td>1660</td> <td>1660</td> </tr> <tr> <td>Lead (µg/L)</td> <td>Refer to ANZECC</td> <td>9.4</td> <td>NA</td> <td>9.4</td> </tr> <tr> <td>Manganese (µg/L)</td> <td>Refer to ANZECC</td> <td>3600</td> <td>45</td> <td>45</td> </tr> <tr> <td>Mercury (µg/L)</td> <td>Refer to ANZECC</td> <td>5.4</td> <td>NA</td> <td>5.4</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Parameter</th> <th>WQO<sup>a</sup></th> <th>ANZECC<sup>b</sup></th> <th>Historical upstream<sup>c</sup></th> <th>Proposed trigger</th> </tr> </thead> <tbody> <tr> <td>Nickel (µg/L)</td> <td>Refer to ANZECC</td> <td>17</td> <td>NA</td> <td>17</td> </tr> <tr> <td>Selenium (total) (µg/L)</td> <td>Refer to ANZECC</td> <td>34</td> <td>&lt;10</td> <td>&lt;10</td> </tr> <tr> <td>Silver (µg/L)</td> <td>Refer to ANZECC</td> <td>0.2</td> <td>NA</td> <td>0.2</td> </tr> <tr> <td>Zinc (µg/L)</td> <td>Refer to ANZECC</td> <td>31</td> <td>NA</td> <td>31</td> </tr> </tbody> </table> <p><sup>a</sup> Other samples TV is aquatic invertebrates.  <sup>b</sup> Trigger values for freshwater at a level of 80% of protection of species.  <sup>c</sup> Based on the average of RCM, TCM, MCC available ambient monitoring data.  <sup>d</sup> TSS range does not include data from MCC available ambient monitoring data (1989/94), as it is significantly higher than levels recorded by RCM in 2008/09 and is not generally considered to be a risk. Concentration levels to be reviewed once further ambient monitoring data becomes available.  <sup>e</sup> There are no ANZECC guideline values for these parameters and trigger levels should be set on ambient water quality data once sufficient data is available. Check data is available. Also need to look at any data collected by Boggabri Coal.  <sup>f</sup> To be updated once Maules Creek data is available.</p>	Parameter	WQO <sup>a</sup>	ANZECC <sup>b</sup>	Historical upstream <sup>c</sup>	Proposed trigger	Total Phosphorus (µg/L)	25	20	110-360	110-360	Total Nitrogen (µg/L)	250	250	500-3000	500-3000	Turbidity (NTU)	≤25	≤25	1300	1300	EC (µS/cm)	30-350	30-350	33-275	30-350	Dissolved oxygen (% saturation)	90-110	90-110	NA	90-110	pH	6.5-8.6	6.6-8.6	5.9-7.8	5.9-8.0	Total suspended solids (mg/L)	≤40	NA	32-200 <sup>d</sup>	32-200	Nitrate (mg/L)	NA	NA	TBC <sup>e</sup>	TBC <sup>e</sup>	Reactive phosphorus (mg/L)	NA	NA	TBC <sup>e</sup>	TBC <sup>e</sup>	Aluminium (µg/L)	Refer to ANZECC	158	2160	2160	Arsenic (As III) (µg/L)	Refer to ANZECC	360	NA	360	Arsenic (As V) (µg/L)	Refer to ANZECC	140	NA	140	Boron (µg/L)	Refer to ANZECC	1300	NA	1300	Cadmium (µg/L)	Refer to ANZECC	0.4	NA	0.4	Chromium (Cr VI) (µg/L)	Refer to ANZECC	40	NA	40	Copper (µg/L)	Refer to ANZECC	2.9	NA	2.9	Iron (µg/L)	Refer to ANZECC	NA	1660	1660	Lead (µg/L)	Refer to ANZECC	9.4	NA	9.4	Manganese (µg/L)	Refer to ANZECC	3600	45	45	Mercury (µg/L)	Refer to ANZECC	5.4	NA	5.4	Parameter	WQO <sup>a</sup>	ANZECC <sup>b</sup>	Historical upstream <sup>c</sup>	Proposed trigger	Nickel (µg/L)	Refer to ANZECC	17	NA	17	Selenium (total) (µg/L)	Refer to ANZECC	34	<10	<10	Silver (µg/L)	Refer to ANZECC	0.2	NA	0.2	Zinc (µg/L)	Refer to ANZECC	31	NA	31	Noted				
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Water Management Strategy - March 2013	6.3.1	<p>Proposed triggers for surface water quantity management responses to achieve the objectives described in Section 6.2.1 are shown in Table 6.6.</p> <p><b>Table 6.6 Proposed BTM Complex surface water quantity triggers</b></p> <table border="1"> <thead> <tr> <th>Trigger</th> <th>Rationale</th> </tr> </thead> <tbody> <tr> <td>For each mine: Annual surface water take &gt; 0.9 x (dry surface water volume + contaminated surface water volume + harvestable right + surface water allocations used)</td> <td>Contributes to maintaining total water use within the Maules Creek unregulated river water source within the identified long term average annual extraction limit</td> </tr> <tr> <td>Complaints regarding impacts on stock and domestic local surface water catchments</td> <td>Minimise the impacts on stock and domestic rights in local catchments</td> </tr> <tr> <td>Complaints regarding perceived unacceptable flooding of downstream properties in local catchments</td> <td>Minimise the impacts of altered flood flows on catchment landholders</td> </tr> <tr> <td>For each mine, total water supply &lt; 100% demand</td> <td>Triggers potential requirement for market based trading of access licences and water allocations, or other supply shortfall management options.</td> </tr> </tbody> </table>	Trigger	Rationale	For each mine: Annual surface water take > 0.9 x (dry surface water volume + contaminated surface water volume + harvestable right + surface water allocations used)	Contributes to maintaining total water use within the Maules Creek unregulated river water source within the identified long term average annual extraction limit	Complaints regarding impacts on stock and domestic local surface water catchments	Minimise the impacts on stock and domestic rights in local catchments	Complaints regarding perceived unacceptable flooding of downstream properties in local catchments	Minimise the impacts of altered flood flows on catchment landholders	For each mine, total water supply < 100% demand	Triggers potential requirement for market based trading of access licences and water allocations, or other supply shortfall management options.	Noted																																																																																																																												
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Water Management Strategy - March 2013	6.3.2	Groundwater quality triggers for the BTM Complex are set out in Heritage Computing (2012), and relate to the measured EC values in proposed monitoring bores Reg1, Reg2, Reg3, Reg6 and Reg7 (see Table 5.1 and Figure 3.2). A response is triggered when the annual average EC value exceeds the historical 95th percentile.	Noted																																																																																																																																						
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Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
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Water Management Strategy - March 2013	6.3.2	Heritage Computing (2012) has developed groundwater level triggers for the BTM Complex to detect potential regional impacts to the hydrogeological environment as a result of the BTM Complex. These triggers cover groundwater levels in the alluvial aquifers and Maules Creek Formation (hard rock aquifer).	Noted					
Water Management Strategy - March 2013	6.3.2	In addition to the above triggers proposed by Heritage Computing, the following are recommended: - Groundwater take or volumetric impacts not accounted for within the long-term average extraction limit of the applicable Groundwater Sharing Plan. - Complaints regarding groundwater stock and domestic or irrigation supply impacts	Noted					
Responses								
Groundwater quality								
Water Management Strategy - March 2013	6.3.2	Heritage Computing (2012) has proposed the following response to groundwater quality triggering events. If groundwater triggers are exceeded, measured values are to be compared between sites. If the cause of cannot be directly attributed to natural seasonal variations, a groundwater specialist is to be engaged to determine the reason for the exceedance, and advise on corrective action.	Comment This requires that sites are operating in and measuring the same aquifer.					
Groundwater levels								
Water Management Strategy - March 2013	6.3.2	Site specific groundwater trigger levels for groundwater levels are set out in the respective water management plans for each operation.	Noted					
Water Management Strategy - March 2013	6.3.2	In the event that trigger levels are exceeded, preventative actions will be identified, communicated and agreed on with proponents of the BTM complex. Actions will likely occur in the following sequence: - Compare water levels to control site to determine if the cause cannot be directly attributed to natural seasonal variations,	Noted					
Water Management Strategy - March 2013	6.3.2	- Engage the services of a groundwater specialist to ascertain cause for the decline in water level,	Noted					
Water Management Strategy - March 2013	6.3.2	- If deemed that activities of the BTM complex are contributing to the decline in water level, potential impacts on groundwater dependent ecosystems are to be assessed in accordance with the BTM Complex biodiversity strategy, and appropriate groundwater management responses developed in consultation with NOW,	Noted					
Water Management Strategy - March 2013	6.3.2	- An action plan to reduce the impact will be developed in consultation with NOW, with additional monitoring implemented as necessary.	Noted					
Water Management Strategy - March 2013	6.3.2	- Reporting of incidents and responses will form part of the Annual Environmental Management Report.	Noted					

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Water Management Strategy - March 2013	6.3.2	In addition: - If groundwater take or volumetric impacts not accounted for within the long-term average extraction limit of the applicable Groundwater Sharing Plan, then: - The relevant mine should report status to BTM Complex, and the overall precinct status should be determined. - NOW should be consulted to determine the need to offset volumetric impacts, and mechanisms for such. - An assessment of market opportunities within the applicable groundwater source should be undertaken	Noted					
Water Management Strategy - March 2013	6.3.2	If there is a complaint regarding groundwater stock and domestic or irrigation supply impacts: - It should be reported to the BTM Complex. - The complaint should be investigated both technically, and with landholder/s. - If impacts are verified, landholders should be compensated, consistent with an agreed BTM Complex landholder compensation 4 policy and strategy.	Noted					
7 Modelling								
7.1 Existing models								
7.1.1 Surface water								
Water Management Strategy - March 2013	7.1.1	Hydrological analysis for MCC was carried out using the Rational Method (WRM, 2011). The method was used to estimate the 100 year ARI design flood discharges in Back Creek along the reach adjacent to the proposed northern overburden area. The estimated flows were then input into a HECRAS model to determine the extent of flooding along Back Creek and to quantify potential impacts of the Project on flood levels and behaviour. The results of the modelling indicate that the proposed limit of disturbance is outside of the 100 year ARI flood extent, and therefore no adverse impact to flood levels or behaviour from the Project is expected for flood events up to the 100 year ARI.	Noted					
7.2 Cumulative modelling objectives								
Water Management Strategy - March 2013	7.2	The overall goal of modelling is to demonstrate the conceptual understanding of the cumulative behaviour of surface and groundwater resources in the BTM Complex area, and as such: 1. to estimate quantitatively the cumulative impacts from the BTM Complex on groundwater and surface water resources, so as to determine appropriate management responses (e.g. licence acquisition, compensatory measures for affected landholders, structural measures, additional monitoring, etc.)	Noted					
Water Management Strategy - March 2013	7.2	2. to estimate the contribution to impacts by individual mines in order to determine appropriate responsibilities for management responses	Noted					
Water Management Strategy - March 2013	7.2	3. to verify the predicted impacts over the course of mining operations through evaluation of design hydraulic behaviour, mine inflows and groundwater drawdown magnitude/extent, with this information feeding back into the above management responses.	Noted					
7.3 Proposed BTM Complex modelling								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
7.3.1 Surface water								
Water Management Strategy - March 2013	7.3.1	To achieve the objectives set out above, it is proposed that a detailed review of the individual mine surface water models be undertaken to determine if and how cumulative flow behaviour has been incorporated, in terms of flow distribution, timing, depth and velocities throughout the BTM Complex area and downstream. The models should be assessed for their capabilities and limitations with respect to prediction of cumulative surface water impacts as a result of the BTM Complex.	Noted					
Water Management Strategy - March 2013	7.3.1	It is recommended that the review also be used to scope the need for, and practicality and efficacy of, a 'whole of catchment' surface water model (incorporating groundwater baseflows) for the BTM Complex. A whole of catchment model may be used to: <ul style="list-style-type: none"> <li>- predict changes to surface water behaviour from the BTM Complex cumulatively and consistently</li> <li>- more accurately predict required licence volumes</li> <li>- attribute surface water impacts to individual mines and direct mitigation measures</li> <li>- provide a quantitative basis for complaint verification and subsequent management.</li> </ul>	Noted					
7.3.2 Groundwater								
Water Management Strategy - March 2013	7.3.2	The following recommendations of Heritage Computing (2012) in relation to BTM Complex groundwater modelling are adopted for this strategy: <ul style="list-style-type: none"> <li>- The MCC and TCM models be maintained separately, as they give similar predictions for the one metre drawdown extent. Both models are at numerical stability limits, and expanding their functionality might be counteractive.</li> <li>- Each of the BCM, TCM and MCC models undergo regular maintenance and recalibration as additional data on groundwater responses to progressive mining improves the understanding of the groundwater systems.</li> </ul>	Noted					
8 Complaint Management								
Water Management Strategy - March 2013	8	It is recognised that BCM and TCM have their own well developed complaint management systems, including hotlines, and that these will continue to operate independently. MCC will also establish its own protocols. This strategy supports the use of the existing mechanisms, with individual mining operations investigating complaints that are raised with them. If the investigating mine considers the complaint to be potentially related to a cumulative impact, it will: <ul style="list-style-type: none"> <li>- seek comments from other mines on the complaint/issue</li> <li>- refer any draft response to the complaint to other mines for comment</li> <li>- resolve any differences prior to finalising response</li> <li>- log the complaint and its resolution on a cumulative impact response register.</li> </ul>	Noted, covered elsewhere in this audit.					
9 Implementation								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Water Management Strategy - March 2013	9	This strategy is one of a number of cumulative environmental impact management strategies being developed in response to current, and draft mine development approval conditions. As such, the following will be established outside of this strategy and will apply to this and all other cumulative environmental impact management strategies: - governance and communication protocols - data sharing protocols and/or shared databases - reporting procedures, formats and frequencies.	Noted					
9.1 Summary of strategic actions								
Water Management Strategy - March 2013	9.1	Specific groundwater data management recommendations have also been made by Heritage Computing (2012), as follows - Groundwater monitoring data from the three sites should be stored in a central data repository, available for use by each site. The repository should hold data from the regional monitoring network and from the individual mine monitoring networks.	Noted					
Water Management Strategy - March 2013	9.1	- Current site data management is through Excel spreadsheet software rather than database software. While this is workable for a single mine, and easy for mine personnel to maintain and interrogate, there would be an advantage in standardisation of data formats and data management software as part of a cumulative monitoring strategy. Relational database software is recommended for adoption, preferably a system that is tailored to groundwater data and includes automatic quality control procedures and automatic graphics and report production. It should be able to import directly from field equipment formats (e.g. data logger records) and chemical laboratory templates, and should support linkages to common GIS and graphics software packages.	Noted					
10 Document control								
Water Management Strategy - March 2013	10	This BTM Complex Water Management Strategy has been developed with the input of representatives of BCM, TCM, MCC and Parsons Brinckerhoff.	Noted					
Water Management Strategy - March 2013	10	This Strategy, its operation and implementation, will be reviewed and revised at least every two years or: - in response to strategic actions set out in the Plan - to incorporate proposed new or expanded mining operations at an early stage - on an 'as required' basis to incorporate improvements identified by BTM Complex, or - as required by government agencies.	Noted					

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)								
3.0 Biodiversity Offset Strategy								
3.2 Revised Biodiversity Offset Strategy								
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	3.2	In accordance with Condition 45 of Schedule 3 of PA 10_0138, MCC will formally submit a revised Biodiversity Offset Strategy to the NSW Secretary of the DP&E for approval within 30 months of the date Project Approval or within 6 months of the approval of Stage 2 of the Leard Forest Mining Precinct Regional Biodiversity Strategy (whichever is sooner) for endorsement by OEH and subsequent approval by the NSW Secretary of the DP&E.	Most recent revision of BOS and BMP Submitted on 23-04-15.	Compliant				
3.3 Long Term Security of Offset								
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	3.3	The offset areas will be conserved long term by an appropriate mechanism as set out in Condition 54 of Schedule 3 of PA 10_0138 and Condition 13 of the Approval Decision EPBC 2010/5566. In accordance with Condition 54 of Schedule 3 of PA 10_0138, the long-term security shall be provided by way of: <ul style="list-style-type: none"> <li>entering into a conservation agreement or agreements pursuant to section 69B of the National Parks and Wildlife Act 1974, recording the obligations assumed by the Proponent under the conditions of this approval in relation to these offset areas, and registering the agreement(s) pursuant to section 69F of the National Parks and Wildlife Act 1974; or</li> <li>a tenure of higher conservation status such as a National Park, or Nature Reserve, under the National Parks and Wildlife Act 1974.</li> </ul> The conservation agreements must remain in force in perpetuity.	Not in place as yet, extension letter sighted	Compliant				
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	3.3	Condition 13 of the Approval Decision EPBC 2010/5566 requires legally binding covenant(s) to be registered by 11 February 2018. Condition 54 of Schedule 3 of PA 10_0138 requires the conservation agreements to be registered by December 2014 for the approved offset strategy, unless agreed otherwise by the NSW Secretary of the DP&E after consultation with OEH. The conservation agreements over the additional offset areas identified in a revised and approved Biodiversity Offset Strategy (in accordance with Condition 45 of PA 10_0138) will be registered within 12 months of the approval of Stage 2 of the Leard Forest Mining Precinct Regional Biodiversity Strategy, unless otherwise agreed by the NSW Secretary of the DP&E.	Noted					
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	3.3	In accordance with Condition 54 of Schedule 3 of PA 10_0138, the by the end of December 2034, unless otherwise agreed by the NSW Secretary of the DP&E, appropriate long-term security will be provided for the (mine) Rehabilitation Area.	Not yet in place, timing not exceeded,	Not Triggered				
3.4 Agricultural Production within Offset Areas								
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	3.4	The management of grazing livestock within the various domains will be subject to an Agricultural Suitability Assessment of the offset areas. An Agricultural Suitability Assessment will be undertaken by April 2015 in accordance with Condition 46 of Schedule 3 of PA 10_0138. The BMP will be revised by the end of April 2015 to include a series of maps showing the final management domains.	This has been conducted and was provided in draft in March 2015. To be finalised	Compliant				
3.5 Conservation Bond								
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	3.5	In compliance with Condition 55 of Schedule 3 of PA 10_0138, a Conservation and Biodiversity Bond will be lodged with the DP&E to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the BMP. MCC will lodge the Conservation and Biodiversity Bond by 23 October 2015, or within 6 months of the approval of the revised Biodiversity Management Plan required under Condition 52 of Schedule 3 of PA 10_0138 (whichever is sooner). The sum of the bond shall be determined by calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs).	Not in place yet	Not Triggered				
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	3.5	Once the Conservation and Biodiversity Bond has been calculated and lodged, the BMP will be revised to provide an estimate of the costs of the activities in accordance with Condition 18(g) of the Approval Decision EPBC 2010/5566.	Not in place yet	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
5.0 Management Actions: Project Boundary								
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	5	Note that Condition 7 (Schedule 2) and Condition 47 (Schedule 3) of PA 10_0138 require protection of the vegetated corridor between the Project Boundary and that of Boggabri Coal (see Table 2-2). MCC will manage this area using methods outlined within this section including methods for marking the limits of clearing, feral animal control and weed control. Where feasible, MCC will work cooperatively with the Proponent of the Boggabri Coal Project to co-ordinate activities in this area. The condition of the vegetation within the corridor will also be monitored using methods as described in Section 12.0.	This covered in the EPBC (protected by the approval) and in various reports sighted through the audit. See Cumberland Ecology report for monitoring of the corridor ecology.	Compliant				
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	5	As part of the process of protecting and managing the aquatic habitats in and adjacent to the Project Boundary, MCC will consult with DPI Fisheries prior to the construction of the permanent Namoi water pipeline and pump station as set out in Condition 51, Schedule 3 of PA 10_0138.	Not yet been build or designed	Not Triggered				
5.8 Roles and Responsibilities								
Table 5-1 Summary of Actions and Responsibilities for the Project Boundary								
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	Table 5-1	Marking of limits of clearing Prior to clearing EO/Mining Manager Inspection to be undertaken throughout duration of clearing Documented in LDP form and signed off	Limits marked and ecologists conduct the inspections, see Cumberland Ecology Daily reports	Compliant				
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	Table 5-1	Identification of suitable fauna relocation sites Prior to clearing EO/Mining Manager Documented in LDP form and signed off	Cumberland Ecology Daily reports present relocation data for species.	Compliant				
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	Table 5-1	Pre-clearing and clearing surveys, threatened flora, Prior to clearing and during clearing EC Inspection to be undertaken prior to clearing To be documented in LDP form and signed off. Results to be reported in Annual Review.	2013 AEMR (3.6). Limited construction activities in 2013 reporting period. 2014 AEMR (3.6.1) pre-clearing survey results reported.  Cumberland Ecology Daily Reports sighted	Compliant				
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	Table 5-1	Relocation of felled timber, stags, bushrock, logs, timber containing tree hollows and other habitat features to rehabilitation areas and/or adjacent vegetation Before, during and after clearing Mining Manager/EO To be documented in LDP form and signed off. Results to be reported in Annual Review.	2014 AEMR (3.6.2) reports results of relocation of habitat resources.  Cumberland Ecology Daily reports sighted.	Compliant				
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	Table 5-1	Inductions and Staff Education Ongoing as part of the existing induction procedure or as part of toolbox talks prior to commencement of controls EO/OHS Officer As per usual induction procedure	This information is presented in the induction, interviews of staff who are supervising clearing operations showed a higher level of knowledge than the induction indicating the specialised taring and information provided for high risk control roles on site.	Compliant				
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	Table 5-1	Vehicle Driving Policy and Signage Ongoing or when wildlife crossing areas are identified Mining Manager/EO	Wildlife crossings identified on the access road, none on the site	Compliant				
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	Table 5-1	Access Control As part of existing access protocols Mining Manager/EO	Signage sighted in site inspection and no unauthorised access or evidence of such access noted.	Compliant				
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	Table 5-1	Seed Collection Throughout year; and before and immediately after clearing EO Observations to be made throughout year to check flowering/seeding development of key species. To be documented as part of the Mine Operations Plan reporting.	Seed collection is not done throughout the year yet	Not Compliant	E	3	Low	

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	Table 5-1	Weed control Ongoing over life of mine EO Bi-annually in all Weed Control Zones including rehabilitation areas as part of Monitoring Program Results to be written up and provided to EO. Results to be reported in Annual Review.	2013 AEMR (3.6.2) notes baseline survey. 2014 AEMR (3.6.1) reports weed management measures and species.  Cumberland Ecology Monitoring Report sighted	Compliant				
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	Table 5-1	Feral control Ongoing over life of mine EO Bi-annually as part of Monitoring Program Results to be written up and provided to EO. Results to be reported in Annual Review.	2014 AEMR (3.6.3) notes opportune sightings. 2014 AEMR (3.6.2) reports feral species and opportune sightings.  Cumberland Ecology Monitoring Report sighted	Compliant				
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	Table 5-1	Monitoring Program Ongoing over life of mine EO Annual Biodiversity Monitoring Report	Annual Biodiversity Monitoring Report, Cumberland Ecology.  Post-clearing vegetation report, feral species monitoring reports by Cumberland Ecology and example fauna monitoring reports from AM Consulting sighted, including daily clearing reports	Compliant				
12.0 Management Schedule and Criteria								
12.1 Management Schedule - Offset Areas								
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	12.1	A management schedule for the first year of the BMP is provided in Table 12-1 and a management schedule for following years is provided in Table 12-2. The monitoring programme outlined in Section 13 provides a mechanism for adaptive management of the offset areas. The management schedule will be reviewed as part of the annual review of the BMP (Section 17.2.2).	Noted					

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The conservation agreement(s) must be registered by December 2014 unless agreed otherwise by the NSW Secretary of DP&E after consultation with DEH.	Before December 2014	Section 3.3	-	<b>Grazing Management</b>				An Agricultural Suitability Assessment of the grazing areas within all offset areas has been commenced.	Before April 2015	Section 3.4	-	<b>Revegetation</b>				Identification of revegetation areas have been commenced in all offset areas.	Before May 2015	Sections 7.3, 9.3 and 11.3	Sections 7.3.6, 9.3.6 and 11.3.6	Pre-planting site preparation has been commenced in all revegetation areas.	Before May 2015	Sections 7.3.4, 9.3.4 and 11.3.4	Appendix F	Seed collection and propagation has been commenced.	Before May 2015	Sections 7.3.5, 9.3.5 and 11.3.5	Appendix F	<b>Weed Management</b>				Mapping of major occurrences of Brax Rose, Weeping Willow, Elm and Thistles in the offset properties has been commenced.	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WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)		<p>Progress of ecological restoration and management of the offset properties will be evaluated by comparing data collected from the monitoring sites to data collected from the reference sites and performance criteria. This will provide an indication of its relative condition and progress towards completion criteria.</p> <p>In order to track the progress of restoration efforts over time, and allow for auditing of ecological restoration, interim performance criteria have been developed for domains that require revegetation or rehabilitation. These interim benchmarks will be evaluated at five and ten year increments (Table 12-5).</p>	Noted. Not yet at 5 year increment	Not Triggered																																																																	
13.0 Pilot Monitoring Study																																																																					

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	13	This chapter presents a range of monitoring strategies that will be implemented as a Pilot Monitoring Study to inform the ongoing design and implementation of the final annual monitoring program. The Pilot Monitoring Study will operate for one year, after which the success of these strategies will be evaluated and if required, the Monitoring Program will be reviewed and updated based on the results.	Flora and Fauna Monitoring of the Offset Areas - Spring 2014 and Feral Animal and Weed Monitoring report sighted, both from AMC.	Compliant				
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	13	The results of the Pilot Monitoring Study will be used to prepare an Annual Monitoring Plan that will be implemented for the first ten years of the Project. After this point, the Annual Monitoring Plan will be reviewed and revised as necessary.	The results from the First years monitoring program have been reviewed and an updated Annual Monitoring Plan has been included in the revised BMP submitted to the Department in April 2015 and is currently awaiting approval.	Compliant				
17.0 Revision, Auditing and Reporting								
17.1 Revision of the BMP								
17.1.1 Revision of the BMP to incorporate the Revised Biodiversity Offset Strategy								
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	17.1.1	In accordance with Condition 45 of Schedule 3 of PA 10_0138, a revised Biodiversity Offset Strategy will be prepared and submitted to the NSW Secretary of the DP&E within 30 months of the date of the NSW approval (i.e. by 23 April 2015), or within six months after the completion of Stage 2 of the Leard Forest Mining Precinct Regional Biodiversity Strategy, whichever is sooner. Following endorsement by OEH and approval by the NSW Secretary of the DP&E, the BMP will be revised (if required) to incorporate the revised Biodiversity Offset Strategy.	Done with the new BMP, submitted 23-04-15	Compliant				
17.1.2 Revision of the BMP to incorporate the Leard Forest Mining Precinct Regional Biodiversity Strategy and Implementation Plans for Threatened Species and Communities								
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	17.1.2	The BMP will be revised within 30 months of the date of approval, or within six months after the completion of Stage 2 of the Leard Forest Mining Precinct Regional Biodiversity Strategy, whichever is sooner, to address the requirements of Condition 53 of Schedule 3 of PA 10_0138. The revision of the BMP at this time will demonstrate consistency with the findings of the Leard Forest Mining Precinct Regional Biodiversity Strategy. The revised BMP will also incorporate the results of the investigations required under Conditions 48 and 50 of Schedule 3 of PA 10_0138 and threatened species/Box Gum Woodland EEC implementation plans arising from these investigations.	The Leard Forest Strategy is not yet approved so this is not yet required	Not Triggered				
17.1.3 Revision of the BMP to incorporate the Agricultural Suitability Assessment of the Offset Properties								
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	17.1.3	The BMP will be revised to incorporate an Agricultural Suitability Assessment of the Offset Properties as required under Condition 46 of Schedule 3 of PA10_0138 (see Section 3.4).	Completed in March 2015, has been incorporated in the revised BMP submitted to DP&E 23/4/15, BMP not yet updated. BMP to be updated when the ASA is finalised	Not Triggered				
17.1.4 Other Triggers for Revisions to the BMP								
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	17.1.4	The BMP may be reviewed and revised as a result of the compilation of the Annual Review to improve environmental performance as per Condition 5 in Schedule 5 of PA 10_0138 (Section 17.2.1). In accordance with Condition 37 of the Approval Decision EPBC 2010/5566, If the Commonwealth Minister believes that it is necessary or convenient for the better protection of listed threatened species and communities or listed migratory species to do so, the Minister may request MCC to make specified revisions to the BMP and submit the revised plan for the Minister's written approval. Further, under Condition 4 in Schedule 2 of PA 10_0138, MCC must comply with reasonable requirements of the Secretary of DP&E in respect of DP&E's assessment of the BMP or the implementation of actions or measures under the BMP, including any reasonable request to amend the BMP. Under Condition 16 in Schedule 2 of PA 10_0138, MCC may progressively submit a BMP with the approval of the Secretary of the DP&E.	No requests from either Minister to date. The annual review has not yet triggered a revision	Not Triggered				
17.2 Reporting and Auditing								
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	17.2	The BMP will be published on the MCC website. Any revisions to the BMP will be published on the MCC website within one month of being approved. The following reporting and auditing protocols will take place to assess the quality and compliance of the management of the offset properties.	Current version of the BMP is available on the website (last updated 20/10/2014).	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
<b>17.2.1 Maules Creek Project Annual Review</b>								
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	17.2.1	An Annual Review will be submitted each year under Condition 4, Schedule 5 of PA 10_0138, which outlines the environmental performance of the Project over the preceding year.	2013 AEMR (published 18/03/2014) and 2014 AEMR (version 1 30/03/2015) were developed.	Compliant				
<b>17.2.2 Biodiversity Management Plan Annual Report</b>								
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	17.2.2	Annual reporting on the BMP will be prepared and a summary report submitted as part of the Annual Review. The BMP Annual Report will assess the performance of the BMP against the performance criteria, and identify any measures that should be implemented to improve the performance of these actions.	Performance against BMP reported in the 2014 AEMR The results from the First years monitoring program have been reviewed and an updated Annual Monitoring Plan has been included in the revised BMP submitted to the Department in April 2015 and is currently awaiting approval.	Compliant				
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	17.2.2	Subsequently, in order to document the results of the Monitoring Program and the implementation of this BMP, the BMP Annual Report will be prepared. The BMP Annual Report will be created following the completion of annual monitoring and will provide the results of the year's surveys, and compare them to previous years. Additionally, recommendations will be made which will feed into the management of each area during the coming year. This report will describe the works undertaken, present the findings of the monitoring activities, discuss any problems encountered in implementing the BMP, and will recommend any adaptations or additions to the BMP.						
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	17.2.2	The BMP Annual Report will be submitted to OEH and DotE.						
<b>17.2.3 Commonwealth Approval Compliance Reports</b>								
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	17.2.3	A report pertaining to the annual compliance with Approval Decision EPBC 2010/5566 will be published on the MCC website by the end of March each year after the commencement of the Project in accordance with Condition 34 of the Approval Decision EPBC 2010/5566. Non-compliance with any of the conditions will be reported to DotE at the same time as the compliance report is published.	EPBC Compliance Audit for 2013 (28/03/2014) and EPBC Compliance Report 2014 (30/03/2015). No non-compliances in reports.	Compliant				
<b>17.2.4 Recording Survey Data and Other Information</b>								
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	17.2.4	In accordance with Condition 31 of the Approval Decision EPBC 2010/5566, survey data will be recorded so as to conform to data standards notified from time to time by DotE. When requested by the DotE, MCC will provide all species and ecological survey data and related survey information from ecological surveys undertaken for MNEs. This survey data will be provided within 30 business days of request, or in a timeframe agreed to by DotE in writing.	No request received	Not Triggered				
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	17.2.4	In accordance with Condition 39 of the Approval Decision EPBC 2010/5566, MCC will maintain accurate records substantiating all activities and outcomes associated with or relevant to Approval Decision EPBC 2010/5566, including measures taken to implement BMP, and make them available upon request to the DotE.	In reports and digital layers in GIS	Compliant				
<b>17.3 Independent Audits</b>								
<b>17.3.1 Commonwealth</b>								
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	17.3.1	In accordance with Condition 35 of the Approval Decision EPBC 2010/5566, upon the direction of the Commonwealth Minister, MCC will ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the Commonwealth Minister. The independent auditor will be approved by the Commonwealth Minister prior to the commencement of the audit. Audit criteria will be agreed to by the Commonwealth Minister and the audit report will address the criteria to the satisfaction of the Commonwealth Minister.	No request off an audit to date	Not Triggered				
<b>17.3.2 NSW</b>								
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	17.3.2	i. Independent Environmental Audit By the end of June 2015, and every three years after, an Independent Environmental Audit will be conducted in accordance with Condition 10, Schedule 5 of PA 10_0138. This Environmental Audit will be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the NSW Secretary of the DP&E. The Independent Environmental Audit will assess the environmental performance of the Project and the Project's compliance to the conditions of PA 10_0138.	This Audit	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
WHC_PLN_MC_BIODIVERSITY MANAGEMENT PLAN (Issue 2 Last Revision Date 20 Oct 14)	17.3.2	<p>ii. Biodiversity Audit</p> <p>In accordance with Condition 56, Schedule 3 of PA 10_0138, by the end of December 2017 and then every five years MCC will commission suitably qualified, experienced and independent person/s, whose appointment has been approved by the NSW Secretary of the DP&amp;E, to undertake an audit of the revegetation of the rehabilitation area, management and restoration within the Biodiversity Offset Strategy areas.</p> <p>This independent audit is additional to the above auditing procedure (Section 17.3.2) and intended to specifically address the management, restoration and rehabilitation of biodiversity in the Offset Properties and the rehabilitation areas of the Project Boundary.</p>	Not yet required	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MAULES CREEK MINE WHITE-BOX YELLOW-BOX BLAKELY'S RED-GUM WOODLAND ENDANGERED ECOLOGICAL COMMUNITY IMPLEMENTATION PLAN (January 2015)								
4 Implementation Plan								
Table 3 Implementation Plan for Re-establishing Box-Gum Woodland in the Mine Rehabilitation Phase								
	Table 3	Actions for Implementing the Rehabilitation Strategy in the RMP						
	Table 3	Planning						
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	1. The RMP will define the objectives for the Box-Gum Woodland EEC.	See completion criteria in MOP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	2. The RMP will discuss an adaptive management framework and monitoring programme for the management of the Box-Gum Woodland EEC.	See completion criteria in MOP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	3. The RMP will include monitoring of landscape function.	LFA is included in the monitoring program	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	4. The RMP will describe roles for suitability qualified personnel (e.g. restoration ecologist to provide direction about the rehabilitation and restoration of the Box-Gum Woodland EEC).	Sect 13.2 of the MOP	Compliant				
	Table 3	Landform Design						
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	5. The RMP will describe how the batter slopes have been designed to minimise instability of the final landform.	Slopes of a maximum of 10° are noted	Compliant				
	Table 3	Soil Stripping and Handling						
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	6. The RMP will provide for soil surveys and inventories to be undertaken prior to soil stripping (consistent with Condition 27[c] of the Approval Decision EPBC 2010/5566 and condition 39 Schedule 3 of Project Approval 10_0138).	Soil Management Protocol in AppG of MOP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	7. The RMP will provide for selective identification and placement (burial) of potentially acid forming interburden materials (consistent with Condition 39[c] Schedule 3 of Project Approval 10_0138).	Yes these details are included in the MOP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	8. The RMP will provide for selective identification and placement (burial) of soils unsuitable for use as a growth media.	Soil Management Protocol in AppG of MOP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	9. The RMP will provide soil handling processes for removal, storage and re-layering of topsoil and subsoil (consistent with Condition 27[d] of the Approval Decision EPBC 2010/5566). This will specifically detail the stripping of topsoil likely to contain seeds.	Soil Management Protocol in AppG of MOP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	10. The RMP will provide for annual soil balances to be undertaken to facilitate management of soil handling (consistent with Condition 39 Schedule 3 of Project Approval 10_0138).	Soil balances are maintained continually satisfying the requirement, the MOP mentions annual balances in the Soil Management Protocol	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	11. The RMP will provide options for minimising the risk of erosion including treatment of dispersive soils and spoils, as well as use of structural erosion controls (e.g. channel banks, slope drains and energy dissipaters).	This is addressed	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	12. The RMP will describe minimum topsoil and subsoil depths for revegetation (consistent with Condition 26[b] of the Approval Decision EPBC 2010/5566).	Soil Management Protocol in AppG of MOP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	13. The RMP will describe the incorporation of vegetative material (cleared at the mine site) into the soil used for rehabilitation or as mulch.	This occurs sighted on site and in the Soil Management Protocol	Compliant				
	Table 3	Soil Testing						

