



Maules Creek Coal Mine

Conditions of Approval Independent Environmental Audit Report

Whitehaven Coal Ltd

November 2018

FINAL

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Prepared by:	Oliver Moore
Position:	Project Manager & Lead Auditor
Signed:	
Date:	30 November 2018
Approved by:	Michael Gaggin
Position:	Partner
Signed:	
Date:	30 November 2018

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EXECUTIVE SUMMARY

Environmental Resources Management Australia Pty Ltd (ERM) was commissioned to perform an Independent Environmental Audit (IEA) of Maules Creek Coal Mine (MCCM) on behalf of Whitehaven Coal Ltd (herein referred to as Whitehaven). The MCCM is located on the north-west slopes and plains of New South Wales (NSW), approximately 18 kilometres (km) north-east of Boggabri within the Narrabri Local Government Area (LGA). The regional centres of Narrabri and Gunnedah are situated approximately 45 km to the north-west and 55 km to the south from the MCCM respectively. The primary purpose of the audit was to satisfy the Department of Planning and Environment (DP&E) Ministers' Conditions of Approval (CoA) number 10, Schedule 5 (IEA) of the MCCM Project Approval (PA) 10_0138 (Modification 3). This condition requires completion of an independent audit by the end of June 2015, and every 3 years thereafter, unless the Secretary directs otherwise.

The audit included a review of:

- DP&E, Ministers Conditions of Approval CoA Project Approval (PA) 10_0138 (Modification 3);
- EPL 20221;
- Coal Lease (CL) 375 and Mining Leases (ML) 1701 and 1719;
- Water Access Licences (WALs) – 12479, 12811, 13050, 27383, 27385, 29467, 29588; and
- implementation of Management Plans developed as part of the Ministers Conditions of Approval.

A qualitative risk assessment was also completed on the findings, consistent with AS/NZS 4360:2004 Risk management and HB 436:2004 Risk Management Guidelines Companion to AS/NZS 4360:2004 and as described in the DP&E publication "Independent Audit Guidelines" issued October 2015. The number of non-compliances with the statutory conditions and implementation of the management plans is summarised in Table below:

Summary of Audit Findings

Total Conditions	Non compliance	Administrative Non - compliance	Observations
Statutory Instruments			
372	7	16	7
	High (-), Medium (-), Low (7)		

Of the non-compliances, four were related to legacy items whereby MCCM failed to meet an approval stipulated deadline. In each of these cases MCCM has now closed out these items and there is no further action required. As MCCM is unable to comply with the timing set forth in the approval, these are identified as non-compliance findings.

In addition, six of the findings were closed during the audit period and require no further action.

An action response table will be developed by MCCM addressing all audit findings and will be submitted separately to this report.

Independent Audit Certification Form

Independent Audit Certification Form	
Development Name	Maules Creek Coal Mine
Development Consent No.	PA 10_0138 (Mod 3, 17 January 2017)
Description of Development	MCCM is an open pit coal mining operation. Construction commenced at MCCM in December 2013. Operational works at the site commenced in August 2014, with the site declared fully operational from 1 July 2015.
Development Address	Boggabri, NSW 2382, Australia
Operator	Whitehaven Coal Limited
Operator Address	Level 28, 259 George Street, Sydney NSW 2000
Independent Audit	
Title of Audit	Maules Creek Coal Mine Independent Environmental Audit Draft
<p>I certify that I have undertaken the independent audit and prepared the contents of the attached independent audit report and to the best of my knowledge:</p> <ul style="list-style-type: none"> • The audit has been undertaken in accordance with relevant approval condition(s) and in accordance with the auditing standard AS/NZS ISO 19011:2014 and Post Approval Guidelines – Independent Audits • The findings of the audit are reported truthfully, accurately and completely; • I have exercised due diligence and professional judgement in conducting the audit; • I have acted professionally, in an unbiased manner and did not allow undue influence to limit or over-ride objectivity in conducting the audit; • I am not related to any owner or operator of the development as an employer, business partner, employee, sharing a common employer, having a contractual arrangement outside the audit, spouse, partner, sibling, parent, or child; • I do not have any pecuniary interest in the audited development, including where there is a reasonable likelihood or expectation of financial gain or loss to me or to a person to whom I am closely related (i.e. immediate family); • Neither I nor my employer have provided consultancy services for the audited development that were subject to this audit except as otherwise declared to the lead regulator prior to the audit; and • I have not accepted, nor intend to accept any inducement, commission, gift or any other benefit (apart from fair payment) from any owner or operator of the development, their employees or any interested party. I have not knowingly allowed, nor intend to allow my colleagues to do so. <p>Note.</p> <p>a) The Independent Audit is an 'environmental audit' for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.</p> <p>b) The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement – maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents – maximum penalty 2 years imprisonment or \$22,000, or both).</p>	
Signature	
Name of Lead / Principal Auditor	Oliver Moore
Address	Level 15, 309 Kent Street, Sydney NSW 2000
Email Address	oliver.moore@erm.com
Auditor Certification (if relevant)	N/A
Date	30 November 2018

Abbreviations

AACHMP	Aboriginal Archaeology and Cultural Heritage Management Plan
AEMR	Annual Environment Management Report
AHCS	Aboriginal Heritage Conservation Strategy
AHD	Australian Height Datum
ANC	Administration non-compliance
AQGGMP	Air Quality and Greenhouse Gas Management Plan
AR	Annual Review or Annual Return
ARTC	Australian Rail Track Cooperation
AS/NZS	Australian Standard / New Zealand Standard
AWD	Available Water Determination
AWS	Automatic Weather Station
BLMP	Blast Management Plan
BoMP	Biodiversity Management Plan
BOA	Biodiversity Offset Area
BOS	Biodiversity Offset Strategy
BTM	Boggabri, Tarrawonga and Maules Creek
°C	Degrees Celsius
CCC	Community Consultative Committee
CHPP	Coal Handling and Processing Plant
CL	Coal Licence
CoA	Conditions of Approval
COC	Chain of Custody
dB / dBL	Decibels / decibels linear
DD	Deposited dust
DG	Director-General
DPE/DP&E	NSW Department of Planning and Environment
DPI	NSW Department of Industry
DRE	NSW Department of Industry, Division of Resource and Energy
DRG	NSW Department of Resources & Geoscience
EA	Environmental Assessment
EHS	Environment, Health & Safety
EMR	Environmental Management Reports
EMS	Environmental Management System or Environmental Management Strategy
EPA	Environmental Protection Authority
EP&A Act	<i>Environment Planning and Assessment Act 1979</i>
EPBC	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPL	Environmental Protection Licence
ERM	Environmental Resource Management Australia Pty Ltd
GSC	Gunnedah Shire Council

HHMP	Historic Heritage Management Plan
HVAS	High Volume Air Sampler
HSEC	Health, Safety, Environment and Community
H&S	Health and Safety
IBA	Independent Biodiversity Audit
IEA	Independent Environmental Audit
LALC	Local Aboriginal Lands Council
LDP	Land Disturbance Permit
MCCM	Maules Creek Coal Mine
ML	Mining Lease or Megaliters
MOD	Modification (in respect of CoC PA)
MOP	Mining Operations Plan
MP	Monitoring Point
MSRP	Mine Site Rehabilitation Plan
NAF	Non-acid forming
NATA	National Association of Testing Authorities, Australia
NC	Non-compliance
NGER	National Greenhouse and Energy Reporting
NMP	Noise Management Plan
NPI	National Pollution Inventory
NT	Not triggered
NWLLS	North West Local Land Services
OCE	Open Cut Examiner
OEH	NSW Office of Environment and Heritage
PA	Project Approval
PAF	Potentially acid forming
PEL	Petroleum Exploration Licence
PIRMP	Pollution Incident Response Management Plan
PoEO	Protection of the Environment Operations Act 1997
RMS	Roads and Maritime Services
ROM	Run-of-mill
SoC	Statement of Commitments (from the EA)
SIMP	Social Impact Management Plan
TARP	Trigger, Action, Response Plan
TEOM	Tapered Element Oscillating Microbalance
TMP	Traffic Management Plan
VPA	Voluntary Planning Agreement
WAL	Water Access Licence
WHC	Whitehaven Coal
WMP	Water Management Plan

INTRODUCTION

Environmental Resource Management Australia Pty Ltd (ERM) was commissioned by Whitehaven Coal Limited (Whitehaven) to undertake an independent environmental audit of the Maules Creek Coal Mine (MCCM) near Boggabri, New South Wales (NSW). The purpose of the audit was to satisfy the requirements of the Department of Planning and Environment (DP&E) Ministers' Conditions of Approval (CoA) for the consolidated Project Approval PA 10_0138 (MOD 3) dated 17 January 2017.

This report sets out the audit purpose, methodology, summary, findings and detailed assessment. The audit period assessed in this IEA is 1 July 2015 to 30 June 2018. The audit was conducted between 9 and 12 July 2018 and included document review and a site visit.

1.1

AUDIT TEAM

The audit has been conducted by the following team of suitably qualified and experienced persons that have been approved by DP&E:

- Oliver Moore (ERM Lead Auditor);
- Nicole Whittaker (ERM Support Auditor); and
- Wijnand Gemson (ERM Water Specialist auditor).

The audit team also was supported with review of specific technical aspects by:

- Nathan Lynch (ERM Acoustics Engineer);
- Iain Cowen (ERM Air Quality Scientist);
- Joanne Woodhouse (ERM Heritage Consultant); and
- William Weir (ERM Technical Oversight).

1.2

MINE HISTORY & APPROVALS

MCCM is located approximately 18 kilometres north-east of Boggabri and 45 kilometres south-east of Narrabri in New South Wales (NSW), Australia. The land immediately adjacent to and surrounding the MCCM consists mainly of the Leard State Forest to the south and east, with the areas to the north and west being predominantly agricultural land. MCCM has also purchased a large number of the neighbouring properties to reduce the number of private residences that could be potentially impacted by MCCM's activities.

Project Approval PA 10_0138 was granted on 23 October 2012 for the construction and operation of an open cut coal mine with an approved maximum run-of-mill (ROM) coal production rate of 13 Mtpa until the end of December 2034.

Construction commenced at MCCM in December 2013, with construction of the rail loop and spur line commencing in early 2014. Operations at the site, commenced in August 2014 and the rail and access road works being completed by the end of June 2014. Construction and commissioning of the CHPP was completed in the first half of 2015 and the site declared operational from 1 July 2015.

1.2.1 *Approvals*

A number of modifications have been sought to the PA, including:

- Modification 1 - lodged in April 2013 to allow minor adjustments to the alignment of the CHPP infrastructure and the construction and operation of a TransGrid switching yard and transmission line as well as a minor extension of an existing low voltage (11 kilovolt [kV]) transmission line. The modification was granted on 25 July 2013.
- Modification 2 - was lodged in February 2014 to revise the location of the raw water pipeline and associated pump station. The modification was approved on 10 March 2014.
- Modification 3 - was lodged in May 2016 to amend the percentage of employee bus use to better reflect the locally residing workforce and associated transport regime. This Modification was approved in January 2017.

The EPBC Approval (EPBC 2010/5566) was granted on 11 February 2013 to allow the construction and operation of the open cut coal mine.

The mine is also covered by Coal Lease 375 and Mining Leases 1701 and 1719.

1.3 *OVERVIEW OF OPERATIONS*

MCCM is located on Coal Lease 375 and Mining Leases 1701 and 1719, with development approval granted to Aston Coal 2 Pty Limited, which is 100% owned by Whitehaven Coal.

The mine operates 24 hours a day, seven days a week, however blasting is undertaken during daytime hours, most often between 11 am and 2 pm and not conducted on Sundays.

1.3.1

Current Operations

MCCM is an open pit coal mining operation. Mining is carried out as contemporary excavator operation, supported by a fleet of haul trucks and ancillary equipment. Coal is hauled by the truck fleet from the pit to either a ROM stockpile area or directly fed into the ROM coal hopper, before being sent to the coal handling and processing plant (CHPP). The coal is taken from the CHPP to the coal load out facility at the constructed rail spur and loop. The site includes the mine access road, overburden emplacements, water management infrastructure (raw water dam, mine water dam, sediment dams, clean water drains and pipelines), as well as a number of other ancillary aspects including workshops, bulk fuel storage and re-fuelling area, stores, administration and offices, laydown areas, as well as soil stockpiles.

During the audit period a number of key activities were undertaken, which include:

- Continued exploration activities to assist production planning and assess coal reserves within CL 375;
- Relocation of some temporary facilities to the permanent Mine Infrastructure Area (MIA) following the completion of construction;
- Annual clearing program conducted between 15th February to the 30th April each year; and
- Commencement and completion of construction of a mobile equipment wash plant, permanent maintenance workshop, stores building and tyre change area.

1.3.2

Future Operations

MCCM's MOP and 2017 Annual Review highlighted a number of projects and changes that are forecasted to be commenced or completed during the following audit period, these include:

- Continued exploration activities on CL375, as well as within A346 (Whitehaven tenement);
- Proposed increase in mine processing rates to 12 Mtpa of ROM coal and approximately 76 million bank cubic metres of overburden in 2018;
- Annual clearing program conducted between 15th February to the 30th April each year;
- Construction of additional potable water storage;
- Installation of underground electrical network;
- Establishment of a new go-line/development area within the pit; and

- Commencement of rehabilitation activities (beyond the current shaping and forming that has been completed), with 234 ha proposed to be at 'Ecosystem and Land Use Establishment' phase by end of 2021.

1.4 *AUDIT OBJECTIVES*

The objectives of the ERM's audit were to:

- assess the environmental performance of the project and assess whether it is complying with the requirements in the following:
 - Conditions of Project Approval (PA) 10_0138 (MOD 3, 17 January 2017);
 - Environmental Protection Licence (EPL) 20221;
 - Coal Lease (CL) 375 and Mining Leases (ML) 1701 and 1719; and
 - Water Access Licences (WALs) - 12479, 12811, 13050, 27383, 27385, 29467, 29588.
- review the adequacy of MCCM's Environmental Management Strategy, Management Plans and Environmental Monitoring Program required under the abovementioned consents/approvals; and
- identify opportunities for improved environmental management and recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under the above mentioned approvals.

1.5 *AUDIT SCOPE*

This second Independent Environmental Audit (IEA) will be completed in accordance with Condition 10, Schedule 5 of PA 10_0138 and ERM's Terms of Reference.

- The IEA under PA 10_0138 will cover the period 1 July 2015 to 30 June 2018;
- The audit is to be completed in accordance with DP&E's Guidelines for Independent Audits;
- The audit to also be completed in accordance with AS/NZS ISO 19011:2003: Guidelines for quality and/or environmental management systems auditing;
- Review of compliance against the documentation identified in the CoA which will include:
 - Document review of compliance against the CoA, and any other relevant consents/approvals;

- Site inspection to assess compliance against field implementation of active CoA; and
- Review of supporting plans developed as part of the CoA and assessment of their adequacy towards effective environmental performance.
- Review of monitoring results and trends with comparison of monitoring results against regulatory limits and CoA limits (where applicable);
- Confirmation if any additional monitoring required for identified trends;
- Community complaints with review completed for any trends and identifying the source of an established trend;
- Review and summarise regulatory enquires, infringement and enforcement actions including penalty notices and prosecutions; and
- Review of previous Independent Environment Report (issued 2015) audit report to verify close-out of actions.
- consultation with the relevant agencies such as Department of Planning and Environment (DP&E), Environment Protection Agency (EPA), NSW Office of Environment and Heritage (OEH), NSW Department of Industry (Division of Resource and Energy (DRE) and Department of Primary Industry Water (DPI Water) and the Community Consultative Committee (CCC) (including Narrabri Shire Council);
- Draft report with results of compliance assessment to be issued for comment to MCCM; and
- Final report issued for submission to the DP&E.

1.6

AUDIT CRITERIA

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

- Conditions of Approval of Project Approval PA 10_0138 (Modification 3 issued 17 January 2017);
- Environmental Protection Licence - EPL No. 20221;
- Coal Lease 375;
- Mining Leases 1701 & 1719;
- Management Plans and Strategies - the commitments in the management plans and strategies developed as part of the Development and Project Approvals have been implemented including:

- Aboriginal Archaeology and Cultural Heritage Management Plan (AACHMP);
- Air Quality and Greenhouse Management Plan (AQGGMP);
- Biodiversity Management Plan (BoMP);
- Blast Management Plan (BLMP);
- Biodiversity Offset Strategy (BOS);
- BTM Aboriginal Heritage Conservation Strategy;
- BTM Blast Management Strategy;
- BTM Air Quality Management Strategy;
- BTM Noise Management Strategy;
- BTM Leard Forest Regional Biodiversity Strategy;
- Environmental Management Strategy (EMS);
- Historic Heritage Management Plan (HHMP);
- Mining Operations Plan (MOP);
- Mine Site Rehabilitation Plan (MSRP);
- Noise Management Plan (NMP);
- Pollution Incident Response Management Plan (PIRMP);
- Social Impact Management Plan (SIMP);
- Traffic Management Plan (TMP); and
- Water Management Plan (WMP).

1.7 LIMITATIONS OF THE REPORT

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

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

- a) client/ third party information which was not verified by ERM except to the extent required by the scope of services, and ERM do not accept

responsibility for omissions or inaccuracies in the client/third party information; and

- b) information taken at or under the particular times and conditions specified, and ERM do not accept responsibility for any subsequent changes.

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The audit comprised a site inspection, interviews with key personnel and review of records and other related documentation over the period 1 July 2015 to 30 June 2018. The audit process included the following primary components:

- Terms of Reference developed which included:
 - Audit scope and objectives;
 - Date and location of audit;
 - Members of audit team;
 - List of people to be interviewed; and
 - List of reference documents and audit criteria.
- The Lead Auditor worked with MCCM to confirm details of the Terms of Reference (ToR), site inspection logistics and request for documentation required prior to the site inspection component of the audit;
- The proposed audit team and ToR was submitted to DP&E for approval, which was granted on 31 May 2018;
- An opening meeting was held on 9 July 2018 at MCCM site offices to confirm the audit objectives and scope for the site inspection. Attendees included:
 - Oliver Moore (ERM - Lead Auditor);
 - Nicole Whittaker (ERM - Support Auditor);
 - Wijnand Gemson (ERM - Water Specialist Auditor);
 - Tony Dwyer (WHC Group Manager - Approvals and Biodiversity);
 - Scott Mitchell (MCCM Environmental Superintendent);
 - Lily Webster (MCCM Environmental Officer);
 - Scotney Moore (MCCM Environmental Officer);
 - Omar Romeril (MCCM Technical Services Superintendent); and
 - Darren Swain (MCCM External Relations Superintendent).
- Site inspections were undertaken between 9 July and 12 July 2018;

- Any identified gaps/issues were documented and followed up with site personnel and additional information was requested as required;
- A closeout meeting was held on 12 July 2018 to discuss initial findings and recommendations. Attendees included:
 - Oliver Moore (ERM - Lead Auditor);
 - Nicole Whittaker (ERM – Support Auditor);
 - Tony Dwyer (WHC Group Manager - Approvals and Biodiversity);
 - Scott Mitchell (MCCM Environmental Superintendent);
 - Lily Webster (MCCM Environmental Officer);
 - Peter Wilkinson (MCCM General Manager);
 - Omar Romeril (MCCM Technical Services Superintendent); and
 - Matthew Sparkes (MCCM Mine Manager).
- Preparation of a draft audit report (this report);
- Comments on draft report developed by MCCM; and
- Preparation of a final audit report.

2.2 *AGENCY AND COMMUNITY CONSULTATION*

As part of this audit, ERM and MCCM consulted with the following agencies and stakeholders:

- NSW Department of Industry (Division of Resource and Energy (DRE) and Department of Primary Industry Water (DPI Water));
- Department of Planning and Environment (DP&E) (including the Resources Regulator from the Division of Resources and Geoscience (DRG));
- Office of Environment and Heritage (OEH);
- NSW Environment Protection Agency (EPA); and
- The Community Consultative Committee (CCC), including representatives from Narrabri Shire Council.

In each case an email was sent to representatives of each agency requesting feedback on those issues considered most relevant by their department at the time of the audit.

2.2.1

Summary of Consultation

The Terms of Reference were submitted to the Department of Industry (DRE and DPI Water), DP&E (and Resources Regulator), OEH and EPA on 22 June 2018 and to the CCC (including Narrabri Shire Council) on 26 June 2018, prior to the site inspection to obtain feedback and draw attention to any key issues, within the agreed scope of the audit.

The following feedback was received and is addressed below:

- **DP&E** - highlighted a number of areas of consideration, in particular: progression of rehabilitation and associated soil management; groundwater; siting, calibration and maintenance of monitoring equipment; MCCM's response to blasting complaints; pit stored water; real-time monitoring TARPs and triggers; offset security; management plan review tracking; Social Impact Management Plan; hydrocarbon management; air quality performance generally and model performance; and feral pest management.

<i>DP&E Query</i>	<i>Findings in Accordance with Approval Conditions</i>	<i>Refer to Relevant Approval Conditions for More Details</i>
Progression of rehabilitation and associated soil management	Compliant	CoA Schedule 3 conditions 39, 48, 49, 52, 72 & 73
Groundwater monitoring since AR 2017	Compliant	EPL conditions P1.3 & M2.3
Siting, calibration and maintenance of monitoring equipment	Site observations demonstrated that visited monitoring equipment was sited appropriately. A sample of calibration records were also viewed for a number of pieces of monitoring equipment. On limited occasions during the audit period, maintenance issues resulted in monitoring equipment not recording some data. Refer to Table 3.3 for findings details.	EPL conditions M2.2, M4.1, M7.1
MCCM's response to blasting complaints	Complaint	EPL conditions M5.2
Pit stored water	There are no specific approval conditions around the management of water stored in a mine pit. The Auditor understands that this query relates to temporary storage of water in the east mine pit not currently being mined (with the water reportedly derived from an earlier heavy rainfall period). At the time of the	N/A

	site audit visit MCCM was in the process of collating information relating to the water storage (including records demonstrating the origin of the water) for submission and discussion with DP&E. The submitted communications have not been sighted by the Auditor.	
Sediment dams	Compliant	CoA Schedule 3 condition 38
Real-time monitoring TARPs and triggers	Compliant	CoA Schedule 3 conditions 15, 23, 33, 39
Offset security	Compliant	CoA Schedule 3 conditions 55
Management plan review tracking	Complaint	CoA Schedule 2 condition 16 and Appendix 5 condition 3
Social Impact Management Plan	Complaint	CoA Schedule 3 condition 78
Hydrocarbon management	There are no specific approval conditions around the management of hydrocarbons. Site observations, as well as historical incident data demonstrated good hydrocarbon management at the site.	N/A
Air quality performance generally and model performance	Generally compliant. One ANC related to the operation of the predictive air dispersion model. Refer to Table 3.3 for details.	CoA Schedule 3 conditions 26 to 34 and Appendix 5 conditions 6 to 9 EPL conditions P1.1, O4.1, M2.1 and M2.2
Feral pest management	Compliant	CoA Schedule 3 conditions 44, 47 and 52

- **DP&E (Resources Regulator)** – recently undertook an audit of MCCM and therefore had covered their focus areas through this audit. DRG requested that the auditor consider their draft audit findings in relation to the IEA.

<i>DRG Query</i>	<i>Findings in Accordance with Approval Conditions</i>	<i>Refer to Relevant Approval Conditions for More Details</i>
Observation of Concern No. 1 – blasting within criteria	Compliant	CoA Schedule 3 conditions 18 to 20 EPL conditions P1.4, L4.1 to L4.7
Observation of Concern No. 2 – co-operation agreement for PEL 1	Compliant	CL 375 condition 24
Observation of Concern No. 3 – develop a self-assessment process to support compliance statements	Not within scope. The compliance status of the CoA, EPL, MLs, CL and WALs were assessed as part of this IEA.	Refer to this report

<i>DRG Query</i>	<i>Findings in Accordance with Approval Conditions</i>	<i>Refer to Relevant Approval Conditions for More Details</i>
Observation of Concern No. 4 – amended MOP TARPs to include response to poor soil results	The MOP was approved by DRG in February 2018. The MOP has not been updated since the DRG audit in May 2018. The current MOP completion period is until 1 January 2023.	N/A
Observation of Concern No. 5 – More thorough risk assessment for rehabilitation risks within the MOP	The MOP was approved by DRG in February 2018. The MOP has not been updated since the DRG audit in May 2018. The current MOP completion period is until 1 January 2023.	N/A
Suggestion for Improvement No. 1 – Add other permits and licences to CMO compliance management software	Management systems were not assessed as part of this scope of works.	N/A

- **OEH** – requested a focus on Aboriginal cultural heritage and biodiversity and the implementation of the respective associated plans.

<i>OEH Query</i>	<i>Findings in Accordance with Approval Conditions</i>	<i>Refer to Relevant Approval Conditions for More Details</i>
Aboriginal cultural heritage	Compliant	CoA Schedule 3 conditions 57 & 58 and Appendix 5 conditions 4, 18 to 21
Biodiversity	Generally compliant, one ANC with regards to the implementation of the Biodiversity Offset Strategy, refer to Table 3.4.	CoA Schedule 2 condition 7, Schedule 3 conditions 39, 41 to 50, 52 to 56 and Appendix 5 conditions 4, 17 & 35

- **CCC** – included a number of areas of concern including implementation of best water management practices; offsets audits, management and security; potential breaches of the CoA; monitoring results against baseline values; waste management; rehabilitation and revegetation; waste rock dump and topsoil management; blast impacts and notifications; noise and a number of items in relation to groundwater. CCC made a number of comments that were considered to be beyond of the scope of this IEA, however the IEA has generally assessed each area of concern, as per the below:

<i>CCC Query</i>	<i>Findings in Accordance with Approval Conditions</i>	<i>Refer to Relevant Approval Conditions for More Details</i>
Best water management practices: <ul style="list-style-type: none"> • assessing and verify the methodology of the Water Balance Modelling (WBM) employed; the recording methodology, and the 	Compliant. Water use is monitored at the site and tracked through water balance tools. The water balance spreadsheets were viewed during the site inspection and inputs to the spreadsheets as well as controls on the accuracy of	CoA Schedule 3 conditions 36 & 40 and Appendix 5 condition 24

<i>CCC Query</i>	<i>Findings in Accordance with Approval Conditions</i>	<i>Refer to Relevant Approval Conditions for More Details</i>
recording frequency by viewing the WBM files	measurements (such as flow meter calibration certificates) were viewed. Note that for groundwater ingress to the mine pits, where a substantial fraction of inflows may be lost through evaporation on the pit walls and pit floor, the groundwater ingress component is evaluated through a combination of direct monitoring (e.g. pumping volumes from pit sumps) and water balance calculations with the latter including estimations of evaporation and rainfall on the water balance of the mine pits. Direct pumping measurements are generally recorded for water balance purposes on a weekly basis and water level survey of the raw water dam and mine water dam are undertaken once a week. The indirect measures of the water balance (e.g. evaporation from the mine pits and the rainfall component) is evaluated on an annual basis as part of the annual water balance review.	
<ul style="list-style-type: none"> Measures taken to minimise water usage and negative water quality impacts of the project during extreme meteorological conditions and/or extraordinary events 	Water usage has primarily been assessed in so far as compliance against the WALs, these are compliant.	WALs 12479, 13050, 27385, 29467, 36641
Offsets audit – verify performance against Approval Condition Schedule 3 Condition 56	Compliant	CoA Schedule 3 condition 56
Potential breaches of the CoA	Refer to Tables 3.3 and 3.4	
All monitoring results during audit period against baseline values	Monitoring results during audit period were assessed against approval conditions. Assessment against baseline values not within audit scope.	N/A

<i>CCC Query</i>	<i>Findings in Accordance with Approval Conditions</i>	<i>Refer to Relevant Approval Conditions for More Details</i>
<p>Water management:</p> <ul style="list-style-type: none"> Assess if the mine has investigated the connectivity between the coal seams and the alluvial aquifer 	<p>Connectivity between the coal seams and the alluvial aquifer was assessed in the Groundwater Impact Assessment (AGE, 2011) undertaken as part of the mine approvals process. The assessment indicated the potential for some limited drawdown impacts on the alluvial aquifer and on this basis WALs were secured to allow and account for the drawdown and associated water take from the alluvial aquifer (e.g. Zone 11 WALs). Alluvial aquifer impacts due to mining are then also considered in the draft Boggabri-Tarrawonga-Maules Creek (BMT) Complex Water Management Strategy (WMS) dated June 2018 which has been submitted to the DP&E. The draft BMT Complex WMS sets out a monitoring program to continue to assess potential mining induced impacts on groundwater including the alluvial aquifer.</p>	<p>CoA Appendix 5 condition 25</p>
<ul style="list-style-type: none"> Assess if the mine water balance and groundwater computer model has been validated against recorded water monitoring 	<p>The mine water balance is based on recorded water monitoring where direct measurements are possible. As mentioned above, for groundwater ingress to the mines pits where a substantial fraction of inflows may be lost through evaporation on the pit walls and pit floor, the groundwater ingress component is evaluated through a combination of direct monitoring (e.g. pumping volumes from pit sumps) and water balance calculations with the latter including estimations of evaporation and rainfall on the water balance of the mine pits. The numerical groundwater flow model is periodically reviewed and</p>	<p>CoA Schedule 3 conditions 36 & 40 and Appendix 5 condition 24</p>

<i>CCC Query</i>	<i>Findings in Accordance with Approval Conditions</i>	<i>Refer to Relevant Approval Conditions for More Details</i>
	validated/calibrated against recorded water level monitoring.	
<ul style="list-style-type: none"> Assess if there are sufficient operational groundwater monitoring stations to effectively validate the model 	Not within IEA scope. The draft BMT Complex WMS references groundwater modelling undertaken to assess cumulative groundwater impacts (Heritage Computing, 2012) and describes a groundwater monitoring network designed to identify cumulative groundwater impacts with the locations of the groundwater bores based on reviews undertaken by consultants including AGE and Heritage Computing.	N/A
<ul style="list-style-type: none"> Assess if mine surface and ground water extraction records are able to be independently verified 	Based on the records sighted during the site visit (pumping records, flow meter calibration records, raw water dam and mine water dam water level surveys, water balance spreadsheets) the extraction records are able to be independently verified.	CoA Schedule 3 conditions 36 & 40
<ul style="list-style-type: none"> Assess if there are sufficient working water (groundwater and surface water) monitoring stations to ensure adaptive management conditions are being fulfilled in light of current environmental / seasonal changes 	A cumulative impacts groundwater and surface water monitoring network has been developed in consultation with the Boggabri and Tarrawonga coal mines. The locations of the groundwater bores are based on reviews undertaken by consultants including AGE and Heritage Computing. The monitoring network has been developed as part of the BMT Complex WMS dated June 2018 which has been submitted to the DP&E for review.	CoA Appendix 5 condition 25
<ul style="list-style-type: none"> Assess if the ongoing environmental reporting to the DPE is sufficient to enable the department to ensure adaptive management conditions are being fulfilled in light of current environmental / seasonal changes 	Annual environmental reporting is provided in the Annual Reviews and EPL related monitoring is provided on a monthly basis. The DP&E may further request water monitoring data/information at any time if any specific concerns arise.	CoA Schedule 3 condition 40

<i>CCC Query</i>	<i>Findings in Accordance with Approval Conditions</i>	<i>Refer to Relevant Approval Conditions for More Details</i>
<ul style="list-style-type: none"> Assess the timeliness of water quality and quantity reporting for the surface and ground water monitoring is sufficient to ensure adaptive management conditions are being fulfilled 	The reporting frequency has been approved by DP&E as part of the Water Management Plan. The DP&E may further request water monitoring data/information at any time if any specific concerns arise.	CoA Schedule 3 condition 40
<ul style="list-style-type: none"> Verify the number and operational status of monitoring bores against approval conditions 	Other than the PAC recommendation (Appendix 6 Item 1) to install 17 additional monitoring bores the CoA does not specify a number of required monitoring bores as part of the approval conditions. These 17 monitoring bores have been installed. According to the 2017 Annual Review, four of these bores were dry at the time of reporting.	CoA Appendix 6 condition 1
<ul style="list-style-type: none"> Seek clarification on construction timeline for PAC recommendations re additional 17 groundwater monitoring stations 	According to MCCM the additional groundwater monitoring locations were installed early 2014 (Refer to 2014 WMP that confirms that the installation of these bores had been completed).	CoA Appendix 6 condition 1
<ul style="list-style-type: none"> Verify the groundwater monitoring bores along Back Creek accurately measure water quality and quantity along Back Creek? 	Not within audit scope.	N/A
<ul style="list-style-type: none"> Assess Riparian Communities health along Back Creek and whether water extraction trigger criteria are adequate to meet the approval conditions 	Not within audit scope.	N/A
<ul style="list-style-type: none"> Does Maules Creek Coal hold the appropriate Groundwater Licences in Zone 11? I have read comments that the Zone 11 Licences are not "High Security" Licences, however I am not aware of "High Security" Groundwater entitlements in the Namoi Valley. 	MCCM holds three WALs in Zone 11 with water take entitlements (WAL 12479, WAL 12480 and WAL12491). None of the groundwater licences in Zone 11 are "High Security".	WALs 12479, 12480 & 12491

<i>CCC Query</i>	<i>Findings in Accordance with Approval Conditions</i>	<i>Refer to Relevant Approval Conditions for More Details</i>
Offset Security Management:	Generally compliant, one ANC with regards to the implementation of the Biodiversity Offset Strategy, refer to Table 3.4.	CoA Schedule 2 condition 7, Schedule 3 conditions 39, 44 to 46, 48, 49, 52 to 56 and Appendix 5 conditions 4, 17 & 35
<ul style="list-style-type: none"> Assess flora species propagation and plantings in the Eastern & Western Offsets 	Refer to the IBA or not within IEA scope.	N/A
<ul style="list-style-type: none"> Assess habitat logs and rocks in situ and the accuracy of inspection records and status reports 	Refer to the IBA or not within IEA scope.	N/A
<ul style="list-style-type: none"> Assess the legality of the transfer to a second party of offset areas under the approval conditions 	Refer to the IBA or not within IEA scope.	N/A
<ul style="list-style-type: none"> Assess the ability for the Offset areas to be maintained and protected in perpetuity 	Refer to the IBA or not within IEA scope.	N/A
<ul style="list-style-type: none"> Assess whether additional offsets will need to be purchased to replace any areas that have been sold/transferred to the National Park Estate 	Refer to the IBA or not within IEA scope.	N/A
<ul style="list-style-type: none"> Assess if there are processes/resources in place to ensure fulfillment of commitments in condition 44 of the Project Approval in relation to offset areas transferred to the National Park Estate? 	Refer to the IBA or not within IEA scope.	N/A
<ul style="list-style-type: none"> Assess if the long term security bond is adequate, post the transfer of offsets, to ensure section 44 commitments can be guaranteed 	Refer to the IBA or not within IEA scope.	N/A
<ul style="list-style-type: none"> Assess whether an adequate security bond is in place for all remaining offset areas 	Refer to the IBA or not within IEA scope.	N/A

<i>CCC Query</i>	<i>Findings in Accordance with Approval Conditions</i>	<i>Refer to Relevant Approval Conditions for More Details</i>
<p>Waste:</p> <ul style="list-style-type: none"> Assess mine waste management how is this being conducted - in particular re specific concern about the burial of tyres. Where is the big tyre pile now Assess the status of MCCM greenhouse gas emissions and adherence to state imposed limits Assess whether Maule Creek coal mine adopted all reasonable and feasible means to limit the projects contribution to greenhouse gas emissions 	<p>Mine vehicle tyres are being stored near the maintenance bays and awaiting long term solution. All tyres that are able to be repaired are and then reused.</p> <p>One non-compliance related to waste segregation (refer to Table 3.3), otherwise compliant with regards to waste and greenhouse gas emissions.</p>	<p>CoA Schedule 3 conditions 27, 31, 34, 70 and Appendix 5 condition 7</p> <p>EPL condition O1.1</p>
<p>Mine site rehabilitation and re-vegetation:</p> <ul style="list-style-type: none"> Assess if the mine has prepared progressive rehabilitation and mine closure plans that are suitable for the stage of the project 	<p>The MOP is appropriate.</p>	<p>CoA Schedule 3 condition 73</p>
<ul style="list-style-type: none"> Assess if sufficient funds have been put aside to rehabilitate the mine should the company fail unexpectedly. 	<p>Bonds are in place under the MLs, as determined by the regulator.</p>	<p>MLs 1701 & 1719 condition 8</p>
<ul style="list-style-type: none"> Assess if the current overburden height has reached the maximum approved height 	<p>There are no CoA or EPL conditions stipulating maximum overburden heights. Not assessed.</p>	<p>N/A</p>
<ul style="list-style-type: none"> Assess if re-vegetation processes are behind schedule 	<p>Review of reinstatement works, shows that the site is working in accordance with rehabilitation schedule in the approved MOP.</p>	<p>CoA Schedule 3 condition 72 and Appendix 5 condition 16</p>
<ul style="list-style-type: none"> Assess if topsoils and subsoil has sufficient moisture holding ability and topsoil depth to sustain restored vegetation and biodiversity within the rehabilitated areas in order to meet State and Federal approval conditions 	<p>Outside of scope.</p>	<p>N/A</p>

<i>CCC Query</i>	<i>Findings in Accordance with Approval Conditions</i>	<i>Refer to Relevant Approval Conditions for More Details</i>
Waste rock dumps, Tailings Dams and Topsoil: <ul style="list-style-type: none"> Assess if the dimensions of waste rock dumps including height, slope angles and area are within approval limits 	There are no CoA or EPL conditions that stipulate waste rock heights or slope angles. Not assessed. All mining works in within the approved mining and coal lease areas.	N/A
<ul style="list-style-type: none"> Assess if mitigation strategies are adequate to manage any acid and metalliferous drainage issues as per the approval conditions? 	Not a requirement of CoA. Not assessed.	N/A
<ul style="list-style-type: none"> Assess if the long-term drainage management system is adequate in the long-term as per the approval conditions 	Not assessed. The mine drainage system is assessed for current adequacy and is considered compliant.	N/A
Blast impacts (fumes) and notifications	Compliant	CoA Schedule 3 conditions 23 & 26
Noise – sound power levels of the fixed plant and equipment	Non-compliant. Refer to Table 3.3 for details.	CoA Schedule 3 condition 12
Website - assess if company website provides a level of data required by the approval	Generally compliant, one ANC with regards to responses to weather data. Refer to Table 3.3 for details.	CoA Schedule 3 conditions 12(b), 13 (b), 34, 65 and Schedule 5 conditions 7, 9, 12 & 13

Aside from those outlined above, no response from other agencies was received during the audit process, this included from DPI Water, EPA or Narrabri Shire Council.

2.3

CLASSIFICATION OF AUDIT FINDINGS

Findings resulting from an assessment of audit evidence were divided into six categories as follows:

- **Compliant (C):** the intent and all elements of the audit criteria requirements have been complied with within the scope of the audit.
- **Not Verified (NV):** insufficient verifiable evidence to demonstrate that the intent and all elements of the audit criteria have been complied with within the scope of the audit.
- **Non-compliance (NC):** Failure to meet the audit requirements, failure to achieve the field performance outcomes identified in documentation, or ineffective environmental management of the activity.
- **Administrative Non-compliance (ANC):** technical conformance with audit requirements that would not impact on performance and is considered minor in nature (e.g. report submitted but not on the due date, failed monitor

or late monitoring session). This would not apply to performance-related aspects (e.g. exceedance of a noise limit) or where a requirement had not been met at all (e.g. noise management plan not prepared and submitted for approval).

- **Observation (O):** Observations are recorded where the audit identified issues of concern which do not strictly relate to the scope of the audit or assessment of compliance.
- **Not Triggered (NT)** - A regulatory approval requirement has an activation or timing trigger that had not been met at the time of the audit inspection; therefore a determination of compliance could not be made.
- **Note:** A statement or fact, where no assessment of compliance is required.

A qualitative risk assessment was also completed on the findings, consistent with AS/NZS 4360:2004 Risk management and HB 436:2004 Risk Management Guidelines Companion to AS/NZS 4360:2004 and as described in the DP&E publication "Independent Audit Guidelines" issued October 2015.

Risk levels for non-compliances will also be identified and assigned as follows:

- **High:** Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence
- **Medium:** Non-compliance with:
 - potential for serious environmental consequences, but is unlikely to occur; or
 - potential for moderate environmental consequences, but is likely to occur
- **Low:** Non-compliance with:
 - potential for moderate environmental consequences, but is unlikely to occur; or
 - potential for low environmental consequences, but is likely to occur
- **Administrative non-compliance:** Only to be applied where the non-compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions).

3.1 PREVIOUS INDEPENDENT AUDIT

The previous independent environmental audit (IEA) was undertaken by SMEC, with the final report dated 22 August 2016. The findings of this report were reviewed and considered in the development of this report.

The previous environmental audit outlined a number of non-compliances, these are summarised in *Table 3.1* below, along with MCCM's responses to each from the Action Plan submitted on 30 September 2015, shortly after the completion of the 2015 IEA audit:

Table 3.1 2015 Independent Environmental Audit Non-Compliances and MCCM's Responses dated 30 September 2015

Non - Compliance	Date / Location	Cause	Action Plan	Estimated Completion Date as at 30 September 2015
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"> Plant Sound Power levels measured above criteria Copy of annual review was not sent to the council Agencies were not notified within 7 days of an attended 	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	Refer above. Complete

Non - Compliance	Date / Location	Cause	Action Plan	Estimated Completion Date as at 30 September 2015
<p>monitoring exceedence occurring</p> <ul style="list-style-type: none"> Was not reviewed and revise (if necessary) within a three month period following an annual review 			implement all the requirements in the NMP.	
<p>All the requirements of the Blast MP not fully implemented:</p> <ul style="list-style-type: none"> Measures to improve compliance were not detailed in the 2014 Annual Review A copy of the annual review was not forwarded to DPI, OEHL, Council and CCC Was not reviewed and revise (if necessary) within a three month period following an annual review 	During reporting period.	Procedural Oversight.	<p>Proposed improvement measures detailed in the 2015 Annual Review</p> <p>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.</p>	Complete
<p>A predictive air dispersion modelling required as part of the air quality management system was not operational 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.</p>	During reporting period.	Air Quality Management Strategy (AQMS) was not finalised during 2015	<p>Finalise AQMS during 2016. In accordance with the MCC AQMP, the predictive and real time air dispersion modelling will be implemented as part of the Leard Forest Precinct AQMS. Alternate management measures have been implemented by MCC in the interim.</p>	Ongoing
<p>All the requirements of the AQGHGMP not fully implemented:</p> <ul style="list-style-type: none"> Tenants were not advised of all their rights Review and revise if necessary within a three month period 	During reporting period.	Procedural Oversight.	<p>Notify tenants of rights as required by PA.</p> <p>MCC will update the AQGHGMP and implement all the requirements in the AQGHGMP.</p>	Completed

Non - Compliance	Date / Location	Cause	Action Plan	Estimated Completion Date as at 30 September 2015
<p>following annual reviews, incident reports, audits or modification of the approval</p> <ul style="list-style-type: none"> Was not reviewed and revise (if necessary) within a three month period following annual reviews, incident reports, audits or modification of the approval 				
<p>All the requirements of the WMP not fully implemented:</p> <ul style="list-style-type: none"> Guidelines for groundwater sampling were not referenced in monitoring reports Was not reviewed and revise (if necessary) within a three month period following an annual review 	During reporting period.	Procedural Oversight.	<p>Monitoring reports to include sampling methods.</p> <p>MCC will update the WMP during the next reporting period and implement all the requirements in the WMP.</p>	Submission of revised WMP during 2016 reporting period.
<p>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.</p>	During reporting period.	Seasonably unfeasible	<p>MCC will update the BMP during the next reporting period and implement all the requirements in the BMP. Items that were not seasonally feasible for MCC to implement during 2015 will be implemented during 2016.</p>	Completed & ongoing.
<p>The AACHMP was not reviewed and revised (if necessary) within a three month period following an annual review.</p>	End of June 2015	Procedural Oversight	<p>MCC will review and if necessary revise any AACHMP within the required time-frames.</p>	Complete

Non - Compliance	Date / Location	Cause	Action Plan	Estimated Completion Date as at 30 September 2015
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
<p>All the requirements of the TMP were not fully implemented:</p> <ul style="list-style-type: none"> Upgrade to the intersection of Rangari Road and the Kamilaroi Highway within the timing requirements of the TMP 90 % workforce was not transported by shuttle bus 	During reporting period.	Not quite 90% of employees transported to site via shuttle bus	<p>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.</p> <p>Consultation with relevant agencies will continue, including with DPE.</p> <p>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.</p>	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

Non - Compliance	Date / Location	Cause	Action Plan	Estimated Completion Date as at 30 September 2015
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
<p>Not all requirements in the EMS and EMP:</p> <ul style="list-style-type: none"> • Training Matrix was not developed • Existing system and form does not consolidate environmental complaints and incidents • Inspection programs is conducted but not in the form of and "audit" • Document register does not include external consultants documents/reports • Agricultural Land Monitoring was not conducted during the period • Was not reviewed and revise (if necessary) within a three month period following an annual review 	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
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

Non - Compliance	Date / Location	Cause	Action Plan	Estimated Completion Date as at 30 September 2015
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

The previous independent environmental audit outlined a number of recommendations, these are summarised in *Table 3.2* below, along with MCCM's responses to each provided shortly after completion of the 2015 IEA on 30 September 2015:

Table 3.2 *2015 Independent Environmental Audit Recommendations and MCCM's Responses as at 30 September 2015*

Management Area	IEA Recommendations	MCCM Response to Recommendations	Due Date / Timing as at 30 September 2015
Air Quality	<p>The air quality management system includes observations, daily weather reports and forecasts, and ongoing analysis of trends in monitoring.</p> <p>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.</p>	<p>The predictive and real time dispersion model will be implemented as part of the BTM Air Quality Management Strategy (AQMS).</p> <p>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.</p>	<p>Submitted to DPE 2015. Ongoing revision by BTM.</p>
Aboriginal Heritage	<p>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.</p>	<p>Mapping of the extant Quinine bushes within the mining footprint will continue to be undertaken.</p> <p>A programme of plant and seed collection & propagation will be undertaken in accordance with the ACHMP.</p>	<p>Ongoing during pre-clearance vegetation surveys</p> <p>Following collection of available seeds during pre-clearance surveys</p>
Biodiversity and Offsets	<p>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.</p> <p>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.</p>	<p>MCCM will review figures to ensure accurate legends accompany each figure and area of vegetation mapped.</p>	<p>Ongoing and during the revision of the relevant documents.</p>

Management Area	IEA Recommendations	MCCM Response to Recommendations	Due Date / Timing as at 30 September 2015
Noise	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
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 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
Heritage	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
Rehabilitation	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.
	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

Management Area	IEA Recommendations	MCCM Response to Recommendations	Due Date / Timing as at 30 September 2015
Water Management	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
Environmental Incident Management	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
Management Plans	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	Completed
	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	Completed
	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	The BTM Complex strategies are currently being prepared, consulted and reviewed. MCCM will raise the importance of progressing and finalising the	Ongoing

Management Area	IEA Recommendations	MCCM Response to Recommendations	Due Date / Timing as at 30 September 2015
	should consider whether cumulative impacts are adequately addressed and mitigated through a review of the pertinent MCCM management plans	Strategies as soon as possible for approval by the DPE with the other mines in the BTM complex. MCCM will also continue to monitor and consider any potential cumulative impacts to determine whether further revisions of the MCCM Management Plans are required.	
Reporting	Review all management plans (particularly the SIMP) for the reporting requirements and add in to the AEMR any requirements that are currently not reported.	2015 AEMR will include the relevant reporting requirements.	Completed 2015 AEMR
Broad Issues	<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"> • 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 <p>Maintaining the relationship with the neighbouring community</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.	Ongoing

3.2

COMPLAINTS SUMMARY

A review of the Complaints Register for the audit period shows a number of complaints have been received from 1 July 2015 to 30 June 2018. The register shows that most complaints are made to a regulator rather than to MCCM itself. Complaints received over the auditing period include:

July – December 2015:

Subject of Complaint	Number Received
Air Quality	21
Noise	16
Air Quality and Noise	7
Noise and Vibration	4
Blasting	3
Total	51

Of these only one was made to MCCM directly, with all other complaints being directed through the EPA.

2016:

Subject of Complaint	Number Received
Noise	30
Air Quality	17
Blasting	10
Air Quality and Noise	5
Dust	2
Air Quality and Blasting	1
Noise and Other	1
Blast Notification	1
Traffic	1
Other – crop loss	1
Other – overburden placement	1
Total	71

Approximately 75% of these were made through EPA or DP&E.

2017:

Subject of Complaint	Number Received
Noise	76
Air Quality	27
Blasting	22
Air Quality and Noise	8
Traffic	5
Lighting	2
Noise and Lighting	2
Blast Notification	1

Subject of Complaint	Number Received
Social Impacts	1
Other - cultural heritage	1
Other - vegetation clearing	1
Total	146

Approximately 40% of these were made through EPA or DP&E with remaining 60% received by MCCM directly.

January - June 2018:

Subject of Complaint	Number Received
Noise	20
Blasting	9
Air Quality	2
Blasting and Noise	1
Total	32

MCCM's complaints register is published on their website and regularly updated with the latest monthly data.

3.3 ENVIRONMENTAL REGULATORY INQUIRIES

MCCM has responded to a number of regulatory Inquiries issued during the audit period, these are summarised below:

- Six 'Notice to Provide', these were either from the DPI Water or the EPA;
- Nine 'Show Cause' notices, received from either the DP&E or the EPA; and
- An 'Advisory Letter' issued by DP&E in response to one of the above 'Show Cause' notices.

3.4 ENVIRONMENTAL INFRINGEMENTS AND REGULATORY NOTICES

MCCM has been issued a number of regulatory enforcement actions during the audit period, these are summarised below:

- Two 'Non-compliance recorded' notices from DP&E;
- Three 'Penalty Notices', one from DPE and two from EPA;
- Four 'Official Cautions', one from the EPA, one from the DPI Land and two from the DP&E; and
- Seven 'Warning' letters, six from DP&E and one from DPI Water.

Where details have allowed, the enforcement actions have been addressed with regard for the relevant CoA and license conditions, as relevant.

3.5 ENVIRONMENTAL PERFORMANCE

3.5.1 Noise

MCCM's approvals outline conditions regarding environmental noise, which require it to limit mine noise and blast impacts to the sites neighbours.

On behalf of MCCM, an acoustic consulting firm (Global Acoustics) conducts attended noise monitoring on a monthly basis in accordance with the Noise Management Plan and the NSW Industrial Noise Policy. The results of this monitoring generally demonstrated compliance with the noise impact assessment criteria at each of the monitoring locations for the audit period, with each exceedance as a result of the application of the NSW Industrial Noise Policy 2000 low frequency modifying factor, such exceedances are considered to be 'technical exceedances'.

During the audit period there were seven technical exceedances, recorded at three monitoring locations, including 5 in 2016 and 2 in 2017. Four of these were two decibels or less, over the 35dBL criteria limit and therefore not considered non-compliances with the approvals, in accordance with Section 11.1.3 of the NSW Industrial Noise Policy. The EPA also introduced in late 2017 the Noise Policy for Industry, which has an improved process for assessing the low frequency noise content. This means, for example, of the two technical exceedances for 2017, only one would remain with the new methodology applied.

MCCM also undertakes an annual sound power level (SPL) audit of its fleet and fixed plant equipment, which is assessed against criteria set out in the Environmental Assessment (EA). Each year the assessment has recorded exceedances of the sound power level from the fixed plant equipment on site, and in some cases a limited number of the fleet as well. MCCM have implemented a number of additional controls during the audit period, to try and improve the sound power levels of both the fleet and fixed plant equipment.

Also completed during the audit period was the "EPL 20221 E3 - Mandatory Environmental Audit", dated 9 December 2016 and as required by condition E3 of the EPL. The findings of this audit indicated that systems, procedures and control measures for noise the site's activities were aligned to good practice. It also concluded that the daily operations, training, supervision, monitoring and maintenance with regards to aspects relating to noise were considered to be good industry practice.

3.5.2

Blasting

Blast monitoring is undertaken at monitoring locations BM 1 to BM 4 as per the requirements of the EPL and the Blast Management Plan. MCCM recorded one blast result above the 120dBL criteria at BM 1 during the audit period, however this location was on MCCM owned land and not a privately-owned residence and was not an EPL mandated monitoring location at the time of the reading. While there have also been a very limited number of blasts that have exceeded the 115dBL criteria, they have been insufficient to go above the 5% of allowable exceedances as authorised under the CoA and EPL.

3.5.3

Air Quality

MCCM operates a network of air quality monitors, including tapered element oscillating microbalance (TEOMs), a High Volume Air Sampler (HVAS) and dust deposition gauges. The TEOMs and HVAS collect data for the TSP, PM₁₀ criteria, and gauges monitor deposited particulate matter.

During the audit period, there have been no exceedances of the annual TSP, 24 hour PM₁₀ or deposited dust levels. There were seven readings for the PM₁₀ 24 hour average above the criteria of 50µg/m³. These were recorded on November 2015, January and April 2016, February and November 2017 and April and May 2018. In all instances these were noted to be related to regional events such as bushfires and dust storms or non-mining related activities such as local truck or stock movements. There were no recorded exceedances due to MCCM activities.

Also during the audit period a “*Best Practice Dust Management Benchmarking Study*” was completed in March 2017 as commissioned by the EPA. To summarise, the findings of the study found that MCCM were managing and controlling dust as per the below:

- For bulldozing, drilling and blasting, stockpiles, cleared areas, conveyors, transfers, stacking, reclaiming and train loading, were all generally in accordance with best practice;
- For loading and dumping of trucks and also for haulage activities, these included some best practice measures, but further additional controls measures could be implemented; and
- For dust emissions associated with the rail wagons, this was not found to be in accordance with best practice.

The Auditor observed on site the active application of a road sealant, numerous water trucks wetting roads, evidence of dispatch responding to TARPs and viewed extensive evidence to show thorough precautionary steps and mitigation measures are installed and part of MCCM’s daily processes to minimise dust and air quality impacts from site.

3.5.4

Water

Measures are in place at the mine site to separate clean water run-off from “dirty” water run-off that has come into contact with the mine workings/materials. This includes site drainage plans that are developed for each out of pit emplacement area with associated controls to stop water draining to a watercourse or land beyond the lease boundary. An inspection of the site indicated that these controls were in place and functioning. Surface water monitoring of these controls were undertaken by MCCM in accordance with the conditions and no surface water quality non-compliances were identified during the audit period.

The Water Management Plan includes requirements for groundwater monitoring of potential impacts associated with mining, which has included the establishment of a cumulative impacts monitoring bore network developed in consultation with the Boggabri and Tarrawonga coal mines. The locations of the bores are based on reviews undertaken by consultants including AGE and Heritage Consulting. No groundwater monitoring non-compliances were reported during the audit period.

3.5.5

Rehabilitation

Prior to 2018, the approved MOP (dated 1 December 2017) did not include any rehabilitation works. Until this time, the mine was still in its infancy and mine construction had only recently been completed (2014/2015). For 2018, the MOP requires rehabilitation works on approximately 30 ha to be progressed to the landform phase.

Landform establishment includes the shaping and forming of available overburden areas, to achieve a safe and stable final landform surface. The Auditor observed areas that had successfully undergone this process or were actively undergoing the landform established process. These areas would be (or shortly would be) ready to progress to the next stages of rehabilitation. It was also observed, that some of these prepared areas were also being utilised as soil (topsoil and subsoil) stockpiles and therefore were not currently available for further rehabilitation progress, however the next stages of rehabilitation are not programmed in the MOP to occur until 2019. MCCM confirmed that 32.6 hectares had undergone landform establishment as of 10 July 2018.

3.6

COMPLIANCE WITH REGULATORY INSTRUMENTS

An audit of compliance against the conditions of the Ministers Conditions of Approval PA 10_0138 (MOD 3, 17 January 2017), EPL 20221 and Mining Leases CL 375, ML 1701 and ML1719 and WALs, has been completed. Non-compliances and observations for each component are summarised in *Table 3* and *Table 34*.

A full review and audit findings for each component are under the following Annexures:

- *Annex B* – Compliance with Ministers Conditions Of Approval PA 10_0138 (MOD 3, 17 January 2017);
- *Annex C* – Compliance with POEO EPL_20221;
- *Annex D.1* – Compliance with Coal Lease 375;
- *Annex D.2* – Compliance with Mining Lease 1701;
- *Annex D.3* – Compliance with Mining Lease 1719; and
- *Annex E* – Water Access Licences (WALs) – 12479, 12811, 13050, 27383, 27385, 29467, 29588.

As discussed in *Section 2.3*, a qualitative risk assessment was also completed on the findings as follows:

- Non-compliance assessed as ‘high’ have been colour coded red;
- Non-compliance assessed as ‘moderate’ have been colour coded orange;
- Non-compliance assessed as ‘low’ have been colour coded yellow; and
- Administrative non-compliances have been colour coded blue.

Table 3.3 Summary of Audit Findings, excluding Management Plans

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<i>CoA PA 10_0138 (MOD 3, 17 January 2017)</i>					
<i>Schedule 2</i>					
10	<p>SURRENDER OF EXISTING DEVELOPMENT CONSENT</p> <p>By the end of 2013, or as otherwise agreed by the Secretary, 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.</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>Correspondence with the DP&E “Surrender of Development Consent DA85/1819” dated 23 December 2016</p>	<p>The date of submission predates the audit period. This was raised as a non-compliance in the previous IEA period (2015). Correspondence with the DP&E dated 23 December 2016 confirms voluntary surrender of Project Approval 10_0138. This confirms actions taken by MCCM satisfy requirements of this condition.</p>	ANC	<p>This is a legacy ANC. MCCM satisfied the requirements of this condition during the current audit period, however the required date was not met. No further action required.</p>
17	<p>COMMUNITY ENHANCEMENT</p> <p>By the end of March 2013, unless the Secretary agrees otherwise, the Proponent shall enter into a planning agreement with Council in accordance with:</p> <p>(a) Division 6 of Part 4 of the EP&A Act; and</p> <p>(b) the terms of the Proponent's offer in Appendix 3.</p>	<p>Voluntary Planning Agreement 2 May 2014</p>	<p>The Auditor reviewed Voluntary Planning Agreement between Maules Creek Coal Pty Ltd and Narrabri Shire Council dated 2 May 2014. Although the intent of this condition is met, the due date was not met during the previous audit period.</p>	ANC	<p>No further action required as this is a legacy ANC.</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations						
<i>Schedule 3</i>											
7	<p>Noise Criteria</p> <p>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.</p> <p>Table 5: Noise criteria dB(A)</p> <table border="1"> <thead> <tr> <th>Land</th> <th>Day/Evening/Night <i>L_{Aeq}(15 min)</i></th> <th>Night <i>L_{A1}(1 min)</i></th> </tr> </thead> <tbody> <tr> <td>All privately-owned residences</td> <td>35</td> <td>45</td> </tr> </tbody> </table> <p>Note:</p> <ul style="list-style-type: none"> 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. <p>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.</p>	Land	Day/Evening/Night <i>L_{Aeq}(15 min)</i>	Night <i>L_{A1}(1 min)</i>	All privately-owned residences	35	45	<p>EPL Monitoring Data:</p> <p>2015</p> <p>2016</p> <p>2017</p> <p>Monthly for 2018</p> <p>2015 Annual Review</p> <p>2016 Annual Review</p> <p>2017 Annual Review (draft)</p>	<p>All “NM” monitoring locations are representative of the relevant privately owned residences.</p> <p>No exceedances were recorded between July and December 2015.</p> <p>During 2016, five exceedances of <i>L_{Aeq}</i> 15 minute criteria were recorded during the attended monitoring, as a result of the Industrial Noise Policy 2000 being applied. All of these were a technical exceedance as a result of the low frequency modifying factor adjustment (applied as per the NSW Industrial Noise Policy 2000). Of these exceedances, only one result was more than 2 dB above the Table 5 Noise Criteria and therefore considered a non-compliance in accordance with the NSW Industrial Noise Policy. This was recorded on 31 March 2016 at NM4, where the exceedance was 3 dB above the criteria.</p> <p>NM4 was purchased by MCCM in August 2016 and therefore no longer considered a privately-owned residence</p>	NC	<p>MCCM is to ensure that all noise mitigation measures are implemented and TARPs are monitored and responded to accordingly to minimise the potential for noise exceedances.</p>
Land	Day/Evening/Night <i>L_{Aeq}(15 min)</i>	Night <i>L_{A1}(1 min)</i>									
All privately-owned residences	35	45									

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations						
			<p>during the remainder of the audit period.</p> <p>During 2017 there were two technical exceedances of the noise criteria following the application of the modifying factor adjustment (as detailed above). These were at NM1 and NM5 and occurred on 24 July and 23 August 2017 and were limited to 4 and 3 dB over the criteria respectively. Given each of these is more than 2 dB over the Table 5 noise criteria these are considered non-compliances in accordance with the NSW Industrial Noise Policy. On each occasion the exceedances were not sustained and noise monitoring results returned to below the criteria during the same monitoring event.</p>								
12	<p>Attenuation of Plant</p> <p>The Proponent shall:</p> <p>(a) ensure that:</p> <ul style="list-style-type: none"> all mining trucks and water carts used on the site are commissioned as noise suppressed (or attenuated) units; 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 	<p>2015 Annual Review</p> <p>2016 Annual Review</p> <p>2017 Annual Review (draft)</p> <p>Caterpillar D10T Maules Creek Coal Project Unit 876 Sound power and operator noise exposure assessment by Global Acoustics dated 26 July 2016</p>	<p>Sound power level results are detailed in the annual reviews. For 2015, 99 pieces of equipment were tested, of these 8 have sound power levels above the EA criteria and this represents 9% of the total fleet. Refer below for exceedances:</p> <table border="1"> <thead> <tr> <th>Equipment Type</th> <th>Criteria dBA</th> <th>Result dBA</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Equipment Type	Criteria dBA	Result dBA				NC	MCCM needs to continue to implement improvement of controls to reduce the sound power levels of the equipment that exceeds the EA criteria.
Equipment Type	Criteria dBA	Result dBA									

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations																											
(b)	<p>correspond to best practice or the application of the best available technology economically achievable;</p> <ul style="list-style-type: none"> where reasonable and feasible, improvements are made to existing noise suppression equipment as better technologies become available; and <p>monitor and report on the implementation of these requirements annually on its website.</p>	<p>Maules Creek Coal Project Mobile Plant Sound Power Survey 2016 by Global Acoustics</p> <p>Maules Creek Coal Mine EPL 20221 E3 Mandatory Environment Audit by EMM dated 9 December 2016</p> <p>Correspondence between DP&E and MCCM in 2016, 2017 and 2018</p> <p>Interview with Environmental Officer</p>	<table border="1"> <thead> <tr> <th colspan="3">2015</th> </tr> </thead> <tbody> <tr> <td>DOZ853</td> <td>115</td> <td>117</td> </tr> <tr> <td>WAT803</td> <td>115</td> <td>115.5</td> </tr> <tr> <td>Train load out transfer station</td> <td>103</td> <td>113</td> </tr> <tr> <td>CCHP Product Transfer Station</td> <td>103</td> <td>104</td> </tr> <tr> <td>CHPP SE façade</td> <td>117</td> <td>125</td> </tr> <tr> <td>CHPP SW façade</td> <td>117</td> <td>118</td> </tr> <tr> <td>CHPP NW façade</td> <td>117</td> <td>120</td> </tr> <tr> <td>CHPP façade average</td> <td>117</td> <td>118.5</td> </tr> </tbody> </table>	2015			DOZ853	115	117	WAT803	115	115.5	Train load out transfer station	103	113	CCHP Product Transfer Station	103	104	CHPP SE façade	117	125	CHPP SW façade	117	118	CHPP NW façade	117	120	CHPP façade average	117	118.5		
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			Raw coal transfer station	103	105															
			Train load out transfer station	103	114															
			CCHP Product Transfer Station	103	105															
			Train loadout	103	114															
			Train on rail spur	108	115															
			Access road	95	98															
			<p>For 2017, 137 pieces of equipment were tested, of these 5 have sound power levels above the EA criteria, and this represents less than 4% of the total fleet. Refer below for exceedances:</p> <table border="1"> <thead> <tr> <th colspan="3">2017</th> </tr> </thead> <tbody> <tr> <td>Secondary sizer</td> <td>112</td> <td>114</td> </tr> <tr> <td>Raw coal transfer station</td> <td>103</td> <td>106</td> </tr> <tr> <td>Train load out transfer station</td> <td>103</td> <td>115</td> </tr> <tr> <td>CCHP Product</td> <td>103</td> <td>105</td> </tr> </tbody> </table>				2017			Secondary sizer	112	114	Raw coal transfer station	103	106	Train load out transfer station	103	115	CCHP Product	103
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Transfer Station											
Train loadout	103	110									

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
			<p>Global Acoustics then also undertakes annual sound power surveys of the fleet (Auditor sighted the 2016 report), which is reported through MCCM's Annual Reviews which are published on their website as required by condition (b).</p> <p>EMM also undertook a mandatory noise audit during 2016, of the site and reported that <i>"the tested sound power level of the Hitachi trucks is considered industry good practice"</i>. Further stated <i>"[b]ased on my site observations of plant operations and operator practices, review of maintenance logs and the age and condition of plant, there is no evidence that activities are not being carried out in a competent manner. Plant and equipment appear to be maintained and operated in a proper and efficient way. Therefore these exceedances are a combination of some low sound levels being adopted in the EA and the selection of site plant and equipment."</i></p> <p>Due to the sound power level results outlined above, MCCM has been subject to two show cause letters (May 2016 and</p>		

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
			December 2017) and following correspondence with DP&E also received official cautions (on June 2016 and April 2018). The official cautions were administrative and acknowledged the sites considerable sound power work and controls implemented by MCCM to improve sound power levels.		
24	<p>BLASTING</p> <p>Operating Conditions</p> <p>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"> • 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: <ul style="list-style-type: none"> ○ <i>demonstrated to the satisfaction of the Secretary 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</i> ○ <i>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.</i> 	<p>Blast Management Plan July 2014</p> <p>Correspondence from Forestry Corporation to MCCM dated 10 October 2017</p>	<p>There are no public roads within 500m of current MCCM activities.</p> <p>Prior to mid-late 2017 MCCMs blasts were not within 500m of "land outside the site". After this time, MCCM's 500m blast zone did start to encroach into the Leard Forest. It wasn't until 10 October 2017 that MCCM had in place an agreement with the Forestry Corporation accepting blasting within 500m of their lands. The agreement has since been put in place.</p> <p>MCCM acknowledged that some blasts prior to the agreement may have been within 500m of Leard Forest.</p> <p>However, there was no public access to the 500m exclusion zone, unless the public was trespassing due to occupation permits and fencing. In</p>	ANC	<p>No further action required, as all necessary agreements are now in place.</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
			<p>addition, MCCM had Sentries in place for all blast to prevent access to the blast exclusion zone.</p> <p>Agreements are now in place with all landowners that could potentially be within 500m of a blast.</p>		

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
33	<p>AIR QUALITY & GREENHOUSE GAS</p> <p>Operating Conditions</p> <p>The Proponent shall:</p> <p>(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;</p> <p>(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;</p> <p>(c) manage PM2.5 levels in accordance with any requirements of an EPL;</p>	<p>180322 CoalTrak TARPS_3.ppt</p> <p>Environmental Dispatch Refresher May2016 (160518)_GG_SM.ppt</p> <p>150801 Pre-Start (noise).pdf</p> <p>BTM - Maules Creek Daily Dust Risk Forecast 1 to 4 May 2018</p> <p>Independent Dust Suppression Solutions Hydrotac: method statement & Product Data Sheet from Dust-A-Side</p> <p>WHC_FRM_MCCM_Observation Record</p> <p>Email from Dispatch to Enviro "18.01.18 Dust Observation" dated 18 January 2018 (also sighted 31 August 2017)</p> <p>WHC-PLN-MCCM-CHPP-Spontaneous Combustion Management Plan</p>	<p>In a similar way noise is managed, as outlined in condition 3.15, air quality is also managed by dispatch in the same manner.</p> <p>Dispatch are trained and undertake the responses as outlined in 180322 CoalTrak TARPS_3.ppt. Responses can include, mobilisation of water trucks, shifting dumping locations, reducing dumping heights, reducing truck speeds.</p> <p>Evidence that dispatch is recording and providing photos and evidence of response to dust, email 18/01/18.</p> <p>The weather conditions are notified to all staff at pre-start meetings. The Auditor sighted a dust risk forecast for 1 to 4</p>	ANC	No further action required as the predictive model is now operational and the official caution related a specific event with no ongoing air quality impacts.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>(d) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see note d in condition 29);</p> <p>(e) minimise any visible off-site air pollution;</p> <p>(f) minimise the surface disturbance of the site generated by the project; and</p> <p>(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,</p> <p>to the satisfaction of the Secretary.</p>	<p>Maules Creek Coal Mine PRP E1: Monitoring Results – Wheel Generated Dust Whitehaven Coal Limited By Pacific Environment dated 23 March 2016</p> <p>Maules Creek Coal Mine Report on Overburden Handling in Adverse Conditions: Actions and Results Whitehaven Coal Limited by Pacific Environment dated 11 November 2015</p> <p>Internal MCCM email “RE: Blast Notification – TODAY’S BLAST CANCELLED” dated 13 February 2017</p> <p>Correspondence from DP&E Re Show Cause dated 14 February 2017</p> <p>Correspondence from DP&E Re failure to minimise dust dated 17 February 2017</p> <p>Correspondence from DP&E RE Non-compliance recorded dated 3 July 2017</p> <p>Envirosuite</p> <p>Interview with CHPP Superintendent</p> <p>Site observations</p>	<p>May 2018 that is broken up into day shift and night shift. Air quality issues are highlighted through toolbox talks, such as <i>Environmental Dispatch Refresher May2016 (160518)_GG_SM.ppt</i> and <i>150801 Pre-Start (noise).pdf</i>.</p> <p>Hydrotac (dust-a-side) is used for dust suppression on selected haul routes (high traffic) – this is managed by the Mining Supervisor and is coordinated with graders and general water carts to ensure maximum seal is achieved and maintained.</p> <p>WHC_FRM_MCCM_Observation Record is utilised by site personnel to record current site conditions for noise, air quality, drainage, housekeeping and controls.</p> <p>The Auditor was advised by CHPP Superintendent that there are sprays on the ROM bin pointed inwards, every transfer tower has sprays, all stockpiles have boom sprays which can be operated manually or set up automatically and ROM roads are regularly watered by water carts. There are also chutes above the train cart which</p>		

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
			<p>captures the air pushed out of the rail cart as coal is loaded in and includes rubber flaps to ensure coal and dust is captured within the loading facility. The entire coal loading system is automated and includes industry specific profiling of coal in the carts to minimise dust.</p> <p>The Auditor observed various water carts in use around the site. The Auditor also observed dust-a-side being applied on haul roads. It was also observed that a water was being applied at the ROM while some material was being handled.</p> <p>The Spontaneous Combustion Management Plan outlines identification and responses for Spontaneous Combustion. This can be accessed through internal H&S portal.</p> <p>The Pacific Environment report for wheel dust states "[t]he results suggests that using water for dust suppression and dust control TARPs for operations are sufficient to maintain s dust control efficiency of 85%". Reports identifies the site is at 92%.</p>		

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
			<p>The Pacific Environment report for overburden states that “<i>dust level during adverse weather conditions suggests that peaks in PM10 concentrations are generally not related to mine operations and influenced by external factors</i>”.</p> <p>Evidence of a blasts being cancelled due to “adverse regional weather conditions (dust and smoke)” was sighted by the Auditor.</p> <p>Envirosuite enables MCCM (and other sites) to see monitoring locations and real time data and modelling from all three sites including Boggabri and Tarrawonga.</p> <p>MCCM received an Official Caution from EPA for the failure to minimise dust that was noted during a helicopter surveillance flight undertaken by EPA in April 2016.</p> <p>MCCM received a non-compliance recorded notice for failing to operate the predictive air dispersion model as required by condition (b).</p> <p>MCCM also received a show cause letter from DP&E in February 2017 with regards to the predictive real time</p>		

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
			dispersion model. A low level non-compliance was recorded for this, as issued by the DP&E on 3 July 2017. The predictive real time dispersion model is now in operation.		
51	Aquatic Habitat 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 Secretary .	Interview with Environmental Officer	No permanent water pump has been installed by MCCM at the Namoi River, therefore this condition has not been triggered. However, MCCM has in place a temporary point at the Namoi River. While the current temporary pump includes a steel mesh cover over the pump to prevent fish ingress and the intake sits mid-stream to prevent bed intake, consultation with DPI Fisheries of the design of this station and screen has not been undertaken.	NT Obs	MCCM should consider engaging with DPI Fisheries to ensure the temporary pump station is satisfactory to align with the intent of this condition.
66	Rail Transport 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	Gunnedah Traffic Study 2012 Correspondence between MCCM (Superintendent External Relations and GSC (Manager Development and Planning) 2015 Independent Environmental Audit Maules Creek Coal Pty Limited by SMEC dated 22 August 2016	The Gunnedah Traffic Study was initially prepared by MCCM in October 2012. The previous IEA identified that consultation with Gunnedah Shire Council had not been completed. The Auditor reviewed correspondence between MCCM and Gunnedah Shire Council 22	ANC	No further action required as this is a legacy ANC.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>recommended by the Proponent and/or the Gunnedah Shire Council towards implementing the Study's recommendations, to the satisfaction of the Secretary.</p> <p><i>Note: Any contribution by the Proponent should be on an equitable basis with other coal project rail users.</i></p>		<p>December 2017 demonstrating MCCM liaised with GSC regarding the Gunnedah Traffic Study.</p> <p>Given the outcome of liaison with GSC no recommendations resulted and as such a report on the outcome of this liaison identifying response to recommendations is not required. This item remains an ANC as these items were not completed within 12 months of the completion of the Gunnedah Traffic Study.</p>		
70	<p>WASTE</p> <p>The Proponent shall:</p> <p>(a) implement all reasonable and feasible measures to minimise the waste (including coal reject) generated by the project;</p> <p>(b) ensure that the waste generated by the project is appropriately stored, handled and disposed of; and</p> <p>monitor and report on the effectiveness of the waste minimisation and management measures in the Annual Review.</p>	<p>Site Observations</p> <p>Waste Management Plan (internal) October 2015</p> <p>Mining Operations Plan 1 December 2017</p> <p>2015 Annual Review</p> <p>2016 Annual Review</p> <p>2017 Annual Review (draft)</p>	<p>MCCM operates under an internal Waste Management Plan.</p> <p>Waste management services are currently provided by Gunnedah Trade Waste and site does segregate waste streams. The Auditor observed areas where oil filters and oil drums were disposed of in general waste and this observation is raised as an area of improvement.</p> <p>The MOP addresses the handling and treatment of coal rejects, as well as described final placement options.</p> <p>The Annual Reviews outline the waste streams generated and disposal methods, as well as report on compliance.</p>	NC	Review waste management practices around segregation of waste.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Schedule 4					
2	<p>NOTIFICATION OF LANDOWNERS/TENANTS</p> <p>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:</p> <p>(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);</p> <p>(b) advise the prospective tenants of the rights they would have under this approval; and</p> <p>(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 Secretary.</p>	<p>Redacted Tenancy Agreement</p> <p>2015 Independent Environmental Audit</p> <p>Maules Creek Coal Pty Limited by SMEC dated 22 August 2016</p> <p>Correspondence from DP&E re Warning Letter dated 10 May 2017</p>	<p>The previous audit identified a NC against this condition in the 2015 IEA. As the letter provided to tenants did not specifically advise of their rights or request them to consult medical practitioner.</p> <p>The Auditor reviewed a redacted Tenancy Agreement detailing tenant rights. However, given notification was outside the 3 month period, this remains an administrative non-compliance.</p> <p>DP&E issued a warning letter with regards to this non-compliance in May 2017</p>	ANC	No further action required given that Tenancy Agreement is in accordance with this condition.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
13	<p>Online Communication of Onsite Activities and Monitoring of Noise and Air Quality</p> <p>The Proponent shall, within 3 months of the date of this approval:</p> <p>(a) make the following information for the project publicly available on its website, on a daily basis and in a clearly understandable form:</p> <ul style="list-style-type: none"> • 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 <p>(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 Secretary</p>	<p>http://www.whitehavencoal.com.au/weather/</p> <p>http://www.whitehavencoal.com.au/maules-creek-site-monitoring/</p> <p>http://www.whitehavencoal.com.au/community-feedback-maules-creek-mine/</p>	<p>"...within 3 months of the date of this approval" is outside the audit period and not verified as part of this audit.</p> <p>The WHC website captures the daily weather forecast, the daily real time noise and air quality data for the last 3 days. It also captures the daily operational responses to the noise and air quality data and includes community feedback details.</p> <p>No evidence of daily proposed operational responses to weather forecasts was identified on the website.</p>	ANC	MCCM should include on its website details about its daily "operational responses" to the weather forecast.