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	14. The RMP will provide parameters for the physical and chemical characteristics of topsoils and overburden based on likely suitable characteristics for establishment of Box-Gum Woodland.	Interview confirmed this is the intent, however the RMP did not include the specific parameters for the BGWoodland The EEC Implementation Plan was approved in January 2015. The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan. The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval. As such these requirements have not been triggered.	Not Triggered				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	15. The RMP will provide for soil testing to be undertaken on topsoil and overburden to identify issues with physical and chemical characteristics as well as determine amelioration requirements and rates.	This is proscribed in the Soil Management Protocol	Compliant				
	Table 3	Soil Amelioration						
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	16. The RMP will describe options for ameliorating soils to improve the suitability of the soils as a growth media (e.g. amelioration with agricultural gypsum, compost (i.e. mulch saved during clearing activities) or native plant fertilisers depending on the nutrient deficiency).	This is included	Compliant				
	Table 3	Surface Preparation						
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	17. The RMP will describe site preparation (e.g. ripping or use of spike rollers) to reduce soil compaction impacting the success of the revegetation.	This is included S2.9 Soil Protocol	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	18. The RMP will consider the use of benign (hard rock) mulch to stabilise batter surfaces that has been sourced onsite (i.e. salvaged from clearing areas or from waste material).	This is proscribed in drainage channels but not on open slopes.	Compliant				
	Table 3	Research Trials						
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	19. The RMP will describe research that will aim to identify effective methodologies for achieving rehabilitation and revegetation of Box-Gum Woodland on the mine rehabilitation (consistent with Condition 15 of the Approval Decision	MOP S 9	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	20. The RMP will provide for soil seed bank germination testing to be undertaken on topsoil stockpiles.	This is included but not conducted to date	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	21. The RMP will provide for rehabilitation trials (focusing on rehabilitation and revegetation of Box-Gum Woodland) to be undertaken on different rehabilitation substrates.	Rehabilitation trials are described, not yet undertaken as there are no suitable areas to rehabilitate	Compliant				
	Table 3	Seed and Tube Stock Supply						

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	22. The RMP will describe procedures for strategic and long term seed collection, management (including pre-treatment) and storage following the relevant Florabank guidelines. The RMP will describe procedures for sowing seed (e.g. appropriate sowing depths).	Interview confirmed this is the intent, however the RMP did not include the specific parameters for the BGWoodland The EEC Implementation Plan was approved in January 2015. The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan. The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval. As such these requirements have not been triggered.	Not Triggered				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	23. The RMP will describe a seed and tube stock supply strategy including calculation of the amount and species of seed and tube stock required each year and how the seed and tube stock will be sourced and managed to meet the demand.	Interview confirmed this is the intent, however the RMP did not include the specific parameters for the BGWoodland The EEC Implementation Plan was approved in January 2015. The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan. The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval. As such these requirements have not been triggered.	Not Triggered				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	24. The RMP will provide for the preferential use of local endemic (adapted) species, however consideration would be given to the use of a high quality seed source further from the site over a low quality more local seed source.	Noted					
	Table 3	Revegetation						

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	25. The RMP will provide for establishing vegetation cover as soon as practicable following disturbance to minimise the potential for erosion and weeds. This will involve the application of a temporary sterile cover crop (or native grasses) using species that are not likely to impede revegetation of the Box-Gum Woodland.	There are no plans to rehab any areas in the term of the MOP (2years). Topsoil stockpiles are vegetated, inspected on-site	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	26. The RMP will provide options for remediating erosion including adjust seed and planting densities to maximise ground cover.	pg 38 of MOP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	27. The RMP will describe that vehicle access will be predominantly restricted to designated tracks on mine landforms that have been revegetated to minimise ground disturbance (e.g. compaction).	pg 38 MOP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	28. The RMP will provide for selective use of slow-release native plant fertiliser to promote plant growth (if required).	The RMP does not mention the use of slow release native fertilisers	Not Triggered				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	29. The RMP will describe a contingency for supplementary seeding/tube stock planting if the regeneration from the soil seed bank is not sufficient.	Not included - MOP is a 2 year MOP and no rehabilitation planting is planned in the first 2 years.	Not Triggered				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	30. The RMP will provide application rates for seeds as well as planting densities for tube stock to avoid excessive shading.	Not included - MOP is a 2 year MOP and no rehabilitation planting is planned in the first 2 years.	Not Triggered				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	31. The RMP will provide measures to improve understorey diversity (e.g. replanting, causing disturbance through fire or grazing).	The BMP (p. 51) identifies brush harvesting.	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	32. The RMP will describe that revegetation at the mine would not be cleared (unless for ecological thinning, maintenance or access for monitoring).	Interview confirmed this is the intent, however the RMP did not include the specific parameters for the BGWoodland The EEC Implementation Plan was approved in January 2015. The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan. The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval. As such these requirements have not been triggered.	Not Triggered				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	33. The RMP will include provision to assess vegetation density and undertake ecological thinning (e.g. through selective clearance or fire) if necessary.	Appendix E of BMP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	34. The RMP include sowing of Kangaroo Grass (as this species is known to out-compete annual grass weeds and provide inter tussock spaces for a diversity of ground cover species [eg. wildflowers]).	Appendix F of the BMP	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	35. The RMP will describe that seed and tube stock used in revegetation will include a variety of grasses, low shrubs, midsized shrubs and tall trees to create structurally diverse habitat.	Appendix F of the BMP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	36. The RMP will provide an option for using tree guards to protect young seedlings from browsing or grazing native animals.	P. 37 of the MOP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	37. The RMP will describe how livestock will be excluded from areas undergoing active revegetation (i.e. planting or seeding).	BMP identifies riparian and habitat management domains for livestock exclusion (7.2.3 of BMP)	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	38. The RMP will describe how the growth and survival of the vegetation sown or planted will be monitored.	9.1 of MOP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	39. The RMP will aim to include a wide diversity of species in the seed mix.	Table 16 of MOP identifies diversity should reflect analogue sites	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	40. The RMP will include hygiene protocols to minimise the risk of plant diseases (i.e. restricting site access).	<p>Interview confirmed this is the intent, however the RMP did not include the specific parameters for the BGWoodland The EEC Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	41. The RMP will include provision to review the need for kangaroo control measures.	<p>Interview confirmed this is the intent, however the RMP did not include the specific parameters for the BGWoodland The EEC Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered	D	2	Medium	
	Table 3	Habitat Features						
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	42. The RMP will describe procedures to reuse bush rocks salvaged during vegetation clearance (consistent with Condition 39[b] Schedule 3 of Project Approval 10_0138).	p. 35 of the MOP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	43. The RMP will describe procedures to reuse timber/hollow logs salvaged during vegetation clearance (consistent with Condition 39[b] Schedule 3 of Project Approval 10_0138), including: - placement of hollow limbs or artificial hollows in select trees without hollows; and - use of artificial stag trees on the mine rehabilitation	<p>Interview confirmed this is the intent, however the RMP did not include the specific parameters for the BGWoodland The EEC Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered				
	Table 3	Feral Animal Management						

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	44. The RMP will describe procedures to prevent, monitor and control feral animals (including feral pigs, goats, rabbits and foxes).	p. 37 of the MOP lists measures. 5.6.3 in BMP	Compliant				
	Table 3	Weed Management						
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	45. The RMP will provide methods for the use of herbicides (minimised through spot-spraying, basal spraying, stem injection or cut and paint application methods).	5.5.3 of the BMP.	Compliant				
	Table 3	Fire Management						
MCCM Box-Gum Woodland EEC Implementation Plan	Table 3	46. The RMP will describe measures to prevent fires such as maintaining fire breaks and access (i.e. no controlled burns would be undertaken on the mine rehabilitation whilst vegetation is establishing).	p. 41 of MOP states managed in accordance with Rural Fires Act and Bushfire MP. Also 5.57. 1of BMP	Compliant				
Table 4 Implementation Plan for the Box-Gum Woodland in the Offset Areas								
	Table 4	Actions for Implementing the Biodiversity Offset Strategy in the BMP	3	Compliant				
	Table 4	Planning						
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	1. The BMP will define the objectives for the Box-Gum Woodland EEC.	1.3 of BMP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	2. The BMP will discuss an adaptive management framework and monitoring programme for the management of the Box-Gum Woodland EEC.	13. of the BMP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	3. The BMP will include a visual inspection of each mapped vegetation management unit in each offset area to identify constraints and requirements for specific management measures.	Interview confirmed this is the intent, however the RMP did not include the specific parameters for the BGWoodland The EEC Implementation Plan was approved in January 2015. The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan. The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval. As such these requirements have not been triggered.	Not Triggered				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	4. The BMP will describe targeted revegetation along drainage lines and scalded areas to minimise risk of erosion.	7.3 of BMP	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	5. The BMP will aim to maximise the re-use of existing infrastructure (e.g. access roads) instead of creating new infrastructure.	<p>Interview confirmed this is the intent, however the RMP did not include the specific parameters for the BGWoodland</p> <p>The EEC Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	6. The BMP will aim to locate new offset area management infrastructure (e.g. access roads) preferentially in cleared land.	<p>Interview confirmed this is the intent, however the RMP did not include the specific parameters for the BGWoodland</p> <p>The EEC Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	7. The BMP will aim to locate new offset area management infrastructure (e.g. access roads) in stable locations.	<p>Interview confirmed this is the intent, however the RMP did not include the specific parameters for the BGWoodland The EEC Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	8. The BMP will describe provision of fencing and signage around the perimeter of the offset areas to manage livestock and avoid accidental clearance.	5.1 discusses marking clearing limits in BMP. Riparian and Habitat Management areas to be fenced to exclude livestock (7.2.3).	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	9. The BMP will describe roles for suitability qualified personnel (e.g. restoration ecologist to provide direction about the rehabilitation and restoration of the Box-Gum Woodland EEC).	5.1.3, 5.1.6, 5.5.3 outline ecologist roles. 15.0 in BMP.	Compliant				
	Table 4	Soil Testing and Nutrient Management						

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	10. The BMP will provide for soil testing to be undertaken on soils in revegetation areas to identify issues with physical and chemical characteristics as well as determine amelioration requirements and rates.	<p>Interview confirmed this is the intent, however the RMP did not include the specific parameters for the BGWoodland The EEC Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	11. The BMP will describe the following nutrient reduction options and the relevant situations where they would be applied: - crash grazing periodically to remove nutrients locked in weeds; - restriction of livestock access to limit further nutrient enrichment; and - controlled burns.	11.2.2, 7.2.2, 9.2.2 (crash grazing). 7.2.3, 9.2.3, 11.2.3 (livestock restriction). 7.2.6, 9.2.6, 11.2.6 (mosaic burning)	Compliant				
	Table 4	Surface Preparation						

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	12. The BMP will describe site preparation in cleared land (e.g. ripping or use of spiked rollers) and (where relevant) in derived grassland (e.g. use of spiked rollers) to reduce soil compaction impacting the success of the revegetation.	Interview confirmed this is the intent, however the RMP did not include the specific parameters for the BGWoodland The EEC Implementation Plan was approved in January 2015. The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan. The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval. As such these requirements have not been triggered.	Not Triggered				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	13. The BMP will restrict the use of revegetation techniques that involve high level of physical disturbance in existing BoxGum Woodland and derived grasslands.	7.3.1, 9.3.1, 11.3.1 of BMP	Compliant				
	Table 4	Revegetation, Seeds and Tube Stock						
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	14. The BMP will describe a seed and tube stock supply strategy including calculation of the amount and species of seed and tube stock required each year and how the seed and tube stock will be sourced and managed to meet the demand.	Appendix F of the BMP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	15. The BMP will describe procedures for strategic and long term seed collection, management (including pre-treatment) and storage following the relevant Florabank guidelines. The BMP will describe procedures for sowing seed (e.g. appropriate sowing depths).	Appendix F of the BMP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	16. The BMP will favour natural regeneration in the derived grasslands and woodland areas over seeding or planting in the first instance followed by seeding or planting if required.	7.2.1, 9.2.1, 11.2.1	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	17. The RMP will provide for the preferential use of local endemic (adapted) species, however consideration would be given to the use of a high quality seed source further from the site over a low quality more local seed source.	Appendix F of the BMP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	18. The BMP will provide application rates for seeds as well as planting densities for tube stock to avoid excessive shading.	Not included - MOP is a 2 year MOP and no rehabilitationplanting is planned in the first 2 years.	Not Triggered				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	19. The BMP will focus on increasing woodland patch size within the offset area and aim to enhance ecological connectivity.	9.1	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	20. The BMP will describe that seed and tube stock used in revegetation will include a variety of grasses, low shrubs, midsized shrubs and tall trees to create structurally diverse habitat.	Appendix F of the BMP	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	21. The BMP include sowing of Kangaroo Grass (as this species is known to out-compete annual grass weeds and provide inter tussock spaces for a diversity of ground cover species [eg. wildflowers]).	Appendix F of the BMP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	22. The BMP will aim to include a wide diversity of species in the seed mix.	9.3.3	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	23. The BMP will include provision to review the need for kangaroo control measures.	Interview confirmed this is the intent, however the RMP did not include the specific parameters for the BGWoodland The EEC Implementation Plan was approved in January 2015. The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan. The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval. As such these requirements have not been triggered.	Not Triggered				
	Table 4	Maintenance						
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	24. The BMP will include provision to assess vegetation density and undertake ecological thinning (e.g. through selective clearance or fire) if necessary.	Appendix E of BMP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	25. The BMP will provide measures to improve understorey diversity (e.g. replanting, causing disturbance through fire or grazing).	The BMP (p. 51) identifies brush harvesting.	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	26. The BMP will provide for selective use of slow-release native plant fertiliser to promote plant growth (if required).	Not included - MOP is a 2 year MOP and no rehabilitation planting is planned in the first	Not Triggered				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	27. The RMP and BMP will provide an option for using tree guards to protect young seedlings from browsing or grazing native animals.	Appendix G of BMP. p. 37 of MOP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	28. The BMP will describe how the growth and survival of the vegetation sown or planted will be monitored.	7.3.7, 9.3.7, 11.3.7 of BMP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	29. The BMP will include hygiene protocols to minimise the risk of plant diseases (i.e. restricting site access).	Table 14-1 in BMP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	30. The BMP will describe a restriction of clearing (unless for ecological thinning, maintenance or access for monitoring).	Table 14-1 in BMP	Compliant				
	Table 4	Habitat Features						
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	31. The BMP will describe procedures to reuse bush rocks salvaged during vegetation clearance (consistent with Condition 39[b] Schedule 3 of Project Approval 10_0138).	5.1.6	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	32. The BMP will describe procedures to reuse timber/hollow logs salvaged during vegetation clearance (consistent with Condition 39[b] Schedule 3 of Project Approval 10_0138), including placement of hollow limbs or artificial hollows in select trees without hollows.	5.1.6	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	33. The BMP will not permit firewood collection.	Interview confirmed this is the intent, however the RMP did not include the specific parameters for the BGWoodland The EEC Implementation Plan was approved in January 2015. The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan. The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval. As such these requirements have not been triggered.	Not Triggered				
	Table 4	Grazing Management						
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	34. The BMP will describe restriction of livestock access to erosion prone areas (e.g. along watercourses).	BMP only identifies riparian and habitat management domains for livestock exclusion (7.2.3)	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	35. The BMP will describe how livestock will be excluded from areas undergoing active revegetation (i.e. planting or seeding).	BMP only identifies riparian and habitat management domains for livestock exclusion (7.2.3)	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	36. The BMP will describe restriction of livestock access to areas not already subject to grazing.	BMP only identifies riparian and habitat management domains for livestock exclusion (7.2.3)	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	37. The BMP will describe management of livestock to maintain ground cover and diversity of native plants.	7.2, 9.2, 11.2	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	38. The BMP will describe restriction of livestock access to protect plants that are known to be sensitive to grazing.	BMP only identifies riparian and habitat management domains for livestock exclusion (7.2.3)	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	39. The BMP will include provision to lightly graze derived grasslands in times of suitable climatic conditions for weed growth (e.g. autumn and/or winter) to reduce vigour of annual grass weeds.	7.2, 9.2, 11.2	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	40. The BMP will provide a mechanism to reduce livestock grazing during drought periods.	Table 14-1 in BMP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	41. The BMP will describe the following controlled grazing management options and the relevant situations where they would be applied: - Rotational grazing system to promote and maintain native plant diversity and cover. - Removal of grazing livestock.	7.2, 9.2, 11.2	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
	Table 4	<b>Weed Management</b>						
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	42. The BMP will provide the following weed management options and the relevant situations where they would be applied: - Crash grazing periodically to reduce annual and perennial grass weeds. - Nutrient management (e.g. exclusion of grazing livestock which add nutrients). - Controlled burns during spring to reduce annual and perennial grass weeds (not broadleaf exotics). - Physical removal (e.g. removing weeds by felling or pulling). - Targeted and timely herbicide application.	7.2/7.4, 9.2/9.4, 11.2/11.4	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	43. The BMP will provide methods for the use of herbicides (minimised through spot-spraying, basal spraying, stem injection or cut and paint application methods).	Appendix H	Compliant				
	Table 4	<b>Feral Animal Management</b>						
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	44. The BMP will describe procedures to prevent, monitor and control feral animals (including feral pigs, goats, rabbits and foxes).	7.5, 9.5, 11.5	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	45. The BMP will provide monitoring of deer and feral cats and control (if required).	7.5.3 states will be incorporated if identified/required.	Compliant				
	Table 4	<b>Fire Management</b>						
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	46. The BMP will describe measures to prevent fires such as maintaining fire breaks and access (i.e. no controlled burns would be undertaken whilst vegetation is establishing).	5.7.1	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	47. The BMP will prescribe any controlled burns in patches of Box-Gum Woodland EEC (existing woodland) to be no less than 5 years and then to occur in spring or autumn burns depending on a range of factors.	States Bushfire MP will prescribe burning plan (7.7.2)	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	48. The BMP will schedule for maintenance of fire breaks and fire trails.	7.7.2, 9.7.2 and 11.7.2	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	49. The BMP will provide a schedule for assessing fuel loads.	7.7.2, 9.7.2, 11.7.2 and 12.	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	50. The BMP will provide an option for using controlled grazing to reduce biomass or controlled burns of derived grasslands.	3.8	Compliant				
	Table 4	<b>General</b>						
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	51. The BMP will describe that vehicle access will be predominantly restricted to designated tracks to minimise ground disturbance (e.g. compaction).	Unable to find reference in BMP	Compliant				
MCCM Box-Gum Woodland EEC Implementation Plan	Table 4	52. The BMP will include a description of the Community Consultative Committee.	Glossary, 2.4	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MAULES CREEK COAL MINE THREATENED FAUNA IMPLEMENTATION PLAN (January 2015)								
4 Implementation Plan								
Table 7 Implementation Plan for Provision of Habitat for Threatened Fauna on Mine Rehabilitation								
	Table 7	Actions for Implementing the Rehabilitation Strategy in the RMP						
	Table 7	Seed and Tube Stock Supply						
MCCM Threatened Fauna Implementation Plan	Table 7	1. The RMP will describe that seed and tube stock used in revegetation will include a variety of grasses, low shrubs, mid-sized shrubs and tall trees to create structurally diverse habitat.	Appendix F of the BMP	Compliant				
	Table 7	Revegetation						
MCCM Threatened Fauna Implementation Plan	Table 7	2. The RMP will provide for establishing vegetation cover as soon as practicable following disturbance to minimise the potential for erosion and weeds. This will involve the application of a temporary sterile cover crop (or native grasses) using species that are not likely to impede revegetation of the Box-Gum Woodland.	There are no plans to rehab any areas in the term of the MOP (2years). Topsoil stockpiles are vegetated	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 7	3. The RMP will describe how livestock will be excluded from areas undergoing active revegetation (i.e. planting or seeding).	BMP only identifies riparian and habitat management domains for livestock exclusion (7.2.3 of BMP)	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 7	4. The RMP will include the planting of a variety of native grasses including tussock grass species.	Appendix F of the BMP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 7	5. The RMP will include the planting of Allocasuarina or Casuarina species.	Not included - MOP is a 2 year MOP and no rehabilitation planting is planned in the first 2 years.	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 7	6. The RMP will include the planting of Acacia species, including both tree and shrub varieties.	Not included	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 7	7. The RMP will include the planting (in appropriate soil landscapes) of a variety of box, ironbark and gum eucalypt species including: - White Box (Eucalyptus albens); - Yellow Box (E. melliodora); - Angophora species; - Apple Box (E. bridgesiana); - Blakely's Red Gum (E. blakelyi); - Red Stringybark (E. macrorhyncha); and - Inland Grey Box (E. microcarpa).	Not included - MOP is a 2 year MOP and no rehabilitation planting is planned in the first 2 years.	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 7	8. The RMP will include the planting of Melaleuca species.	Not included - MOP is a 2 year MOP and no rehabilitation planting is planned in the first 2 years.	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 7	9. The RMP will include the planting of a variety of native shrubs.	References included	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 7	10. The RMP will include the planting of a variety of native herbs.	References included	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 7	11. The RMP will include the planting of a variety of native forbs.	References included	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 7	12. The RMP will provide application rates for seeds as well as planting densities for tube stock.	Not included - MOP is a 2 year MOP and no rehabilitation planting is planned in the first 2 years.	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 7	13. The RMP will aim to include a wide diversity of species in the seed mix.	Included	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 7	14. The RMP will describe how livestock will be excluded from areas undergoing active revegetation (i.e. planting or seeding).	BMP identifies riparian and habitat management domains for livestock exclusion (7.2.3 of BMP)	Compliant				
	Table 7	Habitat Features						

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Threatened Fauna Implementation Plan	Table 7	15. The RMP will describe procedures to reuse of bush rocks salvaged during vegetation clearance (consistent with Condition 39[b] Schedule 3 of Project Approval 10_0138).	p. 35 of the MOP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 7	16. The RMP will describe procedures to reuse of timber/hollow logs salvaged during vegetation clearance (consistent with Condition 39[b] Schedule 3 of Project Approval 10_0138), including placement of hollow limbs or artificial hollows in some select trees without hollows.	<p>The Threatened Fauna Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 7	17. The RMP will describe the incorporation of vegetative material (cleared at the mine site) into the soil used for rehabilitation or as mulch.	This is included	Compliant				
	Table 7	Feral Animal Management						
MCCM Threatened Fauna Implementation Plan	Table 7	18. The RMP will provide methods for the safe use of pesticides.	Not included - MOP is a 2 year MOP and no rehabilitation/planting is planned in the first 2 years.	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 7	19. The RMP will describe procedures to prevent, monitor and control feral animals (including feral pigs, goats, rabbits and foxes).	p. 37 of the MOP only lists measures. 5.6.3 in BMP	Compliant				
	Table 7	Weed Management						
MCCM Threatened Fauna Implementation Plan	Table 7	20. The RMP will describe procedures to prevent, monitor and control weeds. The RMP will also describe relevant targets and performance indicators for weed management (consistent with Condition 27[a] of the Approval Decision EPBC 2010/5566).	This information is included	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 7	21. The RMP will provide methods for the use of herbicides (minimised through spot-spraying, basal spraying, stem injection or cut and paint application methods).	5.5.3 of the BMP.	Compliant				
	Table 7	Fire Management						
MCCM Threatened Fauna Implementation Plan	Table 7	22. The RMP will describe measures to prevent fires, such as maintaining fire breaks and access (i.e. no controlled burns would be undertaken on the mine rehabilitation whilst vegetation is establishing).	p. 41 of MOP states managed in accordance with Rural Fires Act and Bushfire MP. Also 5.57. 1of BMP	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Table 8 Implementation Plan for the Provision of Habitat for Threatened Fauna in the Offset Areas								
	Table 8	Actions for Implementing the Biodiversity Offset Strategy in the BMP Revegetation , Seeds and Tube Stock						
MCCM Threatened Fauna Implementation Plan	Table 8	1. The BMP will describe that seed and tube stock used in revegetation will include a variety of grasses, low shrubs, midsized shrubs and tall trees to create structurally diverse habitat.	Appendix F of the BMP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 8	2. The BMP will aim to include a wide diversity of species in the seed mix.	9.3.3	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 8	3. The BMP will include the planting of Allocasuarina or Casuarina species.	Seed collection and propogation measures included	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 8	4. The BMP will include the planting of Acacia species, including both tree and shrub varieties.	Seed collection and propogation measures included	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 8	5. The BMP will include the planting of a variety of box, ironbark and gum eucalypt species including: - White Box (Eucalyptus albens); - Yellow Box (E. melliodora); - Angophora species; - Apple Box (E. bridgesiana); - River Red Gum (E. camaldulensis); - Blakely's Red Gum (E. blakelyi); - Red Stringybark (E. macrorrhyncha); and - Inland Grey Box (E. microcarpa).	Included	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 8	6. The BMP will include the planting of Melaleuca species.	Included	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 8	7. The BMP will include the planting of a variety of native shrubs.	Included	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 8	8. The BMP will include the planting of a variety of native grasses, including tussock grass species.	Included	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 8	9. The BMP will include the planting of a variety of native herbs.	Included	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 8	10. The BMP will include the planting of a variety of native forbs.	Included	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 8	11. The BMP will focus on increasing woodland patch size within the offset area and aim to enhance ecological connectivity.	9.1	Compliant				
	Table 8	Habitat Features						
MCCM Threatened Fauna Implementation Plan	Table 8	12. The BMP will describe procedures to reuse of bush rocks salvaged during vegetation clearance (consistent with Condition 39[b] Schedule 3 of Project Approval 10_0138).	5.1.6	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 8	13. The BMP will describe procedures to reuse of timber/hollow logs salvaged during vegetation clearance (consistent with Condition 39[b] Schedule 3 of Project Approval 10_0138), including placement of hollow limbs or artificial hollows in some select trees without hollows.	5.1.6	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Threatened Fauna Implementation Plan	Table 8	14. The BMP will not permit firewood collection.	<p>The Threatened Fauna Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered				
	Table 8	Grazing Management						
MCCM Threatened Fauna Implementation Plan	Table 8	15. The BMP will describe how livestock will be excluded from areas undergoing active revegetation (i.e. planting or seeding).	BMP only identifies riparian and habitat management domains for livestock exclusion (7.2.3)	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 8	16. The BMP will describe management of livestock to maintain ground cover and diversity of native plants.	7.2, 9.2, 11.2	Compliant				
	Table 8	Weed Management						
MCCM Threatened Fauna Implementation Plan	Table 8	17. The BMP will provide methods for the use of herbicides (minimised through spot-spraying, basal spraying, stem injection or cut and paint application methods).	Appendix H	Compliant				
	Table 8	Feral Animal Management						
MCCM Threatened Fauna Implementation Plan	Table 8	18. The BMP will provide methods for the safe use of pesticide.	Not included - MOP is a 2 year MOP and no rehabilitation planting is planned in the first 2 years.	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 8	19. The BMP will describe procedures to prevent, monitor and control feral animals (including feral pigs, goats, rabbits and foxes).	7.5, 9.5, 11.5	Compliant				
	Table 8	Fire Management						
MCCM Threatened Fauna Implementation Plan	Table 8	20. The BMP will describe measures to prevent fires, such as maintaining fire breaks and access (i.e. no controlled burns would be undertaken whilst vegetation is establishing).	5.7.1	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 8	21. The BMP will prescribe any controlled burns in patches of Box-Gum Woodland EEC (existing woodland or derived grasslands) to be no less than 5 years and then to occur in spring or autumn burns depending on a range of factors (except in revegetation areas).	States Bushire MP will prescribe burning plan (7.7.2)	Compliant				
Table 9 Implementation Plan for Re-establishing Box-Gum Woodland in the Mine Rehabilitation Phase								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
	Table 9	Actions for Implementing the Rehabilitation Strategy in the RMP						
	Table 9	Planning						
MCCM Threatened Fauna Implementation Plan	Table 9	1. The RMP will define the objectives for the Box-Gum Woodland EEC.	See completion criteria in MOP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	2. The RMP will discuss an adaptive management framework and monitoring programme for the management of the Box-Gum Woodland EEC.	See completion criteria in MOP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	3. The RMP will include monitoring of landscape function.	LFA is included in the monitoring program	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	4. The RMP will describe roles for suitability qualified personnel (e.g. restoration ecologist to provide direction about the rehabilitation and restoration of the Box-Gum Woodland EEC).	Sect 13.2 of the MOP	Compliant				
	Table 9	Landform Design						
MCCM Threatened Fauna Implementation Plan	Table 9	5. The RMP will describe how the batter slopes have been designed to minimise instability of the final landform.	Slopes of a maximum of 10° are noted	Compliant				
	Table 9	Soil Stripping and Handling						
MCCM Threatened Fauna Implementation Plan	Table 9	6. The RMP will provide for soil surveys and inventories to be undertaken prior to soil stripping (consistent with Condition 27[c] of the Approval Decision EPBC 2010/5566 and condition 39 Schedule 3 of Project Approval 10_0138).	Soil Management Protocol in AppG of MOP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	7. The RMP will provide for selective identification and placement (burial) of potentially acid forming interburden materials (consistent with Condition 39[c] Schedule 3 of Project Approval 10_0138).	Yes these details are included in the MOP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	8. The RMP will provide for selective identification and placement (burial) of soils unsuitable for use as a growth media.	Soil Management Protocol in AppG of MOP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	9. The RMP will provide soil handling processes for removal, storage and re-layering of topsoil and subsoil (consistent with Condition 27[d] of the Approval Decision EPBC 2010/5566). This will specifically detail the stripping of topsoil likely to contain seeds.	Soil Management Protocol in AppG of MOP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	10. The RMP will provide for annual soil balances to be undertaken to facilitate management of soil handling (consistent with Condition 39 Schedule 3 of Project Approval 10_0138).	Soil balances are maintained continually satisfying the requirement, the MOP mentions annual balances in the Soil Management Protocol	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	11. The RMP will provide options for minimising the risk of erosion including treatment of dispersive soils and spoils, as well as use of structural erosion controls (e.g. channel banks, slope drains and energy dissipaters).	This is addressed	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	12. The RMP will describe minimum topsoil and subsoil depths for revegetation (consistent with Condition 26[b] of the Approval Decision EPBC 2010/5566).	Soil Management Protocol in AppG of MOP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	13. The RMP will describe the incorporation of vegetative material (cleared at the mine site) into the soil used for rehabilitation or as mulch.	This occurs sighted on site and in the Soil Management Protocol	Compliant				
	Table 9	Soil Testing						