APPENDIX 5

STATEMENT OF COMMITMENTS

3	<p>Mining Operations</p> <p>Maules Creek Coal shall surrender its existing development consent DA 85/1819 following the grant of the Project Approval.</p>		Refer to CoA Schedule 2 condition 10.	ANC	Refer to CoA Schedule 2 condition 10. This is a legacy ANC. No further action required.
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No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations																				
POEO EPL_20221																									
4	L2 Concentration limits Water and/or Land Concentration Limits POINT 2,3,5,7,9 <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units Measure</th> <th>50 Percentile concentration limit</th> <th>90 Percentile concentration limit</th> <th>3DGM concentration limit</th> </tr> </thead> <tbody> <tr> <td>Oil and Grease</td> <td>Milligrams per litre</td> <td></td> <td></td> <td></td> </tr> <tr> <td>pH</td> <td>pH</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Total Suspended Solids</td> <td>Milligrams per litre</td> <td>20</td> <td>35</td> <td></td> </tr> </tbody> </table>	Pollutant	Units Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	Oil and Grease	Milligrams per litre				pH	pH				Total Suspended Solids	Milligrams per litre	20	35		EPL Monitoring Data 2015 2016 2017 Monthly for 2018 2015-2016 Annual Return 2016-2017 Annual Return 2017-2018 Annual Return	There has been no monitoring required at monitoring points 2, 3, 5 and 7 during the audit period. Discharge monitoring at monitoring point 9 has been undertaken in accordance with the condition, with one exception. On 14 September 2016, 'oil and grease' was not monitored at this location, however 'oil and grease' monitoring was undertaken on 15 and 16 September and was below the concentration limit, so levels are expected to have been similar for 14 September 2016.	ANC	No further action. Ensure monitoring is undertaken in accordance with all EPL parameters.
Pollutant	Units Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit																					
Oil and Grease	Milligrams per litre																								
pH	pH																								
Total Suspended Solids	Milligrams per litre	20	35																						
1	L3 Noise Limits 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 minute)</th> <th>Evening - LAeq(15 minute)</th> <th>Night - LAeq(15 minute)</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 minute)	Evening - LAeq(15 minute)	Night - LAeq(15 minute)	Night - LA1(1 minute)	All privately owned residences	35	35	35	45	Maules Creek Coal Project Environmental Noise Monitoring by Global Acoustics for August 2015, September 2016, June 2017 and February 2018 EPL Monitoring Data 2015 2016 2017 Monthly for 2018	No exceedances were recorded between July and December 2015. During 2016, five exceedances of LAeq 15 minute criteria were recorded during the attended monitoring, as a result of the Industrial Noise Policy 2000 being applied. All of these were a technical exceedance as a result of the low frequency modifying factor adjustment (applied as per the NSW Industrial Noise Policy 2000). Of these exceedances, only one result was more than 2 dB above the Table 5 Noise Criteria and therefore considered a non-compliance in accordance with the NSW Industrial Noise Policy. This	NC	MCCM is to ensure that all noise mitigation measures are implemented and TARPs are monitored and responded to accordingly to minimise the potential for noise exceedances.										
Locality and location	Day - LAeq(15 minute)	Evening - LAeq(15 minute)	Night - LAeq(15 minute)	Night - LA1(1 minute)																					
All privately owned residences	35	35	35	45																					

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
			<p>was recorded on 31 March 2016 at NM4, where the exceedance was 3 dB above the criteria.</p> <p>NM4 was purchased by MCCM in August 2016 and therefore no longer considered a privately-owned residence during the remainder of the audit period.</p> <p>During 2017 there were two technical exceedances of the noise criteria following the application of the modifying factor adjustment (as detailed above). These were at NM1 and NM5 and occurred on 24 July and 23 August 2017 and were limited to 4 and 3 dB over the criteria respectively. Given each of these is more than 2 dB over the Table 5 noise criteria these are considered non-compliances in accordance with the NSW Industrial Noise Policy. On each occasion the exceedances were not sustained and noise monitoring results returned to below the criteria during the same monitoring event.</p>		
3	<p>L3 Noise Limits</p> <p>Noise generated at the premises that is measured at each noise monitoring point established under this licence must not exceed the noise levels specified in Column 4 of the table below for that point during the corresponding time periods specified in Column 1 when measured using the corresponding measurement parameters listed in Column 2.</p>		Refer to condition L3.1	NC	Refer to condition L3.1

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations																				
	<table border="1"> <thead> <tr> <th>Time period</th> <th>Measurement parameter</th> <th>Measurement frequency</th> <th>Noise level dB(A)</th> </tr> </thead> <tbody> <tr> <td>Day</td> <td>L_{Aeq} (15 minute)</td> <td>Monthly</td> <td>35</td> </tr> <tr> <td>Evening</td> <td>L_{Aeq} (15 minute)</td> <td>Monthly</td> <td>35</td> </tr> <tr> <td>Night</td> <td>L_{Aeq} (15 minute)</td> <td>Monthly</td> <td>35</td> </tr> <tr> <td>Night</td> <td>Night-LA1 (1 minute)</td> <td>Monthly</td> <td>45</td> </tr> </tbody> </table> <p>Note: Attended noise monitoring locations identified in the table above are taken to be representative of privately owned residences and are to be used for the purposes of determining compliance with noise limits identified in this licence, unless otherwise required in writing by the EPA.</p>	Time period	Measurement parameter	Measurement frequency	Noise level dB(A)	Day	L _{Aeq} (15 minute)	Monthly	35	Evening	L _{Aeq} (15 minute)	Monthly	35	Night	L _{Aeq} (15 minute)	Monthly	35	Night	Night-LA1 (1 minute)	Monthly	45				
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1	<p>O1 Activities must be carried out in a competent manner</p> <p>Licensed activities must be carried out in a competent manner. This includes:</p> <p>a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and</p> <p>b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.</p>	<p>Mining Operations Plan 1 December 2017</p> <p>2015 Annual Review</p> <p>2016 Annual Review</p> <p>2017 Annual Review (draft)</p> <p>Site observation</p>	<p>The MOP outlines how the activities will be undertaken for the processing, handling, movement etc. of materials.</p> <p>The auditor observed these activities being undertaken on site in a competent manner.</p> <p>The Annual Reviews outlined the waste streams generated and disposal methods.</p> <p>CoA Condition 70 did identify some observations with regards to waste management.</p>	NC	Refer to CoA Condition 70.																				

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations																								
2	<p>M2 Requirement to monitor concentration of pollutants discharged</p> <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> <p>POINT 19</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>Every 6 days</td> <td>AM-18</td> </tr> </tbody> </table> <p>POINT 20,21,22,23</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Particulates - Deposited Matter</td> <td>grams per square metre, per month</td> <td>Monthly</td> <td>AM-19</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	PM10	micrograms per cubic metre	Continuous	AM-22	Pollutant	Units of measure	Frequency	Sampling Method	PM10	micrograms per cubic metre	Every 6 days	AM-18	Pollutant	Units of measure	Frequency	Sampling Method	Particulates - Deposited Matter	grams per square metre, per month	Monthly	AM-19	<p>Whitehaven Coal Maules Creek Project Environmental Monitoring for Depositional Dust, High Volume Air Samplers, Tapered Element Oscillating Microbalance (TEOM), Meteorological Data, Surface and Ground Water by CBased Environmental Ptd Limited Cbased Maules Creek Air Quality – Monthly (report and excel)</p>	<p>PM10 is continuously monitored via the TEOM and monitored every 6 days via the HVAS.</p> <p>However, during the audit period, some data was not captured due to maintenance or power outages.</p> <p>Depositional dust is collected each month at the monitoring locations during the audit period.</p> <p>Also in 2016/2017, analysis of monitoring points 20-23 was not conducted in reference to AS2922-1987 as required by AM19 sampling methodology. MCCM have advised that monitoring points 20-23 are now sited in accordance with the sampling methodology and have been approved by the EPA through the latest EPL approval.</p>	ANC	<p>It is understood that the loss of power and maintenance requirements are outside of MCCM's control, therefore no further action is required.</p>
Pollutant	Units of measure	Frequency	Sampling Method																										
PM10	micrograms per cubic metre	Continuous	AM-22																										
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2	<p>M3 Testing methods - concentration limits</p> <p>Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.</p>	<p>Correspondence from Whitehaven to EPA "WHC Water Quality Monitoring – alternative Methods Approval" dated 1 June 2018</p>	<p>Currently the Approved Methods Publication is from 2004 and is outdated and not the most contemporaneous methodology for this monitoring.</p> <p>MCCM monitors in accordance NATA accredited lab methodology. MCCM has sought to get this approved in writing from the EPA and has reported this non-compliance in the MCCM annual return.</p>	ANC	<p>MCCM should continue to work with EPA to gain approval for the revised methodology.</p>																								

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations																																								
1	<p>M4 Weather monitoring</p> <p>At the point(s) identified below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1 of the table below, using the corresponding sampling method, units of measure, averaging period and sampling frequency, specified opposite in the Columns 2, 3, 4 and 5 respectively.</p> <p>POINT 35</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Sampling method</th> <th>Units of measure</th> <th>Averaging period</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>Rainfall</td> <td>AM-4</td> <td>millimetres</td> <td>1 hour</td> <td>Continuous</td> </tr> <tr> <td>Wind Speed at 10 metres</td> <td>AM-2 & AM-4</td> <td>metres per second</td> <td>15 minutes</td> <td>Continuous</td> </tr> <tr> <td>Wind Direction at 10 metres</td> <td>AM-2 & AM-4</td> <td>Degrees</td> <td>15 minutes</td> <td>Continuous</td> </tr> <tr> <td>Temperature at 2 metres</td> <td>AM-4</td> <td>degrees Celsius</td> <td>15 minutes</td> <td>Continuous</td> </tr> <tr> <td>Temperature at 10 metres</td> <td>AM-4</td> <td>degrees Celsius</td> <td>15 minutes</td> <td>Continuous</td> </tr> <tr> <td>Total Solar Radiation</td> <td>AM-4</td> <td>Watts per square metre</td> <td>15 minutes</td> <td>Continuous</td> </tr> <tr> <td>Siting</td> <td>AM-1</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>	Parameter	Sampling method	Units of measure	Averaging period	Frequency	Rainfall	AM-4	millimetres	1 hour	Continuous	Wind Speed at 10 metres	AM-2 & AM-4	metres per second	15 minutes	Continuous	Wind Direction at 10 metres	AM-2 & AM-4	Degrees	15 minutes	Continuous	Temperature at 2 metres	AM-4	degrees Celsius	15 minutes	Continuous	Temperature at 10 metres	AM-4	degrees Celsius	15 minutes	Continuous	Total Solar Radiation	AM-4	Watts per square metre	15 minutes	Continuous	Siting	AM-1	-	-	-	<p>Monthly Maules Creek Met_AWS01</p>	<p>The AWS data shows that the necessary parameters are being captured.</p> <p>While continuous monitoring is generally undertaken, during the audit period a limited number of days were not captured, due to annual maintenance.</p>	ANC	<p>Annual maintenance is an operating requirement. No further action is required.</p>
Parameter	Sampling method	Units of measure	Averaging period	Frequency																																									
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Total Solar Radiation	AM-4	Watts per square metre	15 minutes	Continuous																																									
Siting	AM-1	-	-	-																																									
1	<p>M7 Blasting</p> <p>To determine compliance with conditions L4.1 to L4.4 inclusive:</p> <p>a) Airblast overpressure and ground vibration levels must be measured and electronically recorded for monitoring points 31, 32, 33 and 34 for the parameters specified in Column 1 of the table below and</p> <p>b) The licensee must use the units of measure, sampling method and sample at the frequency specified opposite in the other columns.</p> <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>Airblast overpressure</td> <td>Decibels (Linear Peak)</td> <td>All blasts</td> <td>Australian Standard AS 2187.2:2006</td> </tr> <tr> <td>Ground vibration peak particle velocity</td> <td>millimetres per second</td> <td>All blasts</td> <td>Australian Standard AS 2187.2:2006</td> </tr> </tbody> </table>	Parameter	Units of Measure	Frequency	Sampling Method	Airblast overpressure	Decibels (Linear Peak)	All blasts	Australian Standard AS 2187.2:2006	Ground vibration peak particle velocity	millimetres per second	All blasts	Australian Standard AS 2187.2:2006	<p>Global Acoustics Monthly Noise Monitoring</p> <p>EPL Monitoring Data</p> <p>2015</p> <p>2016</p> <p>2017</p> <p>Monthly for 2018</p>	<p>Blast monitoring is undertaken in accordance with the frequency and units outlined in this condition.</p> <p>However, during the audit period some limited blast data from the blast monitoring locations was not captured due to mechanical faults, this occurred 1 in 2015, 7 times in 2016 and twice in 2017.</p>	ANC	<p>Ensure that blast monitoring equipment is maintained to ensure all blast data is captured from all blast monitoring locations.</p>																												
Parameter	Units of Measure	Frequency	Sampling Method																																										
Airblast overpressure	Decibels (Linear Peak)	All blasts	Australian Standard AS 2187.2:2006																																										
Ground vibration peak particle velocity	millimetres per second	All blasts	Australian Standard AS 2187.2:2006																																										

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
<i>Coal Licence 375</i>					
	<p>10. Blasting</p> <p><u>Blast Overpressure</u></p> <p>The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be, unless determined otherwise by the Department of Environment, Climate Change and Water.</p>		<p>Refer to CoA Condition 18.</p> <p>Only the 120dB criteria has been exceeded with regards to this condition, as the other recorded exceedances are below the 5% allowable exceedance criteria.</p>	NC	Refer to CoA Condition 18.
b	<p>14. Roads and Tracks</p> <p>During wet weather the use of any road or track must be restricted so as to prevent damage to the road or track.</p>	Traffic Management Plan June 2017	The complete restriction of road and track use during wet weather is not possible, as operation of MCCM is required to continue even in wet weather. While MCCM has road restrictions in place, such as approval routes, restricted access to a number of roads (including some that require keys to open gates), there currently is no commitment to minimise or restrict as far as reasonably possible the use of roads or tracks during wet weather. MCCM advised that a number of roads are not accessible during wet weather and therefore access is not possible.	ANC	MCCM should endeavour and commit to restricting unnecessary traffic movement on roads and tracks in wet weather.
<i>Water Access Licence (WAL) 12479</i>					

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
MMW0821-00001	The licence holder must comply with the water allocation account management rules established by the plan.	Interview with Group Manager - Approvals and Biodiversity	The water take from WAL12479 commenced in first half of 2018. Water take was through the mine pit. The pit captures water from rainfall, runoff and potentially other WALs and detailed calculations are required to determine the allocation of water associated with the WAL. Water take is calculated for the financial year (post 30 June). Therefore, water take for this WAL had not been calculated for audit period. Water take for the WAL, following the end of reporting period calculations, will be reported and submitted to the regulator through the annual review. Compliance of this condition is not yet able to be verified by the Auditor.	NV Obs	Ensure that water take calculations for WAL are undertaken at the end of the reporting period and reported through the annual review.
MMW0822-00001	The licence holder must not take water under this licence if the resulting debit from the water allocation account for this licence will exceed the volume of water in the account.	Interview with Group Manager - Approvals and Biodiversity	Refer to above condition. Compliance of this condition is not yet able to be verified by the Auditor.	NV Obs	Refer to above condition.
<i>Water Access Licence (WAL) 27385</i>					

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
MW0821-00001	The licence holder must comply with the water allocation account management rules established by the plan.	Interview with Group Manager - Approvals and Biodiversity	<p>The water take from WAL27385 commenced in first half of 2018. Water take was through the mine pit. The pit captures water from rainfall, runoff and potentially other WALs and detailed calculations are required to determine the allocation of water associated with the WAL. Water take is calculated for the financial year (post 30 June). Therefore, water take for this WAL had not been calculated for audit period. Water take for the WAL, following the end of reporting period calculations, will be reported and submitted to the regulator through the annual review.</p> <p>Compliance of this condition is not yet able to be verified by the Auditor.</p>	NV Obs	Ensure that water take calculations for WAL are undertaken at the end of the reporting period and reported through the annual review.
MW0822-00001	The licence holder must not take water under this licence if the resulting debit from the water allocation account for this licence will exceed the volume of water in the account.	Interview with Group Manager - Approvals and Biodiversity	<p>Refer to above condition MW0821-00001.</p> <p>Compliance of this condition is not yet able to be verified by the Auditor.</p>	NV Obs	Refer to above condition MW0821-00001.

3.7

IMPLEMENTATION OF MANAGEMENT PLANS

The Auditor has undertaken a review of MCCM's management plans as required to be in place in accordance with the CoA PA 10_0138 and inspected on site, where possible, the implementation of these management plans.

In particular the Auditor has reviewed the below management plans and strategies:

- Aboriginal Archaeology and Cultural Heritage Management Plan (AACHMP);
- Air Quality and Greenhouse Gas Management Plan (AQGGMP);
- Biodiversity Management Plan (BoMP);
- Blast Management Plan (BLMP);
- Biodiversity Offset Strategy (BOS);
- BTM Aboriginal Heritage Conservation Strategy;
- BTM Blast Management Strategy;
- BTM Air Quality Management Strategy;
- BTM Noise Management Strategy;
- BTM Leard Forest Regional Biodiversity Strategy;
- Environmental Management Strategy (EMS);
- Historic Heritage Management Plan (HHMP);
- Mine Site Rehabilitation Plan (MSRP);
- Noise Management Plan (NMP);
- Social Impact Management Plan (SIMP);
- Traffic Management Plan (TMP); and
- Water Management Plan (WMP).

Overall, MCCM is generally achieving compliance against these plans and is implementing the outlined control measures.

It is noted that currently MCCM has a number of management plans under review by the DP&E. MCCM advised that where it is possible they continue to operate in accordance with the approved plans, but in a number of instances

the revised plans include for better controls and processes aimed at further mitigating impacts from MCCM's activities.

Details of all non-compliances, administrative non-compliances, observations and ERM' recommendations arising as a result of the review of the management plans, are included in *Table 3.4* below.

Table 3.4 Summary of Audit Findings relating to Management Plans

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
CoA PA 10_0138 (MOD 3, 17 January 2017)					
Schedule 3					
25	<p>Blast Management Plan</p> <p>The Proponent shall prepare and implement a Blast Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be submitted to the Secretary 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"> • best management practice is being employed; and • compliance with the relevant conditions of this approval; <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"> • compliance with the applicable criteria; and • minimising fume emissions from the site; and <p>(h) include a Leard Forest Mining Precinct Blast Management Strategy that has been prepared in consultation with the other mines within the Leard</p>	<p>Blast Management Plan July 2014</p> <p>Blast Management Strategy For Boggabri – Tarrawonga – Maules Creek Complex July 2014</p> <p>Email correspondence from EPA “Maules Creek – Management Plans” dated 18 December 2012</p> <p>Correspondence from DP&E “Maules Creek Coal Mine – Approval of Blast Management Plan”</p>	<p>The EPA consultation is required by condition (b). However, the EPA stated in 2012 “we do not approve or endorse these documents as our role is to set environmental objectives....This email should meet the Project Approval consent requirements requiring consultation with the EPA”.</p> <p>Condition (h) – The BMP does not include the strategy. The Blast Strategy for BMT is a separate document. MCCM advised that only one approval was given to the entire BTM complex for the BTM strategy. MCCM do not have a record of this approval.</p> <p>The BMP addresses the requirements of this condition and was approved by DP&E in August 2014.</p>	ANC	<p>Ensure approval records for all plans requiring Secretary approval are maintained.</p> <p>Ensure that all blast notifications are issued in accordance with the BMP.</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>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>	<p>dated 1 August 2014</p> <p>Correspondence with DP&E "RE: Blast Management Plan – Maules Creek" dated 8 June 2018</p> <p>Correspondence from DP&E RE Non-compliance recorded dated 11 August 2017</p>	<p>A revised BMP was submitted to DP&E on 8 June 2018 and is awaiting review and approval.</p> <p>DP&E issued MCCM with a non-compliance notice for a failure to notify neighbours for blast prior to the event, in August 2017.</p>		
40	<p>Water Management Plan</p> <p>The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must be prepared in consultation with OEH, DPI Water and North West LLS, by suitably qualified and experienced person/s whose appointment has been approved by the Secretary, and be submitted to the Secretary for approval prior to the commencement of construction.</p> <p>In addition to the standard requirements for management plans (see condition 3 of schedule 5), this plan must include:</p> <p>(a) a <u>Site Water Balance</u>, that:</p> <ul style="list-style-type: none"> • includes details of: <ul style="list-style-type: none"> ○ <i>sources and security of water supply, including contingency for future reporting periods;</i> ○ <i>water use on site;</i> ○ <i>water management on site;</i> 	<p>Water Management Plan March 2014</p> <p>Correspondence from DP&E "Maules Creek Coal Mine (MP 10_0138) Approval of revised Water Management Plan" dated 17 April 2014</p> <p>Correspondence with DP&E "MCC WMP" dated 8 June 2018</p>	<p>The latest approved version of the Water Management Plan (WMP) is dated 31/03/2014. The plan was developed in consultation with the relevant government agencies as described in the WMP and was approved in April 2014.</p> <p>This WMP has been revised to reflect changes in water management activities along with changes to monitoring points approved with EPL No 20221 and the updated version is currently in draft form awaiting approval from the DP&E.</p>	<p>C Obs</p>	<p>MCCM should follow-up with DP&E to achieve approval of the WMP to satisfy Condition 48(b).</p> <p>For the groundwater chemistry baseline, the Auditor suggests that MCCM consider undertaking a consolidated review and assessment of available baseline data. This review should include</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<ul style="list-style-type: none"> ○ <i>any off-site water discharges;</i> ○ <i>reporting procedures, including the preparation of a site water balance for each calendar year;</i> ○ <i>a program to validate the surface water model, including monitoring discharge volumes from the site and comparison of monitoring results with modelled predictions; and</i> • describes the measures that would be implemented to minimise clean water use on site; <p>(b) a <u>Surface Water Management Plan</u>, which includes:</p> <ul style="list-style-type: none"> • detailed baseline data on surface water flows and quality in the water-bodies that could potentially be affected by the project; • detailed baseline data on hydrology across the downstream drainage system of the Namoi River floodplain from the mine site to the Namoi River; • a detailed description of the water management system on site, including the: <ul style="list-style-type: none"> ○ <i>clean water diversion systems;</i> ○ <i>erosion and sediment controls (dirty water system);</i> ○ <i>mine water management systems;</i> ○ <i>discharge limits in accordance with EPL requirements;</i> ○ <i>water storages;</i> ○ <i>mine access road and Maules Creek rail spur line;</i> • detailed plans, including design objectives and performance criteria for: <ul style="list-style-type: none"> ○ <i>design and management of final voids;</i> ○ <i>design and management for the emplacement of reject materials, sodic and dispersible soils and acid or sulphate generating materials;</i> 		<p>Given that the latest approved version of the WMP is the 2014 document, the conditions were audited against the 2014 WMP along with water management practices observed during the site inspection.</p> <p>(a) The WMP includes a site water balance that contains required details. Site water balance spreadsheets further viewed during site inspection and inputs to the spreadsheets as well as controls on the accuracy of measurements (such as flow meter calibration certificates) viewed during site inspection.</p> <p>(b) The WMP includes a surface water management plan with required details. While the section references for “discharge limits in accordance with EPL requirements” in Table 2.3 of the WMP appear incorrect ERM note that this has been corrected in the updated draft.</p> <p>(c) The WMP includes a groundwater management</p>		<p>consideration (and potential exclusion) of data that may have been affected by elevated pH in cement grouted bores. Outputs of the assessment should include descriptive statistics of baseline chemistry data and evaluation of temporal trends and potential seasonal variation.</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<ul style="list-style-type: none"> ○ <i>o design and management for construction and operation of the rail spur line and mine access road;</i> ○ <i>o reinstatement of drainage lines on the rehabilitated areas of the site; and</i> ○ <i>o control of any potential water pollution from the rehabilitated areas of the site;</i> • performance criteria for the following, including trigger levels for investigating any potentially adverse impacts associated with the project: <ul style="list-style-type: none"> ○ <i>the water management system;</i> ○ <i>downstream surface water quality;</i> ○ <i>downstream flooding impacts, including flood impacts due to the construction and</i> ○ <i>operation of the rail spur line and mine access road, and flooding along Back Creek;</i> ○ <i>and</i> ○ <i>stream and riparian vegetation health, including the Namoi River;</i> • a program to monitor: <ul style="list-style-type: none"> ○ <i>the effectiveness of the water management system; and</i> ○ <i>surface water flows and quality in the watercourses that could be affected by the project;</i> ○ <i>downstream flooding impacts; and</i> • reporting procedures for the results of the monitoring program; • 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 <p>(c) a <u>Groundwater Management Plan</u>, which includes:</p>		<p>with required details. Note that some of the chemistry baseline data have been affected by some monitoring bores being installed in exploration bores that were cement grouted as described in the WMP. From site discussions ERM understand that following further development of these bores the impact of cement grout (as indicated by elevated pH) has become less pronounced.</p> <p>(d) A draft water management strategy for the BTM complex has been prepared in consultation with the two other mines in the Leard Forest Mining Precinct (Boggabri and Tarrawonga Coal Mines) and this plan has been submitted to the DP&E in June 2018.</p> <p>A revised WMP was submitted to DP&E in late 2016 and another version on 8 June 2018 and is awaiting approval.</p> <p>The Auditor considers this condition compliant.</p>		

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<ul style="list-style-type: none"> • 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; • the monitoring and testing requirements specified in the PAC recommendations for groundwater management as set out in Appendix 6; • detailed plans, including design objectives and performance criteria, for the design and management of: <ul style="list-style-type: none"> ○ <i>the proposed final void; and</i> ○ <i>coal reject and potential acid forming material emplacement;</i> • groundwater assessment criteria including trigger levels for investigating any potentially adverse groundwater impacts; • a program to monitor and assess: <ul style="list-style-type: none"> ○ <i>groundwater inflows to the open cut mining operations;</i> ○ <i>the seepage/leachate from water storages, emplacements, backfilled voids and the final void;</i> ○ <i>interconnectivity between the alluvial and bedrock aquifers;</i> ○ <i>background changes in groundwater yield/quality against mine-induced changes;</i> ○ <i>the impacts of the project on:</i> <ul style="list-style-type: none"> - regional and local (including alluvial) aquifers; - groundwater supply of potentially affected landowners; - groundwater dependent ecosystems (including potential impacts on stygo-fauna and Melaleuca riparian forest communities) and riparian vegetation; 				

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<ul style="list-style-type: none"> 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 a plan to respond to any exceedances of the performance criteria; and <p>(d) a <u>Leard Forest Mining Precinct Water Management Strategy</u> that has been prepared in consultation with other mines within the Precinct to:</p> <ul style="list-style-type: none"> minimise the cumulative water quality impacts of the mines; review opportunities for water sharing/ water transfers between mines; co-ordinate water quality monitoring programs as far as practicable; undertake joint investigations/ studies in relation to complaints/exceedances of trigger levels where cumulative impacts are considered likely; and co-ordinate modelling programs for validation, re-calibration and re-running of the groundwater and surface water models using approved mine operation plans. <p><i>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 area.</i></p>				
45	<p>Revised Biodiversity Offset Strategy</p> <p>The Proponent shall prepare and implement a revised biodiversity offset strategy for the identified offset areas in Table 16 to the satisfaction of the Secretary. The revised Strategy must:</p> <p>(a) not reduce the size or quality of the proposed offset areas;</p> <p>(b) be consistent (as far as is possible) with the recommendations and objectives of the Leard Forest Mining Precinct Regional Biodiversity Strategy;</p> <p>(c) be prepared in consultation with OEH, North West LLS, CCC, DPI Lands and DoEE;</p>	<p>Revised New South Wales Biodiversity Offset Strategy August 2015</p> <p>Leard Forest Regional Biodiversity Strategy Stage 2 –</p>	<p>Condition (b) requires alignment of the BOS with the BTM Biodiversity Strategy. At the time of the BOS the BTM strategy was not yet fully developed and therefore not able to completely consistent. However the BTM strategy is now developed and the BOS</p>	ANC	<p>There is an opportunity to update the BOS to ensure the consistency as required by condition (b).</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<p>(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;</p> <p>(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;</p> <p>(f) avoid inclusion of any strategic agricultural land (as defined in the final <i>New England North West Strategic Regional Land Use Plan</i>) in the offset areas, unless it is demonstrated that the inclusion would not have any adverse impacts on agricultural production;</p> <p>(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</p> <p>(h) be submitted to the Secretary 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 Secretary.</p>	<p>Strategy Report Final August 2017</p> <p>Correspondence from DP&E "Maules Creek Coal Mine - Approval Revised Biodiversity Offset Strategy" dated 27 October 2015</p> <p>Correspondence with relevant agencies in March 2015</p>	<p>has not been updated in ensure consistency.</p> <p>Consultation of the plan was undertaken in accordance with condition (c). The Auditor sighted consultation correspondence with the relevant agencies providing the BOS for review in March 2015.</p> <p>Submission of the BOS within 30 months of the date of approval, as required by condition (h), was found to be compliant in the 2015 IEA.</p> <p>The BOS satisfies conditions (a), (c) to (g).</p> <p>The revised BOS was approved by DP&E on 27 October 2015.</p>		
58	<p>Heritage Management Plan</p> <p>The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared by suitably qualified and experienced person/s whose appointment has been endorsed by the Secretary;</p> <p>(b) be prepared in consultation with the OEH, North West LLS and the local Aboriginal stakeholders (in relation to the management of Aboriginal heritage values);</p>	<p>Aboriginal Archaeology And Cultural Heritage Management Plan March 2017</p> <p>Correspondence from DP&E "Maules Creek Coal 10_0138 Aboriginal</p>	<p>MCCM has prepared an AACHMP most recently updated March 2017 and prepared by Whincop Archaeology. This plan responds to Condition 58 (a) to (d). The AACHMP was approved by DP&E in March 2017.</p>	<p>C</p> <p>Obs</p>	<p>MCCM should follow-up with DP&E to achieve approval of the HHMP to satisfy Condition 58e.</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
(c)	be submitted to the Secretary for approval prior to any development that may impact heritage items, unless the Secretary agrees otherwise;	<i>Cultural Heritage Management Plan Approval</i> dated 16 March 2017	The AACHMP addresses the requirements of the relevant conditions and is considered compliant.		
(d)	include the following for the management of Aboriginal heritage: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> ○ sub-surface testing; ○ staged salvage, based on anticipated mine planning; ○ if relevant, historic heritage salvage at the Lawler’s Waterhole site; ○ pre-disturbance monitoring; ○ site assessment and reporting; ○ research objectives to inform knowledge of Aboriginal occupation; ○ protection, storage and management of salvaged Aboriginal objects; ○ addressing relevant statutory requirements under the <i>National Parks and Wildlife Act 1974</i>; and ○ long term protection of salvaged Aboriginal objects; • a description of the measures that would be implemented for: <ul style="list-style-type: none"> ○ protecting, monitoring and managing Aboriginal sites on the site which are outside of the approved disturbance area; ○ maintaining and managing reasonable access for Aboriginal stakeholders to heritage items on the site and within the Biodiversity Offset Strategy areas; 	Historic Heritage Management Plan (Draft) 2018 Email correspondence between DP&E and MCCM <i>“Historic Heritage Management Plan – Maules Creek”</i> in June 2018 Cottage and Woolshed, Therribri Road, Harparary Desktop Heritage Assessment by Niche Environment and Heritage dated 3 November 2016 WHC_FRMMCC_Observation Record for “Maintenance at	The AACHMP addresses the requirements with regards to Lawler’s well or waterhole. A separate Historic Heritage Management Plan responds to Condition 58e. The HHMP was originally submitted to DP&E in May 2017 and re-submitted June 2018 in response to comments and is awaiting approval. MCCM is operating against and implementing the draft HHMP in the absence of approval by the Secretary. The draft HHMP address the requirements of the relevant conditions and is considered compliant. Evidence of fencing observed around identified heritage items. Evidence of inspections, assessment and maintenance		

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<ul style="list-style-type: none"> ○ 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; ○ 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; ○ 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; <p>(e) include the following for the management of historic heritage:</p> <ul style="list-style-type: none"> • a strategy for the storage and management of any heritage items salvaged on site, both during the project and long term; • 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: <ul style="list-style-type: none"> ○ managing the discovery of human remains or previously unidentified heritage items on site; and ○ 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. <p><i>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 Secretary's approval of the Aboriginal Heritage Conservation Strategy.</i></p>	<p>Graveyard" dated 9 August 2017</p> <p>Site Visit Record Inspection No. CM024 dated 13 April 2015</p> <p>Site Observations</p>	<p>records were sighted by the Auditor.</p>		

An audit of Ministers Conditions of Approval PA 10_0138 (MOD 3, 17 January 2017), EPL_20221, Coal Lease (CL) 375 and Mining Leases (ML) 1701 and 1719 and the Water Access Licences (WALs) conditions has been completed, as well as a check against commitments made in the management plans developed as part of Conditions of Approval for the site.

Overall, conformance was achieved with the audit documents that were reviewed. The number of non-compliances with the statutory conditions is summarised in *Table 4.1* below:

Table 4.1 *Summary of Audit Findings*

Number of Conditions	Non compliances	Administrative Non - compliances	Observations
Conditions of Approval PA 10_1038			
157	3 High (-), Medium (-), Low (3)	10	3
EPL_20221			
84	3 High (-), Medium (-), Low (3)	5	0
Coal Lease 375			
21	1 High (-), Medium (-), Low (1)	1	0
Mining Lease 1701			
10	0 High (-), Medium (-), Low (-)	0	0
Mining Lease 1719			
9	0 High (-), Medium (-), Low (-)	0	0
Water Access Licences (WALs)			
91 (6 WALs)	0 High (-), Medium (-), Low (-)	0	4

Of the non-compliances, four were related to legacy items whereby MCCM failed to meet an approval stipulated deadline. In each of these cases MCCM has now closed out these items and there is no further action required. As MCCM is unable to comply with the timing set forth in the approval, these are identified as non-compliance findings.

In addition, six of the findings were closed during the audit period and require no further action.

An action response table will be developed by MCCM addressing all audit findings and will be submitted separately to this report.

Annex A

Department of Planning and
Environment Auditor
Approval

Mr Tony Dwyer
Group Manager – Approvals and Biodiversity
Whitehaven Coal Limited
231 Conadilly St
GUNNEDAH NSW 2380

Contact: Heidi Watters
Phone: (02) 6575 3401
Email: heidi.watters@planning.nsw.gov.au
compliance@planning.nsw.gov.au
Our Ref: PA 10_0138

Dear Mr Dwyer

Maules Creek Coal Mine Independent Environmental Audit

Reference is made to an email dated 7 May 2018 seeking the endorsement of the Secretary of the Department of Planning and Environment (the Department) of a suitably qualified, experienced and independent team to undertake an independent environmental audit (IEA) for the Maules Creek Coal Project (the project), as required by Schedule 5 condition 10 of Project Approval 10_0138, as modified (the approval).

In accordance with Schedule 5 condition 10 of the approval, the Secretary has approved the following audit team to conduct the 2018 IEA:

- Oliver Moore – Lead Auditor
- Lisa Goldberg / Nicole Whittaker – Assistant Auditor
- Wijnand (Vey) Gemson - Hydrogeologist
- Nathan Lynch – Acoustics Specialist
- Iain Cowan – Air Quality Specialist
- Joanne Woodhouse – Heritage Specialist
- Guy Williams – Ecology Specialist
- Will Weir – Technical Oversight

In preparing the IEA, the audit team must ensure the IEA is conducted in accordance with Schedule 5 condition 10 of the approval, and the Department's *Post-approval requirements for State Significant Developments – Independent Audit Guideline* (October 2015).

It is noted that the Independent Biodiversity Audit (IBA) required by Schedule 3 condition 56 of the approval was undertaken in 2017. The IEA may refer to the findings of the IBA in assessment of compliance with this condition.

In accordance with Schedule 5, Condition 11 of the Approval, a copy of the audit report must be submitted to the Secretary, together with responses to any recommendations (RAR) contained in the audit report within three months of commissioning of this audit. As such, please submit the audit report and RAR to compliance@planning.nsw.gov.au by **30 August 2018**, unless otherwise agreed by the Secretary.

Should you need to discuss the above, please contact Heidi Watters, Senior Compliance Officer at the Department as per the details provided above.

Yours sincerely



5/15/18

Leah Cook
Team Leader – Compliance
As nominee of the Secretary

Annex B

Compliance with Minsters
Conditions of Approval
PA10-0138 (MOD 3, 17
January 2017)

No	Assessment Requirement	Reference/Evidence	Comments	Compliance Status	Recommendations
SCHEDULE 2					
ADMINISTRATIVE CONDITIONS					
OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT					
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.		Refer to detailed findings of this audit.	Noted	
TERMS OF APPROVAL					
2	<p>The Proponent shall carry out the project:</p> <p>(a) generally in accordance with the EA</p> <p>(b) in accordance with the statement of commitments; and</p> <p>(c) in accordance with the conditions of this approval</p> <p>Notes:</p> <ul style="list-style-type: none"> The general layout of the project is shown in Appendix 2; and The statement of commitments is reproduced in Appendix 5. 		Refer to detailed findings of this audit.	Noted	
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.		Note	Noted	
4	<p>The Proponent shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:</p> <p>(a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this approval; and</p> <p>(b) the implementation of any actions or measures contained in these documents</p>	<p>Maules Creek Coal Mine EPL 20221 E3 Mandatory Environment Audit by EMM dated 9 December 2016</p> <p>NSW Resources Regulator Compliance Audit Program Maules Creek Coal Mine dated June 2018 (draft)</p> <p>Leard Forest Coal Mines Audit Summary Report Biodiversity and Aboriginal Cultural Heritage by DP&E dated September 2015</p> <p>2015 Independent Environmental Audit</p> <p>Maules Creek Coal Pty Limited by SMEC dated 22 August 2016</p>	Updates have been undertaken on the relevant plans and strategies following audits and inspections completed over the audit period.	Noted	
LIMITS ON APPROVAL					
Mining Operations					
5	<p>The Proponent may carry out mining operations on the site until the end of December 2034.</p> <p><i>Note: Under this approval, the Proponent is required to rehabilitate the site and carry out additional undertakings to the satisfaction of both the Secretary 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.</i></p>		Note	Noted	

No	Assessment Requirement	Reference/Evidence	Comments	Compliance Status	Recommendations
Coal Extraction					
6	The Proponent shall not extract more than 13 million tonnes of ROM coal from the site in any calendar year.	2015 Annual Review 2016 Annual Review 2017 Annual Review (draft)	The Annual Reviews indicated ROM volumes of: 2015 - 5.82 million tonnes 2016 - 8.9 million tonnes 2017 - 10.5 million tonnes 2018 - projected 11.7 million tonnes	C	
Vegetated Buffer Corridor					
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 Secretary . <i>Notes: The alternative area may be provided by way of offset or by way of suitable rehabilitated land within the</i> • <i>Boggabri Coal Project site or the Maules Creek Coal Project site.</i> • <i>The alternative area may be provided by the Proponent or the Proponent in conjunction with the Proponent of the Boggabri Coal Project.</i>	Biodiversity Corridor Plan dated May 2013 Mining Operations Plan 1 December 2017 Interview with Environmental Superintendent	Biodiversity Corridor plan for Maule Creek Coal Project EPBC 2010/5566 dated May 2013. Prepared by Cumberland Ecology. The MOP outlines the mine footprint up to and including 2023. The outlined footprint includes the vegetation corridor that is to be maintained during this period. The Auditor also viewed the corridor in place at the site.	C	
Coal Transport					
8	The Proponent shall only transport coal from the site by rail. <i>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</i>	Auditor Observations Coal Trak - planned and completed transported coal monitoring Data 2015-2018 (sample reviewed) CHPP Production Data (FY2018 Sample reviewed)	The Auditor notes that there are no facilities on site to load road vehicles for the transport of coal. All coal is transported from Site via the Maules Creek rail spur. The Auditor reviewed CoalTrack for planned and completed rail movements. Transported coal monitoring data and review of Coal Track confirms volumes of coal transported from Site is equal to ROM tonnage. The Auditor cross checked against CHPP Production Data.	C	
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 <i>Note: For the purposes of this condition, a day refers to the 24 hours from midnight to midnight the next day</i>	2015 Annual Review 2016 Annual Review 2017 Annual Review (draft)	(a) Annual reviews shows the below million tonnes of coal transports per year: 2015 AR - 5.1 2016 AR - 8.3 2017 AR - 9.6 (b) Raw data for Annual Review reporting reviewed on site by Auditor demonstrating number of laden trains per day was a maximum of 7 during the audit period. Annuals reviews reported: 2015 AR - 1.9 trains 2016 AR - 3 trains 2017 AR - 3.5 trains. (c) See above. Annual reviews reported: 2015 AR - 6 trains 2016 AR - 7 trains 2017 AR - 8 trains.	C	

No	Assessment Requirement	Reference/Evidence	Comments	Compliance Status	Recommendations
SURRENDER OF EXISTING DEVELOPMENT CONSENT					
10	By the end of 2013, or as otherwise agreed by the Secretary , 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.	Correspondence with the DP&E "Surrender of Development Consent DA85/1819" dated 23 December 2016	The date of submission predates the audit period. This was raised as a non-compliance in the previous IEA period (2015). Correspondence with the DP&E dated 23 December 2016 confirms voluntary surrender of Project Approval 10_0138. This confirms actions taken by MCCM satisfy requirements of this condition.	ANC	This is a legacy ANC. MCCM satisfied the requirements of this condition during the current audit period, however the required date was not met. No further action required.
STRUCTURAL ADEQUACY					
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. <i>Notes:</i> <ul style="list-style-type: none"> 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. 	Communication with Project Manager on Workshop construction project Heavy Vehicle construction and occupation certificate 25 October 2017.	The Heavy Vehicle Workshop construction project commenced during the current audit period 25 October 2017, the Auditor sighted the construction and occupation certificates for the works.	C	
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 Secretary .	2015 Independent Environmental Audit Maules Creek Coal Pty Limited by SMEC dated 22 August 2016 Maules Creek Coal Pty Limited by SMEC dated 22 August 2016	Design and construction completed prior to audit period. The 2015 IEA references the "AURECPN report and approval letter from planning", presumably this is a typo and means refers to "Aurecon report".	NT	
DEMOLITION					
13	The Proponent shall ensure that all demolition work on site is carried out in accordance with <i>Australian Standard AS 2601-2001: The Demolition of Structures</i> , or its latest version.	Teston Clearance Certificate (May 2018)	The condition is relevant to the "site" defined in the PA as "the land described in Appendix 1". Of the houses demolished in offset area during the audit to date only the Teston North residence is located within the "site". The Auditor reviewed the Clearance Certificate for the Teston residence and scope of work for the demolition of the Teston North residence that demonstrates the works were undertaken in accordance with AS 2601-2001 where applicable.	C	
PROTECTION OF PUBLIC INFRASTRUCTURE					
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	Interview with Environmental Superintendent	Historic upgrades completed prior to the audit period for Therribri and Manilla roads. MCCM has an agreement with Boggabri Mine to use the Boggabri access road. No requests were received during the audit period to repair or relocate public infrastructure, nor pay full costs.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
OPERATION OF PLANT AND EQUIPMENT					
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	Preventative Maintenance Process 2015 Annual Review 2016 Annual Review 2017 Annual Review (draft)	The Auditor observed that pre-start inspections are conducted on all mobile plant each day. The Heavy Vehicle Workshop uses Pulse scheduling software to schedule the preventative maintenance process. MCCM 2015, 2016 and 2017 Annual Reviews identifies that during the reporting period MCCM's fleet was subject to regular and preventative maintenance to ensure plant and equipment was maintained in a suitable condition. As outlined in the document, all plant and equipment was operated in a proper and efficient manner.	C	
UPDATING & STAGING STRATEGIES, PLANS OR PROGRAMS					
16	<i>With the approval of the Secretary, the Proponent may submit any strategies, plans or programs required by this consent on a progressive basis. To ensure the strategies, plans or programs under the conditions of this approval are updated on a regular basis, the Proponent may at any time submit revised strategies, plans or programs to the Secretary for approval. With the agreement of the Secretary, the Proponent may prepare any revised strategy, plan or program without undertaking consultation with all parties under the applicable condition of this approval. Notes: • While any strategy, plan or program may be submitted on a progressive basis, the Proponent must ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times. • 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.</i>	Management Plan Review Register	The Auditor reviewed the Management Plan Review Register. Reviews are completed after annual reviews, approval modifications and based on audit recommendations. The Auditor notes that while MCCM have undertaken the required actions to satisfy this condition, a number of the plans that have been required to be updated through this process sit with DP&E for approval. MCCM continue to work in accordance with approved plans and to also implement the additional controls or mitigation measures as outline in the plans that are awaiting the Department's approval. Management Plans that are currently sitting with DP&E for review and approval include: • Environmental Management Strategy (Including Environmental Monitoring Program); • Water Management Plan; • Noise Management Plan; • Air Quality and GHG Management Plan; • Social Impact Management Plan; • Historic Heritage Management Plan; and • BTM Water Management Strategy	C	
COMMUNITY ENHANCEMENT					
17	By the end of March 2013, unless the Secretary 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.	Voluntary Planning Agreement 2 May 2014	The Auditor reviewed Voluntary Planning Agreement between Maules Creek Coal Pty Ltd and Narrabri Shire Council dated 2 May 2014. Although the intent of this condition is met, the due date was not met during the previous audit period.	ANC	No further action required as this is a legacy ANC.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
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SCHEDULE 3

ENVIRONMENTAL PERFORMANCE CONDITIONS

ACQUISITION ON REQUEST

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.

Interview with Environmental Superintendent

No written request from the relevant landholders was received during the audit period for acquisition due to noise or air quality impacts.

NT

Table 1: Land subject to acquisition upon request

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

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:

- To interpret the locations referred to in Table 1 see the applicable figure(s) in Appendix 4.
- 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.
- 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 Secretary for resolution. The Secretary'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.

NOISE AND VIBRATION

Noise Affected Residences

2 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:

Interview with Environmental Officer

Group Manager correspondence confirmed that no written request was received from relevant landholders requesting noise mitigation measures to be installed.

NT

- 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 Secretary for resolution; or
- acquisition of the residence and land in accordance with the procedures in conditions 8-9 of Schedule 4.

Internal email from Group Manager - Community Relations and Property dated 24 June 2018

Table 2: Residences subject to acquisition or noise mitigation on request

Residences
61, 108, 118, 120, 126, 134, 236, 256 and 259

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:

- To interpret the locations referred to in Table 2 see the applicable figure(s) in Appendix 4.
- 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.
- 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 Secretary for resolution. The Secretary'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.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
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2A For privately owned residences where noise generated by the Project is predicted to exceed traffic noise impact assessment criteria (see Table 2A) the owner(s) can make a written request to the Proponent for noise mitigation measures (such as double glazing, insulation and air conditioning) at the residence.

These measures must be reasonable and feasible and directed towards reducing the road 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 Secretary for resolution

Table 2A: Residences subject to road noise mitigation on request

Residences
264

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:

- To interpret the locations referred to in Table 2A see the applicable figure(s) in Appendix 4.
- 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.

Maximum Predicted Noise Level

3 Where the owner(s) of a residence included in Table 2 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 Secretary. If the Secretary 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 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.

Notes:

Table 3: Maximum Predicted Noise Levels

Location Property/ID	Day (L _{day} (15 min))	Evening (L _{even} (15 min))	Night (L _{night} (15 min))	Night (L _{night} (1 min))
61	35	43	43	53
108, 120	35	39	39	45
118	40	44	44	45
126	45	48	48	53
134, 236	35	36	36	45
256	35	40	40	50
259	35	39	39	49

- To interpret the locations referred to in Table 3, see the applicable figure in Appendix 4
- The noise assessment must be undertaken by a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary and include either:
 - 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
 - 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.
- Monitoring should be conducted in accordance with the requirements of the NSW Industrial Noise Policy.
- 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.
- The Proponent shall ensure that the requested noise impact assessment is submitted to the Secretary within 3 months of the Secretary'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 Secretary.
- Note 3 to condition 1 of this Schedule applies to acquisition under this condition.

Interview with Environmental Officer

Internal email from Group Manager - Community Relations and Property dated 24 June 2018

As above.

NT

Interview with Environmental Superintendent

The Auditor was advised that there are no noise exceedance agreements in place with any private land owners.

NT

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
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Construction Noise and Vibration Criteria - Maules Creek and Boggabri Shared Rail Spur Lines

4 During the hours of:
 (a) 7 am to 6 pm Monday to Fridays, inclusive;
 (b) 8 am to 1 pm on Saturdays; and
 (c) at no time on Sundays or public holidays, 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.

Outside of the audit period.
 2015 Independent Environmental Audit
 Maules Creek Coal Pty Limited by SMEC dated 22 August 2016

Rail construction was completed in June 2014. This was assessed in the 2015 IEA as compliant.

NA

Table 4: Rail spur line construction noise criteria dB(A)

Location Property/ID	Construction Noise Criteria	
	Day dB(A) LAeq(15 min)	
256	50	
259	45	
All other privately-owned residences	40	

Note: To interpret the locations referred to in Table 4, see the applicable figure in Appendix 4.

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).

As above.

As above.

NA

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 Secretary. 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 Secretary.

As Above

As above

NA

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.

Noise Criteria

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)

Land	Day/Evening/Night LAeq(15 min)	Night LA1 (1 min)
All privately-owned residences	35	45

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.

EPL Monitoring Data:
 2015
 2016
 2017
 Monthly for 2018
 2015 Annual Review
 2016 Annual Review
 2017 Annual Review (draft)

All "NM" monitoring locations are representative of the relevant privately owned residences.
 No exceedances were recorded between July and December 2015.
 During 2016, five exceedances of LAeq 15 minute criteria were recorded during the attended monitoring, as a result of the Industrial Noise Policy 2000 being applied. All of these were a technical exceedance as a result of the low frequency modifying factor adjustment (applied as per the NSW Industrial Noise Policy 2000). Of these exceedances, only one result was more than 2 dB above the Table 5 Noise Criteria and therefore considered a non-compliance in accordance with the NSW Industrial Noise Policy. This was recorded on 31 March 2016 at NM4, where the exceedance was 3 dB above the criteria.
 NM4 was purchased by MCCM in August 2016 and therefore no longer considered a privately-owned residence during the remainder of the audit period.
 During 2017 there were two technical exceedances of the noise criteria following the application of the modifying factor adjustment (as detailed above). These were at NM1 and NM5 and occurred on 24 July and 23 August 2017 and were limited to 4 and 3 dB over the criteria respectively. Given each of these is more than 2 dB over the Table 5 noise criteria these are considered non-compliances in accordance with the NSW Industrial Noise Policy. On each occasion the exceedances were not sustained and noise monitoring results returned to below the criteria during the same monitoring event.

NC

MCCM is to ensure that all noise mitigation measures are implemented and TARPs are monitored and responded to accordingly to minimise the potential for noise exceedances.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Noise Acquisition Requirements – Residences					
8	<p>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 Secretary. If the Secretary 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 criteria in Table 5, 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 Secretary 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>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"> 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. 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 Secretary for resolution. The Secretary'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. Notes 2,3,4 and 5 of condition 3 apply to this condition. 	Interview with Environmental Officer	No privately own residences have requested an independent noise assessment.	NT	
Noise Acquisition Requirements - Land					
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 Secretary. If the Secretary 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"> 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. 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 Secretary for resolution. The Secretary'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. Notes 2,3,4 and 5 of condition 3 apply to this condition. 	Interview with Environmental Officer	As above.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations				
Cumulative Noise Criteria									
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>Table 6: Cumulative noise criteria dB(A) $L_{Aeq}(period)$</p> <table border="1"> <thead> <tr> <th>Land</th> <th>Day/Evening/Night $L_{Aeq}(period)$</th> </tr> </thead> <tbody> <tr> <td>All privately-owned land</td> <td>40</td> </tr> </tbody> </table> <p>Notes:</p> <ul style="list-style-type: none"> Cumulative noise is to be measured in accordance with the relevant requirements, 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. 	Land	Day/Evening/Night $L_{Aeq}(period)$	All privately-owned land	40	<p>Maules Creek Coal Project Environmental Noise Monitoring by Global Acoustics for August 2015, September 2016, June 2017 and February 2018</p> <p>2015 Annual Review</p> <p>2016 Annual Review</p> <p>2017 Annual Review (draft)</p>	<p>Global Acoustics reports on cumulative impacts each month at each of the noise monitoring locations. The report records all instances of cumulative noise in dB.</p> <p>The Auditor reviewed a sample of Global Acoustic reports, whereby no cumulative impacts were recorded above 40 dB. The annual reviews report that there have been no cumulative impacts exceeding the noise criteria during the audit period.</p>	C	
Land	Day/Evening/Night $L_{Aeq}(period)$								
All privately-owned land	40								
Cumulative Noise Acquisition Requirements									
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 Secretary. If the Secretary 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> <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 Secretary 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>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>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 Secretary for resolution. The Secretary's decision shall be final.</p> <p>Notes:</p> <ol style="list-style-type: none"> 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. 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 Secretary for resolution. The Secretary'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. Notes 2,3,4 and 5 of condition 3 apply to this condition. The noise impact assessment shall include assessment of the relative contribution of the mines to the impact at the residence. 	<p>Interview with Environmental Officer</p>	<p>No privately own residences have requested an independent cumulative noise assessment.</p>	NT					

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations																																																																																				
Attenuation of Plant																																																																																									
12	<p>The Proponent shall:</p> <p>(a) ensure that:</p> <ul style="list-style-type: none"> all mining trucks and water carts used on the site are commissioned as noise suppressed (or attenuated) units; 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; where reasonable and feasible, improvements are made to existing noise suppression equipment as better technologies become available; and <p>(b) monitor and report on the implementation of these requirements annually on its website.</p>	<p>2015 Annual Review</p> <p>2016 Annual Review</p> <p>2017 Annual Review (draft)</p> <p>Caterpillar D10T Maules Creek Coal Project Unit 876 Sound power and operator noise exposure assessment by Global Acoustics dated 26 July 2016</p> <p>Maules Creek Coal Project Mobile Plant Sound Power Survey 2016 by Global Acoustics</p> <p>Maules Creek Coal Mine EPL 20221 E3 Mandatory Environment Audit by EMM dated 9 December 2016</p> <p>Correspondence between from DP&E and MCCM in 2016, 2017 and 2018</p> <p>Interview with Environmental Officer</p>	<p>Sound power level results are detailed in the annual reviews. For 2015, 99 pieces of equipment were tested, of these 8 have sound power levels above the EA criteria and this represents 9% of the total fleet. Refer below for exceedances:</p> <table border="1"> <thead> <tr> <th>Equipment Type</th> <th>Criteria dBA</th> <th>Result dBA</th> </tr> </thead> <tbody> <tr> <td colspan="3">2015</td> </tr> <tr> <td>DOZ853</td> <td>115</td> <td>117</td> </tr> <tr> <td>WAT803</td> <td>115</td> <td>115.5</td> </tr> <tr> <td>Train load out transfer station</td> <td>103</td> <td>113</td> </tr> <tr> <td>CCHP Product Transfer Station</td> <td>103</td> <td>104</td> </tr> <tr> <td>CHPP SE façade</td> <td>117</td> <td>125</td> </tr> <tr> <td>CHPP SW façade</td> <td>117</td> <td>118</td> </tr> <tr> <td>CHPP NW façade</td> <td>117</td> <td>120</td> </tr> <tr> <td>CHPP façade average</td> <td>117</td> <td>118.5</td> </tr> </tbody> </table> <p>For 2016, 129 pieces of equipment were tested, of these 9 have sound power levels above the EA criteria and this represents 7% of the total fleet. Refer below for exceedances:</p> <table border="1"> <thead> <tr> <th>Equipment Type</th> <th>Criteria dBA</th> <th>Result dBA</th> </tr> </thead> <tbody> <tr> <td colspan="3">2016</td> </tr> <tr> <td>Water Cart - Cat773 - EMECO</td> <td>115</td> <td>116</td> </tr> <tr> <td>Primary sizer</td> <td>109</td> <td>110</td> </tr> <tr> <td>Secondary sizer</td> <td>112</td> <td>115</td> </tr> <tr> <td>Raw coal transfer station</td> <td>103</td> <td>105</td> </tr> <tr> <td>Train load out transfer station</td> <td>103</td> <td>114</td> </tr> <tr> <td>CCHP Product Transfer Station</td> <td>103</td> <td>105</td> </tr> <tr> <td>Train loadout</td> <td>103</td> <td>114</td> </tr> <tr> <td>Train on rail spur</td> <td>108</td> <td>115</td> </tr> <tr> <td>Access road</td> <td>95</td> <td>98</td> </tr> </tbody> </table> <p>For 2017, 137 pieces of equipment were tested, of these 5 have sound power levels above the EA criteria and this represents less than 4% of the total fleet. Refer below for exceedances:</p> <table border="1"> <thead> <tr> <th>Equipment Type</th> <th>Criteria dBA</th> <th>Result dBA</th> </tr> </thead> <tbody> <tr> <td colspan="3">2017</td> </tr> <tr> <td>Secondary sizer</td> <td>112</td> <td>114</td> </tr> <tr> <td>Raw coal transfer station</td> <td>103</td> <td>106</td> </tr> <tr> <td>Train load out transfer station</td> <td>103</td> <td>115</td> </tr> <tr> <td>CCHP Product Transfer Station</td> <td>103</td> <td>105</td> </tr> <tr> <td>Train loadout</td> <td>103</td> <td>110</td> </tr> </tbody> </table> <p>While some of the fixed plant equipment exceeds the EA sound power levels in each year, the overall sound power levels of the CHPP and fix plant equipment is below the modelled sound power levels in the EA in all years. The noise monitoring data for the site demonstrates that there are no offsite impacts or any offsite environmental harm caused by the sound power levels of the fixed</p>	Equipment Type	Criteria dBA	Result dBA	2015			DOZ853	115	117	WAT803	115	115.5	Train load out transfer station	103	113	CCHP Product Transfer Station	103	104	CHPP SE façade	117	125	CHPP SW façade	117	118	CHPP NW façade	117	120	CHPP façade average	117	118.5	Equipment Type	Criteria dBA	Result dBA	2016			Water Cart - Cat773 - EMECO	115	116	Primary sizer	109	110	Secondary sizer	112	115	Raw coal transfer station	103	105	Train load out transfer station	103	114	CCHP Product Transfer Station	103	105	Train loadout	103	114	Train on rail spur	108	115	Access road	95	98	Equipment Type	Criteria dBA	Result dBA	2017			Secondary sizer	112	114	Raw coal transfer station	103	106	Train load out transfer station	103	115	CCHP Product Transfer Station	103	105	Train loadout	103	110	NC	MCCM needs to continue to implement improvement of controls to reduce the sound power levels of the equipment that exceeds the EA criteria.
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			<p>plant equipment. Also it is noted that MCCM continue to improve the exceedance levels each year, as per the percentages outlined above.</p> <p>All mining equipment is sound power tested by Global Acoustics at the time of commissioning (Auditor sighted Caterpillar commissioning sound power report), which is required to ensure that the equipment meets the sound power levels for site outlined in the NMP (taken from the EA) and required by condition (a) point 1. Global Acoustics also undertakes annual sound power surveys of the fleet (Auditor sighted the 2016 report), which is reported through MCCM's Annual Reviews which are published on their website as required by condition (b).</p> <p>EMM also undertook a mandatory noise audit during 2016, of the site and reported that "the tested sound power level of the Hitachi trucks is considered industry good practice". Further stated "[b]ased on my site observations of plant operations and operator practices, review of maintenance logs and the</p> <p>age and condition of plant, there is no evidence that activities are not being carried out in a competent manner. Plant and equipment appear to be maintained and operated in a proper and efficient way. Therefore these exceedances are a combination of some low sound levels being adopted in the EA and the selection of site plant and equipment."</p> <p>Due to the sound power level results outlined above, MCCM has been subject to two show cause letters (May 2016 and December 2017) and following correspondence with DP&E also received official cautions (on June 2016 and April 2018). The official cautions were administrative and acknowledged the sites considerable sound power work and controls implemented by MCCM to improve sound power levels.</p>		
13	<p>The Proponent shall:</p> <p>(a) conduct an annual testing program of the attenuated plant on site to ensure that the attenuation remains effective;</p> <p>(b) restore the effectiveness of any attenuation if it is found to be defective; and</p> <p>(c) report on the results of any testing and/or attenuation work annually on its website.</p>	<p>Maules Creek Coal Project Fixed Plant Sound Power Survey 2016 by Global Acoustics</p> <p>Maules Creek Coal Project Mobile Plant Sound Power Survey 2017 by Global Acoustics</p> <p>2015 Annual Review 2016 Annual Review 2017 Annual Review (draft)</p> <p>MTC - Maules RTV Equip Work Order</p> <p>Detailed Work Order - Plant Unit Sequence - showing the D11T hush pack idler</p> <p>Maules Creek Coal Maintenance Schedule e.g. Week 15 Final</p> <p>Pulse - work orders and tracking maintenance</p> <p>Interview with Environmental Officer</p>	<p>Annual sound power survey conducted by Global Acoustics and published as outlined in above condition 12.</p> <p>These annual reports are forwarded to MCCM Maintenance to ensure all fleet exceedances are subsequently captured in maintenance scheduling and further sound attenuation improvements can be considered if necessary.</p> <p>Outside of the annual and commissioning sound power surveys, the sound attenuation on equipment is checked during scheduled maintenance and rectified if necessary. The Auditor sighted equipment work orders that demonstrated that testing and rectification of engine vibration issues (MTC - Maules RTV Equip Work Order) had been identified and repaired.</p> <p>MCCM have also implemented a number of further control measures for sound power levels during the audit period. These include:</p> <ul style="list-style-type: none"> 'silent horns' on all excavator fleet completed in 2016; Installation of dozer 'hush pack' mufflers - Auditor sighted maintenance work order for installation of muffler on D11T dozer; Improve exhaust systems on the Hitachi class truck fleet; Installation of screening in proximity to the ROM crusher, CHPP and acoustic screening walls near train load out infrastructure; and Upgrade of water pumps also included enclosure of primary and secondary transfer pumps for the supply of river water 	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Maules Creek Rail Spur Line – Noise Impacts					
14	<p>The Proponent shall:</p> <p>(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;</p> <p>(b) implement the recommendations of this acoustic review;</p> <p>(c) undertake commissioning trials of the spur line to determine the optimal train speed to minimise noise impacts; and</p> <p>(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,</p> <p>to the satisfaction the Secretary.</p>	<p>Boggabri Maules Creek Rail M9701 Operational Noise and Vibration Assessment – Maules Creek Section dated 13 August 2013 by Aurecon</p> <p>Correspondence from DP&E “Maules Creek Coal Mine (MP 10_0138) Maules Creek Coal Rail Spur Line Acoustic Study” dated 20 August 2013</p> <p>Maules Creek Coal Mine and Boggabri Coal Mine Rail Spur Noise Assessment by Global Acoustics dated December 2017</p>	<p>The noise assessment was completed by Aurecon in 2013.</p> <p>DP&E required the following recommendations from the report to be undertaken “<i>commission trials to optimise train speed; and undertaken targeted noise monitoring of rail noise</i>”.</p> <p>Due to a rail signally upgrade requirements for the spur line. The assessment of speed and targeted noise monitoring was commissioned in March 2016. The final report by Global Acoustics was delivered December 2017. This report demonstrated that current train speeds were appropriate and optimal for minimising noise impacts.</p>	C	
Operating Conditions					
15	<p>The Proponent shall:</p> <p>(a) implement best management practice to minimise the construction, operational, low frequency, road and rail traffic noise of the project;</p> <p>(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;</p> <p>(c) maintain the effectiveness of noise suppression equipment on plant at all times and ensure defective plant is not used operationally until fully repaired;</p> <p>(d) ensure that noise attenuated plant is deployed preferentially in locations relevant to sensitive receivers;</p> <p>(e) minimise the noise impacts of the project during meteorological conditions when the noise limits in this approval do not apply;</p> <p>(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);</p> <p>(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;</p> <p>(h) ensure any new rail rolling stock manufactured specifically for the project is designed, constructed and maintained to minimise noise; and</p> <p>(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,</p> <p>to the satisfaction of the Secretary</p>	<p>Noise Management Plan dated February 2014</p> <p>Coal Tack & Vista Data/Teledata systems (screenshots and live)</p> <p>Environmental Dispatch Refresher May2016 (160518)_GG_SM.pptx</p> <p>Maules Creek Noise Notes.pdf for 30 April 2018</p> <p>Interview with Environmental Officer</p> <p>Interview with Dispatch coordinator</p> <p>Site observations</p> <p>Noise Management Strategy For Boggabri – Tarrawonga – Maules Creek Complex May 2017</p> <p>2016 Annual Noise Model Validation by Global Acoustics</p> <p>Annual Sound Power Register</p> <p>Unattended Noise monitoring Alert Procedure – this document is what dispatch do in their day to day</p> <p>WHC_FRM_MCCM_Noise Inspection</p>	<p>Coal track and Teledata are utilised to track real time noise monitoring data, TARPS and triggers by site. Responding to this is managed by the dispatch team.</p> <p>A TARP alarm triggers a response from dispatch. The response varies depending on conditions and current activities, example sighted for 30 April 2018. Responses are in accordance with “<i>Environmental Dispatch Refresher May2016 (160518)_GG_SM.pptx</i>” and can include alerting the Open Cut Examiners (OCEs), preparing to make changes to the fleet or mining activities, reducing truck speeds, requiring dump trucks to drop down gears, alternatives for mining or dumping. Dispatch are monitoring levels at least every 15 minutes.</p> <p>The site also deploy roaming noise personnel for night shifts. This person undertakes noise monitoring in accordance with the <i>WHC_PRO_MC_Noise Inspection</i>, monitoring noise source at attended and unattended noise monitoring locations and completing <i>WHC_FRM_MCCM_Noise Inspection</i>. Dispatch is also in contact with roaming noise personnel to identify if noise is mine related. The roaming noise personnel can be directed to locations as necessary, and in alignment with TARP alarms.</p> <p>Global Acoustics maintains the noise model, they then compare the model to all the monitoring (real and attended) data, weather conditions. The data is generally found to be in accordance with their model, excluding during some extreme weather conditions (i.e. inversions).</p> <p>During inversions, often the site will shut down its operations given the high risk of noise impacts during those conditions. MCCM tracks and monitors inversions utilising the teledata system and the BTM Maules Creek Risk Forecast.</p> <p>A Risk Response Report goes to Dispatches, Mine Manager, Superintendents, drilling and blasting, Commercial, Projects, Planners – goes into daily planning meeting.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
		WHC_PRO_MC_Noise Inspection WHC_FRM_MC_Daily Risk Response Report - for every day, sighted 1-5 May 2018 Email from Logistics Manager "RE: MCCMM audit - rail transport" dated 10 June 2017.	MCCM's Logistics Manager confirmed f), g), h) - locomotives are registered by ARTC and ARTC has to comply within their EPL. MCCM requests evidence from its service provider's (ARTC) to confirm rolling stock is provided with latest technology.		
Noise Management Plan					
16	The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with the EPA, and submitted to the Secretary for approval prior to the commencement of construction; (b) describe the measures that would be implemented to ensure: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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. <p><i>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.</i></p>	Noise Management Plan dated February 2014 Noise Management Strategy For Boggabri - Tarrawonga - Maules Creek Complex May 2017 Management Plan Review Register Email correspondence from EPA "Maules Creek - Management Plans" dated 18 December 2012 Correspondence from DP&E "Maules Creek Coal Mine (MP 10_0138) Approval of revised Noise and Air quality Management Plans" dated 11 March 2014 Correspondence from DP&E "Boggabri Tarrawonga Maules Creek Mines (BTM Complex) Approval - BTM Complex Noise Management Strategy" dated 6 June 2017 Correspondence with DP&E "RE: Noise Management Plan - Maules Creek" dated 8 June 2018	EPA consultation is required by condition (a). However, the EPA stated in 2012 "we do not approve or endorse these documents as our role is to set environmental objectives....This email should meet the Project Approval consent requirements requiring consultation with the EPA". The NMP addresses the requirements of this condition and was approved by DP&E in March 2014. The NMP has been revised a number of times since its approval and submitted to the Department on a number of occasions, as per the Management Plan Review Register. The current revised NMP is sitting with DP&E for review and approval, as submitted on 8 June 2018. Condition (g) - The NMP does not include the strategy. The Noise Strategy for BMT is a separate document which was approved by DP&E in June 2017 Condition (g) - The NMP does not include the strategy, as this was not approved in 2014. The BMT Noise Strategy is a separate document and was approved by DP&E in June 2017.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
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Noise Measurement

17	<p>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.</p> <p>However, the Proponent may undertake an investigation to determine whether a proposal for change in this classification could be considered for approval by the Secretary. 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 Secretary. The report and recommendation must be submitted to the EPA for endorsement prior to submission to the Secretary. If the Secretary is satisfied that the recommendation is reasonable, then the Secretary may amend the inversion class applying to the project under this approval.</p>	<p>Memo - Inversion Class Investigation Maules Creek Mine, Clarifications by Pacific Environment dated 29 September 2016</p> <p>Email correspondence from MCCM to DPE and EPA "Maules Creek Coal inversion investigation" dated 6 September 2016</p> <p>Correspondence from EPA "G-Class Noise Inversion Condition - Maules Creek Coal Mine dated 2 February 2017</p> <p>Correspondence from MCCM to DP&E "RE: Maules Creek Coal Mine - Inversion Class Investigation" dated 10 March 2017</p>	<p>MCCM has undertaken an inversion class investigation, completed by Pacific Environment in 2016.</p> <p>The memo was submitted to EPA for comments that were then implemented by MCCM.</p> <p>Following implementation of EPAs comment, the investigation was submitted to the DP&E on 10 March 2017 to amend the inversion class.</p> <p>No written response had been received from DP&E at the time of the audit.</p> <p>There are no exceptions/relief for inversions for the site which is still operating under Class G inversions.</p> <p>The monthly noise report by Global Acoustics reports that no exceptions for inversions are considered for MCCM.</p>	C	
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BLASTING