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Threatened Fauna Implementation Plan	Table 9	14. The RMP will provide parameters for the physical and chemical characteristics of topsoils and overburden based on likely suitable characteristics for establishment of Box-Gum Woodland.	<p>The Threatened Fauna Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 9	15. The RMP will provide for soil testing to be undertaken on topsoil and overburden to identify issues with physical and chemical characteristics as well as determine amelioration requirements and rates.	This is proscribed in the Soil Management Protocol	Compliant				
	Table 9	Soil Amelioration						
MCCM Threatened Fauna Implementation Plan	Table 9	16. The RMP will describe options for ameliorating soils to improve the suitability of the soils as a growth media (e.g. amelioration with agricultural gypsum, compost (i.e. mulch saved during clearing activities) or native plant fertilisers depending on the nutrient deficiency).	This is included	Compliant				
	Table 9	Surface Preparation						
MCCM Threatened Fauna Implementation Plan	Table 9	17. The RMP will describe site preparation (e.g. ripping or use of spike rollers) to reduce soil compaction impacting the success of the revegetation.	This is included S2.9 Soil Protocol	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	18. The RMP will consider the use of benign (hard rock) mulch to stabilise batter surfaces.	This is proscribed in drainage channels but not on open slopes.	Compliant				
	Table 9	Research Trials						
MCCM Threatened Fauna Implementation Plan	Table 9	19. The RMP will describe research that will aim to identify effective methodologies for achieving rehabilitation and revegetation of Box-Gum Woodland on the mine rehabilitation (consistent with Condition 15 of the Approval Decision EPBC 2010/5566).	MOP S 9	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	20. The RMP will provide for soil seed bank germination testing to be undertaken on topsoil stockpiles.	2.7 of MOP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	21. The RMP will provide for rehabilitation trials (focusing on rehabilitation and revegetation of Box-Gum Woodland) to be undertaken on different rehabilitation substrates.	Rehabilitation trials are described, not yet undertaken as there are no suitable areas to rehabilitate	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
	Table 9	Seed and Tube Stock Supply						
MCCM Threatened Fauna Implementation Plan	Table 9	22. The RMP will describe procedures for seed collection, management and storage following the relevant Florabank guidelines. The RMP will describe procedures for sowing seed (e.g. appropriate sowing depths).	Not included - MOP is a 2 year MOP and no rehabilitationplanting is planned in the first 2 years.	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 9	23. The RMP will describe a seed and tube stock supply strategy including calculation of the amount and species of seed and tube stock required each year and how the seed and tube stock will be sourced and managed to meet the demand.	Not included - MOP is a 2 year MOP and no rehabilitationplanting is planned in the first 2 years.	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 9	24. The RMP will provide for the preferential use of local endemic (adapted) species, however consideration would be given to the use of a high quality seed source further from the site over a low quality more local seed source.	Noted					
	Table 9	Revegetation						
MCCM Threatened Fauna Implementation Plan	Table 9	25. The RMP will provide for establishing vegetation cover as soon as practicable following disturbance to minimise the potential for erosion and weeds. This will involve the application of a temporary sterile cover crop (or native grasses) using species that are not likely to impede revegetation of the Box-Gum Woodland.	There are no plans to rahb any areas in the term of the MOP (2years). Topsoil stockpilesare vegetated	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	26. The RMP will provide options for remediating erosion including adjust seed and planning densities to maximise ground cover.	pg 38 of MOP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	27. The RMP will describe that vehicle access will be predominantly restricted to designated tracks on mine landforms that have been revegetated to minimise ground disturbance (e.g. compaction).	pg 38 MOP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	28. The RMP will provide for selective use of slow-release native plant fertiliser to promote plant growth (if required).	Not included - MOP is a 2 year MOP and no rehabilitationplanting is planned in the first 2 years.	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 9	29. The RMP will describe a contingency for supplementary seeding/tube stock planting if the regeneration from the soil seed bank is not sufficient.	Not included - MOP is a 2 year MOP and no rehabilitationplanting is planned in the first 2 years.	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 9	30. The RMP will provide application rates for seeds as well as planting densities for tube stock to avoid excessive shading.	Not included - MOP is a 2 year MOP and no rehabilitationplanting is planned in the first 2 years.	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 9	31. The RMP will provide measures to improve understorey diversity (e.g. replanting, causing disturbance through fire or grazing).	The BMP (p. 51) identifies brush harvesting.	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Threatened Fauna Implementation Plan	Table 9	32. The RMP will describe that revegetation at the mine would not be cleared (unless for ecological thinning, maintenance or access for monitoring).	<p>The Threatened Fauna Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 9	33. The RMP will include provision to assess vegetation density and undertake ecological thinning (e.g. through selective clearance or fire) if necessary.	Appendix E of BMP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	34. The RMP include sowing of Kangaroo Grass (as this species is known to out-compete annual grass weeds and provide inter tussock spaces for a diversity of ground cover species [eg. wildflowers]).	Appendix F of the BMP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	35. The RMP will describe that seed and tube stock used in revegetation will include a variety of grasses, low shrubs, midsized shrubs and tall trees to create structurally diverse habitat.	Appendix F of the BMP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	36. The RMP will provide an option for using tree guards to protect young seedlings from browsing or grazing native animals.	P. 37 of the MOP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	37. The RMP will describe how livestock will be excluded from areas undergoing active revegetation (i.e. planting or seeding).	BMP only identifies riparian and habitat management domains for livestock exclusion (7.2.3 of BMP)	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	38. The RMP will describe how the growth and survival of the vegetation sown or planted will be monitored.	9.1 of MOP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	39. The RMP will aim to include a wide diversity of species in the seed mix.	Table 16 of MOP identifies diversity should reflect analogue sites	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Threatened Fauna Implementation Plan	Table 9	40. The RMP will include hygiene protocols to minimise the risk of plant diseases (i.e. restricting site access).	<p>The Threatened Fauna Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 9	41. The RMP will include provision to review the need for kangaroo control measures.	<p>The Threatened Fauna Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
	Table 9	Habitat Features						
MCCM Threatened Fauna Implementation Plan	Table 9	42. The RMP will describe procedures to reuse of bush rocks salvaged during vegetation clearance (consistent with Condition 39[b] Schedule 3 of Project Approval 10_0138).	p. 35 of the MOP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 9	43. The RMP will describe procedures to reuse of timber/hollow logs salvaged during vegetation clearance (consistent with Condition 39[b] Schedule 3 of Project Approval 10_0138), including: - placement of hollow limbs or artificial hollows in some select trees without hollows; and - use of artificial stag trees on the mine rehabilitation.	The Threatened Fauna Implementation Plan was approved in January 2015.  The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.  The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.  As such these requirements have not been triggered.	Not Triggered				
	Table 9	Feral Animal Management						
MCCM Threatened Fauna Implementation Plan	Table 9	44. The RMP will describe procedures to prevent, monitor and control feral animals (including feral pigs, goats, rabbits and foxes).	p. 37 of the MOP lists measures. 5.6.3 in BMP	Compliant				
	Table 9	Weed Management						
MCCM Threatened Fauna Implementation Plan	Table 9	45. The RMP will provide methods for the use of herbicides (minimised through spot-spraying, basal spraying, stem injection or cut and paint application methods).	5.5.3 of the BMP.	Compliant				
	Table 9	Fire Management						

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Threatened Fauna Implementation Plan	Table 9	46. The RMP will describe measures to prevent fires, such as maintaining fire breaks and access (i.e. no controlled burns would be undertaken on the mine rehabilitation whilst vegetation is establishing).	<p>The Threatened Fauna Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered				
<b>Table 10 Implementation Plan for the Box-Gum Woodland in the Offset Areas</b>								
	Table 10	Actions for Implementing the Biodiversity Offset Strategy in the BMP	Noted					
	Table 10	Planning						
MCCM Threatened Fauna Implementation Plan	Table 10	1. The BMP will define the objectives for the Box-Gum Woodland EEC.	1.3 of BMP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	2. The BMP will discuss an adaptive management framework and monitoring programme for the management of the Box-Gum Woodland EEC.	13. of the BMP	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Threatened Fauna Implementation Plan	Table 10	3. The BMP will include a visual inspection of each mapped vegetation management unit in each offset area to identify constraints and requirements for specific management measures.	<p>The Threatened Fauna Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 10	4. The BMP will describe targeted revegetation along drainage lines and scalded areas to minimise risk of erosion.	7.3 of BMP	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Threatened Fauna Implementation Plan	Table 10	5. The BMP will aim to maximise the re-use of existing infrastructure (e.g. access roads) instead of creating new infrastructure.	<p>The Threatened Fauna Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 10	6. The BMP will aim to locate new offset area management infrastructure (e.g. access roads) preferentially in cleared land.	<p>The Threatened Fauna Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Threatened Fauna Implementation Plan	Table 10	7. The BMP will aim to locate new offset area management infrastructure (e.g. access roads) in stable locations.	<p>The Threatened Fauna Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 10	8. The BMP will describe provision of fencing and signage around the perimeter of the offset areas to manage livestock and avoid accidental clearance.	5.1 discusses marking clearing limits in BMP. Riparian and Habitat Management areas to be fenced to exclude livestock (7.2.3).	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	9. The BMP will describe roles for suitability qualified personnel (e.g. restoration ecologist to provide direction about the rehabilitation and restoration of the Box-Gum Woodland EEC).	5.1.3, 5.1.6, 5.5.3 outline ecologist roles. 15.0 in general.	Compliant				
	Table 10	Soil Testing and Nutrient Management						

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Threatened Fauna Implementation Plan	Table 10	10. The BMP will provide for soil testing to be undertaken on soils in revegetation areas to identify issues with physical and chemical characteristics as well as determine amelioration requirements and rates.	<p>The Threatened Fauna Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 10	11. The BMP will describe the following nutrient reduction options and the relevant situations where they would be applied: - crash grazing periodically to remove nutrients locked in weeds; - restriction of livestock access to limit further nutrient enrichment; and - controlled burns.	11.2.2, 7.2.2, 9.2.2 (crash grazing). 7.2.3, 9.2.3, 11.2.3 (livestock restriction). 7.2.6, 9.2.6, 11.2.6 (mosaic burning)	Compliant				
	Table 10	Surface Preparation						