Blasting Criteria

18	<p>The Proponent shall ensure that the blasting on the site does not cause exceedances of the criteria in Table 7.</p> <p><i>Table 7: Blasting criteria</i></p> <table border="1"> <thead> <tr> <th>Location</th> <th>Airblast overpressure (dB(Lin Peak))</th> <th>Ground vibration (mm/s)</th> <th>Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Residence on privately owned land</td> <td>120</td> <td>10</td> <td>0%</td> </tr> <tr> <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 Secretary by the structural design methodology in AS 2187.2-2006, or its latest version)</td> <td>0%</td> </tr> </tbody> </table> <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>	Location	Airblast overpressure (dB(Lin 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	-	50 (or alternatively a specific limit determined to the satisfaction of the Secretary by the structural design methodology in AS 2187.2-2006, or its latest version)	0%	<p>2015 Annual Review</p> <p>2016 Annual Review</p> <p>2017 Annual Review (draft)</p> <p>EPL Monitoring Data:</p> <p>2015</p> <p>2016</p> <p>2017</p> <p>Monthly for 2018</p>	<p>The blast criteria outlined in Table 7 has not been exceeded during the audit period.</p> <p>While MCCM recorded one instance on 8 July 2016 of a blast above 120 dBL criteria, at 128.4 dBL, this was recorded at BM1 which is on mine owned land and therefore not captured by Table 7 criteria.</p> <p>Also for the same blast, 117.9 dBL was also recorded at BM2, which is above the 115 dB limit.</p> <p>Also on 15 January 2016, 118.5 dBL (above the 115 dBL criteria), was recorded at BM4.</p> <p>However this is only 2 blasts in a 12 month period and therefore well below the 5% allowable exceedances, given there were approximately 97 blasts in 2016.</p> <p>During 2017, there was one exceedance of 115db criteria on 10 June at BM4 which recorded 116.6 dBL. This property was acquired by MCCM prior to the audit period. Regardless, this one exceedance is well below the 5% allowable exceedances given there were 101 blasts carried out.</p>	C	
Location	Airblast overpressure (dB(Lin 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	-	50 (or alternatively a specific limit determined to the satisfaction of the Secretary by the structural design methodology in AS 2187.2-2006, or its latest version)	0%																	

Blasting Hours

19	<p>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 Secretary.</p>	<p>MCCM_ENVREG_BLAST_REGISTER_2018.xlsx (shows all years)</p> <p>2015 Annual Review</p> <p>2016 Annual Review</p> <p>2017 Annual Review (draft)</p>	<p>All blasting is undertaken between 9am and 5pm and no blasting occurs on Sundays.</p>	C	
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No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Blasting Frequency					
20	<p>The Proponent may carry out a maximum of:</p> <p>(a) 1 blast a day; unless an additional blast is required following a blast misfire; and</p> <p>(b) 4 blasts a week, averaged over a calendar year;</p> <p>for the project.</p> <p>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.</p> <p><i>Note: For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine.</i></p>	<p>MCCM_ENVREG_BLAST_REGISTER_2018.xlsx (shows all years)</p> <p>2015 Annual Review</p> <p>2016 Annual Review</p> <p>2017 Annual Review (draft)</p>	<p>The Auditor viewed the blasting register which has a running count of blasts per month – this shows MCCM is well below 4 blast per week (average) and there were no events of more than one blast in a day.</p>	C	
Property Inspections					
21	<p>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> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties, to:</p> <ul style="list-style-type: none"> • 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 <p>(b) give the landowner a copy of the new or updated property inspection report.</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 Secretary for resolution.</p>	<p>Interview with Environmental Officer</p>	<p>No written request was received during the audit period from an owner of privately owned land for a baseline condition assessment.</p>	NT	
Property Investigations					
22	<p>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> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties, to investigate the claim; and</p> <p>(b) give the landowner a copy of the property investigation report.</p> <p>If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damages to the satisfaction of the Secretary.</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 Secretary for resolution.</p>	<p>Email from External Relations Superintendent</p> <p>Interview with Environmental Officer</p>	<p>No written request was received during the audit period from an owner of privately owned land with regards to blast damage.</p>	NT	
Operating Conditions					
23	<p>During mining operations on site, the Proponent shall:</p> <p>(a) implement best management practice to:</p> <ul style="list-style-type: none"> • 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; <p>(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</p> <p>(c) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site,</p> <p>to the satisfaction of the Secretary.</p>	<p>WHC_CHK_MC_ENV_Blast Checklist</p> <p>&</p> <p>WHC_CHK_OC_MC_Environmental Blast Hazard Analysis</p> <p>"Environmental Blast Checklist"</p> <p>Daily risk report (see in noise)</p> <p>Internal Blast notification and Blast Clearance Plan – shows the sentries in place who also provide notification of plumes</p>	<p>The Auditor sighted blast notification and clearance plan dated 13 November 2017 for blast on 14 November 2017. This shows the Sentries were to be in place around the mine. Blast exclusion zone never overlaps with private property and only overlaps with the vegetation corridor, forest or Boggabri Coal Mine owned land – thus no impacts to livestock. There is some public access into the forest but MCCM operates an "Exclusion Use Period" sign on Leard Forest Sign at that the public entrance.</p> <p>The blast controller will complete the <i>WHC_CHK_MC_ENV_Blast Checklist</i> before each blast. The blast checklist includes conditions based on risk (Green, orange, red). It reviews the vibration, overpressure, dust and flume hazards. The checklist includes for considerations of additional controls as necessary. It also includes</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
		<p>Envirosuite - modelling system</p> <p>Email to blast SMS Global Group</p> <p>http://www.whitehavencoal.com.au/maules-creek-blast-notifications/</p> <p>Email from Boggabri to MCCM "Blast Notification #857_JE04_60_TS09_103" dated 9 March 2018 notifying of blast</p> <p>Email from Tarrawonga to MCCM "FW: Tarrawonga Scheduled Blast #763 TN18_0507_MN - 4 October 2017" - blast notification</p> <p>Interview with Environmental Officer</p>	<p>reference to enviro-suite modelling (for dust), weather conditions and blast monitors.</p> <p>The Auditor sighted an example from 6 April 2018, which included additional controls for dust hazards, including putting in place an observer at the boundary and the requirement to review the wind every hour.</p> <p>Envirosuite models the direction of dust plume and worst case flume. This is undertaken before each blast and is run on the latest weather conditions. Envirosuite also allows MCCM to monitor and view surrounding monitoring locations (from Boggabri and Tarrawonga) - this is utilised in certain weather situations to gain a broader understanding of the areas weather conditions.</p> <p>An email is sent to blast SMS Global Group with the blast information, This is then converted into text message and sent to the required parties to alert of blast. Internal personnel are on the circulation to verify the blast notification is sent out. The SMS goes to neighbours and others that have requested to receive the notification, as well as to the other surrounding mines.</p> <p>Boggabri and Tarrawonga mine representatives also receive the blast notification and clearance plans that are emailed internally at MCCM.</p> <p>Generally each mine blasts within their own blast window however, due to weather conditions or operational or safety requirements, blasts might come closer together but not at the exact same time as per the BTM Blast Strategy.</p> <p>The sites provide each other with their updated blasts schedule and plans as they become available. Blast notifications from Tarrawonga and Boggabri mines are received by the environment team and other key MCCM contacts. This is then forwarded onto dispatch and OCEs.</p> <p>The next scheduled blast is posted on the Whitehaven MCCM website.</p>		
24	<p>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"> • 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: <ul style="list-style-type: none"> ○ demonstrated to the satisfaction of the Secretary 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 ○ 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. 	<p>Blast Management Plan July 2014</p> <p>Correspondence from Forestry Corporation to MCCM dated 10 October 2017</p>	<p>There are no public roads within 500m of current MCCM activities. Prior to mid-late 2017 MCCMs blasts were not within 500m of "land outside the site". After this time, MCCM's 500m blast zone did start to encroach into the Leard Forest. It wasn't until 10 October 2017 that MCCM had in place an agreement with the Forestry Corporation accepting blasting within 500m of their lands. The agreement has since been put in place.</p> <p>MCCM acknowledged that some blasts prior to the agreement may have been within 500m of Leard Forest.</p> <p>However, there was no public access to the 500m exclusion zone, unless the public was trespassing due to occupation permits and fencing. In addition, MCCM had Sentries in place for all blast to prevent access to the blast exclusion zone.</p> <p>Agreements are now in place with all landowners that could potentially be within 500m of a blast.</p>	ANC	No further action required, as all necessary agreements are now in place.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Blast Management Plan					
25	<p>The Proponent shall prepare and implement a Blast Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be submitted to the Secretary 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"> best management practice is being employed; and compliance with the relevant conditions of this approval; <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"> compliance with the applicable criteria; and minimising fume emissions from the site; and <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>	<p>Blast Management Plan July 2014</p> <p>Blast Management Strategy For Boggabri - Tarrawonga - Maules Creek Complex July 2014</p> <p>Email correspondence from EPA "Maules Creek - Management Plans" dated 18 December 2012</p> <p>Correspondence from DP&E "Maules Creek Coal Mine - Approval of Blast Management Plan" dated 1 August 2014</p> <p>Correspondence with DP&E "RE: Blast Management Plan - Maules Creek" dated 8 June 2018</p> <p>Correspondence from DP&E RE Non-compliance recorded dated 11 August 2017</p>	<p>The EPA consultation is required by condition (b). However, the EPA stated in 2012 "we do not approve or endorse these documents as our role is to set environmental objectives....This email should meet the Project Approval consent requirements requiring consultation with the EPA".</p> <p>Condition (h) - The BMP does not include the strategy. The Blast Strategy for BMT is a separate document. MCCM advised that only one approval was given to the entire BTM complex for the BTM strategy. MCCM do not have a record of this approval.</p> <p>The BMP addresses the requirements of this condition and was approved by DP&E in August 2014.</p> <p>A revised BMP was submitted to DP&E on 8 June 2018 and is awaiting review and approval.</p> <p>DP&E issued MCCM with a non-compliance notice for a failure to notify neighbours for blast prior to the event, in August 2017.</p>	ANC	<p>Ensure approval records for all plan requiring Secretary approval are maintained.</p> <p>Ensure that all blast notifications are issued in accordance with the BMP.</p>
AIR QUALITY & GREENHOUSE GAS					
Odour					
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.	Community Complaints Register 2015, 2016, 2017, 2018	No specific complaints were received during the audit period with regard to odour from the site and no notifiable incidents during the audit period have been recorded of blast fumes leaving the site.	C	
Greenhouse Gas Emissions					
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 Secretary.	<p>EERS Submission Receipt</p> <p>NGER Section 19 - Energy and Emissions ... For the reporting year 2015-2016 & 2016-2017 - note for all sites "Whitehaven Coal Limited"</p> <p>NPI Report for 15/16 Maules Creek Coal Pty Ltd 1380 Financial Year</p> <p>Email from MCCM Mechanical Engineers "Controlling Green House Gas emissions"</p> <p>Maules Creek Coal Maintenance Schedule e.g. Week 15 Final</p> <p>Air Quality & Greenhouse Gas Management Plan March 2014</p>	<p>The largest portion of MCCMs air emissions are fugitive and relate to the removal of coal from the mine.</p> <p>MCCM runs a smaller fleet of larger trucks rather than a larger fleet of smaller trucks to minimise emissions.</p> <p>MCCM Mechanical Engineer outlined the specific engines utilised onsite that achieves 30% reduction in NOx and 65% reduction in particulate matter. The MCCM Mechanical Engineer also outlined that "[p]recision control over the number of injection events enables optimum performance and emissions compliance." MCCM also closely monitors "consumption levels to ensure maximum possible fuel economy is achieved" thus reducing emissions".</p> <p>Regularly schedule maintenance of the fleet is undertaken to ensure equipment is running efficiently.</p> <p>Other controls:</p> <ul style="list-style-type: none"> MCCM runs buses for its workforce to minimise additional vehicle emissions Internal lighting is turned off during the day <p>MCCM undertakes NGERs and NPI reporting to further monitor the sites impacts.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
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Additional Air Quality Mitigation Upon Request

28 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.

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 [Secretary](#) for resolution.

Table 8: Land subject to additional air quality mitigation measures upon request

Mitigation Basis	Land
Air	108-109, 115-116, 121-122

Note: To interpret the locations referred to in Table 8, see the applicable figure(s) in Appendix 4.

Air Quality Criteria

29 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.

Table 9: Long-term criteria for particulate matter

Pollutant	Averaging Period	^d Criterion
Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³

Table 10: Short-term criteria for particulate matter

Pollutant	Averaging Period	^d Criterion
Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³

Table 11: Long-term criteria for deposited dust

Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level
^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month

Notes to 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: 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 [Secretary](#).

'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.

Internal email from Group Manager - Community Relations and Property dated 24 June 2018

The Group Manager confirmed that no written request were received during the audit period from relevant landholders requesting air quality mitigation measures to be installed.

NT

Whitehaven Coal Maules Creek Project Environmental Monitoring for Depositional Dust, High Volume Air Samplers, Tapered Element Oscillating Microbalance (TEOM), Meteorological Data, Surface and Ground Water by CBased Environmental Ptd Limited (sighted June 2018)

2017_04_Maules Creek Air Quality Update by Cbased Environmental

MCC-CCC Meeting Minutes and Environmental Monitoring Report 2015

MCC-CCC Meeting Minutes and Environmental Monitoring Report 2016

MCC-CCC Meeting Minutes and Environmental Monitoring Report 2017 February

MCC-CCC Meeting Minutes and Environmental Monitoring Report 2017 May

MCC-CCC Meeting Minutes and Environmental Monitoring Report 2017 August

MCC-CCC Meeting Minutes and Environmental Monitoring Report November 2017

MCC-CCC Meeting Minutes and Environmental Monitoring Report February 2018

Cbased Environmental undertakes all the air, weather and water monitoring for site and produces a monthly report, which outlines exceedances, sampling methodology and all monitoring data.

Rolling annual average in the EPL monitoring is for the past 12 month period - no exceedances have been recorded against the annual averages for TSP, PM₁₀ or DD.

Exceedances against Table 10:

Exceedance on the HVAS and TEOM 1 for 15 November 2015 of approximately 76µg/m³, this is reported to be due to a regional dust event.

Exceedance on TEOM 1 on end of 31 January 2016, recorded 61.35µg/m³. An investigation was undertaken and it was determined the elevated recordings were as a result of a regional dust event and were not as a result of MCCM associated activities. These results were similar to regional recordings.

Exceedance on the HVAS at end of 29 April 2016 of 85µg/m³. An investigation into this indicated this was likely sources were from localised non-mining related activities. All other approved MCCM air quality monitoring sites on that day remained within the relevant criteria.

Exceedance on TEOM 1 on 12 February 2017 of approximately 52µg/m³, this is reportedly due to a bushfire event in the local area.

Exceedance on the HVAS on 26 November 2017, of 74 µg/m³. This was reportedly due to localised non-mining related activities, such as nearby truck movements. Results recorded at other approved MCCM air quality monitoring sites, including closer to the operation, on that day remained within the relevant Project Approval criteria.

Exceedance on TEOM1 on 15 April 2018, of 64.5 µg/m³, this is reported to be due to a regional dust event.

Exceedance on the HVAS in 7 May 2018, of 50 µg/m³. This was reportedly due to localised non-mining related activities, such as nearby stock movements. Results recorded at other approved MCCM air quality monitoring sites, including closer to the operation, on that day remained within the relevant Project Approval criteria.

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No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
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Mine-Specific Air Quality Criteria

30 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.

CCC meeting minutes

Refer above to condition 29 to all exceedances related to Table 10. However, these were all noted to be caused by non-mining related events or activities.

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Table 12: Short-term criteria for particulate matter

Pollutant	Averaging Period	Criterion
Particulate matter < 10 µm (PM ₁₀)	24 hour	50 µg/m ³

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&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.

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:

Tenancy Agreements

MCCM has in place tenancy agreements with tenants on mine owned land, which outlines to the tenant that there may be impacts from noise and dust exceeding the criteria and that health implication information can be found at NSW Mining Website (website included).
MCCM has not caused an exceedance of criteria to trigger a response to the tenants, most exceedances relate to regional events.
CCM has received no terminations of agreements and no additional mitigations measures have been requested.

C

- (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 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 [Secretary](#).

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
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Air Quality Acquisition Criteria

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 13: Long-term land acquisition criteria for particulate matter

Pollutant	Averaging period	^d Criterion
Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³

Table 14: Short-term land acquisition criteria for particulate matter

Pollutant	Averaging period	^d Criterion
Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 150 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	24 hour	^b 50 µg/m ³

Table 15: Long-term land acquisition criteria for deposited dust

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month

Notes to 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 Secretary.

Operating Conditions

33	<p>The Proponent shall:</p> <p>(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;</p> <p>(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;</p> <p>(c) manage PM2.5 levels in accordance with any requirements of an EPL;</p> <p>(d) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see note d in condition 29);</p> <p>(e) minimise any visible off-site air pollution;</p> <p>(f) minimise the surface disturbance of the site generated by the project; and</p> <p>(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 Secretary.</p>	<p>180322 CoalTrak TARPS_3.ppt Environmental Dispatch Refresher May2016 (160518)_GG_SM.ppt 150801 Pre-Start (noise).pdf BTM - Maules Creek Daily Dust Risk Forecast 1 to 4 May 2018 Independent Dust Suppression Solutions Hydrotac: method statement & Product Data Sheet from Dust-A-Side WHC_FRM_MCCM_Observation Record Email from Dispatch to Enviro "18.01.18 Dust Observation" dated 18 January 2018 (also sighted 31 August 2017) WHC-PLN-MCCM-CHPP-Spontaneous Combustion Management Plan Maules Creek Coal Mine PRP E1: Monitoring Results - Wheel Generated Dust Whitehaven Coal Limited By Pacific</p>	<p>In a similar way noise is managed, as outlined in condition 3.15, air quality is also managed by dispatch in the same manner. Dispatch are trained and undertake the responses as outlined in 180322 CoalTrak TARPS_3.ppt. Responses can include, mobilisation of water trucks, shifting dumping locations, reducing dumping heights, reducing truck speeds. Evidence that dispatch is recording and providing photos and evidence of response to dust, email 18/01/18. The weather conditions are notified to all staff at pre-start meetings. The Auditor sighted a dust risk forecast for 1 to 4 May 2018 that is broken up into day shift and night shift. Air quality issues are highlighted through toolbox talks, such as <i>Environmental Dispatch Refresher May2016 (160518)_GG_SM.ppt</i> and <i>150801 Pre-Start (noise).pdf</i>. Hydrotac (dust-a-side) is used for dust suppression on selected haul routes (high traffic) - this is managed by the Mining Supervisor and is coordinated with graders and general water carts to ensure maximum seal is achieved and maintained. WHC_FRM_MCCM_Observation Record is utilised by site personnel to record current site conditions for noise, air quality, drainage, housekeeping and controls. The Auditor was advised by CHPP Superintendent that there are sprays on the ROM bin pointed inwards, every transfer tower has sprays, all stockpiles have boom sprays which can be operated manually or set up automatically and ROM roads are regularly watered by water carts. There are also chutes above the train cart.</p>	ANC	No further action required as the predictive model is now operational and the official caution related a specific event with no ongoing air quality impacts.
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No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
		Environment dated 23 March 2016 Maules Creek Coal Mine Report on Overburden Handing in Adverse Conditions: Actions and Results Whitehaven Coal Limited by Pacific Environment dated 11 November 2015 Internal MCCM email "RE: Blast Notification - TODAY'S BLAST CANCELLED" dated 13 February 2017 Correspondence from DP&E Re Show Cause dated 14 February 2017 Correspondence from DP&E Re failure to minimise dust dated 17 February 2017 Correspondence from DP&E RE Non-compliance recorded dated 3 July 2017 Envirosuite Interview with CHPP Superintendent Site observations	<p>which captures the air pushed out of the rail cart as coal is loaded in and includes rubber flaps to ensure coal and dust is captured within the loading facility. The entire coal loading system is automated and includes industry specific profiling of coal in the carts to minimise dust. The Auditor observed various water carts in use around the site. The Auditor also observed dust-a-side being applied on haul roads. It was also observed that a water was being applied at the ROM while some material was being handled.</p> <p>The Spontaneous Combustion Management Plan outlines identification and responses for Spontaneous Combustion. This can be accessed through internal H&S portal.</p> <p>The Pacific Environment report for wheel dust states "[t]he results suggests that using water for dust suppression and dust control TARPs for operations are sufficient to maintain s dust control efficiency of 85%". Reports identifies the site is at 92%.</p> <p>The Pacific Environment report for overburden states that "dust level during adverse weather conditions suggests that peaks in PM10 concentrations are generally not related to mine operations and influenced by external factors".</p> <p>Evidence of a blasts being cancelled due to "adverse regional weather conditions (dust and smoke)" was sighted by the Auditor.</p> <p>Envirosuite enables MCCM (and other sites) to see monitoring locations and real time data and modelling from all three sites including Boggabri and Tarrawonga.</p> <p>MCCM received an Official Caution from EPA for the failure to minimise dust that was noted during a helicopter surveillance flight undertaken by EPA in April 2016.</p> <p>MCCM received a non-compliance recorded notice for failing to operate the predictive air dispersion model as required by condition (b).</p> <p>MCCM also received a show cause letter from DP&E in February 2017 with regards to the predictive real time dispersion model. A low level non-compliance was recorded for this, as issued by the DP&E on 3 July 2017.</p> <p>The predictive real time dispersion model is now in operation</p>		
Air Quality and Greenhouse Gas Management Plan					
34	The Proponent shall prepare and implement an Air Quality and Greenhouse Gas Management Plan for the project to the satisfaction of the Secretary. This plan must: <ul style="list-style-type: none"> (a) be prepared in consultation with the EPA, and be submitted to the Secretary for approval prior to the commencement of construction; (b) describe the measures that would be implemented to ensure: <ul style="list-style-type: none"> • best management practice is being employed; • the air quality impacts of the project are minimised during adverse meteorological conditions and extraordinary events; and • compliance with the relevant conditions of this consent. (c) describe the proposed air quality management system; (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 air quality monitoring; (f) include an air quality monitoring program that: 	<p>Air Quality & Greenhouse Gas Management Plan March 2014</p> <p>Air Quality Management Strategy For Boggabri - Tarrawonga - Maules Creek Complex May 2017</p> <p>Email correspondence from EPA "Maules Creek - Management Plans" dated 18 December 2012</p> <p>Correspondence from DP&E "Maules Creek Coal Mine (MP 10_0138) Approval of revised Noise and Air quality Management Plans" dated 11 March 2014</p>	<p>EPA consultation is required by condition (a). However, the EPA stated in 2012 "we do not approve or endorse these documents as our role is to set environmental objectives....This email should meet the Project Approval consent requirements requiring consultation with the EPA".</p> <p>The AQGGMP was approved by DP&E in March 2014.</p> <p>Condition (f), point 6, requires "sufficient random audit" of operational responses to real time monitoring system. Operational responses are reviewed daily as part of the process to publish these on the MCCM website with the real time data, as well as by the dispatch on an ongoing basis, refer to above condition. Responses are also reviewed monthly against the air quality criteria when compiling the monthly EPL data, quarterly in the CCC meetings and annually as part as the development of the annual returns.</p> <p>Condition (g) is satisfied by the Air Quality Strategy for BTW, which is a separate document and not included in the AQGGMP. The Air Quality Strategy was approved by DP&E in June 2017, with a</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<ul style="list-style-type: none"> uses a combination of real-time monitors and supplementary monitors to evaluate the performance of the project; adequately supports the proactive and reactive air quality management system; includes PM2.5 monitoring; 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; evaluates and reports on the effectiveness of the air quality management system; 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 on conditions 29 and 30 above; and includes a protocol for determining any exceedances of the relevant conditions in this approval; and <p>(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:</p> <ul style="list-style-type: none"> systems and processes to ensure that all mines are managed to achieve their air quality criteria; a shared environmental monitoring network and data sharing protocol; 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); 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 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). <p>Notes:</p> <ul style="list-style-type: none"> 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 stages and will need to be subject to ongoing review dependent upon the determination of and commencement of other mining projects in the area. The management plan should be consistent with the EPA's guidance on Best Management Practice reporting and Reactive Particulate Management Strategies 	<p>Correspondence from DP&E "Boggabri Tarrawonga Maules Creek Mines (BTM Complex) Provisional Approval - BTM Complex Air Quality Management Strategy" dated 6 June 2017</p> <p>Correspondence with DP&E "FW: Air Quality Greenhouse Gas Management Plan - Maules Creek" dated 5 July 2018</p>	<p>number of provisions. These provisions have been implemented by MCCM, including the submission of a revised AQGGMP within 3 months of receipt of the 6 June letter, on 29 June 2017. The revised AQGGMP was submitted on 29 September 2017.</p> <p>The AQGGMP and Air Quality Strategy for BMT address the requirements of this condition.</p> <p>A revised draft of the AQGGMP was submitted to DP&E for approval on 5 July 2018</p>		
METEOROLOGICAL MONITORING					
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> <p>(a) complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline; and</p> <p>(b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the <i>NSW Industrial Noise Policy</i>, unless a suitable alternative is approved by the Secretary following consultation with the EPA.</p>	<p>Monthly Maules Creek Met_AWS01</p> <p>Teledata - real time</p> <p>Site observations</p>	<p>The Auditor viewed the MCCM weather station in place and viewed the folders of the historical data.</p>	C	
SOIL AND WATER					
	<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>	Noted	Note	Noted	
Water Supply					
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 Secretary.</p>	<p>2015 Annual Review</p> <p>2016 Annual Review</p> <p>2017 Annual Review (draft)</p>	<p>Water Access Licences (WALs) are in place with sufficient entitlement for mining operations. Water use is monitored at the site and tracked through water balance tools. Water take records consolidated annually and reported in the Annual Reviews against permitted licence volumes.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Compensatory Water Supply					
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 DPI Water, and to the satisfaction of the Secretary.</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 Secretary 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 Secretary.</p>	Interview with Environmental Superintendent	No requests for compensatory water supply have been received by MCCM.	NT	
Surface Water Discharges					
38	<p>The Proponent shall ensure that any surface water discharges of mine water from the site:</p> <p>(a) are of equal or better quality than the receiving waters; and</p> <p>(b) comply with the discharge limits (both volume and quality) set for the project in any EPL.</p> <p><i>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.</i></p>	<p>2015 Annual Review</p> <p>2016 Annual Review</p> <p>2017 Annual Review (draft)</p> <p>Interview with Environmental Superintendent</p>	No non-compliant surface water discharges were reported in the Annual Reviews and none were reported for the first six month of 2018.	C	
Operating Conditions					
39	<p>The Proponent shall:</p> <p>(a) develop a detailed soil management protocol that identifies procedures for:</p> <ul style="list-style-type: none"> • comprehensive soil surveys prior to soil stripping; • assessment of top-soil and sub-soil suitability for mine rehabilitation; and • annual soil balances to manage soil handling including direct respreading and stockpiling; <p>(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;</p> <p>(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;</p> <p>(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</p> <p>(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.</p>	<p>Mining Operations Plan 1 December 2017</p> <p>Land Disturbance Protocol Form no. 21801</p> <p>Maules Creek Coal Project: Progressive Report 2018. Soil Survey & Growth Media Inventory for Rehabilitation by Landloch dated 12 March 2018</p> <p>Social Recovery 2017 - TSR AREA by Landloch</p> <p>Maules Creek Coal Operational Clearance 2017 for Whitehaven Coal may 2017 by Cumberland Ecology</p> <p>NSW Resources Regulator Compliance Audit Program Maules Creek Coal Mine dated June 2018 (draft)</p> <p>Salvage Item location map</p> <p>Site observations</p>	<p>The MOP includes WHC_PRO_MC_Soil Management Protocol dated October 2015.</p> <p>Land disturbance permit (LDP), sighted for "Undertake Clearing for 2018 Pit and Overburden Development" dated 14 February 2018, which includes requirements for soil management, including "Landloch conducted a soil survey across the 2018 clearing areas from the 6th to 7th February 2018".</p> <p>Landloch provides a report on detailed management of soils that includes a toolbox presentation on each area and the required stripping depths for recovery of topsoil and subsoil.</p> <p>The NSW Resource Regulator also reviewed soil management in their audit with regard to the above clearing and where satisfied with soil management practices employed by the site (refer MOP section, page 10).</p> <p>Cumberland Ecology undertakes a pre-clearance survey and physically marks trees and salvage items, for example in 2017 this included the identification and marking of 344 habitat items.</p> <p>MCCM maintains a GIS log of where habitat features are stored around the site.</p> <p>The Auditor observed various topsoil and subsoil stockpiles around the site, as well as large trees stockpiled for reinstatement as habitat features.</p> <p>Condition (d), site drainage plans are developed for each out of pit emplacement area with associated controls to stop water draining to a watercourse or land beyond the lease boundary. This is a requirement of the land disturbance permits and an example of a site drainage plan was viewed during the site visit. Earth bund located down gradient and to the north of the northern OEA that serves this purpose viewed during site inspection.</p> <p>Condition (e), a final void and mine closure plan will be developed that addresses this condition (due for submission to the DP&E in December 2020).</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Water Management Plan					
40	<p>The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must be prepared in consultation with OEHL, DPI Water and North West LLS, by suitably qualified and experienced person/s whose appointment has been approved by the Secretary, and be submitted to the Secretary for approval prior to the commencement of construction.</p> <p>In addition to the standard requirements for management plans (see condition 3 of schedule 5), this plan must include:</p> <p>(a) a <u>Site Water Balance</u>, that:</p> <ul style="list-style-type: none"> • includes details of: <ul style="list-style-type: none"> ○ sources and security of water supply, including contingency for future reporting periods; ○ water use on site; ○ water management on site; ○ any off-site water discharges; ○ reporting procedures, including the preparation of a site water balance for each calendar year; ○ a program to validate the surface water model, including monitoring discharge volumes from the site and comparison of monitoring results with modelled predictions; and • describes the measures that would be implemented to minimise clean water use on site; <p>(b) a <u>Surface Water Management Plan</u>, which includes:</p> <ul style="list-style-type: none"> • detailed baseline data on surface water flows and quality in the water-bodies that could potentially be affected by the project; • detailed baseline data on hydrology across the downstream drainage system of the Namoi River floodplain from the mine site to the Namoi River; • a detailed description of the water management system on site, including the: <ul style="list-style-type: none"> ○ clean water diversion systems; ○ erosion and sediment controls (dirty water system); ○ mine water management systems; ○ discharge limits in accordance with EPL requirements; ○ water storages; ○ mine access road and Maules Creek rail spur line; • detailed plans, including design objectives and performance criteria for: <ul style="list-style-type: none"> ○ design and management of final voids; ○ design and management for the emplacement of reject materials, sodic and dispersible soils and acid or sulphate generating materials; ○ design and management for construction and operation of the rail spur line and mine access road; ○ reinstatement of drainage lines on the rehabilitated areas of the site; and ○ control of any potential water pollution from the rehabilitated areas of the site; • performance criteria for the following, including trigger levels for investigating any potentially adverse impacts associated with the project: <ul style="list-style-type: none"> ○ the water management system; ○ downstream surface water quality; ○ 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 ○ stream and riparian vegetation health, including the Namoi River; • a program to monitor: <ul style="list-style-type: none"> ○ the effectiveness of the water management system; and ○ surface water flows and quality in the watercourses that could be affected by the project; 	<p>Water Management Plan March 2014</p> <p>Correspondence from DP&E "Maules Creek Coal Mine (MP 10_0138) Approval of revised Water Management Plan" dated 17 April 2014</p> <p>Correspondence with DP&E "MCC WMP" dated 8 June 2018</p>	<p>The latest approved version of the Water Management Plan (WMP) is dated 31/03/2014. The plan was developed in consultation with the relevant government agencies as described in the WMP and was approved in April 2014.</p> <p>This WMP has been revised to reflect changes in water management activities along with changes to monitoring points approved with EPL No 20221 and the updated version is currently in draft form awaiting approval from the DP&E.</p> <p>Given that the latest approved version of the WMP is the 2014 document, the conditions were audited against the 2014 WMP along with water management practices observed during the site inspection.</p> <p>(a) The WMP includes a site water balance that contains required details. Site water balance spreadsheets further viewed during site inspection and inputs to the spreadsheets as well as controls on the accuracy of measurements (such as flow meter calibration certificates) viewed during site inspection.</p> <p>(b) The WMP includes a surface water management plan with required details. While the section references for "discharge limits in accordance with EPL requirements" in Table 2.3 of the WMP appear incorrect ERM note that this has been corrected in the updated draft.</p> <p>(c) The WMP includes a groundwater management with required details. Note that some of the chemistry baseline data have been affected by some monitoring bores being installed in exploration bores that were cement grouted as described in the WMP. From site discussions ERM understand that following further development of these bores the impact of cement grout (as indicated by elevated pH) has become less pronounced.</p> <p>(d) A draft water management strategy for the BTM complex has been prepared in consultation with the two other mines in the Leard Forest Mining Precinct (Boggabri and Tarrawonga Coal Mines) and this plan has been submitted to the DP&E in June 2018.</p> <p>A revised WMP was submitted to DP&E in late 2016 and another version on 8 June 2018 and is awaiting approval.</p> <p>The Auditor considers this condition compliant.</p>	<p>C Obs</p>	<p>MCCM should follow-up with DP&E to achieve approval of the WMP to satisfy Condition 48(b).</p> <p>For the groundwater chemistry baseline, the Auditor suggests that MCCM consider undertaking a consolidated review and assessment of available baseline data. This review should include consideration (and potential exclusion) of data that may have been affected by elevated pH in cement grouted bores. Outputs of the assessment should include descriptive statistics of baseline chemistry data and evaluation of temporal trends and potential seasonal variation.</p>

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<ul style="list-style-type: none"> ○ downstream flooding impacts; and • reporting procedures for the results of the monitoring program; • 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 <p>(c) a <u>Groundwater Management Plan</u>, which includes:</p> <ul style="list-style-type: none"> • 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; • the monitoring and testing requirements specified in the PAC recommendations for groundwater management as set out in Appendix 6; • detailed plans, including design objectives and performance criteria, for the design and management of: <ul style="list-style-type: none"> ○ the proposed final void; and ○ coal reject and potential acid forming material emplacement; • groundwater assessment criteria including trigger levels for investigating any potentially adverse groundwater impacts; • a program to monitor and assess: <ul style="list-style-type: none"> ○ groundwater inflows to the open cut mining operations; ○ the seepage/leachate from water storages, emplacements, backfilled voids and the final void; ○ interconnectivity between the alluvial and bedrock aquifers; ○ background changes in groundwater yield/quality against mine-induced changes; ○ the impacts of the project on: <ul style="list-style-type: none"> - regional and local (including alluvial) aquifers; - groundwater supply of potentially affected landowners; - groundwater dependent ecosystems (including potential impacts on stygo-fauna and Melaleuca riparian forest communities) and riparian vegetation; • 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 • a plan to respond to any exceedances of the performance criteria; and <p>(d) a <u>Leard Forest Mining Precinct Water Management Strategy</u> that has been prepared in consultation with other mines within the Precinct to:</p> <ul style="list-style-type: none"> • minimise the cumulative water quality impacts of the mines; • review opportunities for water sharing/water transfers between mines; • co-ordinate water quality monitoring programs as far as practicable; • undertake joint investigations/studies in relation to complaints/exceedances of trigger levels where cumulative impacts are considered likely; and • co-ordinate modelling programs for validation, re-calibration and re-running of the groundwater and surface water models using approved mine operation plans. 				