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Threatened Fauna Implementation Plan	Table 10	12. The BMP will describe site preparation in cleared land (e.g. ripping or use of spiked rollers) and (where relevant) in derived grassland (e.g. use of spiked rollers) to reduce soil compaction impacting the success of the revegetation.	<p>The Threatened Fauna Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 10	13. The BMP will restrict the use of revegetation techniques that involve high level of physical disturbance in existing BoxGum Woodland and derived grasslands.	7.3.1, 9.3.1, 11.3.1 of BMP	Compliant				
	Table 10	Revegetation, Seeds and Tube Stock						
MCCM Threatened Fauna Implementation Plan	Table 10	14. The BMP will describe a seed and tube stock supply strategy including calculation of the amount and species of seed and tube stock required each year and how the seed and tube stock will be sourced and managed to meet the demand.	Appendix F of the BMP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	15. The BMP will describe procedures for strategic and long term seed collection, management and storage following the relevant Florabank guidelines. The BMP will describe procedures for sowing seed (e.g. appropriate sowing depths).	Appendix F of the BMP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	16. The BMP will favour natural regeneration in the derived grasslands and woodland areas over seeding or planting in the first instance followed by seeding or planting if required.	7.2.1, 9.2.1, 11.2.1	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	17. The RMP will provide for the preferential use of local endemic (adapted) species, however consideration would be given to the use of a high quality seed source further from the site over a low quality more local seed source.	Appendix F of the BMP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	18. The BMP will provide application rates for seeds as well as planting densities for tube stock to avoid excessive shading.	Not included - MOP is a 2 year MOP and no rehabilitation planting is planned in the first 2 years.	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Threatened Fauna Implementation Plan	Table 10	19. The BMP will focus on increasing woodland patch size within the offset area and aim to enhance ecological connectivity.	9.1	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	20. The BMP will describe that seed and tube stock used in revegetation will include a variety of grasses, low shrubs, midsized shrubs and tall trees to create structurally diverse habitat.	Appendix F of the BMP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	21. The BMP include sowing of Kangaroo Grass (as this species is known to out-compete annual grass weeds and provide inter tussock spaces for a diversity of ground cover species [eg. wildflowers]).	Appendix F of the BMP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	22. The BMP will aim to include a wide diversity of species in the seed mix.	9.3.3	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	23. The BMP will include provision to review the need for kangaroo control measures.	<p>The Threatened Fauna Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered				
	Table 10	Maintenance						
MCCM Threatened Fauna Implementation Plan	Table 10	24. The BMP will include provision to assess vegetation density and undertake ecological thinning (e.g. through selective clearance or fire) if necessary.	Appendix E of BMP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	25. The BMP will provide measures to improve understorey diversity (e.g. replanting, causing disturbance through fire or grazing).	The BMP (p. 51) identifies brush harvesting.	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	26. The BMP will provide for selective use of slow-release native plant fertiliser to promote plant growth (if required).	Not included - MOP is a 2 year MOP and no rehabilitation planting is planned in the first 2 years.	Not Triggered				
MCCM Threatened Fauna Implementation Plan	Table 10	27. The BMP will provide an option for using tree guards to protect young seedlings from browsing or grazing native animals.	Appendix G of BMP. p. 37 of MOP	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Threatened Fauna Implementation Plan	Table 10	28. The BMP will describe how the growth and survival of the vegetation sown or planted will be monitored.	7.3.7, 9.3.7, 11.3.7 of BMP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	29. The BMP will include hygiene protocols to minimise the risk of plant diseases (i.e. restricting site access).	Table 14-1 in BMP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	30. The BMP will describe a restriction of clearing (unless for ecological thinning, maintenance or access for monitoring).	Table 14-1 in BMP	Compliant				
	Table 10	<b>Habitat Features</b>						
MCCM Threatened Fauna Implementation Plan	Table 10	31. The BMP will describe procedures to reuse of bush rocks salvaged during vegetation clearance (consistent with Condition 39[b] Schedule 3 of Project Approval 10_0138).	5.1.6	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	32. The BMP will describe procedures to reuse of timber/hollow logs salvaged during vegetation clearance (consistent with Condition 39[b] Schedule 3 of Project Approval 10_0138), including placement of hollow limbs or artificial hollows in some select trees without hollows.	5.1.6	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	33. The BMP will not permit firewood collection.	<p>The Threatened Fauna Implementation Plan was approved in January 2015.</p> <p>The MOP (which incorporates the Rehab Management Plan) that was reviewed as part of the audit is for the period 1 March 2014 to 1 March 2016 (approved prior to the Implementation Plan) does not include any revegetation works, as such actions not triggered. The subsequent MOP currently being prepared will include the requirements outlined in the EEC Implementation Plan.</p> <p>The Biodiversity Management Plan that was reviewed as part of the audit was approved in October 2014 (prior to the approval of the Implementation Plan). The revised BMP submitted to the Department in April 2015, includes any implementation plans as required by Schedule 3 Condition 53(c). The revised BMP is currently awaiting final approval.</p> <p>As such these requirements have not been triggered.</p>	Not Triggered				
	Table 10	<b>Grazing Management</b>						
MCCM Threatened Fauna Implementation Plan	Table 10	34. The BMP will describe restriction of livestock access to erosion prone areas (e.g. along watercourses).	BMP only identifies riparian and habitat management domains for livestock exclusion (7.2.3)	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	35. The BMP will describe how livestock will be excluded from areas undergoing active revegetation (i.e. planting or seeding).	BMP only identifies riparian and habitat management domains for livestock exclusion (7.2.3)	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	36. The BMP will describe restriction of livestock access to areas not already subject to grazing.	BMP only identifies riparian and habitat management domains for livestock exclusion (7.2.3)	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
MCCM Threatened Fauna Implementation Plan	Table 10	37. The BMP will describe management of livestock to maintain ground cover and diversity of native plants.	7.2, 9.2, 11.2	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	38. The BMP will describe restriction of livestock access to protect plants that are known to be sensitive to grazing.	BMP only identifies riparian and habitat management domains for livestock exclusion (7.2.3)	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	39. The BMP will include provision to lightly graze derived grasslands in times of suitable climatic conditions for weed growth (e.g. autumn and/or winter) to reduce vigour of annual grass weeds.	7.2, 9.2, 11.2	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	40. The BMP will provide a mechanism to reduce livestock grazing during drought periods.	Table 14-1 in BMP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	41. The BMP will describe the following controlled grazing management options and the relevant situations where they would be applied: - Rotational grazing system to promote and maintain plant diversity and cover. - Removal of grazing livestock.	7.2, 9.2, 11.2	Compliant				
	Table 10	Weed Management						
MCCM Threatened Fauna Implementation Plan	Table 10	42. The BMP will provide the following weed management options and the relevant situations where they would be applied: - Crash grazing periodically to reduce annual and perennial grass weeds. - Nutrient management (e.g. exclusion of grazing livestock which add nutrients). - Controlled burns during spring to reduce annual and perennial grass weeds (not broadleaf exotics). - Physical Removal (e.g. removing weeds by felling or pulling). - Targeted and timely herbicide application.	7.2/7.4, 9.2/9.4, 11.2/11.4	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	43. The BMP will provide methods for the use of herbicides (minimised through spot-spraying, basal spraying, stem injection or cut and paint application methods).	Appendix H	Compliant				
	Table 10	Feral Animal Management						
MCCM Threatened Fauna Implementation Plan	Table 10	44. The BMP will describe procedures to prevent, monitor and control feral animals (including feral pigs, goats, rabbits and foxes).	7.5, 9.5, 11.5	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	45. The BMP will provide monitoring of deer and feral cats and control (if required).	7.5.3 states will be incorporated if identified/required.	Compliant				
	Table 10	Fire Management						
MCCM Threatened Fauna Implementation Plan	Table 10	46. The BMP will describe measures to prevent fires, such as maintaining fire breaks and access (i.e. no controlled burns would be undertaken whilst vegetation is establishing).	5.7.1	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	47. The BMP will prescribe any controlled burns in patches of Box-Gum Woodland EEC (existing woodland) to be no less than 5 years and then to occur in spring or autumn burns depending on a range of factors.	States Bushire MP will prescribe burning plan (7.7.2)	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	48. The BMP will schedule for maintenance of fire breaks and fire trails.	7.7.2, 9.7.2 and 11.7.2	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	49. The BMP will provide a schedule for assessing fuel loads.	7.7.2, 9.7.2, 11.7.2 and 12.	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	50. The BMP will provide an option for using controlled grazing to reduce biomass or controlled burns of derived grasslands.	3.8	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
	Table 10	General						
MCCM Threatened Fauna Implementation Plan	Table 10	51. The BMP will describe that vehicle access will be predominantly restricted to designated tracks to minimise ground disturbance (e.g. compaction).	Unable to find reference in BMP	Compliant				
MCCM Threatened Fauna Implementation Plan	Table 10	52. The BMP will include a description of the Community Consultative Committee.	Glossary, 2.4	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
WHC_PLN_MC_ABORIGINAL ARCHAEOLOGY AND CULTURAL HERITAGE MANAGEMENT PLAN								
4.0 Aboriginal Consultation								
4.4 Ongoing Consultation with RAPs								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	4.4	Ongoing consultation with RAPs will be achieved via regular open meetings throughout the construction and operational phases of the Project. Meetings will be open to all RAPs and will provide a forum for RAPs to raise any issues they may have regarding the Project and for MCC to provide Project Updates as they arise. A communication protocol will be developed at the initial meeting to ensure that all parties have a clear understanding of their roles and responsibilities in relation to this AHMP. The protocol may include, but not be limited to: <ul style="list-style-type: none"> <li>• method of contact e.g. email, in writing;</li> <li>• contact details for all parties;</li> <li>• triggers for requesting meeting; and</li> <li>• timeframes for responding to letter of either parties.</li> </ul>	New management plan pending which will be followed by consultation with the RAPs. Any work in Drainage lines or around existing known sites requires RAP presence. There is a contact list that is used when any engagement is required, updates are done when notification is made to the site.	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	4.4	During the construction phase, meetings will be convened every four months, which will be extended to twice yearly during the operational phase. The initial meeting will be arranged as soon as practicable following approval of this AHMP. Issues that may be discussed in the open meetings include: <ul style="list-style-type: none"> <li>• Fieldwork timing &amp; arrangements;</li> <li>• Fieldwork policies and protocols;</li> <li>• Development of Aboriginal Cultural Awareness Training;</li> <li>• AHMP Review;</li> <li>• Aboriginal Heritage Conservation Strategy; and</li> <li>• Additional meetings may be called to address issues that cannot be dealt with by means of agreed protocols – the triggers for which will be determined in the first open meeting.</li> </ul>	Last meeting was for the AHMP, prior to this there have been many meetings generally more frequently than the 2 month requirement.	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	4.4	Once a year, a broader information meeting will be open to attendance by any Aboriginal community member with an interest in the MCC Project.	This has not occurred	Not Compliant Administrative				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	4.4	In addition to the RAP open meetings, as part of the MCC's annual reporting program, this AHMP is to be reviewed on a yearly basis to confirm compliancy and identify if sections need revision to address issues as they arise. If the AHMP is to be revised, copies of the document are to be sent to the RAPs for comment for a 28 day review period, then to DP&I for final approval by the Director General.	The AHMP was published on 16/04/2013 and has been reviewed and updated since.	Compliant				
5.0 Impacts to Identified Aboriginal Heritage Sites								
5.1 Summary of Impacting Development								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	5.1	Thirty six of the 75 Aboriginal archaeological sites covered by this AHMP will be protected in-situ throughout the construction and operational phases of the Project. Protected sites include 17 artefact scatters, nine isolated artefacts and 10 scarred trees. Impacts to the remaining 39 sites (20 artefact scatters, 11 isolated finds, six scarred trees and two portable grinding groove objects) derive from three aspects of the development: <ol style="list-style-type: none"> <li>1. The open cut mine and Northern Overburden Emplacement Area (OEA);</li> <li>2. The Project Disturbance Boundary which includes associated infrastructure; and</li> <li>3. The Mine Access Road, rail loop and spur.</li> </ol>	Noted					
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	5.1	In addition to these impacts, a water pipeline connecting the Namoi River to the Project is to be constructed. The pipeline will follow an easterly path from the Namoi River through the access point for the Velyama property and continuing along the rail spur up to the mine infrastructure and dams. Six scarred trees have been identified in the vicinity of the proposed pipeline. However the MCC Project is committed to the in-situ conservation of these sites. The scarred trees are located within a Travelling Stock Route (TSR) and will be temporarily fenced to ensure no impacts occur throughout the construction phase of the Project (see Section 6.2 below).	Noted, LDP done for all areas disturbed along the pipeline and associated infrastructure.	Compliant				
5.1.1 The Open Cut Mine and Northern OEA								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	5.1.1	Eighteen Aboriginal archaeological sites will be impacted by the construction of the open cut mine and Northern OEA. These include seven artefact scatters, seven isolated artefacts and four scarred trees. As indicated in Table 11, two of these sites - artefact scatter Leard SF AS1 and scarred tree Leard SF ST1 – have been assessed as being of high scientific significance, six as being of moderate scientific significance and the remaining 10 sites as being of low scientific significance.	Noted					
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	5.1.1	The Project will avoid impacting all identified sites along Back Creek through the creation of a buffer intended to protect the ecological and cultural heritage values of this watercourse. Protected sites along Back Creek include: Back Creek AS1, AS2, AS3, AS4, AS5, AS6 & Back Creek IA1 & IA2 (Table 11).	Noted					
<b>5.1.2 Project Disturbance Boundary</b>								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	5.1.2	It is noted that the impact footprint of the CHPP, stockpile and Mine Infrastructure Area within the Project Disturbance Boundary may vary slightly depending on engineering considerations. As such these areas are treated as one larger impact zone. Twelve sites of moderate to low scientific significance including seven artefact scatters, four isolated artefacts and a single scarred tree have the potential to be directly impacted by mining-related disturbances within this zone (Table 11).	This is apparent. Noted					
<b>5.1.3 Mine Access Road, Rail Loop and Spur</b>								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	5.1.3	Pending final engineering design specifications, nine sites have the potential to be directly impacted through the construction of the proposed Mine Access Road and Rail Spur and Loop. The most significant of these are those located within the Steep Sided Gully landform. Because of the limited options in moving the rail corridor to another location or realigning the track some impacts to these sites will be unavoidable (Table 11).	Noted					
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	5.1.3	Aboriginal archaeological sites located within the southern component of the Rail Line, which connects up to the Werris Creek/Mungindi Railway Line, will be managed under the approved CHMP for the Boggabri Coal Project (Boggabri Coal Pty Ltd, 2012b).	Noted					
<b>6.0 Management and Salvage</b>								
<b>6.2 Aboriginal Site Database</b>								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.2	A comprehensive Aboriginal Site Database for the Project Boundary and its immediate environs will be established upon approval of this AHMP.	Held by the surveyors, a GIS Database	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.2	The database will, at a minimum, contain the name, type, size (where applicable), MGA coordinates and status of all Aboriginal sites within and directly adjacent to the Project Boundary (i.e., within 100 m of the Project Boundary).	This information is present	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.2	This information will be saved in a GIS format and made available to all MCC Project related staff and contractors when developing maps/drawings/figures to ensure that any disturbance work considers the location of known heritage sites for the Project. Maps showing boundaries of identified sites will be included with specific works documents as part of project works plans.	This information is present, survey control this and make it available when required	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.2	Documentation will be held by relevant onsite manager responsible at all times.	Noted					
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.2	The database will, at a minimum, be reviewed on a six monthly basis to confirm that site impact details or newly identified sites have been entered.	This occurs, UQ Archs send polygons for new finds to site, entered by surveyors	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.2	Printed site lists are to be made available to RAPs upon request.	Noted, no requests know of but this information has been provided to them in the AHMP.	Compliant				
<b>6.3 Fencing of Aboriginal Sites</b>								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.3	All identified Aboriginal sites within the Project Boundary or on properties owned by MCC adjacent to the Project Boundary (excluding the Travelling Stock Route (TSRs)) will be fenced for the life of the Project and appropriately signed. Archaeological sites located within TSRs will be temporarily fenced during the construction phase of the Project.	All known sites are fenced except scar trees, that were assessed and removed from list as they were assessed as not being culturally modified.	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.3	Metal signs attached to fencing will include the following words as a minimum: ENVIRONMENTALLY SENSITIVE AREA NO UNAUTHORISED ENTRY OPERATIONS MANAGER	Sighted photos and observed on-site	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.3	Fencing will be undertaken for all sites immediately after approval of this AHMP.	This occurred and continues as new items are encountered	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.3	Fencing will be comprised of star pickets and high visibility construction fencing (or similar suitable materials) unless alternative fencing arrangements are determined through ongoing consultation with RAPs.	This is correct, observed on-site	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.3	An archaeologist and two Aboriginal representatives are to be engaged to determine the archaeological site extents for fencing. On approval of this AHMP, RAPs will be requested to provide the names of two fencing field representatives (one primary and one secondary representative). Field representatives will then be chosen for the works by MCC as required from the names provided.	This is correct, confirmed in interview	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.3	Fencing will encompass the boundary of the registered archaeological sites and incorporate the following buffers to avoid impacting the site through construction of the fence and also account for sub-surface potential: • Artefact Scatters and Isolated Artefacts – 20 metre buffer; and • Scarred Trees – Drip-line + Five metre buffer.	This is done, checked on site and confirmed at interview	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.3	Existing access tracks within archaeological site boundaries are to be maintained. Traffic and/or upgrading of roads will be managed or limited within these areas to reduce additional impacts to sites.	Observed onsite	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.3	For archaeological sites located outside of the Project Boundary, temporary fencing is to be erected before construction works are to commence. Temporary fencing is to consist of high visibility fencing that can be easily installed pre-construction and removed post-construction without disturbing the registered Aboriginal archaeological site.	Observed onsite	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.3	While archaeological sites which occur within the area of direct impact need not be fenced, a precautionary approach of fencing all sites will be undertaken to avoid accidental impacts through the life of the mine.	Sites were fenced until salvaged, confirmed at interview	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.3	All fencing and signage will be removed from Aboriginal sites on completion of the Project.	Noted	Not Triggered				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.3	Both permanent and temporary fencing will be inspected monthly during construction and annually during operations to ensure the integrity of the fencing is not compromised and that no adverse impacts have occurred to the fenced sites.	Ongoing during construction, and now annually, interview	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.3	The MCC Project Environmental Manager (or delegate) will be responsible for organising fencing inspections.	Noted					
6.4 Monitoring								
6.4.1 Annual Monitoring Program								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.4.1	Annual inspection of all Indigenous archaeological sites will be undertaken as part of MCC Project compliance auditing program. An archaeologist and two Aboriginal representatives are to be engaged to conduct the annual monitoring program. Advice will be sought from the RAPs as to agreement on which these representatives will be. When seeking advice from RAPs on the representatives to take part in annual monitoring program, the applicants for the Gomerol People native title claim will be asked to nominate a person for those activities and similarly, other RAPs will be invited to prioritise the nomination of Gomerol People.	2014 AEMR (3.7.1) advice from RAPs for representatives was sought.	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.4.1	Monitoring of each site will involve at a minimum recording of the following: • Condition assessment of site • Condition assessment of fencing • Photographic recording of each site from set location; and • Evidence of nearby disturbance.	2014 AEMR (3.7.1) states annual site audit undertaken 3-6 June 2014. Fence maintenance occurred at a number of sites and carried out immediately.	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.4.1	A compliance audit of previously salvaged Aboriginal objects will be undertaken as part of the annual review conducted for the Keeping Place	No compliance audit undertaken in 2013. Compliance audit undertaken in June 2014 (2014 AEMR, 3.7.1)	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.4.1	A report is to be prepared on completion of the annual monitoring program with copies provided to MCC, RAPs, DP&I and OEH. The findings of this report will also be presented within the Annual Review for the Project.	Viewed report onsite, summary was included in the AEMR	Compliant				
<b>6.4.2 Monitoring of Cultural Heritage Sensitive Areas</b>								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.4.2	Combining both previous research and the findings of the Aboriginal Cultural heritage Impact Assessment, landform analysis was conducted for the Leard State Forest mining complexes. On the basis of this study, cultural heritage sensitive areas for the MCC Project were defined as those areas within 50 metres of registered recorded sites and/or land within 200 metres of named creeks and 100m either side of other mapped drainage lines	Noted					
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.4.2	In conjunction with the annual monitoring program, additional monitoring of cultural heritage sensitive areas by nominated RAP representatives will be undertaken during topsoil clearance in these areas.	2014 AEMR (3.7.2) states "2093 'monitoring' transects during progressive topsoil removal that yielded 204 artefacts." by an Archaeologist accompanied by two RAPs. Monitoring did not occur during 2013 reporting period (2013 AEMR 3.8.2)	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.4.2	Two Aboriginal representatives are to be involved in the cultural heritage monitoring and clearance. Advice will be sought from the RAPs as to agreement on whom these representatives will be and whether, in the circumstances, a gender balance (male/female) is required. When seeking advice from RAPs on the representatives to take part in cultural heritage management and mitigation activities, the applicants for the Gomerioi People native title claim will be asked to nominate a person for those activities and similarly, other RAPs will be invited to prioritise the nomination of Gomerioi People.	This is conducted via a hours worked table to even out the work	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.4.2	In situations where project works require monitoring in more than two locations simultaneously, MCC may consider engaging additional monitors or vary the works program so the appointed monitors can properly observe all works requiring monitoring.	Noted					
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.4.2	All parties will use their best efforts to work together in order to keep the use of separate monitoring to a minimum, however, separate monitoring may be required depending on the circumstances (including cultural sensitivity).	Noted					
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.4.2	Should nominated Aboriginal representatives be unable to attend monitoring, it is the responsibility of the RAPs to nominate replacement representatives to attend. Where replacement representatives are unable to attend or fail to notify MCC of their inability to attend, the Environmental Manager will nominate a suitably qualified technical advisor (either employed independently or directly by MCC) to monitor the proposed works.	Noted					
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.4.2	In the event that Aboriginal objects are identified during monitoring, the Procedure on the Discovery of Aboriginal Archaeological Objects (Section 6.15) is to be followed.	Noted, this occurs					
<b>6.5 Biodiversity Management – Preclearance</b>								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.5	All contractors engaged to conduct preclearance activities for biodiversity management will, prior to the commencement of their works, be briefed on the identification of Aboriginal culturally modified trees. Any suspected culturally modified trees identified by preclearance contractors will be assessed by an archaeologist following the Procedure on the Discovery of Aboriginal Archaeological Objects (Section 6.15). The Biodiversity Management Plan will be updated accordingly to reflect this requirement.	This has occurred with all known scar trees, others are identified and protected through the LDP process.	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility																								
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6.6 Archaeological Salvage Program																																
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6	A comprehensive archaeological salvage program will be undertaken within the Project Boundary. This program is designed to meet Project Approval Conditions 57 & 58 for the Project. In order to accommodate potential research direction changes brought about by Condition 57 – Aboriginal Heritage Conservation Strategy, a modular open research program has been developed on the broad principles of previous regional studies (eg the Brigalow Belt South Aboriginal Cultural Heritage Study - NSW National Parks and Wildlife Service, 2002) have been incorporated.	This has occurred	Compliant																												
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6	The program will incorporate the following three components: 1. Test and open area archaeological excavations at open artefact scatters 20-4-0026, 20-4-0027 and Leard SF AS1, all of which have been assessed as being of high scientific and cultural significance on the basis of observed surface evidence. A geomorphological assessment and topographic survey of each site will also be undertaken as part of archaeological salvage works; 2. Surface collection of 31 open artefact sites (i.e., artefact scatters and isolated finds); and 3. The removal and relocation of six Aboriginal scarred trees.	Stage 1 summary reports sighted. Stage 2A technical summary report sighted	Compliant																												
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6	<p style="text-align: center;">Table 14 Staging of Archaeological Salvage Program</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Stage</th> <th>Task</th> <th>Timing</th> <th>AHMP Section</th> </tr> </thead> <tbody> <tr> <td>Stage 1</td> <td>Surface collection of Impacted Aboriginal Sites in areas of immediate priority: Rail Loop &amp; Spur, Mine Access Road &amp; Mine Infrastructure Area</td> <td>Following approval of this AHMP and prior to construction.</td> <td>6.6.2</td> </tr> <tr> <td>Stage 1</td> <td>Subsurface salvage program – 20-4-0026 &amp; 20-4-0027</td> <td>Following approval of this AHMP and prior to construction.</td> <td>6.6.3</td> </tr> <tr> <td>Stage 2</td> <td>Surface collection of Impacted Aboriginal Sites in Open Cut Mine &amp; Northern OCA and remaining areas within Project Disturbance Boundary.</td> <td>Prior to surface disturbance works</td> <td>6.6.2</td> </tr> <tr> <td>Stage 2</td> <td>Subsurface salvage program – Leard SF AS1</td> <td>Prior to surface disturbance works</td> <td>6.6.3</td> </tr> <tr> <td>Stages 1 &amp; 2</td> <td>Scarred Tree Removal</td> <td>Prior to surface disturbance works</td> <td>6.8</td> </tr> </tbody> </table>	Stage	Task	Timing	AHMP Section	Stage 1	Surface collection of Impacted Aboriginal Sites in areas of immediate priority: Rail Loop & Spur, Mine Access Road & Mine Infrastructure Area	Following approval of this AHMP and prior to construction.	6.6.2	Stage 1	Subsurface salvage program – 20-4-0026 & 20-4-0027	Following approval of this AHMP and prior to construction.	6.6.3	Stage 2	Surface collection of Impacted Aboriginal Sites in Open Cut Mine & Northern OCA and remaining areas within Project Disturbance Boundary.	Prior to surface disturbance works	6.6.2	Stage 2	Subsurface salvage program – Leard SF AS1	Prior to surface disturbance works	6.6.3	Stages 1 & 2	Scarred Tree Removal	Prior to surface disturbance works	6.8	Stage 1 summary reports sighted. Stage 2A technical summary report sighted	Compliant				
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Stages 1 & 2	Scarred Tree Removal	Prior to surface disturbance works	6.8																													
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6	Following approval of this AHMP, MCC and their nominated archaeologist will develop a detailed salvage timeline for the project to be able to schedule the salvage works prior to construction.	Powerpoint presentations delivered to RAP's sighted detailing timeline and program	Compliant																												
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6	This salvage program will be further refined in consultation with RAP's and updated throughout the progress of the salvage works.	Powerpoint presentations delivered to RAP's sighted detailing timeline and program	Compliant																												
6.6.1 RAP Participation in Salvage Works																																
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.1	All RAPs will be offered the opportunity to participate in the archaeological salvage program. All RAPs will be asked to provide the notification of the representative(s) who wish to be involved in the field work for the duration of the archaeological salvage program, noting a maximum of one representative from each RAP will be required on any one day. A roster for the field work will be developed to cater for the scale of the activities to be completed. This roster will be updated on a monthly basis.	This is conducted via a hours worked table to even out the work	Compliant																												
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.1	RAPs will be responsible for the selection of their field representatives.	This is conducted via a hours worked table to even out the work	Compliant																												
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Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.2.1	The following research questions will be used to guide the surface collection component of the salvage program: 1. What, if any, patterning is apparent in the distribution of major artefact classes across the Project Boundary? 2. What, if any, patterning is apparent in the distribution of raw material types across the Project Boundary? 3. Does artefact distribution vary significantly in relation to landform? 4. Does artefact distribution vary significantly in relation to slope? 5. Does artefact distribution vary significantly in relation to distance to water? 6. Does artefact distribution vary significantly in relation to stream order? 7. Does artefact distribution vary significantly in relation to geology? 8. Does artefact distribution vary significantly in relation to aspect?	Noted																																																	
6.6.2.2 Methodology																																																				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.2.2	Surface collection will be undertaken by a combined field team of archaeologists and RAP representatives and will involve: 1. The flagging of all visible artefacts within each site; 2. The recording of individual artefact locations using a hand-held differential GPS; 3. Site photography; and 4. Bagging of identified artefacts.	Stage 1 Report sighted Stage 2A technical summary report sighted.	Compliant																																																
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.2.2	The Stage 1 surface collection is anticipated will focus on areas of immediate priority for MCC. Surface Collection will be undertaken concurrently with the Stage 1 test and open area salvage excavations (Sections 6.6.4.1 & 6.6.4.3).	Stage 1 Report sighted "Compliant"	Compliant																																																
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.2.2	Written notification of sites cleared for ground disturbance works will be provided upon completion of the surface collection component of the salvage program.	Stage 1 summary reports sighted. Stage 2A technical summary report sighted	Compliant																																																
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.2.2	All surface collected artefacts will be assigned a Unique Reference Number (URN) for accessioning and data analysis purposes. Analysis of surface artefacts will be conducted off site upon completion of salvage works.	Stage 1 summary reports sighted. Stage 2A technical summary report sighted	Compliant																																																
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.2.2	As part of the surface collection program, previously recorded sites that could not be relocated during the survey undertaken for the EA will be revisited. Any Aboriginal objects identified within these sites will be salvaged according to the methodology outlined above. These sites include: • BBS; Red Chief LALC; Leard SF 3; and • BBS; Red Chief LALC; Leard SF 4.	Stage 1 summary reports sighted. Stage 2A technical summary report sighted	Compliant																																																
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.2.2	<p>Table 15 Sites identified for Surface Collection within the Project Boundary</p> <table border="1"> <thead> <tr> <th>Stage</th> <th>Impact Area</th> <th>AHMS ID</th> <th>Site Name</th> </tr> </thead> <tbody> <tr> <td>Stage 1</td> <td>Overburden Area</td> <td>20-4-0277</td> <td>BBS; Red Chief LALC; Leard SF 4</td> </tr> <tr> <td></td> <td></td> <td>XX-X-XXXX*</td> <td>Leard SF IA2</td> </tr> <tr> <td></td> <td></td> <td>XX-X-XXXX*</td> <td>Teston AS3</td> </tr> <tr> <td></td> <td></td> <td>XX-X-XXXX*</td> <td>Teston AS6</td> </tr> <tr> <td></td> <td></td> <td>XX-X-XXXX*</td> <td>Teston IA2</td> </tr> <tr> <td></td> <td></td> <td>XX-X-XXXX*</td> <td>Teston IA3</td> </tr> <tr> <td></td> <td></td> <td>XX-X-XXXX*</td> <td>Teston IA4</td> </tr> <tr> <td></td> <td></td> <td>XX-X-XXXX*</td> <td>Teston IA5</td> </tr> <tr> <td></td> <td></td> <td>XX-X-XXXX*</td> <td>Teston ST2</td> </tr> <tr> <td></td> <td></td> <td>20-4-0016</td> <td>Willow Tree Range (MCS)</td> </tr> </tbody> </table>	Stage	Impact Area	AHMS ID	Site Name	Stage 1	Overburden Area	20-4-0277	BBS; Red Chief LALC; Leard SF 4			XX-X-XXXX*	Leard SF IA2			XX-X-XXXX*	Teston AS3			XX-X-XXXX*	Teston AS6			XX-X-XXXX*	Teston IA2			XX-X-XXXX*	Teston IA3			XX-X-XXXX*	Teston IA4			XX-X-XXXX*	Teston IA5			XX-X-XXXX*	Teston ST2			20-4-0016	Willow Tree Range (MCS)	Stage 1 summary reports sighted. Stage 2A technical summary report sighted	Compliant				
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Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.2.2	<table border="1"> <tr> <td>Stage</td> <td>Impact Area</td> <td>AHMP ID</td> <td>Site Name</td> </tr> <tr> <td rowspan="8">Rail Spur</td> <td></td> <td>XX-X-XXXX*</td> <td>Teston GG2</td> </tr> <tr> <td></td> <td>XX-X-XXXX*</td> <td>Teston Grindstone 1</td> </tr> <tr> <td></td> <td>20-4-0024</td> <td>Velyama, Manilla (MC11)</td> </tr> <tr> <td></td> <td>20-4-0026</td> <td>Velyama, Manilla (MC13)</td> </tr> <tr> <td></td> <td>20-4-0027</td> <td>Velyama, Manilla (MC14)</td> </tr> <tr> <td></td> <td>20-4-0023</td> <td>Willow Tree Range, Teston, Thornbit (MC10)</td> </tr> <tr> <td></td> <td>20-4-0021</td> <td>Willow Tree Range, Teston, Thornbit (MC8)</td> </tr> <tr> <td></td> <td>20-4-0020</td> <td>Willow Tree Range, Teston, Thornbit (MC7)</td> </tr> </table>	Stage	Impact Area	AHMP ID	Site Name	Rail Spur		XX-X-XXXX*	Teston GG2		XX-X-XXXX*	Teston Grindstone 1		20-4-0024	Velyama, Manilla (MC11)		20-4-0026	Velyama, Manilla (MC13)		20-4-0027	Velyama, Manilla (MC14)		20-4-0023	Willow Tree Range, Teston, Thornbit (MC10)		20-4-0021	Willow Tree Range, Teston, Thornbit (MC8)		20-4-0020	Willow Tree Range, Teston, Thornbit (MC7)	Stage 1 summary reports sighted. Stage 2A technical summary report sighted	Compliant				
Stage	Impact Area	AHMP ID	Site Name																																		
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Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.2.2	<table border="1"> <tr> <td>Stage 2</td> <td>Open Pit</td> <td>XX-X-XXXX*</td> <td>Leard SF AS1</td> </tr> <tr> <td></td> <td></td> <td>XX-X-XXXX*</td> <td>Leard SF AS2</td> </tr> <tr> <td></td> <td></td> <td>XX-X-XXXX*</td> <td>Leard SF IA1</td> </tr> <tr> <td></td> <td></td> <td>20-4-0028</td> <td>Teston, Manilla (MC15)</td> </tr> <tr> <td></td> <td></td> <td>20-4-0028</td> <td>Willowtree Range, Manilla (MC21)</td> </tr> </table>	Stage 2	Open Pit	XX-X-XXXX*	Leard SF AS1			XX-X-XXXX*	Leard SF AS2			XX-X-XXXX*	Leard SF IA1			20-4-0028	Teston, Manilla (MC15)			20-4-0028	Willowtree Range, Manilla (MC21)	Stage 1 summary reports sighted. Stage 2A technical summary report sighted	Compliant													
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		20-4-0028	Willowtree Range, Manilla (MC21)																																		
6.6.3 Archaeological Test and Open Area Excavations																																					
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.3	Test and open area archaeological excavations will be undertaken at open artefact scatter sites 20-4-0026, 20-4-0027 and Leard SF AS1. Stage 1 test and open area excavations at sites 20-4-0026 & 20-4-0027 will be undertaken immediately post AHMP approval. Stage 2 excavations at Leard SF AS1 will be undertaken prior to surface disturbance (refer to Table 14).	Stage 1 summary reports sighted. Stage 2A technical summary report sighted	Compliant																																	
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.3	A topographic survey and geomorphological assessment of each site will also be undertaken in conjunction with the test excavations.	Geomorphological Report sighted by University of Queensland	Compliant																																	
6.6.3.1 Excavation: Research Questions																																					
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.3.1	The following research questions will be used to guide the excavation and post-excavation analysis components of archaeological salvage works at 20-4-0026, 20-4-0027 and Leard SF AS1: 1. What, if any, spatial patterning is evident in the distribution of recovered artefactual material from these sites? 2. How long have Aboriginal people utilised these sites? 3. Do these sites represent 'persistent places' in the sense of sustained/repeated occupation? 4. What activity or combination of activities occurred at these sites? 5. What lithic raw materials were used on these sites and where did they come from? 6. What knapping techniques/strategies were used at these sites? 7. What types of tools were produced on these sites? 8. What function(s) did these tools serve? 9. Do the chipped stone assemblages recovered from these sites differ from other excavated sites in the region? If so, how?	Noted																																		
6.6.3.2 Geomorphological Research Questions																																					
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.3.2	The following research questions will be used to guide the geomorphological assessment of each site: 1. Are in-situ soil profiles present and, if so, what is the nature of these profiles? 2. What geomorphic processes are (or have been) in operation at the site? 3. To what extent have natural soil profiles been disturbed by European land use practices? 4. Are archaeological deposits preserved in their original deposited state, or have they been subject to displacement or disturbance through geomorphic processes such as soil creep and bioturbation?	Geomorphological Report sighted. This was in evidence in the salvages report viewed by the audit team	Compliant																																	
6.6.4 Archaeological Excavation - Methodology																																					

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.4	Excavations at each site will be undertaken in two phases: 1. Initial testing using one or more linear transects of hand excavated, regularly-spaced 0.5 m <sup>2</sup> test pits; and 2. Open area hand excavation of key areas identified through initial testing.	Stage 1 summary reports sighted. Stage 2A technical summary report sighted	Compliant				
6.6.4.1 Test Excavation								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.4.1	Test excavation will be undertaken at the three archaeological sites (20-4-0026, 20-4-0027 and Leard SF AS1) recommended for salvage excavation in the previous heritage assessment (AECOM 2010:59). This stage of excavation is to be conducted to identify each site's extents and assist in focussing subsequent salvage excavation efforts on recovery of concentrated sub-surface deposits.	Stage 1 summary reports sighted. Stage 2A technical summary report sighted	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.4.1	Test excavations in each location will be undertaken as follows: • A systematic grid of points spaced no more than 20 metres apart will be overlaid over the site boundary (as determined from surface expression of artefacts). Areas of grossly modified terrain (i.e. Dams) will be excluded from the sampling universe; • A surveyor will be engaged to mark out test pits locations; • 50 cm <sup>2</sup> test pits dug by hand (shovel probe) at each gridded point; and • For the initial test excavation, all excavated material is to be sieved through 5 mm aperture screens. • Nested 5 mm & 3 mm sieves are to be used for the full salvage excavation as per Section 10.1.5 of the Aboriginal heritage impact assessment (AECOM 2010).	Stage 1 summary reports sighted. Stage 2A technical summary report sighted	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.4.1	Test excavation is expected to take approximately 1 week to complete at each site. This timing is based on a daily field team of six qualified archaeologists and 20 RAPs. The requirement for an extension to this timeframe for additional test excavation will be discussed and negotiated with MCC with archaeological justification presented as soon as the need arises.	Noted					
6.6.4.2 Geomorphological Assessment								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.4.2	The geomorphological assessment will be conducted concurrently during the course of test excavation and will involve: • A desktop review of relevant geological/soil landscape maps and reports; • Visual inspection of extant soil profiles at 20-4-0026, 20-4-0027 and Leard SF AS1; • One or more auger transects at each site; • Characterisation and field description of stratigraphic units through macro-examination of soil materials; • Visual inspection of archaeologically excavated soil profiles (if warranted); and • Compilation of all data into an assessment of geomorphological context. Where applicable, data gaps will be presented.	Geomorphological Report sighted by University of Queensland	Compliant				
6.6.4.3 Open Area Excavation								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.4.3	Following test excavation, open area hand excavation will be conducted at each of the three archaeological sites (20-4-0026, 20-4-0027 and Leard SF AS1). A nominal area of up to 100 m <sup>2</sup> or an area as determined by the qualified Archaeologist based on the findings of the test excavation program across the three sites will be dug by hand to a culturally sterile layer (Note: if the cultural deposit is deep, hand excavations will be conducted to a safe depth of 1.5m and discussions will be held with on whether deeper excavation is required and the associated OH&S implications).	Stage 1 summary reports sighted. Stage 2A technical summary report sighted	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.4.3	Should an archaeological deposit of high integrity/research potential extend beyond the nominal 100 m <sup>2</sup> area, MCC will be notified immediately with justification on why the excavation should be expanded.	Stage 1 summary reports sighted. Stage 2A technical summary report sighted	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.4.3	Open area excavation is expected to take approximately 1 week to complete at each site. This timing is based on a daily field team of six qualified archaeologists and 20 RAPs. The number of open area excavations within each site cannot be defined at this time as it is unknown how many key areas will be identified by the initial testing. The area required to investigate the identified key areas will be based on artefact density during excavation. The requirement for an extension to this timeframe for an extension of time for the open area excavation will be discussed and negotiated with MCC with archaeological justification presented as soon as the need arises.	Noted					
6.6.4.4 Excavation Methodology								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.4.4	The proposed excavation methodology is as follows: <ul style="list-style-type: none"> <li>All excavation will be carried out manually using trowels, shovels and mattocks (where appropriate);</li> <li>Open area excavation will proceed in 1 m<sup>2</sup> units;</li> <li>All excavation units (i.e., test pits and open area squares) will be assigned an alpha-numeric identifier;</li> <li>Excavation within open areas will proceed in arbitrary 5cm spits or stratigraphic layers (whichever is thinnest);</li> <li>Excavation will cease at sterile units or bedrock in all instances;</li> <li>Photographic and scale-drawn records of exposed soil profiles in open area excavations will be made;</li> <li>If specific archaeological features (e.g., hearths) are identified, the entire feature will be excavated and recorded prior to the continuation of excavation. Features will be photographed and scale plans drawn;</li> <li>Where encountered, charcoal deemed suitable for radiocarbon dating will be collected using 'best practice' guidelines (e.g., Burke and Smith 2004: 154);</li> <li>If deemed appropriate on geomorphological grounds, sediment samples for OSL dating will be collected using 'best practice' guidelines (e.g., Burke and Smith 2004: 152);</li> <li>All excavated soils will be wet or dry-sieved (dependent on composition) through nested 5 mm and 3 mm sieve;</li> <li>Artefacts recovered from sieving will be retained in plastic zip-lock bags and labelled with appropriate provenance data;</li> <li>A standard site recording form will be used for each 1 m<sup>2</sup> excavation unit and will include (as a minimum): site name, date, recorder, square identifier, number of spits, number of buckets and weight of each bucket;</li> <li>Upon completion of excavations, the location of all excavation units will be picked up by survey and incorporated into the topographic survey plan for the site; and</li> </ul>	Stage 1 summary reports sighted. Stage 2A technical summary report sighted	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.4.4	Subject to RAP clearance sign off and confirmation from the engaged heritage technical advisor that the salvage works at each archaeological site have been completed, construction will be allowed to commence. An Archaeological Clearance Works Sign Off Form will be included as part of the Land Disturbance Protocol (LDP) (see Appendix G). The LDP is required to be completed and issued to the contractor conducting land clearances.	Archaeological LDP's signed-off copies sighted	Compliant				
6.6.5 Absolute Chronometric Analysis								
6.6.5.1 Radiocarbon Dating								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.5.1	Where suitable deposits exist, samples for radiocarbon dating are to be taken to allow for absolute chronometric analysis of the excavated archaeological samples. The following protocol is to be used: <ul style="list-style-type: none"> <li>Only charcoal samples identified in-situ in open area excavations are to be considered for radiocarbon analysis;</li> <li>No more than 6 samples per site will be submitted for analysis unless agreed upon by MCC;</li> <li>Samples for radiocarbon dating are not to be handled, instead they are to be extracted using the point of a trowel or a pair of tweezers;</li> <li>Each sample is to be wrapped in aluminium foil and clearly labelled. The sample is then to be placed directly into a labelled plastic bag; and</li> <li>Samples are to be stored in a cool, shaded area to avoid sweating of samples.</li> </ul>	No evidence sighted to suggest radiocarbon dating required	Not triggered				
6.6.5.2 Optically Stimulated Luminescence (OSL) Dating								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.5.2	Where suitable deposits exist, Optically Stimulated Luminescence (OSL) samples are to be taken to provide a correlated dating methodology. The following protocol is to be used: <ul style="list-style-type: none"> <li>Identification of areas for OSL sample extraction are to be undertaken under the direction and advice of a qualified geomorphologist;</li> <li>OSL sample location consideration will include stratigraphic profiles and densities of recovered artefact;</li> <li>Samples are to be taken using opaque PVC piping (at least 12 cm in length and 5cm in diameter) inserted into the wall of each excavation being careful not to contaminate the sample from falling grains from above stratigraphy. The surrounding 30 cm around the sample location must be assessed as being homogenous in nature to the sample collected (similar soil &amp; moisture content, no isolated rocks etc);</li> <li>No more than 3 samples per site will be submitted for analysis unless agreed upon by MCC; and</li> <li>Once extracted, piping is to be sealed immediately at both ends, stored in black plastic which is then to be stored out of direct light.</li> </ul>	No mention in Stage 1 summary reports, the Stage 1 summary reports indicated that the geomorphical characteristics of the deposits were not conducive to detailed archaeological investigation due to disturbance by cattle and erosion No mention in Stage 2A reports	Not Triggered				
6.6.6 Post-Salvage Analysis								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility																					
					Consequence	Likelihood	Risk																						
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.6	Post-salvage analyses for surface collected and excavated sites will, at minimum, include: • The off-site analysis and cataloguing of all recovered Aboriginal objects (e.g., stone artefacts, hearth stones) by a suitably qualified person or persons. Excavated and surface collected stone artefacts from will be subject to detailed technological analysis by a qualified lithic specialist; • The submission, where available, of excavated charcoal samples for conventional or AMS radiocarbon dating. No more than 6 samples per site will be submitted for analysis unless agreed upon by MCC; • The submission of excavated sediment samples for Optically Stimulated Luminescence (OSL) dating. No more than 3 samples per site will be submitted for analysis unless agreed upon by MCC. Documentation with each sample will include at a minimum:- Collection, Treatment & Storage, Environment, Taphonomy, Contamination and Nature of Sample; • The submission, where deemed appropriate by a qualified archaeologist, of a selection of stone artefacts for functional use-wear/residue analysis. No more than 20 artefacts will be submitted for analysis; and • The submission of a selection of non-artefactual rock samples to a qualified geologist for the purposes of raw material identification. No more than 20 samples will be submitted for analysis.	University of Queensland Chris Clarkson "Analysis of the MCC Lithic Assemblage Stages 1 & 2"	Compliant																									
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.6	Post-excavation analyses will not delay proposed construction activities within the boundaries of these sites.	Noted																										
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.6.6	Training in the undertaking of archaeological excavation and salvage will be provided to all RAP participants throughout the salvage excavation program (Section 6.26). Opportunities for RAPs to analyse salvaged materials is to be provided through the archaeological site recording, basic lithic identification and analysis workshop and research programs developed by the Keeping Place Management Team (Sections 6.11 & 6.26).	Evidence of RAP involvement sighted, including letter and powerpoint presentation from MCC	Compliant																									
<b>6.7 Reporting</b>																													
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.7	A report detailing the results of the archaeological salvage program undertaken (including the results of any post-excavation analyses) is to be completed within one year following post excavation analysis. Copies of the report will be provided to all RAPs, OEH and DP&I within 14 days of completion.	Report on file	Compliant																									
<b>6.8 Scarred Tree Removal</b>																													
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.8	Six scarred trees (Table 16) will be directly impacted and are to be removed and stored in a keeping place agreed to by RAPs. The following methodology, based on an industry best practice scarred tree removal and relocation procedure (Rio Tinto Coal Australia, 2008) will be employed to remove and store scarred trees directly impacted by the Project: 1. Pre-removal preparation; 2. Removal/relocation; 3. Storage; and 4. Management/preservation.	Report by Mark Burns indicated that all noted scar trees were not of aboriginal origin. Thus none have been salvaged.	Not Triggered																									
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.8	<table border="1"> <caption>Table 16 - Scarred Trees Identified for Removal</caption> <thead> <tr> <th>Site Name</th> <th>AHIMS #</th> <th>Impact Area</th> </tr> </thead> <tbody> <tr> <td>Leard SF ST1</td> <td>XX-X-XXXX*</td> <td>Open Pit</td> </tr> <tr> <td>Leard SF ST2</td> <td>XX-X-XXXX*</td> <td>Open Pit</td> </tr> <tr> <td>Teston ST1</td> <td>XX-X-XXXX*</td> <td>Rail Spur</td> </tr> <tr> <td>Teston ST2</td> <td>XX-X-XXXX*</td> <td>Overburden Area</td> </tr> <tr> <td>Watsons ST1</td> <td>XX-X-XXXX*</td> <td>Project Disturbance Area</td> </tr> <tr> <td>Younger ST1</td> <td>XX-X-XXXX*</td> <td>Overburden Area</td> </tr> </tbody> </table>	Site Name	AHIMS #	Impact Area	Leard SF ST1	XX-X-XXXX*	Open Pit	Leard SF ST2	XX-X-XXXX*	Open Pit	Teston ST1	XX-X-XXXX*	Rail Spur	Teston ST2	XX-X-XXXX*	Overburden Area	Watsons ST1	XX-X-XXXX*	Project Disturbance Area	Younger ST1	XX-X-XXXX*	Overburden Area	Report by Mark Burns indicated that all noted scar trees were not of aboriginal origin. Thus none have been salvaged.	Not Triggered				
Site Name	AHIMS #	Impact Area																											
Leard SF ST1	XX-X-XXXX*	Open Pit																											
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Watsons ST1	XX-X-XXXX*	Project Disturbance Area																											
Younger ST1	XX-X-XXXX*	Overburden Area																											
<b>6.8.1 Pre-removal Preparation</b>																													