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 area.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
BIODIVERSITY					
Leard Forest Mining Precinct Regional Biodiversity Strategy					
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 co-ordinated 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 Secretary, in the following stages:</p> <p><u>Stage 1 – Scoping Stage</u></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 Secretary. The Secretary may extend this period with the agreement of OEH. The scoping report must:</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><i>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.</i></p> <p><u>Stage 2 – Strategy Development</u></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 Secretary. The Secretary may extend this period with agreement of OEH.</p> <p><u>Stage 3 – Strategy Review</u></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 Secretary. Any modifications to the Strategy arising from the review must be endorsed by OEH prior to approval by the Secretary</p>	<p>Correspondence from DPE to MCCM “Maules Creek Coal Mine – Approval Regional Biodiversity Strategy” dated 1 September 2017</p> <p>Leard Forest Regional Biodiversity Strategy Stage 2 – Strategy Report Final dated August 2017</p>	<p>Stage 1 is outside the audit period.</p> <p>Stage 2 – the Biodiversity strategy was approved by the DP&E in September 2017.</p> <p>Stage 3 is due in December 2018.</p>	C	
42	<p>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, North West LLS, Council and DoEE 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 Secretary.</p>	<p>DP&E Leard Forest Regional Biodiversity Strategy Stage 1 – Scoping Report</p>	<p>The Stage 1 Scoping report outlines that the strategy will be developed with the working group that includes:</p> <ul style="list-style-type: none"> Independent Chairperson Members of the Steering Group (DPE, OEH, DoE, BTM complex reps) Resources and Energy Forestry Corporation of NSE North West Local Land Servicers Narrabri Shire Council <p>Working group was convened by DP&E and fulfilled – Review Working Group evidence – first meeting held 21st March 2015 (outside audit period). Agenda notes that Stage 1 and Stage 2 is to be discussed at the meeting. Attendees include OEH, BTM Representatives and RBS Consultants.</p> <p>As per above condition the DP&E approved the Stage 2 strategy and noted that it was prepared in accordance with condition 41, as such the necessary consultation was undertaken.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
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><i>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</i></p>	<p>DP&E Leard Forest Regional Biodiversity Strategy Stage 1 – Scoping Report</p> <p>Leard Forest Regional Biodiversity Strategy Stage 2 – Strategy Report Final dated August 2017</p> <p>DP&E correspondence “Leard Forest Strategy Recovery Costs” dated 11 January 2018</p> <p>DP&E Tax Invoice dated 15 February 2018</p> <p>Pulse – accounting system</p>	<p>The scoping report identifies that all stages of the project are split in accordance with the percentages of this condition.</p> <p>The Auditor viewed correspondence from DP&E showing breakdown of stage 2 costs, tax invoice and pulse records that showed order history for payment to the DP&E for Stage 2 of Biodiversity Strategy.</p>	C	
Biodiversity Offset Strategy					
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 Secretary.</p> <p><i>Table 16: Summary of the Biodiversity Offset Strategy below.</i></p>	<p>Revised New South Wales Biodiversity Offset Strategy August 2015</p> <p>Maules Creek Independent Biodiversity Audit by ERM dated 3 April 2018</p> <p>2015 Annual Review</p> <p>2016 Annual Review</p> <p>2017 Annual Review (draft)</p>	<p>The offset requirements of the CoA and the Biodiversity Offset Areas (BOAs) are managed by WHC Group – Biodiversity and not by MCCM.</p> <p>The Independent Biodiversity Audit (IBA) is the formal method to demonstrate implementation of the biodiversity management plan. The IBA did not identify any non-compliances or observations.</p> <p>The Annual Reviews include details around offset security management, infrastructure management, seed management, revegetation management, weed management, feral animals management, soil & erosion management, grazing management, bushfire management, results of the monitoring program for the various BOAs.</p>	C	

Table 16: Summary of the Biodiversity Offset Strategy

Area	Offset Type	Minimum Size (hectares)
Northern Offset Area currently owned or under option by Proponent	Existing native woodland / forest of 4,286 ha to be protected and enhanced. Additional native vegetation to be established with the restoration of at least 1,470 ha of derived native grassland including 1,396 ha of derived native grassland Box Gum Woodland EEC as listed under the TSC Act. Additional targeted restoration of up to 58 ha of low diversity derived native grassland, pasture improved and cultivated land to provide buffer to offset and connectivity between remnant vegetation. Note: the final area of restoration of low diversity derived native grassland, pasture improved and cultivated land is subject to completion of the revised offset strategy required in condition 45.	5,756
Eastern Offset Area currently owned or under option by Proponent	Existing native woodland / forest of 190 ha to be protected and enhanced. Additional targeted restoration of up to 319 ha of adjacent low diversity derived native grassland, pasture improved and cultivated land to provide buffer to offset and connectivity between remnant vegetation. Note: the final area of restoration of low diversity derived native grassland, pasture improved and cultivated land is subject to completion of the revised offset strategy required in condition 45	190
Western Offset Area including 50% Joint Venture property currently owned or under option by Proponent	Existing native woodland / forest of 891 ha to be protected and enhanced. Additional native vegetation to be established with the restoration of at least 148 ha of derived native grassland including 90 ha of derived native grassland Box Gum Woodland EEC as listed under the TSC Act and existing 7ha of Belah Woodland on property 'Velyama' to be enhanced with restoration of at least 5ha of surrounding derived native grassland to Belah Woodland. Additional targeted restoration of up to 368 ha of adjacent low diversity derived native grassland, pasture improved and cultivated land to provide buffer to offset and connectivity between remnant vegetation. Note: the final area of restoration of low diversity derived native grassland, pasture improved and cultivated land is subject to completion of the revised offset strategy required in condition 45.	1,039
Eastern Offset Area identified in the zone of affectation	Existing native woodland / forest of 336 ha to be protected and enhanced. Additional targeted restoration of 768 ha of adjacent low diversity derived native grassland, pasture improved and cultivated land to provide buffer to offset and connectivity between remnant vegetation. Note: the final area of restoration of low diversity derived native grassland, pasture improved and cultivated land is subject to completion of the revised offset strategy required in condition 45	336
Western Offset Area identified in the zone of affectation	Existing native woodland / forest of 343 ha to be protected and enhanced. Additional targeted restoration of 156 ha of adjacent low diversity derived native grassland, pasture improved and cultivated land to provide buffer to offset and connectivity between remnant vegetation. Note: the final area of restoration of low diversity derived native grassland, pasture improved and cultivated land is subject to completion of the revised offset strategy required in condition 45	343

Area	Offset Type	Minimum Size (hectares)
Additional offset areas required to be included by the Proponent	Additional remnant native vegetation of moderate to good condition native forest / woodland and derived native grassland to provide habitat for impacted threatened species, targeting EEC or highly cleared vegetation communities impacted by the project. Note: Location and type of offset subject to final approval as part of revised Biodiversity Strategy to be prepared by Proponent under condition 45.	1,000
Rehabilitation Area	Except for the area of the minimised final void, pre-mining native vegetation communities to be re-established (including 544 ha of Box Gum Woodland EEC) for a biodiversity conservation land use objective, with the area subject to finalisation of the rehabilitation management plan as required under this approval. Note: the final mix and area of native vegetation communities is subject to the approved Biodiversity Management Plan.	2,078 (less the area of the minimised void approved under the closure plan required under this approval)

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
45	<p>The Proponent shall prepare and implement a revised biodiversity offset strategy for the identified offset areas in Table 16 to the satisfaction of the Secretary. The revised Strategy must:</p> <p>(a) not reduce the size or quality of the proposed offset areas;</p> <p>(b) be consistent (as far as is possible) with the recommendations and objectives of the Leard Forest Mining Precinct Regional Biodiversity Strategy;</p> <p>(c) be prepared in consultation with OEH, North West LLS, CCC, DPI Lands and DoEE;</p> <p>(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;</p> <p>(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;</p> <p>(f) avoid inclusion of any strategic agricultural land (as defined in the final <i>New England North West Strategic Regional Land Use Plan</i>) in the offset areas, unless it is demonstrated that the inclusion would not have any adverse impacts on agricultural production;</p> <p>(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</p> <p>(h) be submitted to the Secretary 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 Secretary.</p>	<p>Revised New South Wales Biodiversity Offset Strategy August 2015</p> <p>Leard Forest Regional Biodiversity Strategy Stage 2 – Strategy Report Final August 2017</p> <p>Correspondence from DP&E “Maules Creek Coal Mine – Approval Revised Biodiversity Offset Strategy” dated 27 October 2015</p> <p>Correspondence with relevant agencies in March 2015</p>	<p>Condition (b) requires alignment of the BOS with the BTM Biodiversity Strategy. At the time of the BOS the BTM strategy was not yet fully developed and therefore not able to completely consistent. However the BTM strategy is now developed and the BOS has not been updated in ensure consistency.</p> <p>Consultation of the plan was undertaken in accordance with condition (c). The Auditor sighted consultation correspondence with the relevant agencies providing the BOS for review in March 2015.</p> <p>Submission of the BOS within 30 months of the date of approval, as required by condition (h), was found to be compliant in the 2015 IEA.</p> <p>The BOS satisfies conditions (a), (c) to (g).</p> <p>The revised BOS was approved by DP&E on 27 October 2015.</p>	ANC	There is an opportunity to update the BOS to ensure the consistency as required by condition (b).
Agricultural Production in Offset Areas					
46	<p>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:</p> <p>(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</p> <p>(b) maintain the agricultural productivity of the surplus areas.</p>	<p>Biodiversity Management Plan 12 April 2017</p>	<p>The BMP includes reference to an Agricultural Suitability Assessment undertaken in January 2015 by McKenzie Soil Management Pty Ltd.</p> <p>Refer to CoA conditions 75 and 76, whereby MCCM maintains agriculture on surplus areas.</p>	C	
Vegetated Corridor between Boggabri and Maules Creek Coal Projects					
47	<p>For the vegetated buffer corridor required to be retained and protected under condition 7 of schedule 2 of this approval, the Proponent shall:</p> <p>(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</p> <p>(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 Secretary.</p>	<p>Biodiversity Management Plan 12 April 2017</p> <p>Biodiversity Corridor Plan May 2013</p> <p>Land Disturbance Protocol Form no. 21801</p> <p>Minutes of the BTM Environmental Monthly Meeting September 2015, June 2016, January 2017, April 2018</p> <p>Site observations</p>	<p>The Auditor observed the vegetated corridor maintained between MCCM and Boggabri.</p> <p>BCP includes controls weed management, pest control, fencing along the boundary between MCCM and corridor.</p> <p>Land disturbance permit (LDP), sighted for “Undertake Clearing for 2018 Pit and Overburden Development” which includes requirements for:</p> <ul style="list-style-type: none"> • Pegging and delineation of mine clearance area near the corridor. • Preclearance survey (flora & fauna) • Habitat tree identification • Fauna relocation • Weed management • ESC • Soil management <p>LDP mapping clearly identifies the corridor as “No Disturbance Zone”</p> <p>The BMP outlines controls measures such as clearly marking the limits of clearing, feral animal and weed control and restricting vehicle and pedestrian traffic.</p> <p>The corridor is a permanent agenda item for discussion at the BTM monthly environmental meetings.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Threatened Species					
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 North West LLS, 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 Secretary; and (d) incorporate the approved implementation plan into the revised Biodiversity Management Plan, required under condition 52.	White-Box Yellow-Box Blakely's Red-Gum Woodland Endangered Ecological Community Implementation Plan January 2015 Correspondence from MCCM to OEH and NWLLS “Maules Creek Coal Mine – Investigation and Implementation Plans” dated 1 October 2012 (typo should read 2014) Correspondence from DP&E “Maules Creek Coal Mine – Approval Box Gum Woodland and Threatened Fauna Implementation Plans” dated 14 January 2015	The BOS and RMP both are focussed on these threatened species. In accordance with condition (b) consultation was undertaken with OEH and NWLLS in October 2014. In accordance with condition (c) approval of the plan was received from DP&E on 14 January 2015. (d) BMP doesn’t include the entire Implementation Plan but does include Appendix B Reconciliation Of The Biodiversity Management Plan Against the... MCCM Box-Gum Woodland Endangered Ecological Community Implementation Plan”. The Auditor is satisfied that this complies with the intent of the condition.	C	
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. <i>Note: the threatened fauna species on site include: Regent Honeyeater, Fork Tailed Swift, White Throated Needletail, 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 Pipistrelle, Greater Long-eared Bat, Yellow-bellied Sheath Tail Bat, Eastern Cave Bat, Eastern Bent-wing Bat, Little Pied Bat and Koala.</i>	Revised New South Wales Biodiversity Offset Strategy August 2015 Biodiversity Management Plan 12 April 2017	While it was noted by the Auditor that the BOS does not necessarily list out all the species identified in the condition. The BOS instead looks to address the protection and promotion of the habitat associated with any impacted listed species verses the species themselves. The Auditor is satisfied that this complies with the intent of the condition.	C	
50	The Proponent shall: (a) investigate, in consultation with OEH and the North West LLS, 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 Secretary; and (c) incorporate the approved implementation plan into the revised Biodiversity Management Plan, required under condition 52. <i>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.</i>	Threatened Fauna Implementation Plan January 2015 Correspondence from MCCM to OEH and NWLLS “Maules Creek Coal Mine – Investigation and Implementation Plans” dated 1 October 2012 (typo should read 2014) Correspondence from DP&E “Maules Creek Coal Mine – Approval Box Gum Woodland and Threatened Fauna Implementation Plans” dated 14 January 2015	In accordance with condition (a) consultation was undertaken with OEH and NWLLS in October 2014. Approval was granted to the implementation plan in January 2015, this is in accordance with the requirements of condition (b). (c) BMP doesn’t include the entire Implementation Plan but does include Appendix B Reconciliation Of The Biodiversity Management Plan Against The MCCM Threatened Fauna Implementation Plan...” The Auditor is satisfied that this complies with the intent of the condition.	C	
Aquatic Habitat					
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 Secretary.	Interview with Environmental Officer	No permanent water pump has been installed by MCCM at the Namoi River, therefore this condition has not been triggered. However, MCCM has in a place a temporary point at the Namoi River. While Tthe current temporary pump includes a steel mesh cover over the pump to prevent fish ingress and the intake sits mid-stream to prevent bed intake, consultation with DPI Fisheries of the design of this station and screen has not been undertaken	NT Obs	MCCM should consider engaging with DPI Fisheries to ensure the temporary pump station is satisfactory to align with the intent of this condition.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Biodiversity Management Plan					
52	<p>The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with OEHL, DoEE, CCC, and the North West LLS, and be submitted to the Secretary for approval prior to commencement of construction;</p> <p>(b) describe how the implementation of the biodiversity offset strategy would be integrated with the overall rehabilitation of the site;</p> <p>(c) describe the short, medium, and long term measures that would be implemented to:</p> <ul style="list-style-type: none"> • 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; <p>(d) include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary);</p> <p>(e) include a detailed description of the measures that would be implemented including the procedures to be implemented for:</p> <ul style="list-style-type: none"> • 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; • 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; • collecting and propagating seed; • minimising the impacts on fauna on site, including undertaking pre-clearance surveys; • 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; • managing any potential conflicts between the proposed restoration works in the biodiversity areas and any Aboriginal heritage values (both cultural and archaeological); • managing salinity; • controlling weeds and feral pests; • controlling erosion; • managing grazing and agriculture on site, including detailed assessment of the suitability of grazing for conservation management outcomes; • controlling access; and • bushfire management; <p>(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;</p> <p>(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</p> <p>(h) include details of who would be responsible for monitoring, reviewing, and implementing the plan.</p> <p><i>Note: The Biodiversity Management Plan and Rehabilitation Management Plan need to be substantially integrated for achieving biodiversity objectives for the rehabilitated mine-site.</i></p>	<p>Biodiversity Management Plan 12 April 2017</p> <p>Correspondence from DP&E “Maules Creek Coal Mine – Approval Revised Biodiversity Management Plan” dated 26 April 2017</p> <p>Correspondence with relevant agencies in December 2012</p>	<p>Consultation of the plan was undertaken in accordance with condition (a). The Auditor sighted consultation correspondence with the relevant agencies providing the BMP for review in December 2012.</p> <p>The initial document was submitted prior to construction.</p> <p>DP&E approved the current BMP in April 2017.</p> <p>The BMP addresses all requirements of this condition.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
53	<p>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:</p> <p>(a) be prepared in consultation with OEH, DoEE, Forests NSW, DPI Lands, the CCC and the North West LLS;</p> <p>(b) demonstrate consistency with the findings of Leard Forest Mining Precinct Regional Biodiversity Strategy; and</p> <p>(c) include any implementation plans arising from the studies required under conditions 48 and 50 of this approval, to the satisfaction of the Secretary.</p>	<p>Biodiversity Management Plan 12 April 2017</p> <p>Correspondence with relevant agencies in March 2015</p>	<p>The BMP outlines that the revised BMP was submitted in March 2015 in accordance with this condition. Consultation of the plan was undertaken in accordance with condition (a). The Auditor sighted consultation correspondence with the relevant agencies providing the revised BMP for review in March 2015.</p>	C	
Long Term Security of Offset					
54	<p>The Proponent shall make suitable arrangements to provide appropriate long-term security for the offset areas:</p> <p>(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:</p> <ul style="list-style-type: none"> the Proponent entering into a conservation agreement or agreements pursuant to section 69B of the <i>National Parks and Wildlife Act 1974</i>, 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 <i>National Parks and Wildlife Act 1974</i>; or a tenure of higher conservation status such as a National Park, or Nature Reserve, under the <i>National Parks and Wildlife Act 1974</i>, <p>The conservation agreement(s) must be registered by December 2014 unless agreed otherwise by the Secretary after consultation with OEH. The conservation agreements must remain in force in perpetuity;</p> <p>(b) within 12 months of the approval of Stage 2 of the Leard Forest Mining Precinct Regional Biodiversity Strategy, unless otherwise agreed by the Secretary, for the offsets in Table 16 identified as subject to final approval as part of the revised Biodiversity Offset Strategy; and</p> <p>(c) by the end of December 2034, unless otherwise agreed by the Secretary, for the Rehabilitation Area identified in Table 16, to the satisfaction of the Secretary.</p>	<p>Maules Creek Independent Biodiversity Audit by ERM dated 3 April 2018</p>	<p>This was reviewed as part of the IBA, which states “...that long-term security of the NSW offset has commenced with Voluntary Conservation Agreement applications being submitted to Office of Environmental and Heritage... WHC has commenced negotiations with NPWS, OEH and DPE regarding transfer of Offset Area lands...”</p>	C	
Conservation Bond					
55	<p>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:</p> <p>(a) calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and</p> <p>(b) employing a suitably qualified quantity surveyor to verify the calculated costs to the satisfaction of the Secretary.</p> <p>If the offset strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Secretary, the Secretary will release the bond.</p> <p>If the offset strategy is not completed generally in accordance with the completion criteria in the Biodiversity Management Plan, the Secretary will call in all or part of the conservation bond, and arrange for the satisfactory completion of the relevant works.</p> <p>With the agreement of the Secretary, this bond may be combined with rehabilitation security deposit administered by DRE.</p> <p><i>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.</i></p>	<p>Maules Creek Independent Biodiversity Audit by ERM dated 3 April 2018</p> <p>Correspondence from DP&E “Whitehaven Coal Limited Conservation Bond” dated 28 March 2018</p> <p>Correspondence from DP&E “Whitehaven Coal endorsement of Quantity Surveyor – Whitehaven Offset Areas” dated 3 April 2018</p> <p>Correspondence to DP&E from WHC on 19 July 2018</p>	<p>This was reviewed as part of the IBA, which states “WHC have provided evidence of submission of a conservation Bond spreadsheet including calculation of the MCCM Offset Bond value...to DPE on 13th February 2018. DPE responded with questions on 7th March 2018 with WHC answering on 9th March 2018”</p> <p>On 28 March 2018, DP&E accepted the calculations put forward by WHC with regards to the bond.</p> <p>On 4 April 2018, DP&E endorsed the quantity surveyor that undertook the bond calculations.</p> <p>WHC submitted the lodgement forms with DP&E on 19 July 2018 and is awaiting a response.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Biodiversity Audit					
56	<p>By the end of December 2017 and then every 5 years, unless the Secretary agrees otherwise, the Proponent shall commission suitably qualified, experienced and independent person/s, whose appointment has been approved by the Secretary, 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 Secretary. This audit must:</p> <p>(a) include consultation with OEH, North West LLS, DPI Lands, DoEE, CCC and DRE;</p> <p>(b) assess the performance of the revegetation in the rehabilitation area completed to date against the completion criteria in the Rehabilitation Management Plan;</p> <p>(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;</p> <p>(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</p> <p>(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.</p> <p>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 DoEE, and to the satisfaction of the Secretary.</p>	<p>Maules Creek Independent Biodiversity Audit by ERM dated 3 April 2018</p> <p>Interview with Group Manager - Approvals and Biodiversity</p>	<p>The IBA was undertaken in March 2018 and addresses each of the requirements of condition 56.</p> <p>The IBA makes a number of suggestions, MCCM advised the following progress has occurred with regards to these:</p> <ul style="list-style-type: none"> further works are being undertaken to meet additional EPBC offset areas requirements including the drafting of a revised BOS for provision to DoEE for approval; the introduction of salvaged habitat resources into offset areas has been integrated into work plans; a register for erosion areas incorporating the Teston North quarry has been developed; and additional monitoring effort for threatened flora species (Pomaderris/Tylophora) has been planned to be completed by the end of 2018. 	C	
HERITAGE					
Aboriginal Heritage Conservation Strategy					
57	<p>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 Secretary. 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:</p> <p>(a) be prepared by suitably qualified and experienced person/s whose appointment has been endorsed by the Secretary;</p> <p>(b) be prepared in consultation with OEH, the local Aboriginal community and other mines within the Leard Forest Mining Precinct, and submitted to the Secretary for approval within 18 months from the date of project approval;</p> <p>(c) identify the Aboriginal cultural heritage values of the Biodiversity Offset Strategy areas;</p> <p>(d) identify areas of high Aboriginal cultural heritage significance within both the site and the Leard Forest Mining Precinct;</p> <p>(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</p> <p>(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.</p> <p><i>Notes: Known Aboriginal sites are shown on the plans in Appendix 8.</i></p>	<p>Aboriginal Heritage Conservation Strategy: Maules Creek Coal Mine, Tarrawonga Coal Project, Boggabri Coal Mine, and Related Biodiversity Offset Areas October 2016</p> <p>Correspondence from DP&E to MCCM "Maules Creek Coal Mine - Approval Aboriginal Heritage Conservation Strategy" dated 10 November 2017</p> <p>2015 Independent Environmental Audit</p> <p>Maules Creek Coal Pty Limited by SMEC dated 22 August 2016</p>	<p>The Aboriginal Heritage Conservation Strategy, prepared by Whincop Archaeology (formerly Matthew Whincop of University of Queensland Cultural Heritage Unit).</p> <p>The required consultation has been undertaken. Original preparation, submission and approval is outside of the audit period. The previous 2015 IEA notes this as compliant.</p> <p>DP&E provided approval in November 2017 of the current AHCS. The AHCS addresses the elements of condition 57.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Heritage Management Plan					
58	<p>The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared by suitably qualified and experienced person/s whose appointment has been endorsed by the Secretary;</p> <p>(b) be prepared in consultation with the OEH, North West LLS and the local Aboriginal stakeholders (in relation to the management of Aboriginal heritage values);</p> <p>(c) be submitted to the Secretary for approval prior to any development that may impact heritage items, unless the Secretary agrees otherwise;</p> <p>(d) include the following for the management of Aboriginal heritage:</p> <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> ○ sub-surface testing; ○ staged salvage, based on anticipated mine planning; ○ if relevant, historic heritage salvage at the Lawler’s Waterhole site; ○ pre-disturbance monitoring; ○ site assessment and reporting; ○ research objectives to inform knowledge of Aboriginal occupation; ○ protection, storage and management of salvaged Aboriginal objects; ○ addressing relevant statutory requirements under the <i>National Parks and Wildlife Act 1974</i>; and ○ long term protection of salvaged Aboriginal objects; • a description of the measures that would be implemented for: <ul style="list-style-type: none"> ○ protecting, monitoring and managing Aboriginal sites on the site which are outside of the approved disturbance area; ○ maintaining and managing reasonable access for Aboriginal stakeholders to heritage items on the site and within the Biodiversity Offset Strategy areas; ○ 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; ○ 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; ○ 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; <p>(e) include the following for the management of historic heritage:</p> <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> ○ managing the discovery of human remains or previously unidentified heritage items on site; and ○ 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. 	<p>Aboriginal Archaeology And Cultural Heritage Management Plan March 2017</p> <p>Correspondence from DP&E “Maules Creek Coal 10_0138 Aboriginal Cultural Heritage Management Plan Approval” dated 16 March 2017</p> <p>Historic Heritage Management Plan (Draft) 2018</p> <p>Email correspondence between DP&E and MCCM “Historic Heritage Management Plan – Maules Creek” in June 2018</p> <p>Cottage and Woolshed, Therribri Road, Harparary Desktop Heritage Assessment by Niche Environment and Heritage dated 3 November 2016</p> <p>WHC_FRMMCC_Observation Record for “Maintenance at Graveyard” dated 9 August 2017</p> <p>Site Visit Record Inspection No. CM024 dated 13 April 2015</p> <p>Site Observations</p>	<p>MCCM has prepared an AACHMP most recently updated March 2017 and prepared by Whincop Archaeology. This plan responds to Condition 58 (a) to (d). The AACHMP was approved by DP&E in March 2017.</p> <p>The AACHMP addresses the requirements of the relevant conditions and is considered compliant.</p> <p>The AACHMP addresses the requirements with regards to Lawler’s well or waterhole.</p> <p>A separate Historic Heritage Management Plan responds to Condition 58e. The HHMP was originally submitted to DP&E in May 2017 and re-submitted June 2018 in response to comments and is awaiting approval.</p> <p>MCCM is operating against and implementing the draft HHMP in the absence of approval by the Secretary.</p> <p>The draft HHMP address the requirements of the relevant conditions and is considered compliant.</p> <p>Evidence of fencing observed around identified heritage items.</p> <p>Evidence of inspections, assessment and maintenance records were sighted by the Auditor.</p>	C Obs	MCCM should follow-up with DP&E to achieve approval of the HHMP to satisfy Condition 58e.
<p><i>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 Secretary’s approval of the Aboriginal Heritage Conservation Strategy.</i></p>					

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
TRANSPORT					
Road Upgrade and Maintenance					
<i>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.</i>					
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 Secretary . <i>Note: all costs should be shared on an equitable basis with the proponent of the Boggabri Coal Project.</i>	Major Works Authorisation Deed – Private Financing and Construction	The Auditor reviewed the executed Major Works Authorisation Deed – Private Financing and Construction between RMS and Boggabri Coal Pty Ltd, signed by Director of Boggabri Coal and RMS November 2013. The Auditor also sighted Project Development Agreement for the Development and Construction of Boggabri-Maules Creek Rail Spur, Boggabri Rail Spur and Maules Creek Rail Spur which details contribution of costs and executed by all parties 8 October 2013.	C	
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. <i>Note: Any upgrades should be undertaken on an equitable basis with the proponent of the Boggabri Coal Project.</i>	Maules Creek Coal Mine Employee Transport Modification Environmental Assessment May 2016	The Auditor sighted a review of traffic flow assessing the loading and capacity of intersections on the Manilla Road which fed on to the Modification 3 dated May 2016 demonstrated that upgrades were not required to the intersection.	NT	
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.	2015 Independent Environmental Audit Maules Creek Coal Pty Limited by SMEC dated 22 August 2016 Correspondence with IEA	Work completed prior to the audit period. Condition not triggered during audit period and the road is currently operated and maintained by Narrabri Council not RMS.	NT	
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 Secretary . However, the Secretary 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.	2015 Independent Environmental Audit Maules Creek Coal Pty Limited by SMEC dated 22 August 2016 Traffic Management Plan June 2017	Condition triggered and closed out prior to current audit period.	NT	
63	Deleted				
Traffic Management Plan					
64	The Proponent shall prepare and implement a Traffic Management Plan for the project to the satisfaction of the Secretary . This plan must: (a) be prepared in consultation with the RMS, Council and Gunnedah Council; (b) propose an appropriate program and schedule for works required under conditions 59 - 61 above; and (c) include: <ul style="list-style-type: none"> a description of measures for managing workforce fatigue, road safety and school bus interaction; a description of measures to minimise dust from unsealed roads that may be used for access to the site; a code of conduct for drivers of heavy and light 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; a proposed program for implementing the findings of the road safety audit identified in the EA; performance criteria, measures and indicators for shuttle bus utilisation and car-pooling in accordance with the commitments in the EA; and a monitoring program to audit vehicle movements against predictions in the EA. 	Traffic Management Plan June 2017 Correspondence from DP&E "Maules Creek Coal Mine (10_0138) Approval – Maules Creek Traffic Management Plan" dated 7 June 2017	MCCM completed a Modification, approved on 13 January 2017 regarding traffic management. The Modification was submitted to address the discrepancy between the EA performance criteria for shuttle bus use of 90%, previously condition in the above removed condition 63, and the actual realistic performance criteria. The Modification proposed a revised performance criteria of 70% and the TMP was updated accordingly. The DP&E reviewed the revised version of the TMP (Version 3, Revision 2, dated June 2017). The DP&E approval letter dated June 2017 was sighted by the Auditor. The TMP satisfies the requirements of this condition.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Monitoring of Coal Transport					
65	The Proponent shall: (a) keep records of the: <ul style="list-style-type: none"> 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.	CoalTrak 2015 Annual Review 2016 Annual Review 2017 Annual Review (draft)	Records of coal movements are recorded through CoalTrak in real time and can prepare monthly reports. The date and time of each train movement is recorded and published in the annual reviews and the Auditor reviewed a sample of monthly data for the 2018 period.	C	
Rail Transport					
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 Secretary . <i>Note: Any contribution by the Proponent should be on an equitable basis with other coal project rail users.</i>	Gunnedah Traffic Study 2012 Correspondence between MCCM (Superintendent External Relations and GSC (Manager Development and Planning) 2015 Independent Environmental Audit Maules Creek Coal Pty Limited by SMEC dated 22 August 2016	The Gunnedah Traffic Study was initially prepared by MCCM in October 2012. The previous IEA identified that consultation with Gunnedah Shire Council had not been completed. The Auditor reviewed correspondence between MCCM and Gunnedah Shire Council 22 December 2017 demonstrating MCCM liaised with GSC regarding the Gunnedah Traffic Study. Given the outcome of liaison with GSC no recommendations resulted and as such a report on the outcome of this liaison identifying response to recommendations is not required. This item remains an ANC as these items were not completed within 12 months of the completion of the Gunnedah Traffic Study.	ANC	No further action required as this is a legacy ANC.
VISUAL					
Operating Conditions					
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 <i>Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting</i> or its latest version; (e) provide for the establishment of trees and shrubs and/or the construction of mounding or bunding: <ul style="list-style-type: none"> 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 Secretary .	Lighting Review by EMM (2017) MCCM HSEC Brief Lighting Management Guidenote	The Auditor reviewed a Lighting Review completed by EMM against the Australian Standard and the scope was developed specifically to address this condition. The review was completed 10 July 2017. The review concluded that field measurements and assessment found that MCCM is meeting requirements of this condition and no improvements are required to address lighting impacts. The OCE interviewed during the audit indicated that they are required to complete lighting checks as part of nightly set up to reduce unnecessary light spill. The Lighting Review indicated adequate establishment of trees and shrubs and/or the construction of mounding or bunding meets the intent of the condition and is supported by the Auditor's on site observations. Also sighted MCCM HSEC brief that provides detailed guidance for site positioning of lighting.	C	
Additional Visual Impact Mitigation					
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 Secretary for resolution. <i>Notes:</i> <ul style="list-style-type: none"> 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 Secretary will not require additional visual impact mitigation to be undertaken for residences that are more than 7.5 kilometres from the mining operations. 	Interview with Environmental Superintendent	No written requests were received during the audit period from the owner of any residence on privately-owned land for MCCM to implement additional visual impact mitigation measures to reduce the visibility of mining operations and infrastructure from the residences on their properties.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
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BUSHFIRE MANAGEMENT

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.	WHC_PLN_MC_Pollution Incident Response Management Plan dated 26 April 2017 Narrabri Mining Industry Safety Meeting, email summary of meeting. Bushfire Management Plan (internal) February 2017	MCCM employees attend the Narrabri Mining Industry Safety Meeting. Within the Hazard Cause and Controls section of the PIRMP MCCM details both bushfire and spontaneous combustion as potential causes. Bushfire controls include firebreak maintenance. MCCM also have an internal Bushfire Management Plan.	C	
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WASTE

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.	Site Observations Waste Management Plan (internal) October 2015 Mining Operations Plan 1 December 2017 2015 Annual Review 2016 Annual Review 2017 Annual Review (draft)	MCCM operates under an internal Waste Management Plan. Waste management services are currently provided by Gunnedah Trade Waste and site does segregate waste streams. The Auditor observed areas where oil filters and oil drums were disposed of in general waste and this observation is raised as an area of improvement. The MOP addresses the handling and treatment of coal rejects, as well as described final placement options. The Annual Reviews outline the waste streams generated and disposal methods, as well as report on compliance.	NC	Review waste management practices around segregation of waste.
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REHABILITATION

Rehabilitation Objectives

71	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.		Refer to CoA Condition 72 for progressive rehabilitation obligations.	NT	
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Table 17: Rehabilitation Objectives

	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 agrees otherwise.
All land, other than the final void	Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of: • local native plant species; and • 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).
Community	Ensure public safety Minimise the adverse socio-economic effects associated with mine closure

Note: Appropriate non-native sterile plants may be used for stabilisation and dust suppression purposes on a temporary basis, if required.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Progressive Rehabilitation					
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><i>Note: It is accepted that some parts of the site that are progressively rehabilitated may be subject to further disturbance at some later stage of the development.</i></p>	<p>NSW Resources Regulator Compliance Audit Program Maules Creek Coal Mine dated June 2018 (draft)</p> <p>MCCM Mining Operations Plan 1 December 2017</p> <p>Review of data supplied by Mine Surveyor</p>	<p>MOP commits to shaping 30 hectares to the approved landform by the end of 2018 as part of MCCM's commitments to the Landform establishment phase of rehabilitation. The Auditor reviewed progression against the MOP confirming total area reshaped being 32.6 hectares as of 10 July 2018.</p> <p>The NSW Resource Regulator also reviewed the rehabilitation progress (refer Rehabilitation section, page 12-13) and while largely satisfied, made one observation regarding providing a more thorough risk assessment focussed on risks to rehabilitation.</p>	C	
Rehabilitation Management Plan					
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> <ol style="list-style-type: none"> be prepared in consultation with the Department, Forests NSW, DPI Water, OEH, North West LLS and Council; be submitted to the Executive Director Mineral Resources within 6 months from the date of this approval; be prepared in accordance with any relevant DRE guideline; describe how the rehabilitation of the site would be integrated with the implementation of the biodiversity management plan; include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary); 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; include interim rehabilitation where necessary to minimise the area exposed for dust generation; 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 build to the maximum extent practicable on the other management plans required under this approval. <p><i>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.</i></p>	<p>MCCM Mining Operations Plan 1 December 2017</p> <p>Correspondence with relevant agencies for consultant dated 14 December 2017</p> <p>Letter DRG to MCCM "...NOTICE OF APPROVAL" dated 2 February 2018</p>	<p>The MOP addresses all of the requirements outlined in condition 73. Consultation with the relevant agencies was undertaken in December 2017 and approved by DP&E in February 2018.</p>	C	
Final Void Design and Closure					
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 Secretary. 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> <ol style="list-style-type: none"> 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 Secretary; identify and consider: <ul style="list-style-type: none"> options for continued mining beyond current project life; interactions with the final landform of adjoining mines (including any direct or indirect interaction between final voids); opportunities for integrated mine planning with adjoining mines to minimise environmental impacts of the mines' final landforms; all reasonable and feasible landform options for the final void (including filling); predicted stability of the proposed landforms; and predicted hydrochemistry and hydrogeology (including long-term groundwater recovery and void groundwater quality); include a detailed proposed landform design; and demonstrate that the proposed final landform: <ul style="list-style-type: none"> satisfies the relevant objectives in Table 17 minimises the extent of any resulting pit lake; avoids salt scalding; maximises the capacity of emplaced spoil to drain to the natural environment; and ensures that drained waters do not adversely affect the downstream environment. 		<p>Condition not triggered until December 2020.</p>	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
SOCIAL					
Agricultural Property on Project Owned Land					
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><i>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.</i></p>	Licence Agreements of Project related Agricultural Land	The Auditor reviewed agricultural Licence Agreements (Younger-Warriahdool; Nott-Teston, Harmse-Roseglass, Makim-Wirradale,) for select MCCM properties that are also utilised in part for Biodiversity Offsets. These detail the required <i>Best Agriculture Practice</i> .	C	
Agricultural Production on land acquired due to impacts on residential receivers					
76	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.	Licence Agreements of Project related Agricultural Land	The Auditor reviewed agricultural Licence Agreements (Younger-Warriahdool; Nott-Teston) for select MCCM properties that were acquired due to impacts on residential receivers. These detail requirements related to <i>Use and Limitations</i> .	C	
Construction Workforce Accommodation					
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 Secretary. 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>	Construction commenced in December 2013	Construction commenced and was completed prior to the current audit period and as such conditions related to construction workforce accommodation are no longer applicable.	NT	
Social Impact Management Plan					
78	<p>The Proponent shall prepare and implement a Social Impact Management Plan for the project to the satisfaction of the Secretary to manage the potential impacts of the project. This plan must:</p> <p>(a) be prepared by suitably qualified and experienced person/s whose appointment has been endorsed by the Secretary;</p> <p>(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 Secretary for approval within 12 months of project approval;</p> <p>(c) take into consideration relevant actions related to social impacts identified in the Strategic Regional Land Use Plan for New England North West;</p> <p>(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:</p> <ul style="list-style-type: none"> • 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; <p>(e) identify proposed initiatives for promoting workforce opportunities for residing in the area/region as opposed to FIFO/DIDO;</p> <p>(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</p> <p>(g) include a monitoring program, incorporating key performance indicators and a review and reporting protocol, including reporting in the annual review</p>	<p>Social Impact Management Plan June 2015</p> <p>Social Impact Management Plan (draft) June 2018</p> <p>Correspondence from DP&E "Maules Creek Coal Mine – Approval Social Impact Management Plan" dated 22 June 2015</p> <p>Correspondence with relevant parties providing revised SIMP dated 6 June 2018</p> <p>Correspondence to DP&E "Maules Creek Coal Mine Social Impact Management Plan" dated 23 June 2018</p>	<p>The approved management plan is currently available on the website.</p> <p>The approved SIMP addresses all the requirements of this condition and was approved by DP&E in June 2015.</p> <p>The Social Impact Management Plan is currently being revised through consultation with CCC, Gunnedah and Narrabri Council, Registered Aboriginal Party, this was sent out to the agencies on 6 June 2018.</p> <p>Feedback from a number of parties was been received on the revised draft and this was submitted to DP&E on 23 July 2018 for endorsement.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
SCHEDULE 4					
ADDITIONAL PROCEDURES					
NOTIFICATION OF LANDOWNERS/TENANTS					
1.	<p>Within 3 months of the date of this approval, the Proponent shall:</p> <p>(a) notify in writing the owners of:</p> <ul style="list-style-type: none"> 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; <p>(b) notify the tenants of any mine-owned land of their rights under this approval; and</p> <p>(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.</p>	<p>2015 Independent Environmental Audit Maules Creek Coal Pty Limited by SMEC dated 22 August 2016</p>	<p>This condition is not triggered in the current audit period.</p> <p>This was previously compliant in the 2015 IEA.</p>	NT	
2.	<p>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:</p> <p>(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);</p> <p>(b) advise the prospective tenants of the rights they would have under this approval; and</p> <p>(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 Secretary.</p>	<p>Redacted Tenancy Agreement 2015 Independent Environmental Audit Maules Creek Coal Pty Limited by SMEC dated 22 August 2016 Correspondence from DP&E re Warning Letter dated 10 May 2017</p>	<p>The previous audit identified a NC against this condition in the 2015 IEA. As the letter provided to tenants did not specifically advise of their rights or request them to consult medical practitioner.</p> <p>The Auditor reviewed a redacted Tenancy Agreement detailing tenant rights. However, given notification was outside the 3 month period, this remains an administrative non-compliance.</p> <p>DP&E issued a warning letter with regards to this non-compliance in May 2017</p>	ANC	No further action required given that Tenancy Agreement is in accordance with this condition.
3.	<p>As soon as practicable after obtaining monitoring results showing:</p> <p>(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</p> <p>(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:</p> <ul style="list-style-type: none"> 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 	<p>Correspondence landowners</p>	<p>with</p> <p>For landowners referenced in Schedule 3, Table 1 MCCM owns all properties with the exception of 108-109. No exceedance of criteria has occurred at residence 108-109.</p> <p>Exceedance of noise criteria have been exceeded during the audit period at NM5 and NM1. Notification of attended noise monitoring (24 July 2017) identifying a reading 4dB above prescribed criteria at NM1 (adjusted in line with NPI). The letter (1 August 2017) to the Glenelg Residence noted further monitoring was completed by an independent acoustic consultant demonstrating no sustained exceedances of the applicable criteria.</p> <p>Notification of attended noise monitoring (23 August 2017) identifying a reading 3dB above prescribed criteria at NM5 (adjusted in line with NPI). The letter (29 August 2017) to the Thornfield Residence noted further monitoring was completed by an independent acoustic consultant demonstrating no sustained exceedances of the applicable criteria.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
INDEPENDENT REVIEW					
Landowners					
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 Secretary in writing for an independent review of the impacts of the project on his/her land.</p> <p>If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision, the Proponent shall:</p> <p>(a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Secretary, to:</p> <ul style="list-style-type: none"> • consult with the landowner to determine his/her concerns; • conduct monitoring to determine whether the project is complying with the relevant impact assessment criteria in schedule 3; and • if the project is not complying with these criteria then: <ul style="list-style-type: none"> 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; ii. identify the measures that could be implemented to ensure compliance with the relevant criteria; and <p>(b) give the Secretary and landowner a copy of the independent review.</p>	Interview Superintendent	Environmental	No independent review has been requested by an owner of privately owned land during the audit period.	NT
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 Secretary.</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 Secretary.</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>			Refer to Schedule 4 Condition 4	NT
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 Secretary.</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>			Refer to Schedule 4 Condition 4	NT