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.8.1	<p>Consultation with RAPs will occur prior to the removal of each scarred tree. This consultation will include discussions concerning the methodology, the location of the keeping place and RAP representative involvement in the tree removal.</p> <ul style="list-style-type: none"> <li>• A qualified arborist will be engaged to plan, conduct and direct the tree removal works. The arborist is responsible for assessing the most appropriate method of removing each tree based on specific factors such as species, condition and location;</li> <li>• A qualified archaeologist will be engaged to attend the removal in order to address potential archaeological issues such as exposure of artefacts during topsoil disturbances;</li> <li>• A pre-removal planning meeting will be held onsite that includes MCC representatives, the arborist, two Aboriginal representatives and the archaeologist. This allows all parties to familiarise themselves with the works program and discuss any logistical issues; and</li> <li>• Advice will be sought from the RAPs as to agreement on whom these representatives will be and whether, in the circumstances, a gender balance (male/female) is required. When seeking advice from RAPs on the representatives to take part in cultural heritage management and mitigation activities, the applicants for the Gomerol People native title claim will be asked to nominate a person for those activities and similarly, other RAPs will be invited to prioritise the nomination of Gomerol People.</li> </ul>	Report by Mark Burns indicated that all noted scar trees were not of aboriginal origin. Thus none have been salvaged.	Not Triggered				
<b>6.8.2 Removal/Relocation</b>								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.8.2	<p>The following steps provide a guide for the tree removal. This process will be subject to modification based on the arborist's recommendations.</p> <ol style="list-style-type: none"> <li>1. Prepare access and safe work area, including a barricaded exclusion zone;</li> <li>2. Wrap carpet or similar around scar for protection;</li> <li>3. Erect an elevated platform in order to remove overhanging branches and limbs (if required);</li> <li>4. Attach lift swing;</li> <li>5. Use backhoe to trench around the tree in order to expose the base of the bole (trunk) above the roots;</li> <li>6. Once the trench has been excavated and the base of the bole cut, the crane can begin removing the tree from the trench;</li> <li>7. Load the tree on the truck for transportation and relocate the tree to a keeping place or storage area; and</li> <li>8. Tree can then be cleaned and cared for including application of pest control.</li> </ol>	Report by Mark Burns indicated that all noted scar trees were not of aboriginal origin. Thus none have been salvaged.	Not Triggered				
<b>6.8.3 Storage</b>								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.8.3	<p>The process of consultation with registered Aboriginal registrants will have established an appropriate storage facility for the removed trees. This may be a large shed or container. Trees will be placed on non-timber based sleepers such as high strength concrete block or plinths. The storage facility must be of sufficient size to adequately store and maintain the number and sizes of all removed trees. The facility must be suitable for enabling cleaning and maintenance of the trees. A tag, identifying the tree, including AHIMS ID will be placed on the tree. In addition, a barrier layer of acrylic resin at the base or other suitable area of the tree and an indelible pigment based pen will be used to apply the registration number of the scarred tree.</p>	Report by Mark Burns indicated that all noted scar trees were not of aboriginal origin. Thus none have been salvaged.	Not Triggered				
<b>6.8.4 Preservation - Cleaning</b>								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.8.4	<p>Many trees suffer from termite activity and rotting which subsequently hollows the tree's trunk. Therefore, all termite detritus will be cleared from the inside of the trunk and the outer surface. Termite detritus will be removed using brushes and probes and then vacuumed. Insects recovered during this process will be identified to determine an appropriate eradication procedure. Insect traps such as glue pads will be placed throughout the storage container or shed.</p>	Report by Mark Burns indicated that all noted scar trees were not of aboriginal origin. Thus none have been salvaged.	Not Triggered				
<b>6.8.5 Preservation - Seasoning</b>								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.8.5	<p>Should the scarred tree that is to be removed be a living or 'green' tree it must be stored indoors until the moisture content is below 20%. Trees with a moisture content less than 20% are unlikely to support decay fungi degradation and should also be relatively physically stable. In dry conditions, the trees will age and season readily.</p>	Report by Mark Burns indicated that all noted scar trees were not of aboriginal origin. Thus none have been salvaged.	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.8.5	Once seasoned, high temperatures should not affect the trees, however 'green' humidity may obstruct the drying process. Humidity indicators and moisture detection strips may be used as a guide to ventilation requirements. Such requirement may be as simple as opening the container or shed doors on a dry day. The scarred trees will be monitored regularly (monthly) during the initial stages of their storage.	Report by Mark Burns indicated that all noted scar trees were not of aboriginal origin. Thus none have been salvaged.	Not Triggered				
<b>6.10 Management of Quinine Bush (Alstonia constricta )</b>								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.10	In order to manage and mitigate these impacts for this species, the following ethnobotanical management procedures are to be implemented and co-ordinated by a suitably qualified ecologist. 1. Mapping of the extant Quinine Bushes are to be undertaken to determine their location within the MCC Project Boundary. Each tree is to be recorded using GPS and this information included as part of vegetation and cultural mapping for the Project. 2. A series of panoramic photographs (either taken with wide angle lens or compiled from stitched photomosaics) of representative ecosystems with extant individual or stands of Quinine Bush are to be taken. These photos will record the pre-mining state of the environment of these plants should impacts occur. Each panoramic photo must include at least one representative Quinine Bush. 3. A programme of plant and seed collection will be undertaken where appropriate. Plant specimens and seeds are to be collected and dried according to the NSW Royal Botanic Gardens guidelines. A program of seed propagation is to be undertaken to replace those plants impacted through mining activities. The MCC Project is to investigate the feasibility of transplanting extant Quinine Bushes to Conservation Offset with appropriate growing conditions. 4. The procedures for preparation of bush medicine are to be documented in a culturally appropriate manner and stored as part of a permanent cultural record in the proposed Keeping Place. Permission should be sought from RAPs for the opportunity to provide to this information to the NSW Royal Botanic Gardens Aboriginal Education Programs to allow the diversity of medicine in this area be more fully documented.	1. Complies, evidence sighted. 2. Not sighted 3. Reports sighted, complies 4. Not sighted	Not Compliant	E	2	Low	
<b>6.11 Aboriginal Keeping Place</b>								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.11	Consultation with RAPs will be undertaken as soon as practicably possible following approval of this AHMP to identify a culturally appropriate keeping place for all salvaged material from the MCC Project. Once the consultation process is completed, a care agreement as required under the National Park and Wildlife Act 1974 is to be completed that sets out the obligations of the caretaker for the long term safe keeping of transferred Aboriginal objects ( <a href="http://www.environment.nsw.gov.au/licences/CareAgreements.htm">http://www.environment.nsw.gov.au/licences/CareAgreements.htm</a> ).	Temporary keeping place is at the Whitehaven Gunnedah CHPP, a permanent location is still to be agreed with the community. The process is not complete as yet	Not Triggered				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.11	Should a care agreement not be in place following completion of analyses and reporting of the archaeological salvage, then the Aboriginal heritage material recovered from collections and salvage excavations will be stored in an Interim Keeping Place that meets the requirements of a secure storage area.	Temporary keeping place in use	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.11	During consultation on a permanent Keeping Place, MCC will utilise the existing homestead on the "Tralee" (ex- Watson) property as an Interim Keeping Place. The MCC Project Environmental Manager will be responsible for ensuring that the Interim Keeping Place is secure and provide protection from the elements and pests. Appropriate shelving and space for research purposes will be provided.	Temporary keeping place is at the Whitehaven Gunnedah CHPP, a permanent location is still to be agreed with the community. The process is not complete as yet	Not Compliant Administrative				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.11	Salvaged artefacts will be initially removed off site by a lithic specialist for analysis and cataloguing and returned to the interim keeping place within two weeks of the completion of the analysis (Section 6.6.6).	University of Queensland Chris Clarkson "Analysis of the MCC Lithic Assemblage Stages 1 & 2	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.11	Larger objects (scarred trees etc.) will be maintained in upgraded farm sheds suitable for storage. Upgraded farm sheds will meet the requirements of Interim Keeping Place in terms of security and protection from the elements and pests. When a more permanent Aboriginal Keeping Place is identified the artefacts will be permanently located there.	Not required see notes above re scar trees	Not Triggered				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.11	The Keeping Place will also serve as a storage facility for plant specimens and cultural knowledge acquired as part of the Quinine Bush management program (Section 6.10).	Noted					

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.11	To address ongoing management issues, access and other concerns as they arise, a Keeping Place management team is to be developed consisting of three RAP representatives and a representative from MCC. RAP representatives will hold their position for one year. Nominations for RAP representatives will be received by MCC and an independent Justice of the Peace will select three candidates at random for this role. Should selected representatives choose not to take up this position, a replacement RAP representative will be selected at random from the remaining nominations. The Keeping Place management team will develop policies for the roles, functions and responsibilities of the Keeping Place and the management team. Access to the collections will be available to appropriately trained Aboriginal Community Representatives as determined by the agreed to policies of the Keeping Place management team or those otherwise agreed with the Keeping Place management team who can demonstrate a valid cause for inspection – such as viewing for cultural, educational and research purposes. A register of persons requesting access to the material will be maintained with the collections.	Management group of 4 RAPs and MCC reps is in place.	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.11	In addition to this, MCC in negotiation with neighbouring mining companies and the Aboriginal community are investigating the potential for the establishment of a Regional Keeping Place in the vicinity of the Leard State Forest. Should agreement be reached, archaeological cultural material salvaged from the MCC Project will be considered for deposition in this central resource. The agreement towards a Regional Keeping Place will be addressed in the Aboriginal Heritage Conservation Strategy to be developed separate to the Maules Creek AHMP.	No progress has occurred on this as yet	Not Triggered				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.11	An annual review of the Keeping Place is to be conducted by the MCC Project Environmental Manager in consultation with the Keeping Place management team. This review will audit the maintenance of the Keeping Place, storage of cultural items, the Keeping Place register and any additional items that the Keeping Place management team wishes to raise.	2014 AEMR (3.7.1) refers to audit of salvaged objects in June 2014. "Artefacts are currently stored in a secure facility that is located geographically 'on-country' and close to the MCCM as requested by the RAP's. Artefacts will be transferred for long term storage at a Keeping Place once negotiations are complete." The keeping place is audited at the same time as the fencing. Report sighted	Compliant				
6.12 Delays								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.12	No Party will be liable for any delay or failure to perform on time its obligations under this AHMP if such delay is due to circumstances beyond the control of that Party.	Noted					
6.13 Breach Investigation & Dispute Resolution								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.13	If a person has good reason to believe the Proponent is not implementing the heritage conditions in Schedule 3 of the Project Conditions of Approval satisfactorily, then he/she may ask the Director-General in writing for an independent review of the matter (Schedule 4, Item 7).	This has occurred. GTC have made this protest	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.13	If the Director-General is satisfied that an independent review is warranted, then within 2 months of the Director-General's decision, the Proponent shall: a) Commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to: • Consult with the person and/or relevant agencies; • Investigate the person's complaints/claims; • Review the environmental performance of the Proponent; • Determine whether the Proponent's performance is satisfactory or not; and if necessary • Recommend measures to improve the Proponent's performance; b) Give the Director-General and complainant a copy of the independent review.	Mediation has occurred but has been unsuccessful, DP&E have been involved in the process.	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.13	All incidences of potential breaches and disputes are to be documented thoroughly with a register maintained by the Environmental Manager at MCC.	Dispute recorded.	Compliant				
6.13.1 Breach Investigation								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.13.1	Where a breach of the AHMP is suspected the following procedure is to be followed: 1. The MCC Environmental Manager is to investigate the breach with respect to the AHMP. 2. The MCC Environmental Manager reserves the right to engage a heritage technical advisor to review the breach with respect to the AHMP.	Alleged breaches have been investigated, with no breaches found .	Not Triggered				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.13.1	Where a breach has been determined to have occurred: 1. Notification of the breach is to be provided to Director-General of DP&I, the OEH and all RAPs as soon as practicable. 2. A report detailing the breach will be prepared and forwarded to the Director-General of DP&I, the OEH and all RAPs within 7 days. 3. Within reason, further actions may be required dependent on the breach and comment received from the regulators and RAPs.	This has not occurred to date	Not Triggered				
<b>6.13.2 General Dispute</b>								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.13.2	Where a general dispute arises through the implementation of this AHMP, the following principles and procedures will be undertaken: 1. The Environmental Manager is to discuss the issue with the disputer. They may engage a heritage technical advisor to assist. 2. Failing resolution, an onsite meeting at a time convenient to all parties is to be convened between MCC, the relevant RAPs and a heritage technical advisor appointed by MCC; 3. Should further mediation fail to achieve resolution by consensus, approval of the Director-General of DP&I will be sought.	Noted, there have been instances where this has been implemented	Compliant				
<b>6.13.3 Technical Dispute</b>								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.13.3	Where a technical dispute arises through the implementation of this AHMP, the following principles and procedures will be undertaken: 1. The Environmental Manager is to discuss the issue with the disputer. They may engage a heritage technical advisor to assist. 2. Failing resolution, an onsite meeting at a time convenient to all parties is to be convened between MCC, the relevant RAPs and a heritage technical advisor appointed by MCC; 3. Should further mediation fail to achieve resolution by consensus, approval of the Director-General of DP&I will be sought for progressing with an independent assessment of the issue raised.	This has not occurred	Not Triggered				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.13.3	Where a technical dispute arises from a methodological or analytical perspective that cannot be resolved through mediation, MCC reserves the right to engage an independent third party to review the area in dispute. Independent third parties can be identified by writing to the President of the Australian Archaeological Association (AAA) or the President of the Australian Association of Consulting Archaeologists Inc. (AACAI).	This has not occurred	Not Triggered				
<b>6.14 Aboriginal Heritage Induction &amp; Cultural Awareness Training</b>								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.14	As part of all Project inductions, an Aboriginal cultural heritage component will be included. This will outline current protocols and responsibilities with respect to the management of Aboriginal cultural heritage for the MCC Project. It will also provide an overview of the site types present and procedures for reporting the identification of Aboriginal archaeological sites.	This is in place, reviewed he induction	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.14	In addition, Aboriginal cultural awareness training will be mandatory for all staff whose roles may reasonably bring them into contact with Aboriginal sites and/or involve consultation with local Aboriginal community members. Training will also be offered on a voluntary basis to all other mine staff and contractors.	This is in place, reviewed he induction	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.14	An Aboriginal cultural awareness training package will be developed for use throughout the operational life of the Project. The training package will be completed prior to construction works commencing.	This is in place, reviewed he induction	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.14	The cultural awareness training package is to be developed in consultation with RAPs for the Project and will, at a minimum, involve the presentation of information on the Aboriginal history of the Project Boundary and environs (pre- and post-contact), the nature of Project Boundary's known and potential Aboriginal archaeological resource, identification of Aboriginal archaeological sites and relevant management policies and procedures and statutory obligations.	RAPs have preseted to site personnel for NAIDOC week. RAPs were involved in the package development.	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.14	A register of all persons having completed Aboriginal heritage inductions & cultural awareness training will be maintained throughout the construction and operational phases of the Project.	Sighted training register	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.14	A separate Historic Management Plan has been developed that details the management of Historic sensitive areas identified in and/or around the MCC Project Boundary, including ongoing maintenance, chance finds and awareness training.	Noted					
6.15 Procedure on the Discovery of Aboriginal Archaeological Objects								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.15	In the event that previously unidentified Aboriginal objects are discovered throughout the construction and operational phases of the Project, the following procedure is to be adopted: 1. All works must cease immediately in the area to prevent any further impacts to the object(s). 2. Notify the MCC Environmental Manager immediately; 3. A qualified archaeologist will be engaged to determine the nature, extent and scientific significance of the object(s); 4. The qualified archaeologist will determine the extent of the newly identified site (including the buffer zone as detailed in section 6.3) and the site will be temporarily fenced off to avoid further disturbance. Work will be able to resume within 50 m of the newly identified site, after the site has been fenced. 5. If the site is determined to be of 'high scientific significance' by the qualified archaeologist, RAPs are to be notified in writing regarding the nature of the find and if required the proposed management actions. RAPs will be requested to provide comments within seven days, at which time the agreed management actions will be implemented including salvage in accordance with the procedures outlined in this AHMP for the type of site;	The Unexpected Finds procedure is in place (at rear of AHMP), has been implemented with grinding grooves in creek identified in 2015. Marking found to be not culturally modified.	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)		6. If the site is determined to be of 'low or medium scientific significance', the qualified archaeologist will propose the management actions for the newly identified site in accordance with the procedures outline in this AHMP, at which time a salvage team will be organised. MCC may utilise a salvage team that is already onsite to complete the salvage works depending on the priority of the work area in relation to the construction program; 7. All salvaged material will be given a Unique Reference Number (URN) for accessioning and data analysis purposes. All salvaged artefacts will then be deposited in the Keeping Place. 8. An AHIMS site card will be completed and submitted to OEH in compliance with s.89A of the NPW Act 1974. The site cards will be lodged within 21 days and a copy provided to those RAPs who wish to have a copy; 9. The MCC Project Aboriginal Site Database is to be updated with the relevant information; and 10. The AHMP is to be revised and updated and DP&I notified as soon as practicable.	See UQ report on the find	Compliant				
6.17 Procedure on the Discovery of Human Remains								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.17	In the event that human remains (skeletal material) are discovered, the following procedure is to be followed: 1. When suspected human remains are exposed, all work is to cease immediately in the near vicinity of the find location; 2. Notify the MCC Environmental Manager immediately; 3. The MCC Environmental Manager is to notify the Police immediately; 4. The MCC Environmental Manager is to contact OEH's Environment line on 131 555 to identify that possible skeletal remains have been discovered and that the police have been notified. OEH will provide details on the current processes involved in best dealing with archaeological skeletal remains (both Aboriginal & historic); 5. Under the instructions of the Police, an area of 50 m radius is to be cordoned off by temporary fencing around the exposed suspected human remains site - work can continue outside of this area as long as there is no risk of interference to the human remains or the assessment of human remains; 6. If the remains are determined to be Aboriginal remains, then under the advice of OEH, consult with the RAPs; and 7. Do not recommence work at the location until all legal requirements and the reasonable requirements of OEH and the RAPs have been adequately addressed.	No human remains have been encountered	Not Triggered				
6.18 Ground Impacts from Weed and Feral Animal Management								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.18	Measures to control weeds and feral animals within the Project Boundary will avoid ground impacts to all Aboriginal heritage sites. If impacts are required within 200 m of a named creek line and 100 m either side of other mapped drainage lines or within 50 m of a known site, then two Aboriginal field representatives nominated by the RAPs are to be involved in monitoring any ground disturbance works conducted within these 'sensitive' areas as per Section 6.4.2.	Ferals / Weeds have not impacted sites to date	Not Triggered				
<b>6.19 Exemptions for Emergency Vegetation Management</b>								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.19	Should an emergency situation arise that requires vegetation clearance (for example fire fighting, hazardous materials spill etc) in the vicinity of protected Aboriginal heritage sites, vegetation clearance will be undertaken with the minimum possible disturbance to the topsoil. Activities relating to maintenance, construction or operational activities do not comprise emergency situations.	This has not occurred	Not Triggered				
<b>6.20 Reporting under the AHMP</b>								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.20	All Aboriginal heritage management and mitigation works carried out under the AHMP for the Project will be documented to a standard comparable to that required by the Code of Practice for Archaeological Investigation of Aboriginal Objects 2010 (DECCW 2010a). Plain English summaries of technical archaeological salvage reports will also be prepared. Printed and/or digital copies of all archaeological salvage reports (plain English and technical) are to be made available to RAPs upon request.	Salvage reports have not been requested by RAPs, but they worked on the reports and had access to them when they were produced.	Compliant				
<b>6.22 Aboriginal Heritage Conservation Strategy</b>								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.22	Recognising the cumulative impact of proposed mining activities within the Greater Leard State Forest area, in addition to this AHMP, an Aboriginal Heritage Conservation Strategy (AHCS) will be prepared and implemented for the Boggabri-Tarrawonga-Maules Creek Mine Complex (BTM Complex) to enhance and conserve the Aboriginal cultural heritage values (both cultural and archaeological) of this area and provide for their long-term protection and management.	Noted					
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.22	The Strategy will: a) be prepared by suitably qualified and experienced person/s whose appointment has been endorsed by the Director-General; b) be prepared in consultation with OEH, the local Aboriginal community and other mines within the Leard Forest Mining Precinct, and submitted to the Director-General for approval within 18 months from the date of project approval; c) identify the Aboriginal cultural heritage values of the Biodiversity Offset Strategy areas; d) identify areas of high Aboriginal cultural heritage significance within both the site and the Leard Forest Mining Precinct; e) identify a range of options for enhancing and conserving Aboriginal cultural heritage values, with specific consideration of the potential for the long-term protection and management of significant sites within either the site, the Biodiversity Offset Strategy areas or other lands within the Leard Forest Mining Precinct identified as having high cultural heritage significance to the Aboriginal community; and f) consider cumulative impacts and potential for developing joint initiatives with other mines within the Leard Forest Mining Precinct for enhancing and conserving Aboriginal cultural heritage values.	Noted					
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.22	Once approved by the Director-General of DP&I, a detailed plan for the implementation of the AHCS for the BTM Complex will be included in this AHMP as soon as practicable as per the MCC Project Approval Conditions (Schedule 3, Condition 58).	BTM Complex plan not approved	Not Triggered				
<b>6.23 Aboriginal Community Access</b>								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.23	Aboriginal community members may, throughout the operational life of the Project, wish to access sites and/or areas within the Project Boundary for cultural purposes (e.g., education, ceremony). MCC is committed to facilitating such access. Aboriginal community members wishing to access the Project Boundary should contact the MCC Environmental Manager in writing at PO Box 56, Boggabri NSW 2382 or make verbal requests at open RAP meetings. Access, in all instances, will be subject to relevant operational and safety considerations and cannot be guaranteed. There will be no unauthorised access to the Site. Access to some sites and areas will be restricted during periods of construction and mining.	Yes, and access was granted	Compliant				
<b>6.24 Aboriginal Heritage Management Plan Review</b>								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility												
					Consequence	Likelihood	Risk													
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.24	A review of the AHMP is to be conducted within three months of: <ul style="list-style-type: none"> <li>• submission of the Annual Review (Schedule 5, Condition 4 of PA 10_0138);</li> <li>• an incident report (Schedule 5, Condition 8 of PA 10_0138);</li> <li>• the undertaking of an Independent Environmental Audit (Schedule 10, Condition 4 of PA 10_0138); or</li> <li>• any modification to the PA 10_0138.</li> </ul>	Most recent revision made 16/04/2013. 2013 AEMR undertaken since then and 2014 AEMR.	Not Compliant Administrative																
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.24	The review of the AHMP will involve a compliance audit to ensure that management procedures have been adhered to.	These have taken place see notes above	Compliant																
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.24	If the AHMP is to be revised, copies of the document are to be sent to the registered Aboriginal groups for comment for a 28 day review period prior to finalisation.	Copies of the AHMP were sent to all RAPs when it was finalised in 2014, sighted letters.	Compliant																
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.24	Following review and revision of the AHMP, approval to the satisfaction of the Director-General of DP&I will be sought.	AHMP is approved though currently undergoing revision	Compliant																
<b>6.25 Community Consultative Committee</b>																				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.25	MCC will develop a Community Consultative Committee (CCC) for the MCC Mine to provide for a forum for open discussion between representatives of the company, the community, the local councils and other stakeholders on issues directly relating to the mine's operations, environmental performance and community relations, and to keep the community informed on these matters.	Noted																	
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.25	The Maules Creek CCC will operate in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version) and will include at least one member nominated from the Aboriginal RAP groups. The nominated RAP will be responsible for raising concerns identified by the RAPs for general discussions at these meetings.	RAP is a member of the MCCM CCC	Compliant																
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.25	Minutes of these meetings will also be made available on the MCC website.	CCC minutes viewed on website on 30/07/2015	Compliant																
<b>6.26 Cultural Heritage Training for Community</b>																				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.26	In addressing Commitment 20 from the EA Statement of Commitments, MCC will offer training packages to interested RAPs in archaeological site recording and basic lithic identification and analysis. This could be either held onsite, at a designated Keeping Place or in an appropriate venue in Boggabri, Narrabri or Gunnedah. The MCC Project will consult with RAPs through the open meeting process (Section 4.3.4) on the most appropriate location and format of the workshop to implement this commitment.	These have taken place see notes in PA	Compliant																
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.26	In addition to the above workshop, training in the undertaking of archaeological excavation and salvage will be provided to all RAP participants throughout the salvage excavation program.	Ongoing training has been provided, interview	Compliant																
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	6.26	Maules Creek will also continue to consult with RAPs with regards to additional cultural heritage training opportunities. These may include: <ul style="list-style-type: none"> <li>• Cultural landscape mapping;</li> <li>• Site audit officer training for routine reinspections of sites not to be impacted;</li> <li>• Curating and Keeping Place management skills; and</li> <li>• Community run research based on salvaged material.</li> </ul>	Noted, consultation is ongoing	Compliant																
<b>7.0 Implementation</b>																				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	7	<p style="text-align: center;">Table 17 Task Implementation</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Task</th> <th>AHMP Section</th> <th>Responsibility</th> <th>Timing</th> </tr> </thead> <tbody> <tr> <td>Implementation of this AHMP</td> <td>All</td> <td>Maules Creek Coal Project General Manager &amp; Environmental Manager</td> <td>The General Manager of the Project will assign reasonable resources at the commencement of the Project to meet the objectives and timeframes specified within this management plan.</td> </tr> <tr> <td>Fencing of non-impacted Aboriginal Sites</td> <td>6.2</td> <td>Maules Creek Coal Project Environmental Manager</td> <td>Immediately following approval of this AHMP</td> </tr> </tbody> </table>		Task	AHMP Section	Responsibility	Timing	Implementation of this AHMP	All	Maules Creek Coal Project General Manager & Environmental Manager	The General Manager of the Project will assign reasonable resources at the commencement of the Project to meet the objectives and timeframes specified within this management plan.	Fencing of non-impacted Aboriginal Sites	6.2	Maules Creek Coal Project Environmental Manager	Immediately following approval of this AHMP	See above				
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Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	7	<p><b>Environment Officer:</b></p> <p>Inform the relevant managers of unexpected or serious heritage impact issues.</p> <p>Assess the implementation of this AHMP.</p> <p>Ensure training relevant to the AHMP is implemented.</p> <p>Maintain a high level of understanding of the AHMP.</p> <p>Ensure the AHMP is implemented in daily operations of the site.</p> <p>Review this AHMP if any significant changes to mine plans or operations occur.</p> <p>Support the Environment Manager to act as the interface for heritage matters between government authorities, private industry, contractors, community groups and the wider community (where appropriate).</p> <p>Support the Environment Manager to gather the required information and ensure reportable incidents are reported to relevant authorities.</p> <p>Maintain an environmental monitoring program to gauge the effects of the mining operations on air quality.</p> <p>Conduct required monitoring to the standard and frequency outlined in this AHMP, and as per requirements of the Project Approval.</p> <p>Prepare as part of the annual environmental report (Annual Review), a report detailing the results of key performance indicators developed for each monitoring location identified in this AHMP.</p> <p>Respond to any unplanned events that may potentially result in, or cause, negative heritage impacts.</p> <p>Ensure inspections are undertaken in accordance with the AHMP.</p> <p>Check that persons conducting the inspection are appropriately trained, understand their obligations and the specific requirements of this AHMP.</p> <p>Review and assess monitoring results and inspection checklists.</p> <p>Promptly notify the Environment Manager of any identified environmental issue.</p> <p>Carry out all required notifications. Specific Heritage Management responsibilities outlined in Table 17.</p>	Noted					
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	7	<p><b>Manager Mining / Manager CHPP:</b></p> <p>Maintain accountability for the overall environmental performance, including the procedures and outcomes of this AHMP.</p> <p>Respond to any unplanned events that may potentially result in negative environmental impacts.</p> <p>Ensure reportable incidents are investigated and reported to the Environmental Department.</p> <p>Ensure inspections are undertaken in accordance with the AHMP.</p> <p>Check that persons conducting the inspection are appropriately trained and understand their obligations and the specific requirements of this AHMP.</p> <p>Specific Heritage Management responsibilities outlined in Table 17.</p> <p><b>All personnel:</b></p> <p>Adhere to the requirements of this AHMP.</p> <p>Report any events that may potentially result in negative impacts to heritage immediately to their Supervisor.</p>						
<b>8.0 Safety</b>								
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	8	Access to the MCC Project will be via approved Site or Visitors induction only. There will be no unauthorised access to the site during the construction or mining operations phases.	Standard site practise	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	8	All persons attending the MCC Project must abide by all site safety policies and procedures whilst on site.	Standard site practise	Compliant				
Aboriginal Archeology and Cultural Heritage Management Plan (16/04/2013)	8	All work activities conducted on the MCC Project site must be assessed and documented to identify potential hazards and any controls implemented. A Risk Assessment (RA) and Safe Work Procedure (SWP) will be developed for the tasks to be conducted. The RA and SWP will be reviewed and approved by MCC prior to the tasks being conducted.	Sighted RAPS SWMS	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
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Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas (September 2014)								
2 Legislative Context and Guidelines								
2.1 Environmental Planning and Assessment Act 1979								
Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas (September 2014)	2.1	The EP&A Act regulates a system of environmental planning and assessment for New South Wales. Land use planning requires that environmental impacts are considered, including the impact on cultural heritage and specifically Aboriginal heritage. Within the EP&A Act, Parts 3, 4 and 5 relate to Aboriginal heritage.	Noted					
Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas (September 2014)	2.1	The MCoA have been used under Section 4.1 of EP&A Act, as the mines in the BTM complex are State Significant Developments (SSDs).	Noted					
2.2 NSW Legislation Regulating Aboriginal Cultural heritage								
Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas (September 2014)	2.2	Although a number of Acts and regulations protect and manage cultural heritage in New South Wales; the primary ones that apply to this report include: ☐ National Parks and Wildlife Act 1974 (as amended) ☐ National Parks and Wildlife Regulation 2009 ☐ Environmental Planning and Assessment Act 1979	Noted					
Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas (September 2014)	2.2	In brief, the NPW Act (as amended) protects Aboriginal heritage (places, sites and objects) within NSW; and the National Parks and Wildlife Regulation 2009 provides a framework for undertaking activities and exercising due diligence.	Noted					
2.2.1 National Parks and Wildlife Act 1974								
Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas (September 2014)	2.2.1	The National Parks and Wildlife Act 1974 (as amended) (NPW Act) protects Aboriginal heritage (places, sites and objects) within NSW. Protection of Aboriginal heritage is outlined in s86 of the NPW Act, as follows: ☐ "A person must not harm or desecrate an object that the person knows is an Aboriginal object" s86(1), ☐ "A person must not harm an Aboriginal object" s86(2) ☐ "A person must not harm or desecrate an Aboriginal place" s86(4).	Noted					
2.2.2 National parks and Wildlife Regulation 2009								
Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas (September 2014)	2.2.2	The National Parks and Wildlife Regulation 2009 (NPW Regulation) provides a framework for undertaking activities and exercising due diligence with respect to Aboriginal heritage. The NPW Regulation outlines the recognised due diligence codes of practice which are relevant to this report, but it also outlines procedures for AHIP applications and ACHCRs (DECCW 2010a); amongst other regulatory processes.	Noted					
2.2.3 Aboriginal Land Rights Act 1983								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas (September 2014)	2.2.3	The purpose of this legislation is to provide land rights for Aboriginal people within NSW and to establish Local Aboriginal Land Councils (LALCs). The land able to be claimed by LALCs, on behalf of Aboriginal people, includes Crown Land that (s36): <ul style="list-style-type: none"> <li>☐ Is able to be lawfully sold, leased, reserved or dedicated;</li> <li>☐ Is not lawfully used or occupied;</li> <li>☐ Does not comprise lands which, in the opinion of the Crown Lands Minister, are needed or are likely to be needed for residential purposes;</li> <li>☐ Are not needed, nor likely to be needed for an essential public purpose;</li> <li>☐ Does not comprise land under determination by a claim for native title; and</li> <li>☐ Is not the subject of an approved determination under Native Title.</li> </ul>	There is a Native Title claim on part of A346 Not yet finalised					
<b>2.3 Federal Legislation regulating Aboriginal Cultural Heritage</b>								
<b>2.3.1 Native Title Act</b>								
Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas (September 2014)	2.3.1	The Commonwealth Government enacted the Native Title Act (1993) to formally recognise and protect native title rights in Australia following the decision of the High Court of Australia in Mabo & Ors v Queensland (No. 2) (1992) 175 CLR 1 ("Mabo").	Noted					
Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas (September 2014)	2.3.1	Although the presumption of native title can be in any area where an Aboriginal community or group can establish a traditional or customary connection with that area, native title can be extinguished by a number of ways: <ul style="list-style-type: none"> <li>☐ land that was designated as having freehold title before 1 January 1994</li> <li>☐ any commercial, agricultural, pastoral or residential lease.</li> <li>☐ Land that has been used for the construction or establishment of public works for as long as they are used for that purpose.</li> </ul>	Noted					
<b>6 Aboriginal Values Assessment Methodology</b>								
Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas (September 2014)	6	The methodology for Aboriginal consultation for the AHCS was mailed to the RAPs (7 April 2014) to allow all knowledge holders the opportunity for input into the proposed framework for consultation. The methodology adopted for this AHCS is provided below and is followed by a summary of the documentation of consultation.	Noted					
<b>6.1 Methodology for Aboriginal Consultation</b>								
Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas (September 2014)	6.1	The methodology for Aboriginal consultation followed the Ask First Principles and adhered to the guiding principles of the ACHCR process. Five formal opportunities for input into the strategy were provided to the RAPs as part of this AHCS process (Figure 13). Informal opportunities for input (written or verbal) were also provided throughout the six month process.	Noted, there was some dispute over the consultation noted here but site personnel are not managing the process.					
<b>7 Aboriginal Values Assessment</b>								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas (September 2014)	7	Consultation for this process was undertaken in accordance with the OEH ACHCRs guideline and the Australian Heritage Commission's Ask First guideline. The BTM Complex had already completed Stage One of the ACHCR process and was able to provide RPS with a list of identified RAPs. The identification of RAPs was drawn from government regulatory bodies which included: Registrar (Aboriginal Land Rights Act, 1983), relevant OEH Environmental Protection Regulation Group (EPRG) Regional Office, National Native Title Tribunal, Native Title Services Corporation Limited, relevant Catchment Management Authority, Local Aboriginal Land Council and relevant local councils.	Noted					
Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas (September 2014)	7	A RAP Tender Document, identifying the processes for the AHCS, was sent to the RAPs. The RAP tender document was the first opportunity for the RAPs to express interest in the AHCS. A second opportunity for participation in the AHCS was Workshop 1, which outlined the AHCS in more detail. Workshop 2, the third opportunity to participate in the AHCS, provided an opportunity to put forward conservation strategies and culturally map the BOAs. The draft report was sent to all RAPs and a 28 day review period was given (in accordance with the ACHCR process) so RAPs could comment on the draft AHCS. The review period was the fourth opportunity for the RAPs to comment on the AHCS. Following the draft report, the third workshop (and fifth opportunity) was for the RAPs to comment on the draft AHCS. The third workshop was the final opportunity for the RAPs to supply comments on the AHCS and inclusion into the final report. The table below summarises the five opportunities for the RAPs to supply comments on the AHCS.	Noted					
9 Implementation								
Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas (September 2014)	9	This AHCS will be implemented using a staged approach (Figure 14). Stage 1 will involve evaluation of conservation options. This evaluation process would assess the effectiveness of the options in conserving archaeological and Aboriginal cultural values, as well as considering the practicalities of their implementation. Options would be prioritised on this basis. The most practicable and effective option(s) would be selected. Stage 2 will involve conducting the activity associated with the selected conservation option(s). Stage 3 will monitor the activity during implementation, to ensure it is meeting its purpose and will consider inputs from the RAPs and OEH, where relevant. Stage 3 would also evaluate if changes to the implementation of the activity are required, or if additional conservation options should be considered. Stage 4 will document the activities undertaken for the conservation option(s) in an appropriate format and provide this information to the RAPs and OEH at end of the implementation phase.	Noted					
10 Conclusion								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas (September 2014)	10	A Cultural Heritage Strategy for the BTM Complex and BOA's has been developed in compliance with the approval conditions for the three mines. Its objective is to enhance and preserve cultural heritage. The strategy has been developed on the basis of an extensive desktop analysis complemented by the provision of extensive opportunities for consultation.	Noted					
Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas (September 2014)	10	The strategy includes a high level implementation plan which will be implemented in the future.	Noted, note that this strategy has not been finalised and is therefore not implemented.					
Aboriginal Heritage Conservation Strategy for the BTM Complex and Biodiversity Offset Areas (September 2014)	10	The next step in finalising the strategy is another round of consultation followed by submission to DoPE.	Noted					

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
WHC_PLN_MC_HISTORIC HERITAGE MANAGEMENT PLAN								
5.0 Management Measures								
5.1 Maules Creek Oral History Report								
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	5.1	Maules Creek Coal will engage a heritage specialist to compile an Oral History report for any landowners which are identified to be adversely impacted by the Project and who are acquired in accordance with the conditions of Project Approval.	Not done, 2 landowners have left their properties in the audit period. See response in PA.	Not Triggered				
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	5.1	The following procedures will be undertaken as a minimum for the development of the report: <ul style="list-style-type: none"> <li>• A consent, copyright and confidentiality release form will be drafted for issuing to Oral History participants;</li> <li>• A short presentation and/or information pamphlet is to be provided to Oral History participants explaining the Oral History project aims and objectives, the management of participants personal data, the expected timeframes for the project, the expected deliverables of the project and contact details for the Maules Creek Coal Project should they have any further questions;</li> <li>• Oral histories interviews will be recorded digitally following receipt of signed consent release forms.</li> <li>• Both soft (mp3/mp4 or equivalent) and hard (DVD) archives of digitally recorded interviews will be archived in a secure location for the lifetime of the Project;</li> <li>• Oral History participants will be given a chance to review their drafted Oral History and be provided with an opportunity to provide comments and feedback; and</li> <li>• All Oral History participants are to be provided with a copy of the final report.</li> </ul>	Not done, 2 landowners have left their properties in the audit period. See response in PA.	Not Triggered				
5.2 Historic Heritage Site Database								
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	5.2	A Historic Site Database for the Project and its immediate environs will be established upon commencement of the activities. The database will, at a minimum, contain the name, type, size (where applicable), MGA coordinates and status of all historic heritage sites within and directly adjacent to the Project Boundary on land owned by Maules Creek Coal. The database will, at a minimum, be reviewed on an annual basis to confirm that site impact details or newly identified sites have been entered.	Not yet done though all the information is available once the management plan is approved	Not Triggered				
5.3 Velyama Heritage Sites								
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	5.3	As recommended in the Project EA, a Conservation Management Plan (CMP) will be developed following approval of this HHMP for the future management of the Velyama Heritage Sites & Cultural Landscape. This CMP will be undertaken by a qualified archaeologist/cultural heritage management professional and include the following: <ul style="list-style-type: none"> <li>• Identification of suitable heritage curtilage for the Velyama complex of heritage sites. This should take into account the rail corridor which bisects the proposed combined Velyama heritage complex recommended by the original Historic assessment (Archaeology Australia, 2010:45) separating the Shearing Shed from the Velyama Homestead site and the Burial Ground;</li> <li>• Identification of opportunities to preserve the historical and cultural fabric of the presence of Blagden Chambers and his family;</li> <li>• Identification of opportunities for the Velyama cultural landscape to be managed in such a way as to conserve its rural character while balancing the requirements of the construction and operation of the rail corridor;</li> <li>• Ongoing maintenance strategies for the upkeep of the Burial Ground and Shearing Shed; and</li> <li>• Development of action plans for conserving the historic garden &amp; associated ruined structures associated with the Velyama Homestead. This must be balanced against the requirements of weed management.</li> </ul>	Not Yet developed, properties not being impacted at present. Once the management plan is approved the Conservation Management Plan will be developed.	Not Triggered				
5.4 Old Therribri Homestead & Warriahdool sites								
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	5.4	Archaeological material of diagnostic value may remain at the old Therribri homestead site and such material may only be accessible by excavation. Likewise, the remains of the sites identified on Warriahdool are considered of local heritage significance. To ensure protection, these sites will be fenced and an archaeologist is to be engaged prior to installation of the fencing to identify and mark out the respective curtilage areas.	These are contained within the historical fencing for the sites which matches the requirements fo the archaeology fencing.	Compliant				
5.5 Fencing of Historic Sites								
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	5.5	There are no planned impacts to historic heritage sites as part of the Project. All identified Historic Sites will be fenced and appropriately signed.	All are fenced but not yet signposted, this plan is not approved and the sites are currently not at risk.	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Histoirc Heritage Management Plan (Initial Draft, 15/04/2013)	5.5	Metal signs attached to fencing will include the following words as a minimum: ENVIRONMENTALLY SENSITIVE AREA NO UNAUTHORISED ENTRY OPERATIONS MANAGER	All are fenced but not yet signposted, this plan is not approved and the sites are currently not at risk.	Not Triggered				
Histoirc Heritage Management Plan (Initial Draft, 15/04/2013)	5.5	Fencing will be completed prior to any activities being undertaken within 50 metres of a previously identified historic heritage site. Fencing is to be comprised of star pickets and a combination of plain, barb or wire mesh fencing (or similar suitable materials) that retains the aesthetic and rural nature of the sites. An archaeologist is to be engaged prior to installation of the fencing to identify and mark out the curtilage area for fencing of all previously identified historic heritage sites.	No activities apart from a electricity pole being removed and that site was fenced	Compliant				
Histoirc Heritage Management Plan (Initial Draft, 15/04/2013)	5.5	Fencing will encompass the boundary of the identified historic heritage sites (which includes areas of identified archaeological potential) and incorporate a 20 metre buffer to avoid impacting the site through construction of the fence and also account for sub-surface potential.	This is done for each site	Compliant				
Histoirc Heritage Management Plan (Initial Draft, 15/04/2013)	5.5	Existing access tracks within historic heritage site boundaries are to be maintained. Traffic and/or upgrading of roads will be managed or limited within these areas to reduce additional impacts to sites.	The tracks are seldom used and have require little maintenance	Compliant				
Histoirc Heritage Management Plan (Initial Draft, 15/04/2013)	5.5	All fencing and signage will be removed from historic heritage sites on completion of the Project unless otherwise agreed.	Noted					
5.6 Monitoring								
5.6.1 Regular Monitoring Program								
Histoirc Heritage Management Plan (Initial Draft, 15/04/2013)	5.6.1	A regular monitoring program of the identified historic sites will be implemented to ensure the preservation of the site is maintained, this will include but not be limited to; fencing integrity, signage is in place, weed control and recording any evidence of impacts.	Monitoring is conducted, photos and reports sighted	Compliant				
5.6.2 Monitoring of Works in Proximity to Historic Heritage Sites								
Histoirc Heritage Management Plan (Initial Draft, 15/04/2013)	5.6.2	Monitoring is required if any ground disturbing works are to occur within 50 metres of identified historic heritage sites. Monitoring is not required for land use activities in areas where no historic heritage has been identified. . The procedure for identifying or uncovering new sites during future land use activities is detailed in Section 5.8 & 5.10.	No such works other than the power pole removal that had minimal impact	Compliant				
5.7 Breach Investigation & Dispute Resolution								
Histoirc Heritage Management Plan (Initial Draft, 15/04/2013)	5.7	If a person has good reason to believe the Proponent is not implementing the heritage conditions in Schedule 3 of the Project Conditions of Approval satisfactorily, then he/she may ask the Director-General in writing for an independent review of the matter (Schedule 4, Item 7).	This has not occurred.	Not Triggered				
Histoirc Heritage Management Plan (Initial Draft, 15/04/2013)	5.7	If the Director-General is satisfied that an independent review is warranted, then within 2 months of the Director-General's decision, the Proponent shall: a) Commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to: • Consult with the person and/or relevant agencies; • Investigate the person's complaints/claims; • Review the environmental performance of the Proponent; • Determine whether the Proponent 's performance is satisfactory or not; and if necessary • Recommend measures to improve the Proponent's performance; b) Give the Director-General and complainant a copy of the independent review.	This has not occurred.	Not Triggered				
Histoirc Heritage Management Plan (Initial Draft, 15/04/2013)	5.7	All incidences of potential breaches and disputes are to be documented thoroughly with a register maintained by the Environmental Manager at MCC.	This has not occurred.	Not Triggered				
5.7.1 Breach Investigation								
Histoirc Heritage Management Plan (Initial Draft, 15/04/2013)	5.7.1	Where a breach of the HHMP is suspected the following procedure is to be followed: 1. The Maules Creek Coal Environmental Manager is to investigate the breach with respect to the HHMP; and 2. The Maules Creek Coal Environmental Manager reserves the right to engage a heritage technical advisor to review the breach with respect to the HHMP.	No breaches have occurred	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	5.7.1	Where a breach has been determined to have occurred: 1. A technical report will be prepared and copies forwarded to the Director-General of DP&I and the Heritage Branch, detailing the breach and providing a recommended resolution for comment within 7 days; and 2. Within reason, further actions may be required dependent on the breach and comment received from the regulator.	No breaches have occurred	Not Triggered				
5.7.2 General Dispute								
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	5.7.2	Where a general dispute arises through the implementation of this HHMP, the following principles and procedures will be undertaken: 1. The Environmental Manager is to discuss the issue with the disputer. They may engage a heritage technical advisor to assist. 2. Failing resolution, an onsite meeting at a time convenient to all parties is to be convened to be attended by Maules Creek Coal and a heritage technical advisor appointed by Maules Creek Coal; and 3. Should further mediation fail to achieve resolution by consensus, approval of the DP&I will be sought.	No disputes have occurred	Not Triggered				
5.7.3 Technical Dispute								
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	5.7.3	A technical dispute occurs where two parties (one of which is MCC) disagree on a methodological or interpretative issue for any of the management recommendations of this HHMP. Where a technical dispute arises through the implementation of this HHMP, the following principles and procedures will be undertaken: 1. The Environmental Manager is to discuss the issue with the disputer. They may engage a heritage technical advisor to assist; 2. Failing resolution, an onsite meeting at a time convenient to all parties is to be convened between MCC; 3. Should further mediation fail to achieve resolution by consensus, approval of the Director-General of DP&I will be sought for progressing with an independent assessment of the issue raised.	No disputes have occurred	Not Triggered				
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	5.7.3	Where a technical dispute arises from a methodological or analytical perspective that cannot be resolved through mediation, Maules Creek Coal reserves the right to engage an independent third party to review the area in dispute. Independent third parties can be identified by writing to the President of the Australian Archaeological Association (AAA), the President of the Australasian Society for Historical Archaeology (ASHA) or the President of the Australian Association of Consulting Archaeologists Inc. (AACAI).	No disputes have occurred	Not Triggered				
5.8 Historic Heritage Induction								
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	5.8	As part of all Project inductions, a historic cultural heritage component will be included. This will outline current protocols and responsibilities with respect to conducting works in the vicinity of and the management of historic heritage sites and/or items for the Project. It will also provide an overview of the site types present and procedures for reporting the identification of historic heritage sites.	This is currently not included though the induction mentions specific approvals required to work in these areas. Note none of these areas are in the operational area of the mine	Not Triggered				
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	5.8	A register of all persons having completed historic heritage inductions will be maintained throughout the construction and operational phases of the Project.	Inductions are recorded on training files	Not Triggered				
5.9 New Site Recording								
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	5.9	In the event that previously unidentified historic site and/or relic is discovered throughout the construction and operational phases of the Project, the following procedure is to be adopted: 1. All works must cease immediately in the area to prevent any further impacts to the site/relics. 2. Notify the Maules Creek Coal Environmental Manager immediately; 3. A qualified archaeologist must be engaged to determine the nature, extent and significance of the site/relics; 4. Based on the assessed significance of the site and the advice of the engaged archaeologist, determine and implement appropriate mitigation measures 5. The Maules Creek Coal Project Historic Heritage Site Database is to be updated with the relevant information; and 6. The HHMP is to be revised and updated and DP&I and the Heritage Branch notified as soon as practicable.	This has not occurred, the protocol is identical to the Archaeological protocol and this has been tested and found adequate	Not Triggered				
5.10 Human Remains								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	5.10	In the event that operations reveal possible human skeletal material (remains), the following procedure is to be followed: <ul style="list-style-type: none"> <li>When suspected human remains are exposed, all construction work is to cease immediately in the near vicinity of the find location and the General Manager on site is to be immediately notified. The General Manager will contact the Police at the earliest reasonable time;</li> <li>An area of 50 m radius is to be cordoned off by temporary fencing around the exposed human remains site - work can continue outside of this area as long as there is no risk of interference to the human remains or the assessment of human remains. Assessment of risk may utilise the risk matrix provided within the NSW Health Policy directive on the exhumation of human burials;</li> <li>Contact the OEH Environment line on 131 555 and the Heritage Branch on 02 9873 8500; and</li> <li>A physical or forensic anthropologist should be commissioned by MCC to inspect the remains in situ (unless otherwise directed by the police), and make a determination of ancestry (Aboriginal or non- Aboriginal) and antiquity (pre-contact, historic or modern);</li> <li>if the remains are identified as modern the area is deemed as crime scene; or</li> <li>if the remains are identified as Aboriginal, the Environmental Specialist will notify OEH and representatives of the local Aboriginal community and appropriate management measures will be determined through consultation with them. Representatives of the Aboriginal community will be present during all investigations of Aboriginal remains; or</li> <li>if the remains are as non-Aboriginal (historical) remains, the site is to be secured and the Heritage Branch is to be contacted.</li> </ul>	This has not occurred	Not Triggered				
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	5.10	The above process functions only to appropriately identify the remains and secure the site. From this time, the management of the area and remains is to be determined through one of the following means: <ul style="list-style-type: none"> <li>If the remains are identified as a modern matter, liaise with the police and/or the Coroner's Office and/or NSW Health with respect to the exhumation of the remains;</li> <li>If the remains are identified as Aboriginal, liaise with OEH and Aboriginal stakeholders;</li> <li>If the remains are identified as non-Aboriginal (historical), liaise with the Heritage Branch; and</li> <li>If the remains are identified as not being human, then work can recommence without delay.</li> </ul>	This has not occurred	Not Triggered				
5.11 Ground Impacts from Weed and Feral Animal Management								
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	5.11	Measures to control weeds and feral animals within the Project Boundary will avoid ground impacts to all historic heritage sites. The plants within the garden identified as being associated with the Velyama Homestead site are to be managed according to the CMP. The CMP will include maintenance and monitoring guidelines on managing the various species within the gardens from becoming invasive.	Noted, CMP not yet developed	Not Triggered				
5.12 Exemptions for Emergency Vegetation Management								
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	5.12	Should an emergency situation arise that requires vegetation clearance (for example fire fighting, hazardous materials spill etc) in the vicinity of historic heritage sites, vegetation clearance will be undertaken with the minimum possible disturbance to the topsoil. Activities relating to maintenance, construction or operational activities do not comprise emergency situations.	This has not occurred	Not Triggered				
5.13 Reporting under the HHMP								
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	5.13	All historic heritage management and mitigation works carried out under the HHMP for the Project will be documented to a standard comparable to that required by the Historical Archaeology Code of Practice (NSW Heritage Office, 2006b). Plain English summaries of technical archaeological salvage reports will also be prepared if and when required.	Noted					
5.14 Historic Heritage Management Plan Review								
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	5.14	A review of the HHMP is to be conducted within three months of: <ul style="list-style-type: none"> <li>submission of the Annual Review (Schedule 5, Condition 4 of PA 10_0138);</li> <li>an incident report (Schedule 5, Condition 8 of PA 10_0138);</li> <li>the undertaking of an Independent Environmental Audit (Schedule 10, Condition 4 of PA 10_0138); or</li> <li>any modification to PA 10_0138.</li> </ul>	HHMP still in initial draft stage as per provided documentation (15/04/2014).	Not Triggered				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility	
					Consequence	Likelihood	Risk		
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	5.14	The review of the HHMP will involve a compliance audit to ensure that management procedures have been adhered to.	Noted	Not Triggered					
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	5.14	Following review and revision of the HHMP, approval to the satisfaction of the Director-General of DP&I will be sought.	Noted	Not Triggered					
<b>6.0 Implementation</b>									
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	6	<b>Table 6 Task Implementation</b>				Implementation will occur following the approval of the plan	Not Triggered		
		<b>Task</b>	<b>Section of HHMP</b>	<b>Responsibility</b>	<b>Timing</b>				
		Maules Creek Oral History Report	5.1	Maules Creek Coal Project Environmental Manager	As requested by a land owner after acquisition of a property in accordance with PA10_0138				
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	6	<b>Table 6 Task Implementation</b>				Implementation will occur following the approval of the plan	Not Triggered		
		<b>Task</b>	<b>Section of HHMP</b>	<b>Responsibility</b>	<b>Timing</b>				
		Conservation Management Plan - Velyama Heritage Sites	5.2	Maules Creek Coal Project Environmental Manager	Immediately following approval of this HHMP				
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	6	<b>Table 6 Task Implementation</b>				Implementation will occur following the approval of the plan	Not Triggered		
		<b>Task</b>	<b>Section of HHMP</b>	<b>Responsibility</b>	<b>Timing</b>				
		Management of Old Terribil & Warrahdool Sites	5.4	Maules Creek Coal Project Environmental Manager	Immediately following approval of this HHMP				
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	6	<b>Table 6 Task Implementation</b>				Implementation will occur following the approval of the plan	Not Triggered		
		<b>Task</b>	<b>Section of HHMP</b>	<b>Responsibility</b>	<b>Timing</b>				
		Fencing of Historic Sites	5.5	Maules Creek Coal Project Environmental Manager	Immediately following approval of this HHMP				
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	6	<b>Table 6 Task Implementation</b>				Implementation will occur following the approval of the plan	Not Triggered		
		<b>Task</b>	<b>Section of HHMP</b>	<b>Responsibility</b>	<b>Timing</b>				
		Regular Monitoring Program	5.6.1	Maules Creek Coal Project Environmental Manager	Monthly				
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	6	<b>Table 6 Task Implementation</b>				Implementation will occur following the approval of the plan	Not Triggered		
		<b>Task</b>	<b>Section of HHMP</b>	<b>Responsibility</b>	<b>Timing</b>				
		Monitoring of Works in Proximity to Historic Heritage Sites	5.6.2	Maules Creek Coal Project Environmental Manager	During surface disturbance works				
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	6	<b>Table 7 Roles and Responsibilities</b>				Implementation will occur following the approval of the plan	Not Triggered		
		<b>Role</b>	<b>Responsibilities</b>						
		General Manager Maules Creek	Provide required resources and support to implement these procedures. Undertake training in relevant management plans and procedures as required. Specific Heritage responsibilities outlined in Table 6						
Historic Heritage Management Plan (Initial Draft, 15/04/2013)	6	<b>Table 7 Roles and Responsibilities</b>				Implementation will occur following the approval of the plan	Not Triggered		
		<b>Role</b>	<b>Responsibilities</b>						
		Environment Manager Maules Creek	Authorise the HHMP and future amendments. Ensure induction and training relevant to the HHMP is implemented. Act as the interface for heritage matters between government authorities, private industry, contractors, community groups and the wider community. Notify the relevant regulatory agencies of any incidents or non-compliances. Specific Heritage responsibilities outlined in Table 6						

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility						
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Histoic Heritage Management Plan (Initial Draft, 15/04/2013)	6	<p>Environment Officer</p> <p>Inform the relevant managers of unexpected or serious heritage impact issues.</p> <p>Assess the implementation of this HHMP.</p> <p>Ensure training relevant to the HHMP is implemented.</p> <p>Maintain a high level of understanding of the HHMP.</p> <p>Ensure the HHMP is implemented in daily operations of the site.</p> <p>Review this HHMP if any significant changes to mine plans or operations occur.</p> <p>Support the Environment Manager to act as the interface for heritage matters between government authorities, private industry, contractors, community groups and the wider community (where appropriate).</p> <p>Support the Environmental Manager to gather the required information and ensure reportable incidents are reported to relevant authorities.</p> <p>Maintain an environmental monitoring program to gauge the effects of the mining operations on air quality.</p> <p>Conduct required monitoring to the standard and frequency outlined in this AHMP, and as per requirements of the Project Approval.</p> <p>Prepare as part of the annual environmental report (Annual Review), a report detailing the results of key performance indicators developed for each monitoring location identified in this AHMP.</p> <p>Respond to any unplanned events that may potentially result in, or cause, negative heritage impacts.</p> <p>Ensure inspections are undertaken in accordance with the HHMP.</p> <p>Check that persons conducting the inspection are appropriately trained, understand their obligations and the specific requirements of this HHMP.</p> <p>Review and assess monitoring results and inspection checklists.</p> <p>Promptly notify the Environment Manager of any identified environmental issue.</p>	Implementation will occur following the approval of the plan	Not Triggered										
Histoic Heritage Management Plan (Initial Draft, 15/04/2013)	6	<table border="1"> <tr> <td></td> <td>Carry out all required notifications. Specific Heritage Management responsibilities outlined in Table 6.</td> </tr> <tr> <td>Manager Mining / Manager / CHPP</td> <td>Maintain accountability for the overall environmental performance, including the procedures and outcomes of this HHMP. Respond to any unplanned events that may potentially result in negative environmental impacts. Ensure reportable incidents are investigated and reported to the Environmental Department. Ensure inspections are undertaken in accordance with the HHMP. Check that persons conducting the inspection are appropriately trained and understand their obligations and the specific requirements of this HHMP. Specific Heritage Management responsibilities outlined in Table 6.</td> </tr> <tr> <td>All personnel</td> <td>Adhere to the requirements of this HHMP. Report any events that may potentially result in negative impacts to heritage immediately to their Supervisor.</td> </tr> </table>		Carry out all required notifications. Specific Heritage Management responsibilities outlined in Table 6.	Manager Mining / Manager / CHPP	Maintain accountability for the overall environmental performance, including the procedures and outcomes of this HHMP. Respond to any unplanned events that may potentially result in negative environmental impacts. Ensure reportable incidents are investigated and reported to the Environmental Department. Ensure inspections are undertaken in accordance with the HHMP. Check that persons conducting the inspection are appropriately trained and understand their obligations and the specific requirements of this HHMP. Specific Heritage Management responsibilities outlined in Table 6.	All personnel	Adhere to the requirements of this HHMP. Report any events that may potentially result in negative impacts to heritage immediately to their Supervisor.	Implementation will occur following the approval of the plan	Not Triggered				
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Histoic Heritage Management Plan (Initial Draft, 15/04/2013)	7	Access to the Maules Creek Coal Project will be via approved Site or Visitors induction only. There will be no unauthorised access to the site during the construction or mining operations phases.	Implementation will occur following the approval of the plan	Not Triggered										
Histoic Heritage Management Plan (Initial Draft, 15/04/2013)	7	All persons attending the Maules Creek Coal Project must abide by all site safety policies and procedures whilst on site.	Implementation will occur following the approval of the plan	Not Triggered										
Histoic Heritage Management Plan (Initial Draft, 15/04/2013)	7	All work activities conducted on the Maules Creek Coal Project site must be assessed and documented to identify potential hazards and any controls implemented. A Risk Assessment (RA) and Safe Work Procedure (SWP) will be developed for the tasks to be conducted. The RA and SWP will be reviewed and approved by Maules Creek Coal prior to the tasks being conducted.	Implementation will occur following the approval of the plan	Not Triggered										