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Biodiversity & Heritage					
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 Secretary in writing for an independent review of the matter.</p> <p>If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision, the Proponent shall:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:</p> <ul style="list-style-type: none"> • consult with the person and/or any 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; and <p>(b) give the Secretary and complainant a copy of the independent review.</p>	Interview Superintendent	Environmental	No independent review has been requested during the audit period with regard to biodiversity and/or heritage conditions in Schedule 3.	NT
LAND ACQUISITION					
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> <p>(a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the project, having regard to the:</p> <ul style="list-style-type: none"> • existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and • presence of improvements on the land and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the additional mitigation measures required under condition 2 of schedule 3; <p>(b) the reasonable costs associated with:</p> <ul style="list-style-type: none"> • relocating within the Tamworth, Narrabri, Gunnedah or Moree local government area, or to any other local government area determined by the Secretary; and • obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and <p>(c) reasonable compensation for any disturbance caused by the land acquisition process.</p> <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 Secretary for resolution.</p> <p>Upon receiving such a request, the Secretary 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"> • consider submissions from both parties; • determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above; • prepare a detailed report setting out the reasons for any determination; and • provide a copy of the report to both parties. <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 Secretary 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 Secretary 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 Secretary'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 Secretary determines otherwise.</p>	Internal email from Group Manager - Community Relations and Property dated 24 June 2018		The Group Manager confirmed that no written request from relevant landholders requesting acquisition.	NT

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
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.		Refer to CoA Schedule 4, Condition 9.	NT	

SCHEDULE 5

ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

1	<p>The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Secretary. The strategy must:</p> <p>(a) be submitted to the Secretary for approval prior to the commencement of construction;</p> <p>(b) provide the strategic framework for environmental management of the project;</p> <p>(c) identify the statutory approvals that apply to the project;</p> <p>(d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;</p> <p>(e) describe the procedures that would be implemented to:</p> <ul style="list-style-type: none"> • keep the local community and relevant agencies informed about the operation and environmental performance of the project; • receive, handle, respond to, and record complaints; • resolve any disputes that may arise during the course of the project; • respond to any non-compliance; • respond to emergencies; and <p>(f) include:</p> <ul style="list-style-type: none"> • copies of any strategies, plans and programs approved under the conditions of this consent; and • a clear plan depicting all the monitoring to be carried out in relation to the project. 	<p>Environmental Management Strategy April 2013</p> <p>Correspondence from DP&E "Maules Creek Coal Mine (MP 10_0138) Approval of Environmental Management Strategy" dated 2 May 2013</p> <p>Correspondence to DP&E " RE: Environmental Management Strategy - Maules Creek" dated 5 July 2018</p>	<p>The final version of the EMS is dated April 2013, prior to the commencement of construction.</p> <p>The EMS addresses all the requirements of this condition and was approved by DP&E in May 2013.</p> <p>A revised draft of the EMS is currently sitting with DP&E for approval, as submitted on 5 July 2018.</p>	C	
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Adaptive Management

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&A Act or EP&A Regulation. Where any exceedance of these criteria and/or performance measures has occurred, the Proponent must at the earliest opportunity:</p> <p>(a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur ;</p> <p>(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</p> <p>(c) implement remediation measures as directed by the Secretary, to the satisfaction of the Secretary.</p>	<p>Refer to Schedule 3</p> <p>2015 Annual Review</p> <p>2016 Annual Review</p> <p>2017 Annual Review (draft)</p> <p>Correspondence from MCCM to DP&E "March attended noise monitoring results" dated 7 April 2016</p>	<p>Measures taken to assess and manage project related risks are detailed in Schedule 3.</p> <p>Where exceedances of these criteria has occurred, these have limited to a single event, meaning the operational responses as per Schedule 3 are functioning as required.</p> <p>Exceedances have been notified as required.</p> <p>Evidence of exceedance notification was sighted by the Auditor.</p> <p>MCCM summarises remediation measures and corrective actions in Annual Reviews.</p>	C	
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No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Management Plan Requirements					
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"> • 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; <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"> • impacts and environmental performance of the project; • effectiveness of any management measures (see c above); <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"> • incidents; • complaints; • non-compliances with statutory requirements; and • exceedances of the impact assessment criteria and/or performance criteria; and <p>(h) a protocol for periodic review of the plan.</p>	Refer to Schedule 3 Management Plan Review Register	<p>Details of the adequacy of each of the prepared plans is set out in Schedule 3.</p> <p>The Management Plan Review Register sets out the review requirements and status of each plan.</p>	As per Schedule 3	As per Schedule 3
Annual Review					
4	<p>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 Secretary. This review must:</p> <p>(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;</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"> • relevant statutory requirements, limits or performance measures/criteria; • monitoring results of previous years; and • relevant predictions in the EA; <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) identify any trends in the monitoring data over the life of the project;</p> <p>(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>2015 Annual Review</p> <p>2016 Annual Review</p> <p>2017 Annual Review (draft)</p> <p>Correspondence from MCCM "Annual Review 2017 - Maules Creek Coal Mine" dated 26 March 2018</p>	<p>MCCM conducts an annual review of environmental performance</p> <p>This report was submitted annually during the current audit period.</p> <p>The Annual Reviews include the details required by this condition.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Revision of Strategies, Plans and Programs					
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,</p> <p>the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary.</p> <p><i>Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.</i></p>	Management Plan Review Register	<p>The Auditor reviewed the Management Plan Review Register. Reviews are completed after annual reviews, approval modifications, incidents and in response to audit recommendations.</p> <p>As outlined in CoA Schedule 2, Condition 16, a number of plans are sitting with DP&E for approval following submission as required by this condition.</p>	C	
Management of Cumulative Impacts					
6	<p>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 Secretary.</p>	Refer Schedule 3 Minutes of the BTM Environmental Monthly Meeting September 2015, June 2016, January 2017, April 2018	<p>As detailed in Schedule 3, MCCM collaborates with Boggabri and Tarrawonga mines through BTM Cumulative Management Plans for Blast, Noise, Air Quality, Bio-Diversity, Cultural Heritage and Water Management (awaiting approval). Further the site reviews cumulative impact through EnviroSuite Monitoring and attends monthly meetings with Environmental Management from all three mines.</p>	C	
Community Consultative Committee					
7	<p>The Proponent shall establish and operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Secretary. This CCC must be operated in general accordance with the <i>Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects</i> (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 Secretary.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> 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. 	2015 Independent Environmental Audit Maules Creek Coal Pty Limited by SMEC dated 22 August 2016	<p>Maules Creek CCC was established prior to the current audit period.</p> <p>The MC_CCC meets quarterly and minutes are provided on the company website.</p>	C	
REPORTING					
Incident Reporting					
8	<p>The Proponent shall notify, at the earliest opportunity, the Secretary 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 Secretary 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 Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.</p>	Correspondence with DP&E	<p>MCCM provided notification to DP&E regarding a technical exceedance of the noise criteria recorded at attended noise monitoring location NM5 on 23 August 2017. Further evidence was presented in support including an acoustic consultant report conducted in response to the incident.</p> <p>Similarly in response to an exceedance at NM1 (24 July 2017-notified on 25 July 2017) the same process was followed with notification to DP&E issued on 1 August 2017.</p>	C	
Regular Reporting					
9	<p>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.</p>	http://www.whitehavencoal.com.au/sustainability/environmental-management/maules-creek-mine/ http://www.whitehavencoal.com.au/maules-creek-mine/	<p>Annual Reviews are published on the company website and supported by annual EPBC Compliance Reports, CCC quarterly reports and monthly EPL Monitoring Data. In addition, daily meteorological data is published with a summary of noise and air quality for the prior couple of days.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Independent Environmental Audit					
10	<p>By the end of June 2015 and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:</p> <p>(a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;</p> <p>(b) include consultation with the relevant agencies;</p> <p>(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);</p> <p>(d) assess whether the Proponent is implementing best noise, blasting and air quality management practice;</p> <p>(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:</p> <ul style="list-style-type: none"> • 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; <p>(f) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals; and</p> <p>(g) recommend measures or actions to improve the environmental performance of the project and/or any strategy, plan or program required under these approvals.</p> <p><i>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 Secretary.</i></p>	This Audit	This Audit	C	
11	<p>Within 3 months of commissioning this audit, or as otherwise agreed by the Secretary, the Proponent shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.</p>	Note	Noted	Note	
ACCESS TO INFORMATION					
12	<p>The Proponent shall:</p> <p>(a) within 3 months of the date of this approval, make the following information publicly available on its website:</p> <ul style="list-style-type: none"> • 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 Secretary; and <p>(b) keep this information up to date, to the satisfaction of the Secretary.</p>	<p>http://www.whitehavencoal.com.au/sustainability/environmental-management/maules-creek-mine/</p>	<p>"...within 3 months of the date of this approval" is outside the audit period and not verified as part of this audit.</p> <p>MCCM's website includes all the required documentation, which is all up to date.</p>	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Online Communication of Onsite Activities and Monitoring of Noise and Air Quality					
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: <ul style="list-style-type: none"> 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 Secretary	http://www.whitehavencoal.com.au/weather/ http://www.whitehavencoal.com.au/maules-creek-site-monitoring/ http://www.whitehavencoal.com.au/community-feedback-maules-creek-mine/	<p>"...within 3 months of the date of this approval" is outside the audit period and not verified as part of this audit.</p> <p>The WHC website captures the daily weather forecast, the daily real time noise and air quality data for the last 3 days. It also captures the daily operational responses to the noise and air quality data and includes community feedback details.</p> <p>No evidence of daily proposed operational responses to weather forecasts was identified on the website.</p>	ANC	MCCM should include on its website details about its daily "operational responses" to the weather forecast.
APPENDIX 5					
STATEMENT OF COMMITMENTS					
MAULES CREEK COAL PROJECT CONSOLIDATED					
STATEMENT OF COMMITMENTS					
Mining Operations					
1	Maules Creek Coal will extract coal at a rate of up to 13 Mtpa for 21 years, generally in accordance with this EA.		Refer to CoA Schedule 2 Condition 6.	C	
2	Maules Creek Coal will seek the appropriate licences and approvals as relevant to the Project and listed in Table 9.		<ul style="list-style-type: none"> Conditions of Approval PA 10_0138 (MOD 3, 17 January 2017); Environmental Protection Licence (EPL) 20221; EPBC Approval 2010/5566; MOP 2016- 2018; Coal Lease (CL) 375, Authorisation A346, Mining Leases (ML) 1701 and 1719 and Exploration Lease EL 8072; Bore Licences 90WA809078, 90WA809079, 90WA809300, 90WA809127, 90WA822412, 90WA820120, 90BL255779, 90BL255780, 90BL255781, 90BL255782, 90BL255783, 90BL255784, 90BL255785, 90BL255786, 90BL255787, 90BL255788, 90BL255789, 90BL255790 and Water Access Licences (WALs) - 12479, 12811, 13050, 27383, 27385, 29467, 29588. 	C	
3	Maules Creek Coal shall surrender its existing development consent DA 85/1819 following the grant of the Project Approval.		Refer to CoA Schedule 2 condition 10.	ANC	Refer to CoA Schedule 2 condition 10. This is a legacy ANC. No further action required.

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Environmental Management					
4.	The proponent will develop a staged EMS in consultation with relevant regulators (and the Aboriginal community where relevant) to the approval of DP&I which shall comprise: <ul style="list-style-type: none"> • 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; and • Hazardous Materials Management Plan. 	WHC_PLN_MC_Materials Safety Management Plan dated 10 October 2015 Bushfire Management Plan dated February 2017	<ul style="list-style-type: none"> • Environmental Management Strategy (EMS) – refer to CoA Schedule 5, condition 1; • Environmental Monitoring Program (incorporating air quality, noise, blasting, ecology, Aboriginal heritage, surface water and groundwater) – this is incorporated into each of the relevant plans. • Construction Management Plan – is superseded now as construction is complete. • Air Quality Management Plan – refer to CoA Schedule 3, condition 34; • Noise Management Plan – refer to CoA Schedule 3, condition 16; • Flora and Fauna Management Plan (including Land Disturbance Protocol) – is the Biodiversity Management Plan, refer to CoA Schedule 3, condition 52; • Biodiversity Offsets Management Plan – refer to CoA Schedule 3, condition 45; • Rehabilitation Management Plan – refer to CoA Schedule 3, condition 73; • Aboriginal Archaeology and Cultural Heritage Management Plan – refer to CoA Schedule 3, condition 58; • Water Management Plan (including groundwater and surface water) – refer to CoA Schedule 3, condition 40; • Traffic and Transport Management Plan – refer to CoA Schedule 3, condition 64; • Bushfire Management Plan – is considered to be incorporated and approved through the EMS; and • Hazardous Materials Management Plan – is considered to be incorporated and approved through the EMS. 	C	
5.	Maules Creek Coal will continue to consult with the Namoi CMA in relation to the preparation and implementation of the environmental management plans for the Project.	Refer to Schedule 3	The Namoi CMA has been replaced by North West LLS. Consultation has continued to occur with the regards to the revision of the approved management please. Refer to Schedule 3, conditions 40, 42, 45, 48, 50, 52, 53, 56, 58 and 73 for details.]	C	
Air Quality					
6.	Maules Creek Coal will utilise leading practice technologies and initiatives as required to seek to achieve the air quality outcomes described in this EA.		Refer to CoA Schedule 3, condition 27 and 33.	C	
7.	Maules Creek Coal will undertake 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.		Refer to CoA Schedule 3, condition 27.	C	
8.	Maules Creek Coal 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.		Refer to CoA Schedule 3, conditions 29 and 33.	C	
9.	Maules Creek Coal 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.	Teledata – real time	Refer to CoA Schedule 3, condition 35. Teledata shows that PM2.5 is monitored in real time.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Noise and Blasting					
10.	Maules Creek Coal 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.		Refer to CoA Schedule 3, conditions 12 and 15.	C	
11.	Maules Creek Coal 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.		Refer to CoA Schedule 3, condition 15.	C	
Visual					
12.	Should a landholder within 7.5 km of the active mining area consider they are experiencing high visual impact as a result of the Project, Maules Creek Coal will carry out a specific visual assessment from the residence and develop any management and mitigation measures required in consultation with the landholder and DP&I.	Interview with Environmental Officer Lighting Review by EMM (2017)	No requirement to develop any management or mitigation measures have been trigger by landholders under this condition. However, complaints with regard to lighting have previously been received and triggered a review of the site lighting. Refer to CoA Condition 67.	C	
13.	Night time operations will be undertaken behind barriers, particularly in exposed areas to reduce direct night lighting impacts to neighbouring receivers.	Interview with Environmental Officer Lighting Review by EMM (2017)	MCCM is building up the northern dump to work behind to create an additional barrier. The Auditor reviewed a Lighting Review completed by EMM, refer to CoA Schedule 3, condition 67 for details.	C	
14.	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.	Lighting Review by EMM (2017) MCCM HSEC Brief Lighting Management Guidenote	The Auditor reviewed a Lighting Review completed by EMM, refer to CoA Schedule 3, condition 67 for details. Also sighted MCCM HSEC brief that provides detailed guidance for site positioning of lighting.	C	
Ecology					
15.	Maules Creek Coal 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.	MCCM Mapping	MCCM provided maps top show where CEEC areas were with respect to MIA, CHPP and water storage. These show that where possible (in most instances) this had been achieved.	C	
16.	Maules Creek Coal will progressively rehabilitate mined areas with a focus on the reestablishment of existing forest and woodland communities.		Rehabilitation in line with MOP, refer to CoA Schedule 3, condition 72. To date MOP requires shaping and no seeding is scheduled within the audit period.	C	
17.	Maules Creek Coal will establish the Biodiversity Offset Strategy as described in this EA to initially maintain and ultimately improve the ecological values of the Bioregion.		Refer to CoA Schedule 3, conditions 44 and 45.		
Aboriginal Archaeology and Cultural Heritage					
18.	The salvage and the protection of all known 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.		Refer to CoA Schedule 3, conditions 57 and 58. A sample of reports covering salvage and protection of all known Aboriginal objects reviewed. Whincop Archaeology. Salvage Sign Off Letter dated 24 march 2017 with regard to salvage of two artefact scatters at MCCM (Leard SF AS1 and Leard SF AS2). Collection, individually recorded with GPS, photographed. Each artefact assigned URN and bagged. Surface collection undertaken by qualified archaeologist with assistance of 2 RAPs. Auditor reviewed sample of salvage sign off.	C	
19.	Maules Creek Coal 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.	Minutes of the Maules Creek Coal Six Monthly Meeting with Registered Aboriginal Parties dated 16 December 2015 OEH Care Agreement executed on 5 December 2017 Letter from MCCM to Red Chief "Keeping Place Contribution - Red Chief Local Aboriginal Land Council" dated 15 December 2017	The keeping place was established in consultation with BTM and the registered Aboriginal parties, as per the meeting minutes. MCCM submitted an application to OEH (22 September 2017), for transfer of Aboriginal objects for Safe Keeping with Red Chief LALC. OEH agreed to the transfer in a Care Agreement (C0003145) executed on 5 December 2017. The Auditor sighted a letter dated 15 December 2017 confirming one off and annual payment for 20 years for safekeeping of artefacts.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
20.	Maules Creek Coal will provide the opportunity for one representative of the Aboriginal community to be a member of the Maules Creek CCC.	CCC Minutes	Representative on the CCC as demonstrated through minutes of meetings.	C	
21.	Maules Creek Coal will offer training packages to members of the Red Chief Local Aboriginal Lands Council in relation to site recording, artefact recording and basic analysis.	Training Materials Reviewed Presentations on Artefact Identification and Results of Artefact Analysis by Whincop Archaeology dated 13 July 2018	MCCM Salvage Program training reviewed which defines actions to be taken for chance finds site recording, artefact recording and basic analysis. Red Chief were in attendance at this training session. Whincop Archaeology confirmed attendance of more than 30 RAPs on three occasions in 2013 and presented again in 2014.	C	
Non Indigenous Heritage					
22.	Maules Creek Coal 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.	Oral History Transcript and Draft Report	Oral History interviews completed 2016 - 2017. The Auditor sighted combined transcripts for Olivedene, Bellevue, Tarrawonga, Tralee, Teston, Lewanville, Warriahdool, Woollondilly. Report drafted 2018.	C	
23.	Maules Creek Coal 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.		Refer to CoA Schedule 3, condition 58.	C	
Water Resources					
24.	Maules Creek Coal 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 Maules Creek Coal in consultation with the landholder either by deepening the bore, construction of a new bore or providing comparable water from an external source.	2014 Water Management Plan 2015 Annual Review 2016 Annual Review 2017 Annual Review (draft)	Groundwater ingress to the mine pits is evaluated through monitoring pumping volumes from pit sumps, and water balance calculations, including estimations of evaporation and rainfall on the water balance of the mine pits. A groundwater bore monitoring program is further in place to evaluate potential impacts on surrounding privately owned bores. No requests for compensatory water supply have been received by MCCM during the audit period.	C	
25.	Maules Creek Coal will use reasonable endeavours to, in consultation with Boggabri Coal Mine and Tarrawonga Mine, develop a groundwater monitoring network to monitor the predicted groundwater impacts from mining.	Water Management Plan 2014	A cumulative impacts monitoring bore network has been developed in consultation with the Boggabri and Tarrawonga coal mines. The locations of the bores are based on reviews undertaken by consultants including AGE and Heritage Consulting	C	
26.	Maules Creek Coal will conduct water quality monitoring of the seepage / runoff from the OEAs.	Water Management Plan 2014 EPL Monitoring Data: 2015 2016 2017	Water quality monitoring is undertaken at a number of sediment dams that capture runoff from the OEAs, this includes monitoring points 2, 3, 5, 7 and 9, as well as monitoring is also undertaken at monitoring point 12 which is the mine void. These monitoring locations are monitored in accordance with the EPL licence.	C	
27.	Maules Creek Coal will use reasonable endeavours to obtain water access licence allocation to account for the capture and use of water from the various Water Sharing Plans that apply to the Project in accordance with the provisions of the WM Act and its Regulations.	Copies of Water Access Licences (WALs) cited and summary of WALs provided in the Annual Reviews	WALs have been obtained with sufficient entitlement for mining operations including WALs that are specific to water take associated with groundwater seepage into the mine pits.	C	
Geochemical					
28.	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.	Maules Creek Coal Reject Disposal document (first issued April 2015, latest revision October 2017)	PAF testing has been undertaken for in pit sampling, coarse rejects and fine rejects material. The majority of material has been classified as NAF with the Onavale Seam identified as the main PAF source. Management controls for PAF coal rejects material is identified in the Maules Creek Coal Reject Disposal document which includes in-pit disposal or specific requirements for disposal in encapsulated cells within OEAs. This includes covering PAF material as soon as practical with at least 5 m of NAF overburden material to minimise the length of exposure and final coverage of the PAF material with at least 15 m of inert material.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Traffic					
29.	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 Road 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.	Traffic Management Plan June 2017 Photographs	The TMP outlines that access is restricted on the roads outlined in commitment 29 and includes mitigation measures such as signage and annual traffic audits. The Auditor also sighted photos of MCCM restricted access sign and signs directly traffic to MCCM via approval roads.	C	
30.	Maules Creek Coal 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 and Gunnedah LGAs.	Traffic Management Plan June 2017 GBP Heavy Haulage Borthistle Rd, Gunnedah	The TMP outlines various mitigation and control measures to manage safety issues on the roads impacted by MCCM. The Auditor also sighted a specific Traffic Management Plan for the movement of a mining truck bucket, which includes specific trip safety requirements to achieve this being delivered to MCCM.	C	
31.	Maules Creek Coal 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.	MCCM Logistics Manager correspondence	MCCM Logistics Manager correspondence outlines that MCCM works with other Gunnedah Basin coal miners and ARTC through existing regulated framework provided by the Hunter Valley Access Undertaking to ensure the rail network can handle additional rail movements.	C	
32.	Prior to the construction of the rail spur overpass within the easement of the Kamilaroi Highway, Maules Creek Coal 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.	Outside of audit period.	The rail spur overpass was constructed prior to current audit period and according to the 2015 IEA, this was a Boggabri Coal Project, not in MCCM's control.	NT	
Community					
33.	Maules Creek Coal 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.	EA Section 7.20.9 Social Impact Management Plan June 2015 Letter from CCM to DP&E "RE: Maules Creek Coal Mine - Compliance with Social Impacts of Project" dated 31 October 2017	The SIMP outlines commitments and details for each of the items in the EA Section 7.20.9. The Auditor sighted evidence of the implementation of a various SIMP commitments including encouraging employees to have their children attend the local schools, payment to Narrabri Shire Council and a summary of various actions and payments made by MCCM to the support the local community.	C	
34.	Maules Creek Coal offers to enter into an appropriate VPA on terms it will seek to agree with NSC and GSC.	NSC Minutes Ordinary Council Meeting 27 February 2018	MCCM has a voluntary planning agreement (VPA) with Narrabri Shire Council.	C	
35.	Maules Creek Coal will maintain the agricultural productivity of its landholdings that are not utilised for mining or biodiversity offsets.		Refer to CoA Schedule 3 conditions 75 and 76.	C	
Reporting					
36.	Maules Creek Coal will prepare an Annual Review (which summarises monitoring results and reviews performance) and distribute it to the relevant regulatory authorities and the Maules Creek CCC.	2015 Annual Review 2016 Annual Review 2017 Annual Review (draft)	Refer to CoA Schedule 5 condition 4.	C	

APPENDIX 6**PLANNING ASSESSMENT COMMISSION - GROUNDWATER**

RECOMMENDATIONS FOR GROUNDWATER AND HYDRO-CHEMICAL MONITORING

1.	The proposed 17 additional monitoring bores be equipped with water level or pore pressure monitoring transducers installed at vertical separations such that the future impacts of strata depressurisation can be adequately measured and mapped.	2014 Water Management Plan 2017 Annual Review (draft)	17 additional monitoring bores has been installed as described in the Water Management Plan. Of these, loggers are installed in all bores except those that are dry. According to the Annual Review 2017, Reg5a, Reg10a, BCM01 and BCM03 are dry, while RB05a, Reg3-Reg5, Reg6, Reg7a and Reg12-14 all have groundwater level data recorded for 2017.	C
2.	Core tests to be conducted to assess the distribution and variability of hydraulic conductivities of (unfractured) interburden at sufficient number of bore locations to quantify porous groundwater flow and storage contributions associated with interburden.	AGE Interburden Permeability Testing report dated November 2017	Testing undertaken by AGE.	C
3.	XRD-XRF analyses to be undertaken on core samples obtained at a sufficient number of bore locations to establish mineralogy of interburden likely to be exposed to pit re-saturation.	Correspondence from RGS Environmental "RE: XRD - XRF" dated 10 July 2018	RGS confirm that 67 drill core samples have been taken and a draft report with the results has been issued to MCCM.	C
4.	Hydrochemical modelling to be undertaken in order to determine the long term void water quality. This study should include batch reaction (full saturation) trials on waste interburden (spoils) to confirm hydrochemical modelling outcomes.		The consultants RGS and AGE have been tasked with the hydrochemical modelling and email communications were sighted by the Auditor during the site inspection that outlined plans for RGS and AGE to meet and discuss the best approach on the modelling.	NT

Annex C

Compliance with POEO
EPL_20221

Table C.1 Environmental Protection Licence 20221

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations												
1 Administrative Conditions																	
A1 What the licence authorises and regulates																	
A1.1	This licence authorises the carrying out of the scheduled development work listed below at the premises listed in A2: Construction of mine related infrastructure.			Note													
A1.2	This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation. Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition	2015 Annual Review 2016 Annual Review 2017 Annual Review (draft)	The Annual Reviews indicated ROM volumes of: 2015 – 5.82 million tonnes 2016 – 8.9 million tonnes 2017 – 10.5 million tonnes 2018 – projected 11.7 million tonnes With saleable product being indicated at: 2015 – 5.34 million tonnes 2016 – 8.17 million tonnes 2017 – 9.6 million tonnes 2018 – projected 10.3 million tonnes	C													
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A2 Premises or plant to which this licence applies																	
A2.1	The licence applies to the following premises: <table border="1"> <thead> <tr> <th>Premises Details</th> </tr> </thead> <tbody> <tr> <td>MAULES CREEK COAL MINE TERRIBRI ROAD BOGGABRI NSW 2382 THE LAND BOUND WITHIN THE "MAULES CREEK PROJECT BOUNDARY" IDENTIFIED IN THE MAP ATTACHED TO THE NOTICE OF MODIFICATION FOR PROJECT APPROVAL (APPLICATION NUMBER 10_0138) DATED 10 MARCH 2014 (DOC14/325335).</td> </tr> </tbody> </table>	Premises Details	MAULES CREEK COAL MINE TERRIBRI ROAD BOGGABRI NSW 2382 THE LAND BOUND WITHIN THE "MAULES CREEK PROJECT BOUNDARY" IDENTIFIED IN THE MAP ATTACHED TO THE NOTICE OF MODIFICATION FOR PROJECT APPROVAL (APPLICATION NUMBER 10_0138) DATED 10 MARCH 2014 (DOC14/325335).			Noted	Note										
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	Note: The Lot and DP details of the shared rail spur have been excluded from the licence as they are included on environment protection licence no. 12407.																
A3 Other activities																	
A3.1	This licence applies to all other activities carried on at the premises, including: <table border="1"> <thead> <tr> <th>Ancillary Activity</th> </tr> </thead> <tbody> <tr> <td>Chemical storage</td> </tr> <tr> <td>Concrete works</td> </tr> <tr> <td>Crushing, grinding and separating of rock for construction activities</td> </tr> <tr> <td>Railway systems activities</td> </tr> <tr> <td>Sewage treatment system</td> </tr> </tbody> </table>	Ancillary Activity	Chemical storage	Concrete works	Crushing, grinding and separating of rock for construction activities	Railway systems activities	Sewage treatment system			Noted	Note						
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A4 Information supplied to the EPA																																	
A4.1	Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence. In this condition the reference to "the licence application" includes a reference to: a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.		Noted	Note																													
2 Discharges to Air and Water and Applications to Land																																	
P1 Location of monitoring/discharge points and areas																																	
P1.1	The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point. <i>Air</i>	EPL Monitoring Data 2015 2016 2017 Monthly for 2018	Monitoring has been undertaken at all sites for the duration of the audit period.	C																													
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P1.2	The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area		Noted	Note																													

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations																																				
P1.3	The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point. Water and land	EPL Monitoring Data 2015 2016 2017 Monthly for 2018	Monitoring has been undertaken at all sites for the duration of the audit period. Noting that monitoring point 24 was introduced in the latest EPL licence revision dated 7 March 2018 and therefore was not captured in the monitoring data before this time.	C																																					
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17	Groundwater Quality Monitoring	Location labelled EPL17(REG10A) on aerial photo titled "Maules Creek Coal Mine Environmental Monitoring Locations" (DOC17/506745) submitted with the licence variation application form received by the EPA on 11 October 2017.			
24	Groundwater quality monitoring	Location labelled RB05A on aerial photo titled "Maules Creek Coal Mine Environmental Monitoring Locations" (DOC17/506745) submitted with the licence variation application form received by the EPA on 11 October 2017.			

P1.4 The following points referred to in the table below are identified in this licence for the purposes of weather and/or noise monitoring and/or setting limits for the emission of noise from the premises.

Noise/Weather

EPA identification no.	Type of monitoring point	Location description
25	Noise monitoring	Location labelled EPL NM1 on aerial photo titled "Maules Creek Coal Mine Environmental Monitoring Locations" (DOC17/506745) submitted with the licence variation application form received by the EPA on 11 October 2017.
27	Noise monitoring	Location labelled EPL NM3 on aerial photo titled "Maules Creek Coal Mine Environmental Monitoring Locations" (DOC17/506745) submitted with the licence variation application form received by the EPA on 11 October 2017.
28	Noise monitoring	Location labelled EPL NM4 on aerial photo titled "Maules Creek Coal Mine Environmental Monitoring Locations" (DOC17/506745) submitted with the licence variation application form received by the EPA on 11 October 2017.
29	Noise monitoring	Location labelled EPL NM5 on aerial photo titled "Maules Creek Coal Mine Environmental Monitoring Locations" (DOC17/506745) submitted with the licence variation application form received by the EPA on 11 October 2017.

EPL Monitoring Data
2015
2016
2017
Monthly for 2018
MCCM_ENVREG_BLAST
REGISTER_2018.xlsx
(shows all years)
Monthly Maules Creek
Met_AWS01

Monitoring has been undertaken at all sites for the duration of the audit period.

C

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
30	Noise monitoring	Location labelled EPL NM6 on aerial photo titled "Maules Creek Coal Mine Environmental Monitoring Locations" (DOC17/506745) submitted with the licence variation application form received by the EPA on 11 October 2017.			
31	Air blast overpressure & ground vibration peak particle velocity monitoring	Location labelled BM1 on aerial photo titled "Maules Creek Coal Mine Environmental Monitoring Locations" (DOC17/506745) submitted with the licence variation application form received by the EPA on 11 October 2017.			
32	Air blast overpressure & ground vibration peak particle velocity monitoring	Location labelled BM2 on aerial photo titled "Maules Creek Coal Mine Environmental Monitoring Locations" (DOC17/506745) submitted with the licence variation application form received by the EPA on 11 October 2017.			
33	Air blast overpressure & ground vibration peak particle velocity monitoring	Location labelled BM3 on aerial photo titled "Maules Creek Coal Mine Environmental Monitoring Locations" (DOC17/506745) submitted with the licence variation application form received by the EPA on 11 October 2017.			
34	Air blast overpressure & ground vibration peak particle velocity monitoring	Location labelled BM4 on aerial photo titled "Maules Creek Coal Mine Environmental Monitoring Locations" (DOC17/506745) submitted with the licence variation application form received by the EPA on 11 October 2017.			
35	Meteorological Station	Location labelled EPLW1(AWS) on aerial photo titled "Maules Creek Coal Mine Environmental Monitoring Locations" (DOC17/506745) submitted with the licence variation application form received by the EPA on 11 October 2017.			