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<b>4.5 Community Engagement and Complaints Management</b>																																
Social Impact Management Plan (15/06/2015)	4.5	Briefings to the Maules Creek Coal Mine CCC will be provided as necessary in regard to social impact and opportunity issues arising from MCCM. The Maules Creek Coal Mine CCC meeting minutes are published on the Whitehaven website (currently at <a href="http://www.whitehavencoal.com.au/community/maulescreek_ccc.cfm">http://www.whitehavencoal.com.au/community/maulescreek_ccc.cfm</a> ).	CCC Meeting minutes available on WHC website, viewed 30/07/2015. <a href="http://www.whitehavencoal.com.au/environment/maules_creek_environmental_management.cfm">http://www.whitehavencoal.com.au/environment/maules_creek_environmental_management.cfm</a>	Compliant																												
Social Impact Management Plan (15/06/2015)	4.5	Whitehaven provides a 24 hour phone line for the MCCM (1800 MAULES [1800 628 537]) to which complaints regarding social issues can be reported. A direct email address <a href="mailto:1800Maules@whitehavencoal.com.au">1800Maules@whitehavencoal.com.au</a> is also available.	Phone line is operational but email address is not, in its place is a contact section on the website which looks appropriate	Compliant																												
Social Impact Management Plan (15/06/2015)	4.5	The MCCM website ( <a href="http://www.whitehavencoal.com.au/operations/maules_creek.cfm">http://www.whitehavencoal.com.au/operations/maules_creek.cfm</a> ) will also be developed to allow on-line complaints.	WHC website provides online community feedback form ( <a href="https://www.whitehavencoal.com.au/environment/maules_creek_site_monitoring_reporting.cfm#mc_smform">https://www.whitehavencoal.com.au/environment/maules_creek_site_monitoring_reporting.cfm#mc_smform</a> )	Compliant																												
Social Impact Management Plan (15/06/2015)	4.5	Any complaint received from the general community relating to any social impact issues will be managed in accordance with the MCCM Coal Complaint Handling and Response processes as outlined in the MCCM Environmental Management Strategy. As a minimum, records of the complaint will include: <ul style="list-style-type: none"> <li>• date and time the complaint was logged;</li> <li>• personal details provided by the complainant;</li> <li>• nature of the complaint;</li> <li>• action taken regarding the complaint, or if no action was taken, the reason why; and</li> <li>• follow-up contact with the complainant.</li> </ul>	Sighted Complaints Register and sanitised for publication register	Compliant																												
Social Impact Management Plan (15/06/2015)	4.5	Whitehaven also liaises regularly with the NSC and GSC and will continue this engagement during operations. Engagement with the councils will encompass issues including: <ul style="list-style-type: none"> <li>• workforce ramp up and numbers of workers and families likely to live in the LGAs;</li> <li>• the availability of housing in relation to workforce needs;</li> <li>• Council plans for residential and industrial land development, economic development and community development; and</li> <li>• cumulative issues relating to air quality monitoring, traffic management and rail movements.</li> </ul>	Regular meetings with Narrabri Shire Council, meetings with Gunnedah Shire Council, plus ad hoc phone calls and discussions	Compliant																												
Social Impact Management Plan (15/06/2015)	4.5	Issues of concern raised by NSC, GSC or any of the stakeholders identified in Section 3 will be discussed directly with those organisations.	Noted																													
<b>4.6 Mine Closure and Decommissioning</b>																																
Social Impact Management Plan (15/06/2015)	4.6	The closure of large mining operations in rural communities can result in material changes in: <ul style="list-style-type: none"> <li>• the local population, for example if people leave to seek other employment after the mine closes;</li> <li>• demand for housing, for example if people leave or other people move to the LGA as a result of future long-term use of the site after mining; and</li> <li>• demand for social infrastructure and local business trade, if there is a change in the population or demand for consumable goods and services as a result of mine closure</li> </ul>	Noted																													
Social Impact Management Plan (15/06/2015)	4.6	In the case of the MCCM, the presence of other existing and potential mining operations and social trends over the life of the mine are likely to influence the social impacts of the closure of the MCCM.	Noted																													
Social Impact Management Plan (15/06/2015)	4.6	The MCCM is at the start of its 21 year mine life and as a result, plans and strategies to manage social impacts during mine closure are at an early stage. The SIMP will be periodically reviewed and updated as necessary to be consistent with the mine closure and to provide details of the social impact management strategies that will be implemented during this phase of the MCCM mine life.	Noted, not yet required due to early stage of site development	Not Triggered																												
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5.2 Monitoring																																						
Social Impact Management Plan (15/06/2015)	5.2	Data for the performance measures detailed in Sections 4.1 to 4.4 and for indicators identified in Table 5-2 will be collected annually or as identified in Table 5-2, and reported in the Annual Review by the end of March in each year. Monitoring results will also be used to inform annual review of the SIMP and MCCM audits.	3.15; 3.15.1 in 2013 AEMR and 3.14.1; 3.14.2 in 2014 AEMR	Noted																																		
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Social Impact Management Plan (15/06/2015)	5.2			2014 AEMR quotes system in place where rent increases every 3 months to encourage permanent moves to the area. No reference in 2013 AEMR																																		
Social Impact Management Plan (15/06/2015)	5.2			2014 AEMR states "MCCM will continue to monitor in conjunction with the local council, the ongoing housing and accommodation market to ensure impacts are managed." 2013 AEMR no reference.																																		
Social Impact Management Plan (15/06/2015)	5.2			2014 AEMR reports local/non-local splits, Indigenous and gender mix amongst employees, as well as "new to mining".																																		
Social Impact Management Plan (15/06/2015)	5.2			2013 AEMR reports local/non-local splits only.																																		
Social Impact Management Plan (15/06/2015)	5.2			Not discussed in either of the AEMR's																																		

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Social Impact Management Plan (15/06/2015)	5.2	E03 - To secure a skilled workforce for the MCCM	E18 - Number of traineeships, apprenticeships and scholarships offered on an annual basis to local residents. MCCM HR records.	2014 AEMR presents apprenticeships/trainees numbers. 2013 does not.	Not Compliant Administrative			
Social Impact Management Plan (15/06/2015)	5.2	E04 - To enable local businesses to participate in MCCM procurement opportunities.	E19 - Number of local and regional businesses supplying the Project. MCCM Procurement records.	Not reported in either AEMR				
Social Impact Management Plan (15/06/2015)	5.2	E09 - To assist NSC and GSC and the state government in responding to the labour supply and training demands resulting from cumulative resource developments in the area.	E10 - Evidence of collaborative discussions and provision of data and survey results regarding cumulative labour issues (especially provision of details of EA to SIAI access). MCCM Stakeholder engagement records.	Not reported in either AEMR				
Social Impact Management Plan (15/06/2015)	5.2	<b>Community Infrastructure and Well-being</b> C01 - To assist government and other relevant bodies with population forecasts and service delivery by ensuring timely provision of MCCM workforce data.	C11 - As per T43 - Operational employees' residential location and family status monitored quarterly. MCCM HR records.	Number of local and non-local workers prested in both AEMR's, but not family status.				
Social Impact Management Plan (15/06/2015)	5.2	C02 - To manage the impact of the MCCM workforce and associated population growth on demand for local services and facilities.	C12 - Funds provided to NSC as per VPA. C13 - Annual enrolments at Fairfax School. C14 - Demand for childcare, GP services, and school enrolments attributable to MCCM employees. MCCM Accounts. Department of Education and Communities. Consultation with local service providers.	2014 AEMR reports VPA contributions, but not enrolments or demand for childcare.  2-13 AEMR does not report any.				
Social Impact Management Plan (15/06/2015)	5.2	C03 - To participate in monitoring community infrastructure impacts in the Hamlet and Gunnedah LGAs arising from cumulative resource developments in the area.	C15 - Evidence of collaborative discussions and provision of data and survey results regarding cumulative community infrastructure provision. MCCM consultation records.	Not reported in either AEMR				
Social Impact Management Plan (15/06/2015)	5.2	<b>Transport</b> T01 - To minimise the impact of MCCM related traffic on the local road network and road safety conditions.	T11 - Funds provided to NSC as per VPA under Management Action TA1. MCCM Accounts.	2014 AEMR reports VPA contributions  2-13 AEMR does not report any.				
Social Impact Management Plan (15/06/2015)	5.2	T02 - To work with other rail users to ensure that the rail network can continue to handle the forecast additional rail movements.	T12 - Results of discussions with relevant bodies regarding capacity of rail network. Consultation records with ARTC, other rail freight users.	Not reported in either AEMR				
Social Impact Management Plan (15/06/2015)	5.2	T03 - To ensure the Hamlet Airport can accommodate MCCM related passenger numbers without adversely affecting public accessibility to the Hamlet Airport.	T13 - Funds provided to NSC as per VPA under Management Action TA3. MCCM Accounts.	2014 AEMR reports VPA contributions  2-13 AEMR does not report any.				
Social Impact Management Plan (15/06/2015)	5.2	T04 - To participate in monitoring the transport infrastructure impacts in the Hamlet and Gunnedah LGAs arising from cumulative resource developments in the area.	T14 - Evidence of collaborative discussions and provision of data and regarding cumulative transport infrastructure provision. Consultation records with NSC and GSC stakeholders regarding cumulative transport infrastructure planning.	Not reported in either AEMR				
<b>5.3 Review and Reporting</b>								
Social Impact Management Plan (15/06/2015)	5.3	In accordance with Condition 4 of Schedule 5 of PA 10_0138, MCC will submit by the end of March each year (or other such timing as agreed by the Secretary of the DP&E) a MCCM Annual Review for the previous calendar year, which will fulfil the reporting requirements listed in that condition. The review will include a review of the social impact monitoring data and complaints records over the past year. Social impact management objectives, indicators and data sources are provided in Table 5-2.	Social Impact reviewed in the 2013 AEMR (3.15) and 2014 AEMR (3.14.1; 3.14.2)	Compliant				
Social Impact Management Plan (15/06/2015)	5.3	The SIMP will be reviewed in accordance with Condition 5 of Schedule 5 of PA 10_0138, and if required will be updated. This will include review of any ongoing need for actions and commitments which are currently planned for completion in 2018/2019.	SIMP last revised 15/06/2015	Compliant				
Social Impact Management Plan (15/06/2015)	5.3	The SIMP and future updates will be available, once approved by the Secretary, on the MCCM website as required by Project Approval Schedule 5 Condition 12. Monitoring results will also be available on the MCCM website as soon as practicable after the Secretary's annual acceptance of the Annual Review.	The SIMP is available (last revised 15/06/2015) on the WHC website. Monthly monitoring results also available from May 2014 - June 2015 inclusive	Compliant				
<b>5.4 Auditing</b>								
Social Impact Management Plan (15/06/2015)	5.4	Condition 10 of Schedule 5 of PA 10_0138 requires an Independent Environmental Audit of MCCM to be commissioned by the end of June 2015 and three years thereafter. Condition 11 requires the Audit to be submitted to the Secretary within three months of its commissioning, together with a response to any recommendations contained in the Audit report. All information required to be audited relating to socio-economic issues will be included in each Annual Review.	This audit	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility																		
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WHC_PLN_MC_CONSTRUCTION WORKFORCE ACCOMMODATION PLAN																										
3.0 Monitoring, Reporting and Review																										
Construction Workforce Accommodation Plan (04/04/2013)	3	Leading into the commencement of construction activities and throughout construction, Whitehaven will monitor the size of the non-local construction workforce and adjust the occupancies between the two accommodation villages accordingly.	Sighted tracking spreadsheets and discussed with person responsible.	Compliant																						
Construction Workforce Accommodation Plan (04/04/2013)	3	Should monitoring results demonstrate substantial differences to the construction employee numbers presented within this CWAP, then a review and update of this document shall be completed in consultation with NSC and to the satisfaction of the Director-General.	Not required	Not Triggered																						
Construction Workforce Accommodation Plan (04/04/2013)		Monitoring results on the number of construction employees for the Project will be recorded and reported on in the Annual Review.	2013 AEMR (3.15.1) and 2014 AEMR (3.14.2) report on employee numbers and composition.	Compliant																						
4.0 Actions and Responsibility																										
Construction Workforce Accommodation Plan (04/04/2013)	4	Table 3 provides a list of the actions and the responsible Whitehaven employee to complete each action.																								
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WHC_PLN_MCC_Traffic Management Plan								
3 Access Routes								
3.3 Construction and Operations Access Routes								
Traffic MP (9/9/2014)	3.3	Following the construction and final commissioning of the Mine Access Road, access to the MCCM for vehicles up to 42.5 tonnes GVM will be then via Route 2 which consists of: 1. Kamilaroi Highway (either northbound or southbound) to Rangari Road, then 2. Rangari Road (east bound) to Therribri Road, then 3. Therribri Road northbound to Mine Access Road, then 4. Mine Access Road to the MCCM.	This is now in place and followed.	Compliant				
3.4 Heavy Vehicle Access Route								
Traffic MP (9/9/2014)	3.4	The Iron Bridge, located on Rangari Road West, and the Boston Street Bridge have sign posted load limits of 42.5 tonnes (t) and 15 t respectively. The Boston Street Bridge has a 4 m vertical clearance.	Noted					
Traffic MP (9/9/2014)	3.4	Due to these load limits, an alternative heavy vehicle route has been nominated for vehicles exceeding these limits. This will be via Route 3 which consists of: 1. Kamilaroi Highway (either northbound or southbound) to Blue Vale Road, then 2. Blue Vale Road - Hoads Lane (north bound) to Whitehaven – Tarrawonga Haul Route, then 3. Tarrawonga Haul Route (north-west bound) to Rangari Road, then 4. Rangari Road (west bound) to either Leard Forest Road or Therribri Road and continue on Route 1, Route 1A or Route 2 (respectively).	Nominated routes were used by heavy loads during construction. This requirement was generally complied with - anecdotal evidence.	Compliant				
Traffic MP (9/9/2014)	3.4	The heavy vehicle access as described in this TMP is in no way intended to contravene the general legislation regarding load and dimension limits.	Noted					
Traffic MP (9/9/2014)	3.4	Heavy vehicle operators and fleet managers are to be aware of the general legal load and dimension limits set for each road, in particular a permit approved by the relevant council (i.e. NSC and/or GSC) will be sought for oversize transport prior to the traffic movement on the local roads.	Noted					
Traffic MP (9/9/2014)	3.4	The nominated heavy vehicle route through Gunnedah is via a bypass along Boundary Road, Bloomfield street and Warrumbungle Street, this bypass is signposted locally at the either of the route and is not available to oversize vehicles during school day hours of 8.30 am - 9.30 am and 2.30 pm - 4.00 pm.	Noted					
3.5 Restricted Routes								
3.5.1 Access Restrictions								
Traffic MP (9/9/2014)	3.5.1	MCC has installed signage on the surrounding road network to enforce the access routes and prohibited roads identified proposed by the TMP.	Sighted an inspection worksheet with photos	Compliant				
Traffic MP (9/9/2014)	3.5.1	A separate approval will be obtained from RMS for the installation of signs affecting traffic using the Kamilaroi Highway.	No signs on the highway	Not Triggered				
3.6 Access Route Management Measures								
Traffic MP (9/9/2014)	3.6	Education/induction: All personnel accessing the site will be advised of and are required to operate in accordance with this TMP, and specifically adhere to the nominated access routes, this will be communicated either during the contract tendering process and again during the MCCM site specific and visitor induction process, as well as reinforcing through communication sessions and contractor management meetings. All heavy vehicle operators will be required to follow the Heavy Vehicle Code of Conduct detailed in Section 5.	Sighted notification sent to all employees ad contractors	Compliant				
Traffic MP (9/9/2014)	3.6	Signage: Sign posted advice will be provided to positively and negatively reinforce the nominated access routes.	Sighted an inspection worksheet with photos	Compliant				
Traffic MP (9/9/2014)	3.6	Audits: MCC will conduct regular audits to check for non-compliance with regard to access prohibitions. These audits will involve positioning a nominated person on Therribri Road at the entrance to the Velyama Property to monitor vehicles travelling north past this point, and on Leard Forest Road at the intersection with the Northern Loop Road to monitor vehicles entering and exiting the MCCM and travelling north past this point, these audits will occur for two days per month during the construction phase, post construction audits will occur for two days every three months. Additional audits and monitoring can occur to specifically address concerns from neighbours, residences, neighbouring mines or other contractors. MCC will review each occurrence to determine whether the vehicles are associated with the MCCM and disciplinary action for breach of site rules will be implemented for those found to be in non-compliance with this control measure, this action may involve written warnings through to removal from the MCCM.	Sighted monitoring logs	Compliant				
Traffic MP (9/9/2014)	3.6	Consultation: MCC will consult with the NSC, GSC, RMS, the National Heavy Vehicle Regulator and other local authorities to obtain the necessary permits prior to the movement of oversized/over mass loads on public roads.	Noted					

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
<b>4 Road Upgrades</b>								
Traffic MP (9/9/2014)	4	The following road improvements have/will be carried out as part of the MCCM Voluntary Planning Agreement (VPA). Some of these have/will be undertaken in cooperation with Boggabri Coal and Tarrawonga Coal: 1. Upgrade of the Kamilaroi Highway / Rangari Road intersection to a channelised right turn facility that meets the Austroads design guidelines. 2. Upgrade to the section of Rangari Road between Tarrawonga Coal Mine Access Road and Barbers Lagoon Road (other than the section covered in the Tarrawonga VPA) to provide a sealed roadway between these two points; 3. The Kamilaroi Highway Rail overpass which will be constructed as a joint venture involving MCC and Boggabri Coal (Section 4.3); and 4. Upgrade to the section of Therribri Road between Rangari Road and the future Mine Access Road to provide a sealed roadway between these two points.	1. This has not been done, MCCM currently reviewing traffic volumes at this intersection to reassess the upgrade requirements. 2. Upgrade has occurred 3. Noted 4. Currently underway	Compliant				
<b>4.1 Kamilaroi Highway and Rangari Road Intersection</b>								
Traffic MP (9/9/2014)	4.1	In accordance with Condition 60 of Schedule 3 of PA 10_0138, MCC is proposing to upgrade the intersection of Rangari Road and the Kamilaroi Highway to provide a channelised right turn in accordance with Austroads guidelines. The design and the carrying out of the upgrade works to this intersection will be completed in close consultation with RMS, with the anticipated time for completion being June 2015.	MCCM currently reviewing traffic volumes at this intersection to reassess the upgrade requirements.	Not Compliant	E	5	Low	
<b>4.2 Rangari Road upgrade – Barbers Lagoon Road to Tarrawonga Mine Access Road</b>								
Traffic MP (9/9/2014)	4.2	In accordance with Condition 61 of Schedule 3 of PA 10_0138, MCC has completed the upgrade and sealing works on the unsealed section of Rangari Road between its intersections with the Tarrawonga Coal Mine access road and Barbers Lagoon Road.	Completed	Compliant				
<b>4.3 Kamilaroi Highway rail overpass</b>								
Traffic MP (9/9/2014)	4.3	Prior to the construction of the Rail Overpass, Boggabri Coal on behalf of the Boggabri Maules Creek Rail Joint Venture (BMCJV) entered into a WAD with RMS regarding the design, construction and handover of assets and to ensure compliance with RMS road occupancy requirements.	Boggabri Managed this work	Compliant				
<b>4.4 Therribri Road between Rangari Road and Mine Access Road</b>								
Traffic MP (9/9/2014)	4.4	The section from Rangari Road to Mine Access Road is proposed to be upgraded to a sealed road. This is proposed to occur as part of the construction program to enable the upgraded road to be used by construction-related traffic once the Mine Access Road is completed. MCC has contributed funds under its VPA with NSC to be used on the upgrade of this section of Therribri Road. MCC will continue to liaise with NSC on the timing and progress of this road upgrade works.	Currently underway funded by VPA	Compliant				
<b>4.5 Northern Link Road and East Link Road</b>								
Traffic MP (9/9/2014)	4.5	Whitehaven has an Access and Compensation Agreement in place and an Occupation Permit with the Forestry Corporation of NSW to access, upgrade and maintain these roads to the MCCM.	These roads are no longer used for site access	Compliant				
<b>4.6 Mitigation and management measures in response to the road safety review</b>								
Traffic MP (9/9/2014)	4.6	A road safety review of the relevant roads surrounding the MCCM was carried out as part of the Traffic and Transport Impact Assessment prepared at the Environmental Assessment stage (Hyder Consulting, 2011). Many of the review findings will or have been addressed through routine maintenance, upgrade works or more global mitigation measures or traffic access arrangements described in this TMP. These include the items listed below.	Noted					
Traffic MP (9/9/2014)	4.6	• The Kamilaroi Highway/ Rangari Road intersection will be upgraded to provide formal passing facilities with regard to right-turn movements into Rangari Road (Section 4.1).	MCCM currently reviewing traffic volumes at this intersection to reassess the upgrade requirements.	Not Triggered				
Traffic MP (9/9/2014)	4.6	• Heavy vehicles exceeding 42.5 tonnes are re-diverted to the more appropriate route of Blue Vale Road, which avoids the safety issues identified in the road safety review.	Noted					
Traffic MP (9/9/2014)	4.6	• The section of Therribri Road between Rangari Road and Mine Access Road will be sealed.	Not yet completed but is underway	Compliant				
Traffic MP (9/9/2014)	4.6	• Leard Forest Road, East Link Road, Northern Link Road and Goonbri Road are only being used as interim access roads until the Mine Access Road is constructed and opened to traffic. MCC is continuing to liaise with NSC regarding the maintenance of the unsealed section of the Leard State Forest Road and Goonbri Road to be used by the MCCM and, where necessary obtains the relevant permits to occupy the road during maintenance activities. Under the Occupation Permit with the Forestry Corporation NSW, MCC will maintain the East Link Road and North Link Road.	The interim use of these roads is now complete	Compliant				
Traffic MP (9/9/2014)	4.6	MCC has sought the necessary approvals and will continue to liaise with NSC and RMS regarding the road upgrades.	Noted					
<b>5 Management Measures for Heavy Vehicles</b>								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
<b>5.1 Code of Conduct for drivers</b>								
Traffic MP (9/9/2014)	5.1	All drivers of light and/or heavy vehicles that have been engaged by MCC must adhere to the following Code of conduct for drivers.	Sighted code of conduct and distribution to workers	Compliant				
Traffic MP (9/9/2014)	5.1	• Obey all the laws and regulations that apply to vehicles on public and private roads;	Sighted code of conduct and distribution to workers	Compliant				
Traffic MP (9/9/2014)	5.1	• Operate in full compliance with this Traffic Management Plan;	Sighted code of conduct and distribution to workers	Compliant				
Traffic MP (9/9/2014)	5.1	• Respect the rights of others, including drivers and pedestrians, to use and share the road space;	Sighted code of conduct and distribution to workers	Compliant				
Traffic MP (9/9/2014)	5.1	• Maintain a safe following distance between vehicles;	Sighted code of conduct and distribution to workers	Compliant				
Traffic MP (9/9/2014)	5.1	• Ensure that the vehicle is clean and in good mechanical condition to reduce environmental impacts;	Sighted code of conduct and distribution to workers	Compliant				
Traffic MP (9/9/2014)	5.1	• Not travel in convoys unless under approved escorts;	Sighted code of conduct and distribution to workers	Compliant				
Traffic MP (9/9/2014)	5.1	• Following the designated access routes for the MCCM;	Sighted code of conduct and distribution to workers	Compliant				
Traffic MP (9/9/2014)	5.1	• Abide by all NSW/ interstate road rules and vehicle regulations;	Sighted code of conduct and distribution to workers	Compliant				
Traffic MP (9/9/2014)	5.1	• Ensure high level of courtesy; and	Sighted code of conduct and distribution to workers	Compliant				
Traffic MP (9/9/2014)	5.1	• Turn off Flashing/rotating beacons when on public roads.	Sighted code of conduct and distribution to workers	Compliant				
Traffic MP (9/9/2014)	5.1	MCC will carry out necessary measures to inform transport contractors, as well as audit for compliance to this code of conduct. This may be via various information forums such as driver inductions, training and toolbox talks.	Sighted code of conduct and distribution to workers	Compliant				
<b>5.2 Road Safety</b>								
<b>5.2.1 Driver Education</b>								
Traffic MP (9/9/2014)	5.2.1	Driver education will be delivered via a number of methods including inductions, reviewing this TMP, toolbox talks, and safety alerts.	Noted					
<b>5.2.2 Vehicle Loads</b>								
Traffic MP (9/9/2014)	5.2.2	Heavy vehicle movements will adhere to the gazetted and signposted load limits for each route used. Where loads in excess of the known load limits of structures are required to be transported, careful trip planning will be undertaken to ensure that these sensitive structures/constrained routes are avoided.	Heavy Vehicle contractors are required to plan their trip as part of obtaining a permit, MCC TMP is made available as part of their trip planning	Compliant				
Traffic MP (9/9/2014)	5.2.2	It will be the responsibility of the contractor/driver to ensure that they have the latest RAV map that is available.	Heavy Vehicle contractors are required to plan their trip as part of obtaining a permit, MCC TMP is made available as part of their trip planning	Compliant				
Traffic MP (9/9/2014)	5.2.2	Where loads above the load limits are required, the loads will be broken down to bring them within allowable limits. Alternatively, higher mass limits will be considered where applicable through national heavy vehicle schemes.	Heavy Vehicle contractors are required to plan their trip as part of obtaining a permit, MCC TMP is made available as part of their trip planning	Compliant				
Traffic MP (9/9/2014)	5.2.2	All loads will be secured to vehicles in accordance with RMS's Load Restraints Guide and Heavy Vehicle Driver Handbook.	Heavy Vehicle contractors are required to plan their trip as part of obtaining a permit, MCC TMP is made available as part of their trip planning	Compliant				
<b>5.2.3 Vehicle Dimensions</b>								
Traffic MP (9/9/2014)	5.2.3	All consigned or dispatched MCCM-related heavy vehicles will fall within the maximum dimensions and axle spacing as specified in the RMS's Load Restraints Guide and Heavy Vehicle Handbook.	Standard RMS requirements policed by RMS Inspectors	Not Assessed				
Traffic MP (9/9/2014)	5.2.3	Where over-dimensioned loads/ vehicles are required, the loads will be broken down to bring them within the acceptable dimensions. If vehicle dimensions exceed these limits, then an application will be submitted to RMS in accordance with the Route Assessment Guidelines for Restricted Access Vehicles.	Standard RMS requirements policed by RMS Inspectors	Not Assessed				
Traffic MP (9/9/2014)	5.2.3	Failing the above, if over-dimensioned loads are unavoidable, a risk assessment will be carried out of the intended haul route. Potential impacts will be identified and either addressed via mitigation measures (e.g. physical improvements to the road to overcome the issue), or by management measures (e.g. scheduling trips, route selection). The relevant Council will also be notified regarding the classification type and mass of vehicles that will be required to access Shire roads during construction and operations to ensure the appropriate approvals are in place.	Standard RMS requirements policed by RMS Inspectors	Not Assessed				
Traffic MP (9/9/2014)	5.2.3	Permits will be obtained from the National Heavy Vehicle Regulator or RMS for all over dimension and over mass loads/vehicles prior to any movement.	Standard RMS requirements policed by RMS Inspectors	Not Assessed				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Traffic MP (9/9/2014)	5.2.3	A risk assessment and Traffic Control Plan (TCP) will be prepared to describe the method(s) of controlling traffic adjacent to or around the over-dimensioned vehicle. This would include details of pilot and trailing vehicles or police escort (if required) as well as vehicle mounted traffic control signs.	Standard RMS requirements policed by RMS Inspectors	Not Assessed				
Traffic MP (9/9/2014)	5.2.3	The TCP will be developed in consultation with RMS in the case of State Roads, and with the relevant local Councils, in the case of local and regional roads. A road occupancy application will also be submitted to the applicable authority, RMS or the NSC. The TCP will include details of the haulage route, as well as proposed rest locations. The TCP will also be developed in consultation with the NSW Police in cases where over-dimensioned loads require police escort to meet RMS requirements.	Standard RMS requirements policed by RMS Inspectors	Not Assessed				
5.2.4 Managing Driver Fatigue								
Traffic MP (9/9/2014)	5.2.4	The transport contractors engaged for delivery of site equipment and materials will be required to have a driver fatigue management procedure issued as part of the driver induction process for all employees. This procedure shall be developed in accordance with NTC's 2007 Guidelines for managing heavy vehicle fatigue and address requirements in the Chain of Responsibility Legislation and WHS Legislation.	Standard RMS requirements policed by RMS Inspectors	Not Assessed				
5.5 Dust Control								
Traffic MP (9/9/2014)	5.5	Condition 62 of Schedule 3 of PA10_0138 states that the Director General may approve heavy vehicle traffic on the unsealed portion of Rangari Road provided that dust impacts can be minimised. Prior to the timing of the road upgrades, as discussed in section 4, MCC will proactively manage dust generation through the measures listed below. <ul style="list-style-type: none"> <li>Regular grading of the unsealed portions of (i) Therribri Road between Rangari Road and Mine Access Road, and (ii) Goonbri Road that forms part of the access road to the MCCM, (iii) Leard State Forest Road until these roads are upgraded to sealed roads.</li> <li>Regular wetting down of (i) Therribri Road between Rangari Road and Mine Access Road, and (ii) Goonbri Road that forms part of the access road to the MCCM, (iii) Leard State Forest Road until these roads are upgraded to sealed roads. This would be achieved by a standard water cart.</li> <li>Possible temporary sealing of selected high risk areas.</li> </ul>	Sighted requests for water tankers and graders to fulfil this responsibility	Compliant				
Traffic MP (9/9/2014)	5.5	MCC will ensure the implementation of these dust control measures remain adequate to control dust generation through regular audits and inspections. Where identified, further controls such as road wetting agents, speed restrictions, travel time restrictions will be implemented, subject to receiving the appropriate approvals from the relevant authority.	Noted					
Traffic MP (9/9/2014)	5.5	Where complaints have been received regarding dust generation on these unsealed roads, MCC will take immediate action to investigate the complaint and a review of the management measures will be undertaken to identify any additional controls that could be implemented.	Complaints registers sighted. Record of investigations present and review/update of any management measures recorded.	Compliant				
6 Bus Movements								
6.1 Shuttle Bus System								
Traffic MP (9/9/2014)	6.1	A shuttle bus system to transport workers to and from the site, consistent with the assumptions in the EA of 90% of workers being transported to site by shuttle bus, and in accordance with Condition 63 of Schedule 3 of PA 10_0138 and Section 7.14.4 of the EA, MCCM will ensure that construction and operational employees are predominantly transported to the site by shuttle bus to minimise traffic on the road network.	Not quite 90% use of the shuttle bus, but 'substantially' transported by shuttle Bus. Shuttle buses are still in operation for the operational phase with a higher use rate	Not Compliant	D	2	Medium	
Traffic MP (9/9/2014)	6.1	The buses GVM will be less than 42.5 tonnes, as a result they are able to access the MCCM via the Kamilaroi Highway and Rangari Road.	Noted					
Traffic MP (9/9/2014)	6.1	MCC will ensure approval by the appropriate authority is sought for this 'park and ride' service at the Whitehaven CHPP prior to this activity.	There is no park and ride from the CHPP	Compliant				
Traffic MP (9/9/2014)	6.1	MCCM mine workers will be required to use the bus service to minimise private car usage. Parking provisions on-site will be capped which will further encourage workers to travel by the chartered bus service. The bus service will not incur any direct costs/ fares to the workers.	Parking is limited, most site workers travel on the buses	Compliant				
Traffic MP (9/9/2014)	6.1	During both construction and operation MCC will conduct audits of the workforce and the travel arrangements to ensure that the: <ul style="list-style-type: none"> <li>percentage of employees bussed to site is consistent with the EA assumptions of approximately 90%; and</li> <li>parking arrangements are adequate at the designated 'park and ride' locations, based on the number of local hire compared with the number of nonlocal hire employees.</li> </ul> The results of these audits will be recorded and any updates required will be made to the management plan to ensure compliance to the Project Approval and EA assumptions.	Audits were conducted and records kept. Audits are ongoing	Compliant				
6.2 School Buses								

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
Traffic MP (9/9/2014)	6.2	As such, MCC will establish contact with and continue to consult with the local bus operators for the purposes of managing potential conflicts. This will involve the measures listed below.	Consultation does occur but for child security reasons not all these details are shared.	Compliant				
Traffic MP (9/9/2014)	6.2	<ul style="list-style-type: none"> <li>Identifying bus routes across the network as well as school children pick up/ drop off points and service times. This information will allow the truck consignors to actively avoid these times where practical, and to advise their contractors (truck and shuttle bus drivers) on the safe driving practices required as part of the MCCM.</li> </ul>	Done	Compliant				
Traffic MP (9/9/2014)	6.2	<ul style="list-style-type: none"> <li>Review and consider school bus pickup and drop of times along the access routes in close proximity to the mine when developing shift change over times.</li> </ul>	Consideration given	Compliant				
Traffic MP (9/9/2014)	6.2	<ul style="list-style-type: none"> <li>Establishing a common understanding and common courtesies to minimise conflicts between the separate operations.</li> </ul>	Code of conduct for site drivers	Compliant				
Traffic MP (9/9/2014)	6.2	MCC will endeavour to minimise these circumstances and will monitor and consult with local community and concerned residents to minimise the impacts.	Consultation sighted	Compliant				
Traffic MP (9/9/2014)	6.2	In addition to these consultative measures, MCC also intends to retain road and transport issues as a key discussion topic in regular newsletters and community consultation meetings.	Newsletters and CCC minutes sighted.	Compliant				
Traffic MP (9/9/2014)	6.2	MCC will continue to consult with these bus service providers on a regular basis to stay abreast of the service routes and stopping locations.	Sighted consultation notes	Compliant				
<b>7 Monitoring, Auditing, Reporting and Review</b>								
Traffic MP (9/9/2014)	7	<ul style="list-style-type: none"> <li>Traffic volume surveys: Traffic surveys will be carried out annually to monitor traffic volumes generated by the MCCM against the predictions made in the EA. These surveys will be conducted at a location that will allow MCC specific traffic to be monitored and differentiate between vehicle types (eg light and heavy vehicle).</li> <li>During the construction phase records of traffic entering the MCCM are taken at both security entrance gates, details taken include: vehicle type, number of passengers and time entered. These results are kept as records to be used for auditing and monitoring purposes. A review of these records for one random day per month will occur to provide an indication as to the compliance to Project Approval Conditions and EA assumptions.</li> </ul>	Counts and surveys conducted, currently continuously at the security checkpoint and the noted records are taken	Compliant				
Traffic MP (9/9/2014)	7	Road safety: Annual condition monitoring surveys of the status of the nominated roads in Figures 3, 4, 5 and 6 will be assessed and recorded to identify any areas of degradation from the standard of the roads from the EA Traffic Assessment (or immediately post and upgrade works by the MCCM). MCC will consult with the NSC with regard to repairs required and the funding arrangements for the repairs.	Sighted audit report	Compliant				
Traffic MP (9/9/2014)	7	<p>Monitoring of Coal Transport: In accordance with PA 10_0138 Schedule 3 Condition 61, MCC will implement a coal transport monitoring program. These results will be made publically available during the Annual Review. The monitoring program will record at a minimum:</p> <ul style="list-style-type: none"> <li>the amount of coal transported from the site (on a monthly basis); and</li> <li>the date and time of each train movement generated by the MCCM.</li> </ul>	2014 AEMR includes coal transport monitoring for December 2014 (3.14.3). No coal railed prior to December 2014 therefore no summary in 2013 AEMR. Monitoring data seen for each train movement.	Compliant				
Traffic MP (9/9/2014)	7	<ul style="list-style-type: none"> <li>Regular education and auditing: As stated in Section 3.6, MCC will educate and inform transport contractors and staff regarding the traffic access arrangements and advise of them of any updates to the TMP and associated routes. MCC will also conduct regular audits of its employees and contractors for compliance to this TMP. Disciplinary action as allowed under the respective labour and contractual agreements will be implemented for those found to be in non-compliance with this control measure.</li> </ul>	<p>In inductions</p> <p>Sighted briefing notes and communication to employees post induction</p>	Compliant				
Traffic MP (9/9/2014)	7	<ul style="list-style-type: none"> <li>Community feedback: There are several methods for the community to "have their say" with regard to traffic and transport issues associated with the MCCM. These include email and telephone as per the contact details on the website (www.whitehavencoal.com.au), as well as through community consultation activities and the Community Consultative Committee for the MCCM. MCC will consider and respond to noted traffic issues where appropriate.</li> </ul>	Hotline is advertised on the WHC website, couldn't find email address but a community feedback form can be utilised. Hotline and email advertised in newsletters.	Compliant				
Traffic MP (9/9/2014)	7	Monitoring results relevant to this TMP, including the monitoring, auditing and community feedback will be reported within the Annual Review which will be made publically available on the website.	<p>013 AEMR: no management/monitoring due to limited construction works (3.15.2).</p> <p>2014 AEMR (3.14.3) includes work completed, monitoring and performance. DP&amp;E extension of time for placement onto website due to outstanding matters.</p>	Compliant				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility				
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Traffic MP (9/9/2014)	7	This TMP has been prepared based on the information available at the time. The document is dynamic and will be reviewed on a regular basis to ensure that it is suitable to be applied to the operations. Where modifications are required to the TMP, the document will be prepared in consultation with the relevant government authorities and to the satisfaction of the Director General as required under conditions of PA 10_0138.	Noted, no mods to date									
<b>8 Noise Compliance Criteria Exceedance Roles and Responsibilities</b>												
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Out of Hours Protocol - Boggabri Maules Creek Rail																				
Out of Hours Work Justification																				
OOHW		The proposed 10/4 work roster will require out of hours work to occur during the following periods; Saturday (7am – 8am and from 1pm to 6pm) and all day Sunday. The hours of operation are illustrated in Table 3. Construction activities will generally commence from 7am and cease at 6pm.	Noted																	
OOHW		<p>Table 3: Hours of operation</p> <table border="1"> <thead> <tr> <th>Period</th> <th>Arrival and approved OOHW</th> <th>Standard work hours</th> <th>Departure*</th> </tr> </thead> <tbody> <tr> <td>Monday to Friday</td> <td>6am – 7am</td> <td>7am – 6pm</td> <td>From 6pm</td> </tr> <tr> <td>Saturday</td> <td>6am – 8am</td> <td>8am – 1pm</td> <td>From 1pm</td> </tr> </tbody> </table> <p>*Times for departing will vary depending on the situation and in accordance with the out of hour's protocol.</p>	Period	Arrival and approved OOHW	Standard work hours	Departure*	Monday to Friday	6am – 7am	7am – 6pm	From 6pm	Saturday	6am – 8am	8am – 1pm	From 1pm	Noted					
Period	Arrival and approved OOHW	Standard work hours	Departure*																	
Monday to Friday	6am – 7am	7am – 6pm	From 6pm																	
Saturday	6am – 8am	8am – 1pm	From 1pm																	
OOHW		To ensure that work commences at 7am, the workforce will be transported to site prior to 7am (~6am) and will leave site after 6pm.	This was monitored and non-compliances corrected	Compliant																
OOHW		The activities that are proposed to occur prior to 7am include: - pre-start documentation and implementation; - toolbox talks; - warming up of equipment; - works that are below NML (35dBA) at sensitive receivers; - essential works that have been predicted to be above NML, are justified and the OOH protocol requirements have been met	Noted																	
OOHW		Additional justification for work to occur outside of standard construction hours includes the following: • ARTC possession related works. This will be applicable for rail systems works where works can only be undertaken when no trains are operating on the system. • RMS related works: This will be applicable for works over the Kamilaroi Highway where works will be subjected to a road occupancy licence. • Delivery of plant or structures – the delivery of oversized plant or structures that police or other authorities determine require special arrangements to transport along public roads. • Works within the floodplain. Working outside standard hours will allow the works within the floodplain to be completed more efficiently reducing the potential for adverse impact in the event of a flood. • Works required in an emergency. If work is required outside of standard hours in an emergency to avoid the loss of lives, property and/or to prevent environmental harm, works will occur without approval. Notification to the BMCR Project Representative will be provided as soon as practical following the event.	Noted																	
Stakeholder Consultation Process																				
OOHW		All consultation with government stakeholders will be undertaken by the BMCR Project Representative. Schedule 3 Condition 2 of PA 09_0182 and Schedule 3 Condition 6 of PA 10_0138 require consultation with the EPA and residents prior to approval by the Director-General.	Noted																	
OOHW		Further consultation with the residents that would be effected by the OOHW where the NML is predicted to be greater than 35dB(A) will be carried out at the time of the OOHW assessment as per step 3 of the below procedure.	Noted																	
Procedure																				
1) LCPL planning team determine if works will exceed NML at sensitive receivers																				
OOHW		Review the noise contour maps (available in Arc Reader) and input plant/equipment into the "noise level calculator" to determine if the works will be above the NML (35dB(A)) at the closest sensitive receiver. In determining the noise levels at the nearest sensitive receiver the following will be considered: • distance to the sensitive receiver; • the type of equipment to be used; • quantity of equipment to be used; • the location of the works; • weather conditions including potential of weather inversions; and • any reasonable and feasible mitigation measures to be included.	Leightons entered the plant and equipment and initially reviewed the noise contour maps. Plant and equipment numbers were scheduled to remain with below the 35dB. Site provided information, anecdotal.	Compliant																
2) Out of hours works assessment																				

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
OOHW		Where out of hours work has been identified to be above the NML (35dB(A)) at the closest sensitive receiver, an OOHW Assessment will be prepared by LCPL Environmental Manager (EM). As part of the preparation of the assessment the EM will consult with the BMCR Project Representative, no less than 5 days prior to the proposed work.	No work was scheduled that exceeded 35dB	Not Triggered				
OOHW		The OOHW Assessment will include: <ul style="list-style-type: none"> <li>• Details of the nature and justification for activities to be conducted during the OOHW;</li> <li>• A noise impact assessment using the "noise level calculator" to determine the potential noise level for each sensitive receiver;</li> <li>• Details of any additional proposed noise monitoring;</li> <li>• Contact details of the Construction Superintendent supervising the OOHW;</li> <li>• Identify potentially affected sensitive receivers to notify/consult with;</li> <li>• Evidence that all reasonable and feasible noise mitigation measures have been put in place; and</li> <li>• Review of EA predictions and MCoA to ensure noise limits will not be exceeded.</li> </ul>	Leightons hold this information	Unable to Assess				
<b>3) Community Consultation</b>								
OOHW		Where the predicted noise level exceeds NML (35dB(A)) the BMCR Project Representative will consult with the sensitive receivers likely to be affected. The resident likely to be affected will be provided a copy of the OOHW assessment and consulted regarding the proposed activities and the control measures to be implemented. The OOHW assessment will be updated following this consultation to ensure that the residence preferences, where reasonable and feasible, are accommodated prior to the OOHW be conducted.	No work was scheduled that exceeded 35dB	Not Triggered				
<b>4) Stakeholder notification</b>								
OOHW		The EM will prepare in consultation with the relevant project team members (i.e. Construction Manager, Area Managers etc) written notifications for the effected residence outlining the works to be undertaken, date and location, and any likely impacts to the community.	No work was scheduled that exceeded 35dB	Not Triggered				
OOHW		The notification will be provided to the BMCR Project Representative for review and distribution 5 days prior to undertaking the works.	No work was scheduled that exceeded 35dB	Not Triggered				
<b>5) Works Approval</b>								
OOHW		Following consultation by the BMCR Project Representative with potentially affected sensitive receivers, the OOHW assessment will be finalised and submitted by LCPL EM to the BMCR Project Representative for approval.	DPI approved following consultation with residents	Compliant				
<b>6) Noise monitoring</b>								
OOHW		Attended noise monitoring will be undertaken to verify that noise levels of the OOHW are in accordance with the levels predicted in Step 1 and remain below those predicted in the EA and MCoA. This will be undertaken by the Environment Team for all new activities.	No work was scheduled that exceeded 35dB	Not Triggered				
OOHW		Noise monitoring will also occur in response to complaints as requested by the complainant.	No work was scheduled that exceeded 35dB	Not Triggered				
<b>7) Noise exceedances notification</b>								
OOHW		Should attended noise monitoring identify exceedances of the noise criteria defined in Table 1 of Schedule 3 Condition 2 of Boggabri Coal Pty Ltd project approval, representatives of NSW EPA and NSW DoP&I will be notified by BMCR.	No exceedances recorded.	Not Triggered				
<b>8) Record Approval</b>								
OOHW		All OOHW will be recorded and entered into the out of hours register for auditing purposes.	Copy of the register sighted	Compliant				
<b>9) Complaints</b>								
OOHW		Any complaints received as a result of the works are to be managed in accordance with Section 7.4 of the LCPL CEMP.	No complaints received	Not Triggered				
OOHW		Should ongoing complaints (more than three complaints from one receptor in a six month period) be received from a specific receptor then BMCR will notify representatives of NSW EPA and NSW DoP&I.	No complaints received	Not Triggered				
<b>Management and Mitigation Measures</b>								
OOHW		Management measures to be implemented during works that are scheduled to occur outside standard hours include: <ul style="list-style-type: none"> <li>- Monitoring weather conditions;</li> <li>- Undertaking noise monitoring; and</li> <li>- Programming high noise generating activities to occur during standard hours where possible.</li> </ul>	Noted					

Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility																																																																																									
					Consequence	Likelihood	Risk																																																																																										
OOHW		Noise impacts can be minimised by applying reasonable and feasible mitigation measures. The ICNG explains the terms feasible and reasonable as follows: Feasible – a work practice or abatement measure is feasible if it is capable of being put into practice or being engineered and is practical to build given project constraints such as safety and maintenance requirements.  An example of a feasible mitigation measure would be to choose low noise power tools or hydraulic controlled equipment over petrol or pneumatic equipment.	Noted																																																																																														
OOHW		Reasonable – selecting reasonable measures from those that are feasible involves making a judgement to determine whether the overall noise benefits outweigh the overall adverse social, economic and environmental effects, including the cost of the measure.  To determine if the mitigation measure is reasonable, the following need to be considered: - Noise level impacts e.g. number of people affected or annoyed; - Noise mitigation benefits e.g. the amount of noise reduction expected including cumulative effectiveness of the proposed work practices; - Cost effectiveness of noise mitigation; and - Community views e.g. consult with the community to understand their views.	Noted																																																																																														
OOHW		Where OOH work is predicted to be above NML (35dBA) reasonable and feasible, management and mitigation measures will be implemented to minimise the impact on sensitive receivers. This will include (but not be limited to) the following options: - Planning the works so that particularly noisy activities are undertaken during approved hours and outside inversion periods to prevent exacerbating noise impacts; - Implementation of community notification and consultation processes to minimise impacts to potentially impacted receiver(s); - Treat the noise source (e.g. noise curtain/barrier); - Implementation of community complaints procedure and pro-active management of complaints.	No work was scheduled that exceeded 35dB	Not Triggered																																																																																													
OOHW		Where OOH works are predicted to be below NML (35dBA) works can proceed outside of normal working hours. Due to the limited number of sensitive receivers along the project, this will be applicable to most of the rail spur line construction activities.	Noted																																																																																														
OOHW		Noise monitoring will be undertaken by the LCPL environmental team for all new activities to confirm the predicted noise levels comply with the OOHW protocol.	No exceedences reported to MCCM	Compliant																																																																																													
OOHW		The OOH work protocol will be reviewed quarterly to ensure effective outcomes are being achieved and to accommodate any substantive changes to routine operations. Reviews will be undertaken in consultation with stakeholders and regulatory authorities as appropriate.	Leightons hold this information	Unable to Assess																																																																																													
OOHW		The work activities that are predicted to have a noise impact at sensitive receivers above NML are located around the Namoi River and Kamilaroi Highway. These include: - Earthworks; - Piling works; and - Bridge constructing.	Noted																																																																																														
OOHW		Further details of potential noise sources will become available once construction has commenced on site.	Noted																																																																																														
OOHW		Table 4: Spread of proposed/possible works during 10/4 rostering <b>WORKING ARRANGEMENTS PER TYPICAL 14 DAYS</b> <table border="1"> <thead> <tr> <th>Activity</th> <th>M</th> <th>T</th> <th>W</th> <th>T</th> <th>F</th> <th>S</th> <th>S</th> <th>M</th> <th>T</th> <th>W</th> <th>T</th> <th>F</th> <th>S</th> <th>S</th> </tr> </thead> <tbody> <tr> <td>General Construction</td> <td>X</td> <td>✓</td> <td>X</td> <td>X</td> </tr> <tr> <td>10/4 arrangement</td> <td></td> </tr> <tr> <td>Selected disruptive activities, e.g. pile driving</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>X</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>X</td> </tr> <tr> <td>Selected Construction Activity</td> <td>✓</td> </tr> <tr> <td>Rail</td> <td>✓</td> </tr> </tbody> </table>	Activity	M	T	W	T	F	S	S	M	T	W	T	F	S	S	General Construction	X	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X	10/4 arrangement															Selected disruptive activities, e.g. pile driving	✓	✓	✓	✓	✓	✓	X	✓	✓	✓	✓	✓	✓	X	Selected Construction Activity	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Rail	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Noted				
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Reference	Clause	Requirement	Evidence	Audit Finding	Risk			Responsibility
					Consequence	Likelihood	Risk	
OOHW		<p>Figure 1 Out of hours works protocol.</p>	Noted					

## MAULES CREEK COAL MINE 2015 INDEPENDENT ENVIRONMENTAL AUDIT RESPONSE TO RECOMMENDATIONS

The following table outlines MCCM's response to the recommendations detailed in Section 6 of the 2015 Independent Environmental Audit Recommendations.

**Table 1: MCCM Response to Recommendations**

Management Area	IEA Recommendations	MCCM Response to Recommendations	Due Date / Timing
<b>Air Quality</b>	The air quality management system includes observations, daily weather reports and forecasts, and ongoing analysis of trends in monitoring. The site should develop a predictive and real time air dispersion model to inform operational decisions around air quality or revise the AQGHGMP to reflect the sites management of air quality without a predictive real time air dispersion model.	The predictive and real time dispersion model will be implemented as part of the BTM Air Quality Management Strategy (AQMS). MCCM will raise the importance of progressing and finalising the AQMS as soon as possible for approval by the DPE with the other mines in the BTM complex.	Submitted to DPE 2015. Ongoing revision by BTM.
<b>Aboriginal Heritage</b>	Review the requirements relating to the Quinine bush and ensure the site is able to demonstrate compliance with the requirements of the project approval and the ACHMP.	Mapping of the extant Quinine bushes within the mining footprint will continue to be undertaken.	Ongoing during pre-clearance vegetation surveys
		A programme of plant and seed collection & propagation will be undertaken in accordance with the ACHMP.	Following collection of available seeds during pre-clearance surveys
<b>Biodiversity and Offsets</b>	MCCM should review the GIS attribution of vegetation type names, CEEC status and Project Boundary polygons in the MOP and Mine Site Rehabilitation Plan against those detailed in the EA. This recommendation relates to future revisions of the BMP, Biodiversity Corridor Management Plan and Mine Site Rehabilitation Plan that are required to integrate the actions outlined in the Maules Creek White-Box Yellow-Box Blakely's Red Gum Woodland EEC Implementation Plan and the Maules Creek Threatened Fauna Implementation Plan.	MCCM will review figures to ensure accurate legends accompany each figure and area of vegetation mapped.	Ongoing and during the revision of the relevant documents.



<b>Management Area</b>	<b>IEA Recommendations</b>	<b>MCCM Response to Recommendations</b>	<b>Due Date / Timing</b>
<b>Noise</b>	The noise consultant must inform the mine of exceedances in a more timely fashion to allow MCCM to fulfil its reporting requirements.	MCCM has notified the independent noise specialist conducting the attended noise monitoring of the time sensitivities for reporting noise exceedances.	Completed
	The EPL summary on the website lists "Measured Levels". It is recommended that future EPL summaries should include "Reportable levels", which are the measured levels plus any applicable modifying factor penalties.	MCCM will revise the EPL monthly summary report to include results that include any modifying factors when applicable.	Completed
<b>Lighting</b>	The lights above the ROM stockpile and hopper are elevated and the light spill is over a wide area. The light spill should be checked from the nearest residence to the north where this light may be visible at night. If necessary (i.e. light is spilling off site with the potential to impact residents), reorientation of the shields may be required.	Fixed lighting was designed and procured with reference to Australian Standard <i>AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting</i> . MCCM will inspect the light spill and make adjustment if required.	Completed
<b>Heritage</b>	Follow up the two landowners whose properties MCCM acquired and ask if they will assist in providing the oral history required in the Historic Heritage Management Plan and Project Approval.	MCCM will contact the owners of land acquired by the Project in writing and ask whether they wish to contribute to an oral history report to be compiled.	Completed
<b>Rehabilitation</b>	Commence a seed collection program as detailed in the Biodiversity Management Plan.	Seed collection will occur as outlined in the BMP.	Ongoing throughout the year.



Management Area	IEA Recommendations	MCCM Response to Recommendations	Due Date / Timing
	The MOP Remediation Management Plan requires a significant amount of additional information resulting from the recent development of the White-Box Yellow-Box Blakely's Red-Gum Woodland EEC Implementation Plan and the Threatened Fauna Implementation Plan. Early commencement of rehabilitation trials would help inform the MOP.	The MOP will be updated to include information from the Investigation and Implementation Plans now these plans have been approved.	MOP update completed.
<b>Water Management</b>	The Water Balance requires review.	Water Balance will be reviewed as part of the next revision of the Water Management Plan.	Reviewed 2015 and submission targeted 2016.
	Review the validity of surface water quality trigger levels in the TARP as the level of data available becomes more extensive.	Surface water quality trigger levels in the TARP will be reviewed as part of the next revision of the Water Management Plan.	Completed
	Establish clean water diversions prior to clearing and isolate clean catchment waters from entering the pit.	Clean water diversion drains are being establishing, additional clean water diversions will be installed as clearing/mining progresses.	Ongoing
<b>Environmental Incident Management</b>	The use of a single system to record and respond to environmental incidents and complaints should be implemented.	MCCM will implement a system to track and respond to incidents and complaints.	Completed
	Ensure impacted residents are informed when monitoring indicates exceedence of environmental parameters at their residence.	Impacted residents to be notified as soon as possible.	Ongoing
<b>Management Plans</b>	Some of the management plans do not include enough of the background data that was used to formulate them. Future revisions should consider ways to present this information to inform the measures described.	Future revisions of management plans will consider the level of background data or reference documents where appropriate.	Ongoing
	The management plans all include requirements for review and it is apparent that these occur. The site however needs to document these reviews in order to demonstrate they have occurred particularly when no changes to the management plan eventuate from the review.	MCCM has revised the Document Register to include a record of the revisions undertaken.	Complete



Management Area	IEA Recommendations	MCCM Response to Recommendations	Due Date / Timing
	<p>The BTM Complex Strategies constitute an important part of the cumulative management of the impacts from mining in the area. If they remain unapproved, MCCM should consider whether cumulative impacts are adequately addressed and mitigated through a review of the pertinent MCCM management plans.</p>	<p>The BTM Complex strategies are currently being prepared, consulted and reviewed.</p> <p>MCCM will raise the importance of progressing and finalising the Strategies as soon as possible for approval by the DPE with the other mines in the BTM complex.</p> <p>MCCM will also continue to monitor and consider any potential cumulative impacts to determine whether further revisions of the MCCM Management Plans are required.</p>	<p>Ongoing</p>
<p><b>Reporting</b></p>	<p>Review all management plans (particularly the SIMP) for the reporting requirements and add in to the AEMR any requirements that are currently not reported.</p>	<p>2015 AEMR will include the relevant reporting requirements.</p>	<p>Completed 2015 AEMR</p>
<p><b>Broad Issues</b></p>	<p>There are a number of items that have been found to be not compliant in this audit. Many MCCM was aware of prior to the audit and MCCM are addressing or have rectified these issues, the audit will serve the purpose of raising the rest. Future focus is recommended on the following points:</p> <ul style="list-style-type: none"> <li>• Committing to achievable management options that are timely;</li> <li>• Being prepared for the next phase of site development – particularly the commencement of rehabilitation of the out of pit emplacement; and</li> </ul> <p>Maintaining the relationship with the neighbouring community.</p>	<p>MCCM will continue to focus on achieving future commitments, preparing for the rehabilitation phase of the project and maintain a good working relationship with the neighbouring community.</p>	<p>Ongoing</p>



Table 2 below summarises Section 11 of the IEA and is included in the MCC 2015 Annual Review in accordance with the DP&E Annual Review Guideline.

**Table 2: Non-Compliance Details and Proposed Action Plan as reported in the 2015 Annual Review**

<b>Non - Compliance</b>	<b>Date / Location</b>	<b>Cause</b>	<b>Action Plan</b>	<b>Estimated Completion Date</b>
Surrender of DA 85/1819 has not been finalised. Delays occurred associated with landowner consent.	Required by the end of 2013.	Delays occurred associated with landowner consent.	MCC will continue to liaise with landholders to gain consent to surrender DA85/1819, continue discussions with DPE to enable MCC to satisfy this condition.	Ongoing
Not all equipment has met the SPL of the EA. MCC has undertaken initial SPL tests and an ongoing twelve monthly campaign to retest. "A" weighted levels were generally compliant with the modelled EA SPL, however some equipment has not met "L" weighted test criteria.	During reporting period.	Equipment sound power levels above those EA.	Ongoing improvements and engineering solutions are being implemented to reduce the SPL of those pieces of equipment with higher SPL's than stated in the EA.	Completed and ongoing
All requirements of the NMP not fully implemented: <ul style="list-style-type: none"> <li>Plant Sound Power levels measured above criteria</li> <li>Copy of annual review was not sent to the council</li> <li>Agencies were not notified within 7 days of an attended monitoring exceedence occurring</li> <li>Was not reviewed and revise (if necessary) within a three month period following an annual review</li> </ul>	During reporting period.	Equipment sound power levels above those EA.  Procedural Oversight.	Ongoing improvements and engineering solutions are being implemented to reduce the SPL of those pieces of equipment with higher SPL's than stated in the EA.  MCC will update the NMP during the next reporting period and implement all the requirements in the NMP.	Refer above.  Complete
All the requirements of the Blast MP not fully implemented: <ul style="list-style-type: none"> <li>Measures to improve compliance were not detailed in the 2014 Annual Review</li> <li>A copy of the annual review was not forwarded to DPI, OEH, Council and CCC</li> <li>Was not reviewed and revise (if necessary) within a three month period following an annual review</li> </ul>	During reporting period.	Procedural Oversight.	Proposed improvement measures detailed in the 2015 Annual Review  A copy of the Annual Review will be forwarded to the required stakeholders. MCC will update the BLMP during the next reporting period and implement all relevant requirements.	Complete
A predictive air dispersion modelling required as part of the air quality management system was not operational	During reporting period.	Air Quality Management Strategy (AQMS)	Finalise AQMS during 2016. In accordance with the MCC AQMP, the predictive and real time air dispersion	Ongoing



<b>Non - Compliance</b>	<b>Date / Location</b>	<b>Cause</b>	<b>Action Plan</b>	<b>Estimated Completion Date</b>
during the period, however predictive meteorological forecasting is utilised at the site. The predictive air dispersion modelling will be implemented as part of the BTM AQMS.		was not finalised during 2015	modelling will be implemented as part of the Leard Forest Precinct AQMS. Alternate management measures have been implemented by MCC in the interim.	
All the requirements of the AQGHGMP not fully implemented: <ul style="list-style-type: none"> <li>• Tenants were not advised of all their rights</li> <li>• Review and revise if necessary within a three month period following annual reviews, incident reports, audits or modification of the approval</li> <li>• Was not reviewed and revise (if necessary) within a three month period following annual reviews, incident reports, audits or modification of the approval</li> </ul>	During reporting period.	Procedural Oversight.	Notify tenants of rights as required by PA. MCC will update the AQGHGMP and implement all the requirements in the AQGHGMP.	Completed
All the requirements of the WMP not fully implemented: <ul style="list-style-type: none"> <li>• Guidelines for groundwater sampling were not referenced in monitoring reports</li> <li>• Was not reviewed and revise (if necessary) within a three month period following an annual review</li> </ul>	During reporting period.	Procedural Oversight.	Monitoring reports to include sampling methods. MCC will update the WMP during the next reporting period and implement all the requirements in the WMP.	Submission of revised WMP during 2016 reporting period.
All the requirements of the BMP not fully implemented. DPE issued a PIN following an audit at the commencement of the reporting period. Some items remain outstanding as at the end of the reporting period as it was not seasonally feasible for MCC to implement all the requirements as they relate to clearing activities.	During reporting period.	Seasonably unfeasible	MCC will update the BMP during the next reporting period and implement all the requirements in the BMP. Items that were not seasonably feasible for MCC to implement during 2015 will be implemented during 2016.	Completed & ongoing.
The AACHMP was not reviewed and revised (if necessary) within a three month period following an annual review.	End of June 2015	Procedural Oversight	MCC will review and if necessary revise any AACHMP within the required time-frames.	Complete



<b>Non - Compliance</b>	<b>Date / Location</b>	<b>Cause</b>	<b>Action Plan</b>	<b>Estimated Completion Date</b>
Not quite 90 % of employees were transported to the site via shuttle bus. DP&E issued a PIN during 2015 relating to this condition.	During reporting period.	Less than 90% of employees transported to site via shuttle bus	DP&E issued a PIN during 2015 relating to this condition. Shuttle buses remain in use at MCC. MCC are preparing a modification to the PA.	Submitted
All the requirements of the TMP were not fully implemented: <ul style="list-style-type: none"> <li>• Upgrade to the intersection of Rangari Road and the Kamilaroi Highway within the timing requirements of the TMP</li> <li>• 90 % workforce was not transported by shuttle bus</li> </ul>	During reporting period.	Not quite 90% of employees transported to site via shuttle bus	Assessment of intersection and traffic flows was undertaken during the reporting period which indicates the current intersection is adequate for current and future traffic flows. Another assessment will occur in 2016. Consultation with relevant agencies will continue, including with DPE. DP&E issued a PIN during 2015 relating to this condition. Shuttle buses remain in use at MCC. MCC are preparing a modification to the PA to address this condition.	Modification & assessment submitted 2016
Liaison with GSC regarding rail transport did not occur within 12 months of the completion of the study.	During reporting period.	Procedural Oversight	MCC will liaise with GSC regarding rail transport.	Complete
Performance against the SIMP was not reported in the 2014 Annual Review	2014 Annual Review	Procedural Oversight	SIMP performance is included in this Annual Review	Complete
No evidence could be obtained that MCC supplied all tenants list in table 1 with this information.	During reporting period.	Procedural Oversight	In 2016 MCC will advise tenants of their rights in accordance with all the condition requirements.	Complete
A review and if necessary revision of all Management Plans within the required time-frames.	June 2015	Procedural Oversight Ineffective records	MCC will review and if necessary revise any Management Plans within the required time-frames.	Ongoing
Complaints register not regularly updated within the month	During reporting period.	Procedural Oversight	MCC will maintain a current and up to date complaints register and load to the WHC web monthly.	Ongoing
Not all requirements in the EMS and EMP: <ul style="list-style-type: none"> <li>• Training Matrix was not developed</li> <li>• Existing system and form does not consolidate environmental complaints and incidents</li> <li>• Inspection programs is conducted but not in the form of and “audit”</li> </ul>	During reporting period.	Procedural and systems inconsistencies	MCC will update the EMS during the next reporting period to align with existing systems and processes and progressively implement	Complete & ongoing



<b>Non - Compliance</b>	<b>Date / Location</b>	<b>Cause</b>	<b>Action Plan</b>	<b>Estimated Completion Date</b>
<ul style="list-style-type: none"> <li>• Document register does not include external consultants documents/reports</li> <li>• Agricultural Land Monitoring was not conducted during the period</li> <li>• Was not reviewed and revise (if necessary) within a three month period following an annual review</li> </ul>				
Oral history reports not completed for landholders acquired by the mine.	During reporting period.	Procedural oversight	MCC will attempt to contact the owners of land acquired by the Project in writing and ask whether they wish to contribute to an oral history report to be compiled.	Completed
Past LDP's did not have a weed map attached.	During reporting period.	Seasonably unfeasible	Weed mapping has been conducted prior to land clearing activities although have not then been attached to the LDP. Weed mapping will be filed with future LDP(s) and will include records of noxious weed locations.	Ongoing
2014 AEMR did not include measures to be implemented in the following year	2014 Annual Review	Procedural oversight	Future Annual Review's will include measures to be implemented in following years	Complete and ongoing
No record of annual rehabilitation audit, even though no mine rehabilitation has been undertaken.	During reporting period.	Timing unfeasible	No mining rehabilitation has occurred at MCCM to date. Inspections of rehabilitation including monitoring of success will be undertaken when progressive mine rehabilitation commences.	Ongoing
Landholders were not notified on renewal of CL.	Following renewal in 2013	Procedural oversight	MCC will notify the relevant landholders at time of renewal of leases	Ongoing
LALC was not notified on renewal of A346	Following renewal in 2013	Procedural oversight	MCC will notify the LALC following the renewal of A346	Ongoing
The water meter had a technical fault and was not reported to DPI - Water within the seven day time-period.	June 2015	Procedural oversight	MCC will notify the DPI within 7 days of any meter reading failure.	Ongoing
Calibration certificates could not be provided	During reporting period	Procedural oversight	Water meters will be calibrated as required and certificates recorded	Ongoing