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations																								
3 Limit Conditions																													
L1 Pollution of waters																													
L1.1	Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.	Interview with Environmental Officer	There have been no incidents of releases to waters not in accordance with the licence conditions	C																									
L2 Concentration limits																													
L2.1	For each monitoring/discharge point or utilisation area specified in the table\ below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.		Noted	Note																									
L2.2	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.		Noted	Note																									
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\.		Noted	Note																									
L2.4	Water and/or Land Concentration Limits POINT 2,3,5,7,9	EPL Monitoring Data 2015 2016 2017 Monthly for 2018 2015-2016 Annual Return 2016-2017 Annual Return 2017-2018 Annual Return	There has been no monitoring required at monitoring points 2, 3, 5 and 7 during the audit period. Discharge monitoring at monitoring point 9 has been undertaken in accordance with the condition, with one exception. On 14 September 2016, 'oil and grease' was not monitored at this location, however 'oil and grease' monitoring was undertaken on 15 and 16 September and was below the concentration limit, so levels are expected to have been similar for 14 September 2016.	ANC	No further action. Ensure monitoring is undertaken in accordance with all EPL parameters.																								
	<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>6.5- 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				6.5- 8.5	Total suspended solids	milligrams per litre	20	35		50				
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				6.5- 8.5																								
Total suspended solids	milligrams per litre	20	35		50																								
L2.5	The Total Suspended Solids concentration limits specified for Points 2, 3, 5, 7, and 9 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 Gunnedah sourced from Table 6.3a Managing Urban Stormwater: Soils and Construction Volume 1: 4th edition, March 2004	Water management plan WHC_CHK_MCC_Wet Weather Inspections	WHC_CHK_MCC_Wet Weather Inspections includes rainfall data and all the sediments. Completed WHC_CHK_MCC_Wet Weather Inspections for 9 October 2017 for event of 25.2mm - this was to inspect a sediment dams, however there was no discharge from site. WHC_CHK_MCC_Wet Weather Inspections was completed on 22 May 2017 following a rolling total of 70.4mm in two days - no dams spilling at the time, but SD9 was close to capacity and therefore sampling was undertaken at this location. Form completed on 24/05 - SD9 sampling undertaken, not spilling but water in spillway and was dewatered - no water outside the dam/not spilling. While precautionary monitoring was undertaken, there were no discharges from site.	NT																									

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations										
L3 Noise Limits															
	Noise generated at the premises must not exceed the noise limits in the table below.		EPL Monitoring Data: 2015 2016 2017 Monthly for 2018 2015 Annual Review 2016 Annual Review 2017 Annual Review (draft)												
	<table border="1"> <thead> <tr> <th>Locality and location</th> <th>Day- LAeq(15 minute)</th> <th>Evening - LAeq(15 minute)</th> <th>Night - LAeq (15 minute)</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 minute)	Evening - LAeq(15 minute)	Night - LAeq (15 minute)	Night - LA1 (1 minute)	All privately owned residences	35	35	35	45				
Locality and location	Day- LAeq(15 minute)	Evening - LAeq(15 minute)	Night - LAeq (15 minute)	Night - LA1 (1 minute)											
All privately owned residences	35	35	35	45											
L3.1	Noise generated at the premises must not exceed the noise limits in the table below.		Maules Creek Coal Project Environmental Noise Monitoring by Global Acoustics for August 2015, September 2016, June 2017 and February 2018 EPL Monitoring Data 2015 2016 2017 Monthly for 2018	NC	MCCM is to ensure that all noise mitigation measures are implemented and TARP's are monitored and responded to accordingly to minimise the potential for noise exceedances.										
	<table border="1"> <thead> <tr> <th>Locality and location</th> <th>Day- LAeq(15 minute)</th> <th>Evening - LAeq(15 minute)</th> <th>Night - LAeq (15 minute)</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 minute)	Evening - LAeq(15 minute)	Night - LAeq (15 minute)	Night - LA1 (1 minute)	All privately owned residences	35	35	35	45		<p>No exceedances were recorded between July and December 2015. During 2016, five exceedances of LAeq 15 minute criteria were recorded during the attended monitoring, as a result of the Industrial Noise Policy 2000 being applied. All of these were a technical exceedance as a result of the low frequency modifying factor adjustment (applied as per the NSW Industrial Noise Policy 2000). Of these exceedances, only one result was more than 2 dB above the Table 5 Noise Criteria and therefore considered a non-compliance in accordance with the NSW Industrial Noise Policy. This was recorded on 31 March 2016 at NM4, where the exceedance was 3 dB above the criteria.</p> <p>NM4 was purchased by MCCM in August 2016 and therefore no longer considered a privately-owned residence during the remainder of the audit period.</p> <p>During 2017 there were two technical exceedances of the noise criteria following the application of the modifying factor adjustment (as detailed above). These were at NM1 and NM5 and occurred on 24 July and 23 August 2017 and were limited to 4 and 3 dB over the criteria respectively. Given each of these is more than 2 dB over the Table 5 noise criteria these are considered non-compliances in accordance with the NSW Industrial Noise Policy. On each occasion the exceedances were not sustained and noise monitoring results returned to below the criteria during the same monitoring event.</p>		
Locality and location	Day- LAeq(15 minute)	Evening - LAeq(15 minute)	Night - LAeq (15 minute)	Night - LA1 (1 minute)											
All privately owned residences	35	35	35	45											

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations																				
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 10_0138; or b) subject to a private agreement, relating to the noise levels, between the licensee and the land owner.		Noted	Note																					
L3.3	Noise generated at the premises that is measured at each noise monitoring point established under this licence must not exceed the noise levels specified in Column 4 of the table below for that point during the corresponding time periods specified in Column 1 when measured using the corresponding measurement parameters listed in Column 2. <table border="1"> <thead> <tr> <th>Time period</th> <th>Measurement parameter</th> <th>Measurement frequency</th> <th>Noise level dB(A)</th> </tr> </thead> <tbody> <tr> <td>Day</td> <td>LAeq (15 minute)</td> <td>Monthly</td> <td>35</td> </tr> <tr> <td>Evening</td> <td>LAeq (15 minute)</td> <td>Monthly</td> <td>35</td> </tr> <tr> <td>Night</td> <td>LAeq (15 minute)</td> <td>Monthly</td> <td>35</td> </tr> <tr> <td>Night</td> <td>Night-LA1 (1 minute)</td> <td>Monthly</td> <td>45</td> </tr> </tbody> </table> <p>Note: Attended noise monitoring locations identified in the table above are taken to be representative of privately owned residences and are to be used for the purposes of determining compliance with noise limits identified in this licence, unless otherwise required in writing by the EPA.</p>	Time period	Measurement parameter	Measurement frequency	Noise level dB(A)	Day	LAeq (15 minute)	Monthly	35	Evening	LAeq (15 minute)	Monthly	35	Night	LAeq (15 minute)	Monthly	35	Night	Night-LA1 (1 minute)	Monthly	45		Refer to condition L3.1	NC	Refer to condition L3.1
Time period	Measurement parameter	Measurement frequency	Noise level dB(A)																						
Day	LAeq (15 minute)	Monthly	35																						
Evening	LAeq (15 minute)	Monthly	35																						
Night	LAeq (15 minute)	Monthly	35																						
Night	Night-LA1 (1 minute)	Monthly	45																						
L3.4	For the purpose of the table in condition L3.1 and L3.3: 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.		Noted	Note																					
L3.5	The noise limits set out in condition L3.1 and L3.3 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) 35 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.	Maules Creek Coal Project Environmental Noise Monitoring by Global Acoustics for March 2018 2018_03 Maules Creek Met. xlsx	Global Acoustics utilises the data from the MCCM met station. The Met station monitors at a height of 10m. Met station data was reviewed by the Auditor and shown to be the data utilised in the Global Acoustics reports and EPL monitoring data.	C																					
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.	Maules Creek Coal Project Environmental Noise Monitoring by Global Acoustics for November 2016 and March 2018	Global Acoustics applies the Noise Policy for Industry 2017 and modifying factor in March 2018 report and applied the original Industrial Noise Policy and factor prior to this.	C																					
L3.7	If required in writing by the EPA to determine compliance at an individual private residence referred to in condition L3.1: a) to determine compliance with the Leq(15 minute) noise limits in condition L3.1, 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) to determine compliance with the LA1(1 minute) noise limits in condition L3.1, the noise measurement equipment must be located within 1 metre of a dwelling façade. c) to determine compliance with the noise limits in condition L3.1, 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.		No written request from EPA for additional noise monitoring.	NT																					

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
L4 Blasting					
L4.1	The airblast overpressure level from blasting operations in or on the premises must not exceed 120dB (Lin Peak) at any time at monitoring points 31, 32, 33, or 34 as defined in Condition P1.4 of this licence.	MCC_ENVREG REGISTER_2018.xlsx (shows all years) 2015 Annual Review 2016 Annual Review 2017 Annual Review (draft)	BLAST On 8 July 2016, MCCM recorded a blast above 120dBL criteria, at 128.4 dBL, which was recorded at BM1. However, at the time BM1 was not a mandated EPL monitoring location. BM1 is also on mine owned land. No other blasts have recorded above 120 dBL during the audit period.	C	
L4.2	The airblast overpressure level from blasting operations in or on 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 monitoring points 31, 32, 33, or 34 as defined in Condition P1.4 of this licence.	MCC_ENVREG REGISTER_2018.xlsx (shows all years) 2015 Annual Review 2016 Annual Review 2017 Annual Review (draft)	BLAST MCCM recorded blasts above the criteria on the same day as above, 8 July 2016, at BM2, which recorded 117.9 dBL. Also, 118.5 dBL was recorded on 15 January 2016. However these 2 blast exceedances is below the 5% allowable exceedances for a 12 month period, given there were approximately 97 blasts in 2016.	C	
L4.3	The ground vibration peak particle velocity from the blasting operations carried out in or on the premises must not exceed 10mm/sec at any time at monitoring points 31, 32, 33, or 34 as defined in Condition P1.4 of this licence.	MCC_ENVREG REGISTER_2018.xlsx (shows all years) 2015 Annual Review 2016 Annual Review 2017 Annual Review (draft)	BLAST No exceedances of the ground vibration peak particle velocity have been recorded during the audit period.	C	
L4.4	The ground vibration peak particle velocity from the blasting operations carried out in or on the premises must not exceed 5mm/sec for more than five per cent of the total number of blasts over each reporting period at monitoring points 31, 32, 33, or 34 as defined in Condition P1.4 of this licence.	MCC_ENVREG REGISTER_2018.xlsx (shows all years) 2015 Annual Review 2016 Annual Review 2017 Annual Review (draft)	BLAST As above	C	
L4.5	Blasting operations on the premises must only be carried out between the hours 9am to 5pm, Monday to Saturday, inclusive.	MCC_ENVREG REGISTER_2018.xlsx (shows all years)	BLAST All blasting is undertaken between 9am and 5pm and no blasting occurs on Sundays.	C	
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.	Interview with Environmental Officer	There has been no request from EPA to vary the blasting hours.	NT	
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.	MCC_ENVREG REGISTER_2018.xlsx (shows all years) 2015 Annual Review 2016 Annual Review 2017 Annual Review (draft)	BLAST The Auditor viewed the blasting register that showed there were never more than one blast in a day.	C	
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.		Noted	Note	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations								
L5 Other Limit Conditions													
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.		Outside of audit period	NT									
	<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>	Location	Construction Noise Criteria Day LAeq (15 minute)	256	50	259	45	All privately owned residences	40				
Location	Construction Noise Criteria Day LAeq (15 minute)												
256	50												
259	45												
All privately owned residences	40												
	Note: The noise limits identified in the above table do not apply at privately owned residences that are subject to a private agreement, relating to the noise levels, between the licensee and the land owner. Note: Locations 256 and 259 are defined in Figure 2, Appendix 4 of Project Approval 10_0138.												
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.		As above	NT									
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.		As above	NT									
4 Operating Conditions													
O1 Activities must be carried out in a competent manner													
O1.1	Licensed activities must be carried out in a competent manner. This includes: a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.	Mining Operations Plan 1 December 2017 2015 Annual Review 2016 Annual Review 2017 Annual Review (draft) Site observations	The MOP outlines how the activities will be undertaken for the processing, handling, movement etc. of materials. The auditor observed these activities being undertaken on site in a competent manner. The Annual Reviews outlined the waste streams generated and disposal methods. CoA Condition 70 did identify some observations with regards to waste management.	NC	Refer to CoA Condition 70								
O2 Maintenance of plant and equipment													
O2.1	All plant and equipment installed at the premises or used in connection with the licensed activity: a) must be maintained in a proper and efficient condition; and b) must be operated in a proper and efficient manner.	Refer to CoA Condition 15	Refer to CoA Condition 15.	C									
O3 Dust													
O3.1	All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises.	Refer to CoA Condition 33	Refer to CoA Condition 33.	C									
O4 Other operating conditions													

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Blast Fume					
O4.1	Offensive blast fume must not be emitted from the premises. Definition: Offensive blast fume means post-blast gases (whether visible or invisible, odorous or odourless) from the detonation of explosives at the premises that by reason of their nature, duration, character or quality, or the time at which they are emitted, or any other circumstances: (i) are harmful to (or is likely to be harmful to) a person that is outside the premises from which it is emitted, or (ii) interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premises from which it is emitted.	MCC_ENVREG BLAST REGISTER_2018.xlsx (shows all years) WHC_PRO_MC_Blast Fume Management (attached to Blast Management Plan)	Fume risk assessments are undertaken by the Drill and Blast Engineer and Mine Manager for every blast, in accordance the Australia Explosives Industry & Safety Group guideline, to determine fume risk level. MCCM takes videos and photos of each blast to review the cloud/plume. MCCM advised the Auditor that they have not had any instances of fume leaving site.	C	
Pollution Incident Response Management Plan					
O4.2	The licensee must maintain, and implement as necessary, a current Pollution Incident Response Management Plan (PIRMP) for the premises. The PIRMP must document systems and procedures to deal with all types of incidents (e.g. spills, explosions, fire) that may occur at the premises or that may be associated with activities that occur at the premises and which are likely to cause harm to the environment.	WHC_PLN_MC_Pollution Incident Response Management Plan dated 26 April 2017	PIRMP on website tested and reviewed annually. Most recently revised April 2017 to incorporate the annual test and review.	C	
O4.3	The licensee must keep the PIRMP on the premises at all times.	WHC_PLN_MC_Pollution Incident Response Management Plan dated 26 April 2017	PIRMP sighted by Auditor during audit.	C	
5 Monitoring and Recording Conditions					
M1 Monitoring Records					
M1.1	The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.	Maules Creek Groundwater - Monthly data Global Acoustics Monthly Noise Reports MCC_ENVREG BLAST REGISTER_2018.xlsx (shows all years) Cbased Maules Creek Air Quality - Monthly (report and excel) Monthly Maules Creek Met_AWS01	All monitoring results are recorded and retained as per the licence.	C	
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.	Maules Creek Groundwater - Monthly data Global Acoustics Monthly Noise Reports MCC_ENVREG BLAST REGISTER_2018.xlsx (shows all years) Cbased Maules Creek Air Quality - Monthly (report and excel) Monthly Maules Creek Met_AWS01	MCCM maintains all monitoring records from 2014 to current in MCCM's network drive in the HSEC->Environmental folders.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations																								
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.	Whitehaven Coal Maules Creek Project Environmental Monitoring for Depositional Dust, High Volume Air Samplers, Tapered Element Oscillating Microbalance (TEOM), Meteorological Data, Surface and Ground Water by CBased Environmental Ptd Limited	Cbased Environmental include all the field monitoring sheets attached to their monthly report. The date and time is collected on the sample itself, initials included in the field data sheet for HVAS - initials of sampler are provided on the field data sheet, and the samplers name is captured on the Chain of Custody (COC). Names are included in field data sheet for water monitoring and depositional dust.	C																									
M2 Requirement to monitor concentration of pollutants discharged																													
M2.1	For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:	Whitehaven Coal Maules Creek Project Environmental Monitoring for Depositional Dust, High Volume Air Samplers, Tapered Element Oscillating Microbalance (TEOM), Meteorological Data, Surface and Ground Water by CBased Environmental Ptd Limited Cbased Maules Creek Air Quality - Monthly (report and excel)	Monitoring is undertaken in accordance with the licence.	C																									
M2.2	Air Monitoring Requirements POINT 18 <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>microgram s per cubic metre</td> <td>Continuous</td> <td>AM -22</td> </tr> </tbody> </table> POINT 19 <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>microgram s per cubic metre</td> <td>Every 6 days</td> <td>AM -18</td> </tr> </tbody> </table> POINT 20,21,22,23 <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Particulates - Deposited Matter</td> <td>grams per square metre per month</td> <td>Monthly</td> <td>AM -19</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	PM10	microgram s per cubic metre	Continuous	AM -22	Pollutant	Units of measure	Frequency	Sampling Method	PM10	microgram s per cubic metre	Every 6 days	AM -18	Pollutant	Units of measure	Frequency	Sampling Method	Particulates - Deposited Matter	grams per square metre per month	Monthly	AM -19	Whitehaven Coal Maules Creek Project Environmental Monitoring for Depositional Dust, High Volume Air Samplers, Tapered Element Oscillating Microbalance (TEOM), Meteorological Data, Surface and Ground Water by CBased Environmental Ptd Limited Cbased Maules Creek Air Quality - Monthly (report and excel)	PM10 is continuously monitored via the TEOM and monitored every 6 days via the HVAS. However, during the audit period, some data was not captured due to maintenance or power outages. Depositional dust is collected each month at the monitoring locations during the audit period. Also in 2016/2017, analysis of monitoring points 20-23 was not conducted in reference to AS2922-1987 as required by AM19 sampling methodology. MCCM have advised that monitoring points 20-23 are now sited in accordance with the sampling methodology and have been approved by the EPA through the latest EPL approval.	ANC	It is understood that the loss of power and maintenance requirements are outside of MCCM's control, therefore no further action is required.
Pollutant	Units of measure	Frequency	Sampling Method																										
PM10	microgram s per cubic metre	Continuous	AM -22																										
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PM10	microgram s per cubic metre	Every 6 days	AM -18																										
Pollutant	Units of measure	Frequency	Sampling Method																										
Particulates - Deposited Matter	grams per square metre per month	Monthly	AM -19																										

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations																																																							
M2.3	Water and Land Monitoring Requirements	EPL Monitoring Data 2015 2016 2017 Monthly for 2018	There have been no releases to trigger monitoring for points 2, 3, 5 and 7. Sampling at monitoring point 9 has been undertaken in accordance with the EPL frequency. Monitoring has been attempted at 15, 16 and 17 in accordance with the condition but the bores have been dry since installation. Point 12 (mine void) has been monitored in accordance with the condition. Monitoring point 24 was introduced in the latest EPL licence revision dated 7 March 2018 and therefore was not captured in the monitoring data before this time.	C																																																								
	<p>POINT 2,3,5,7,9</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>Special Frequency 1</td> <td>Grab sample</td> </tr> <tr> <td>Oil and Grease</td> <td>milligrams per litre</td> <td>Special Frequency 1</td> <td>Grab sample</td> </tr> <tr> <td>pH</td> <td>pH</td> <td>Special Frequency 1</td> <td>Grab sample</td> </tr> <tr> <td>Total suspended solids</td> <td>milligrams per litre</td> <td>Special Frequency 1</td> <td>Grab sample</td> </tr> </tbody> </table> <p>POINT 12</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>Every 2 months</td> <td>Representative sample</td> </tr> <tr> <td>Oil and Grease</td> <td>milligrams per litre</td> <td>Every 2 months</td> <td>Representative sample</td> </tr> <tr> <td>pH</td> <td>pH</td> <td>Every 2 months</td> <td>Representative sample</td> </tr> <tr> <td>Total suspended solids</td> <td>milligrams per litre</td> <td>Every 2 months</td> <td>Representative sample</td> </tr> </tbody> </table> <p>POINT 15,16,17,24</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	Special Frequency 1	Grab sample	Oil and Grease	milligrams per litre	Special Frequency 1	Grab sample	pH	pH	Special Frequency 1	Grab sample	Total suspended solids	milligrams per litre	Special Frequency 1	Grab sample	Pollutant	Units of measure	Frequency	Sampling Method	Conductivity	microsiemens per centimetre	Every 2 months	Representative sample	Oil and Grease	milligrams per litre	Every 2 months	Representative sample	pH	pH	Every 2 months	Representative sample	Total suspended solids	milligrams per litre	Every 2 months	Representative sample	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			
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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, 5, 7, and 9 commences and in any case not more than 12 hours after a discharge commences. Note: The frequency of monitoring and the parameters to be monitored may be varied by the EPA.		There have been no occurrences of discharges from points 2, 3, 5, 7 and 9. Refer to EPL condition L2.5.	NT																																																								
M3 Testing methods - concentration limits																																																												
M3.1	Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with: a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place. 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".	Global Acoustics Monthly Noise Monitoring Whitehaven Coal Maules Creek Project Environmental Monitoring for Depositional Dust, High Volume Air Samplers, Tapered Element Oscillating Microbalance (TEOM), Meteorological Data, Surface and Ground Water by CBased Environmental Ptd Limited	The Global Acoustics monthly report includes a methodology for sampling for each of the relevant elements. . The Global Acoustics reports outlines: <ul style="list-style-type: none"> Noise monitoring is undertaken in accordance with Noise Policy for Industry dust depositional dust is sampled in accordance with AS3580.10.1 "Methods for sampling and analysis of ambient air. Method 10.1: Determination of particulate matter – Deposited matter – Gravimetric method" Locations of air quality monitoring equipment meets AS 3580 (2007) Part 1.1 Guide to siting air monitoring Surfacewater monitoring is in accordance with OEHL approved 	C																																																								

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations																																								
			water sampling methods, AS 5667.1 and AS 5667.6 and done through NATA accreditation. <ul style="list-style-type: none"> Groundwater in accordance with OEH approved Water Sampling Methods and AS 5667.11. 																																										
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.	Correspondence from Whitehaven to EPA "WHC Water Quality Monitoring – alternative Methods Approval" dated 1 June 2018	Currently the Approved Methods Publication is from 2004 and is outdated and not the most contemporaneous methodology for this monitoring. MCCM monitors in accordance NATA accredited lab methodology. MCCM has sought to get this approved in writing from the EPA and has reported this non-compliance in the MCCM annual return.	ANC	MCCM should continue to work with EPA to gain approval for the revised methodology.																																								
M4 Weather monitoring																																													
M4.1	At the point(s) identified below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1 of the table below, using the corresponding sampling method, units of measure, averaging period and sampling frequency, specified opposite in the Columns 2, 3, 4 and 5 respectively.	Monthly Maules Creek Met_AWS01	The AWS data shows that the necessary parameters are being captured. While continuous monitoring is generally undertaken, during the audit period a limited number of days were not captured, due to annual maintenance.	ANC	Annual maintenance is an operating requirement. No further action is required.																																								
	<p>POINT 35</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Sampling method</th> <th>Units of measure</th> <th>Averaging period</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>Rainfall</td> <td>AM-4</td> <td>millimetres</td> <td>1 hour</td> <td>Continuous</td> </tr> <tr> <td>Wind Speed at 10 metres</td> <td>AM-2 & AM-4</td> <td>metres per second</td> <td>15 minutes</td> <td>Continuous</td> </tr> <tr> <td>Wind Direction at 10 metres</td> <td>AM-2 & AM-4</td> <td>Degrees</td> <td>15 minutes</td> <td>Continuous</td> </tr> <tr> <td>Temperature at 2 metres</td> <td>AM-4</td> <td>degrees Celsius</td> <td>15 minutes</td> <td>Continuous</td> </tr> <tr> <td>Temperature at 10 metres</td> <td>AM-4</td> <td>degrees Celsius</td> <td>15 minutes</td> <td>Continuous</td> </tr> <tr> <td>Total Solar Radiation</td> <td>AM-4</td> <td>Watts per square metre</td> <td>15 minutes</td> <td>Continuous</td> </tr> <tr> <td>Siting</td> <td>AM-1</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>	Parameter	Sampling method	Units of measure	Averaging period	Frequency	Rainfall	AM-4	millimetres	1 hour	Continuous	Wind Speed at 10 metres	AM-2 & AM-4	metres per second	15 minutes	Continuous	Wind Direction at 10 metres	AM-2 & AM-4	Degrees	15 minutes	Continuous	Temperature at 2 metres	AM-4	degrees Celsius	15 minutes	Continuous	Temperature at 10 metres	AM-4	degrees Celsius	15 minutes	Continuous	Total Solar Radiation	AM-4	Watts per square metre	15 minutes	Continuous	Siting	AM-1	-	-	-				
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M4.2	The meteorological weather station must be maintained so as to be capable of continuously monitoring the parameters specified in this section.	Monthly Maules Creek Met_AWS01	Continuous monitoring of parameters is undertaken.	C																																									
M5 Recording of pollution complaints																																													
M5.1	The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	Complaints Record 2015-2018	A summary of all complaints received either directly to MCCM or to regulators are recorded on the company website. A more detailed record is held internally.	C																																									
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.	Complaints Record 2015-2018	As above. The summary includes all details with the exception of details of the complainant. The more detailed record held on site includes the complainant's details.	C																																									

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations												
M5.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	MCCM Complaints Register 2014 - 2018	The auditor sighted complaints records dating back to March 2014.	C													
M5.4	The record must be produced to any authorised officer of the EPA who asks to see them.	Complaints Record 2015-2018	The EPA has not requested a copy of the record during the audit period. The licensee has provided responses to complaints received by the EPA.	C													
M6 Telephone Complaints line																	
M6.1	The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	Auditor action	A complaints Line is provided on the MCCM website. The number was tested by the Auditor during the audit and was confirmed to be operational.	C													
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.	Auditor action	As above.	C													
M6.3	The preceding two conditions do not apply until 60 days after the date of the issue of this licence.		Noted	Note													
M7 Blasting																	
M7.1	To determine compliance with conditions L4.1 to L4.4 inclusive: a) Airblast overpressure and ground vibration levels must be measured and electronically recorded for monitoring points 31, 32, 33 and 34 for the parameters specified in Column 1 of the table below and b) The licensee must use the units of measure, sampling method and sample at the frequency specified opposite in the other columns.	Global Acoustics Monthly Noise Monitoring EPL Monitoring Data 2015 2016 2017 Monthly for 2018	Blast monitoring is undertaken in accordance with the frequency and units outlined in this condition. However, during the audit period some limited blast data from the blast monitoring locations was not captured due to mechanical faults, this occurred 1 in 2015, 7 times in 2016 and twice in 2017.	ANC	Ensure that blast monitoring equipment is maintained to ensure all blast data is captured from all blast monitoring locations.												
	<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>Airblast overpressure</td> <td>Decibels (Linear Peak)</td> <td>All blasts</td> <td>Australian Standard AS 2187.2-2006</td> </tr> <tr> <td>Ground vibration peak particle velocity</td> <td>millimetres / second</td> <td>All blasts</td> <td>Australian Standard AS 2187.2-2006</td> </tr> </tbody> </table>	Parameter	Units of Measure	Frequency	Sampling Method	Airblast overpressure	Decibels (Linear Peak)	All blasts	Australian Standard AS 2187.2-2006	Ground vibration peak particle velocity	millimetres / second	All blasts	Australian Standard AS 2187.2-2006				
Parameter	Units of Measure	Frequency	Sampling Method														
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Ground vibration peak particle velocity	millimetres / second	All blasts	Australian Standard AS 2187.2-2006														
M8 Other monitoring and recording conditions																	
Noise Monitoring																	
M8.1	To assess compliance with the noise limits specified in condition L3.3, the licensee must undertake operator attended noise monitoring at each specified noise monitoring point in accordance with the table below during a period of time representative of typical operating conditions and not undertaken during a shutdown period. POINTS 25, 27, 28, 29, 30	Global Acoustics Monthly Noise Monitoring EPL Monitoring Data 2015 2016 2017 Monthly for 2018	Noise monitoring is undertaken in accordance with the frequency and duration outlined in this condition.	C													
	<table border="1"> <thead> <tr> <th>Assessment period</th> <th>Minimum frequency in a Reporting Period</th> <th>Minimum duration within an assessment period</th> </tr> </thead> <tbody> <tr> <td>Night</td> <td>Monthly</td> <td>15 minutes</td> </tr> </tbody> </table>	Assessment period	Minimum frequency in a Reporting Period	Minimum duration within an assessment period	Night	Monthly	15 minutes										
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6 Reporting Conditions																	
R1 Annual return documents																	
R1.1	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: 1. a Statement of Compliance, 2. a Monitoring and Complaints Summary, 3. a Statement of Compliance - Licence Conditions, 4. a Statement of Compliance - Load based Fee, 5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan, 6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and 7. a Statement of Compliance - Environmental Management Systems and Practices. 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.	2015-2016 Annual Return 2016-2017 Annual Return 2017-2018 Annual Return	The AR has been completed for each year with the relevant information included.	C													

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
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.	2015-2016 Annual Return 2016-2017 Annual Return 2017-2018 Annual Return	The AR has been completed for each reporting period.	C	
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.		No transfer of licence has occurred.	NT	
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.		License not surrendered by licensee during licence period.	NT	
R1.5	The Annual Return for the reporting period must be supplied to the EPA via eConnect EPA or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	Annual Return Submission Receipts	The Auditor sighted the submission receipt for the 2017-2018 Annual Return on 27 June 2018 (due 30 June 2018); 2016-2017 Annual Return on 29 June 2017 (due 30 June 2017); 2015-2016 Annual Return on 30 June 2016 (due 30 June 2016).	C	
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.	Interview with Environmental Superintendent	Auditor sighted copies of Annual Returns for the last 4 years, as maintained by MCCM.	C	
R1.7	Within the Annual Return, the Statements 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.	2015-2016 Annual Return 2016-2017 Annual Return 2017-2018 Annual Return	Annual returns are executed by company directors. From 2017/2018 Annual Return this execution occurs electronically on the EPA website.	C	
R2 Notification of environmental harm					
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.		No notifications of environmental harm during the audit period.	NT	
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.		As above.	NT	
R3 Written Report					
R3.1	Where an authorised officer of the EPA suspects on reasonable grounds that: a) where this licence applies to premises, an event has occurred at the premises; or b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.	Regulatory Action Register	MCCM have received a number of EPA requests to provide a written report during the audit period.	Note	
R3.2	The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.	Letter from MCCM to EPA "Re: Maules Creek Coal Pty Limited's response to the NSW EPA Notice to Provide Information and/or Records (Notice No. 1563650)" dated 8 May 2016 Notice to Provide from EPA dated 12 April 2018 Letter MCCM to EPA "Re: Maules Creek Coal Pty	MCCM has responded to each of the EPA requests with the information as requested. Examples of such were sighted, including responding to an EPA enquiring regarding blasting. These were provide in accordance with the timeframes requested by the EPA.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
		Limited's response to the NSW EPA Notice to Provide Information and/or Records (Notice No. 1563650)" dated 8 May 2018			
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.	Refer to above	Refer to above. The responses from MCCM were provided to EPA in accordance with the requirements of this condition.	C	
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.	Refer to condition R3.2 Letter EPA to MCCM "RE: REQUEST FOR INFORMATION - BLAST RECORDS FOR BLAST ON 6 APRIL 2018" dated 3 August 2018 Letter MCCM to EPA "Re: Maules Creek Coal Pty Limited's response to the NSE EPA Request for Further Information (Notice No. 1563650)" dated 17 August 2018	Further clarification has been sought by the EPA on some occasions and MCCM has responded accordingly. The Auditor sighted additional information request from EPA dated 3 August 2018, which is requesting further information to the original blasting Notice to provide on April 2018. MCCM's responded to this additional information request on 17 August 2018 and provided the required information to EPA.	C	
R4 Other reporting conditions					
R4.1	A noise compliance assessment report must be submitted to the EPA within thirty (30) calendar days of the completion of the monthly noise monitoring. The assessment must be prepared by a suitably qualified and experienced person and include: a) an assessment of compliance with noise limits detailed in the limit conditions of this licence; and b) an outline of any management actions taken within the monitoring period to address any exceedences of the noise limits detailed in condition L3.3 of this licence.	Email from MCCM to EPA "Maules Creek monthly attended noise report - March 2017" dated 30 March 2017 Email from MCCM to EPA "Attended Noise Report" dated 11 October 2016 Maules Creek Coal Project Environmental Noise Monitoring August 2017 by Global Acoustics	Global Acoustics undertakes the monthly attended monitoring. The Auditor viewed a sample of submissions which showed that the noise report was submitted within the required 30 days. Monitoring was undertaken on 15 and 16 March 2017, received on 30 March 2017 and submitted the same day. September 2016 monitoring undertaken 26 and 27 and on received on 4 October. There have been no direct exceedences experienced during the attended monitoring during the audit period. If during the monitoring a potential exceedance of the low frequency reading (with penalty applied) is identified, Global Acoustics will continue to monitor at the relevant monitoring location to verify the result	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
			- this management action has shown that there is no continual exceedance. The exceedances identified post monitoring when the penalty is applied (5db), instigates Global Acoustics to undertake further analysis including determining noise source.		
R4.2	The Licensee must report any exceedance of the licence noise limits to the regional office of the EPA as soon as practicable after the exceedance becomes known to the licensee or to one of the licensee's employees or agents.	Email from MCCM to EPA "Notification of attended noise monitoring result - MCCM" dated 30 August 2017 Email from MCCM to EPA "FW: Noise monitoring - July 2017" dated 1 August 2017	Following receipt of Global Acoustics report on 29 August 2017, MCCM notified EPA of an exceedance on 30 August 2017. Following receipt of Global Acoustics report on 28 July 2017, MCCM notified the EPA of an exceedance on 1 August 2017.	C	
R4.3	The Licensee must report any exceedance of the licence blasting limits to the regional office of the EPA as soon as practicable after the exceedance becomes known to the licensee or to one of the licensee's employees or agents.		No exceedances reported during the audit period.	NT	
7 General Conditions					
G1 Copy of licence kept at the premises or plant					
G1.1	A copy of this licence must be kept at the premises to which the licence applies.		The Auditor observed copies of the licence at the site.	C	
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.	Noted	Noted		
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.		The Auditor observed copies of the licence at the site.	C	
8 Pollution Studies and Reduction Programs					
U1 Pollution Reduction Study - Truck Loading and Dumping of Overburden					
U1.1	The Licensee must undertake a study investigating additional dust management controls aimed at reducing dust emissions from the activities of truck loading and dumping of overburden at the premises. The study must include, but is not limited to: <ul style="list-style-type: none"> a review of dust control activities at other mining operations of an equivalent scale, located within Australia; review of overburden dump face bench or tier heights and the relationship between bench/tier height and dust generation during dump activities; assessment to determine if any additional area is required for overburden dump(s) due to a reduction in tier height; consideration of site specific conditions including adverse weather conditions; identify feasible and reasonable control measures that could be implemented at the premises. 	Draft Pollution Reduction Study - Truck Loading and Dumping of Overburden and Coal by Todoroski Air Sciences dated 29 June 2018	Todoroski Air Sciences undertook the study and assessed all of the relevant elements of this condition.	C	
U1.2	The study required by condition U1.1 must be completed by 30 June 2018.	Draft Pollution Reduction Study - Truck Loading and Dumping of Overburden and Coal by Todoroski Air Sciences dated 29 June 2018	The draft study was finalised on 29 June 2018.	C	
U1.3	The Licensee must submit a report to the EPA by 31 October 2018 outlining the findings of the study required by U1.1. The report must include, but is not limited to, the following information: <ul style="list-style-type: none"> Study methodology; Details of other relevant mining operation activities reviewed, including what controls the operations are using and the effectiveness of those controls in relation to truck loading and dumping of overburden; Methods used to determine the effectiveness of controls in relation to truck loading and dumping of overburden at other mining operations; Details of additional dust management controls investigated as part of the study including advantages and disadvantages of each control; Calculations used to determine the amount of area required for overburden dumping at the premises due to a reduction of tier height; 		This has not yet occurred as it is not required until 31 October 2018.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	<ul style="list-style-type: none"> Justification of site specific conditions including adverse weather conditions; Details of any additional dust management controls or activities proposed to be trialled at the premises as an outcome of the study including justification of trial selection; and Financial analysis where costs are available; A timeframe for carrying out a trial of any additional control measures identified as potentially suitable for long term implementation at the premises. 				
U2 Pollution Reduction Study - Truck Loading and Dumping of Coal					
U2.1	<p>The Licensee must undertake a study investigating additional dust management controls aimed at reducing dust emissions from the activities of truck loading and dumping of coal at the premises.</p> <p>The study must include, but is not limited to:</p> <ul style="list-style-type: none"> a review of dust control activities at other mining operations of an equivalent scale, located within Australia; a review of overburden dump face bench or tier heights and the relationship between bench/tier height and dust generation during dump activities; consideration of site specific conditions including adverse weather conditions; identify feasible and reasonable control measures that could be implemented at the premises 	Draft Pollution Reduction Study - Truck Loading and Dumping of Overburden and Coal by Todoroski Air Sciences dated 29 June 2018	Todoroski Air Sciences undertook the study and assessed all of the relevant elements of this condition.	C	
U2.2	The study required by condition U2.1 must be completed by 30 June 2018.	Draft Pollution Reduction Study - Truck Loading and Dumping of Overburden and Coal by Todoroski Air Sciences dated 29 June 2018	The draft study was finalised on 29 June 2018.	C	
U2.3	<p>The Licensee must submit a report to the EPA by 31 October 2018 outlining the findings of the study required by U2.1. The report must include, but is not limited to, the following information:</p> <ul style="list-style-type: none"> Study methodology; Details of other relevant mining operation activities reviewed, including what controls the operations are using and the effectiveness of those controls in relation to truck loading and dumping of coal; Methods used to determine the effectiveness of controls in relation to truck loading and dumping of coal at other mining operations; Details of additional dust management controls investigated as part of the study including advantages and disadvantages of each control; Justification of site specific conditions including adverse weather conditions; Details of any additional dust management controls activities proposed to be trialled at the premises as an outcome of the study including justification of trial selection; and Financial analysis where costs are available; A timeframe for carrying out a trial of any additional control measures identified as potentially suitable for long term implementation at the premises. 		This has not yet occurred as it is not required until 31 October 2018.	NT	

Annex D.1

Compliance with Coal Lease 375

Table D.1.1 Coal Lease 375

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
1. Notice to Landholders					
(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.	2015 Independent Environmental Audit Maules Creek Coal Pty Limited by SMEC dated 22 August 2016	Not relevant to this audit period. Previously assessed as non-compliant in the 2015 IEA.	NT	
(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.	2015 Independent Environmental Audit Maules Creek Coal Pty Limited by SMEC dated 22 August 2016	Not relevant to this audit period. Previously assessed as not-compliant in the 2015 IEA.	NT	
2. Environmental Harm					
(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.		MCCM has not notified of any incidents causing environmental harm.	C	
(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.		Noted	Note	
3. Mining Operations Plan					
(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.	Correspondence from DP&E (DRG) "Coal Lease 375 (CL375), Mining Act 1973; Mining Lease 1701, (ML1701), Mining Act 1992; Mining Lease 1719 (ML1719), Mining Act 1992; Aston Coal 2 Pty Ltd, ICRA MC Pty Ltd, J - Power Australia Pty Ltd -Approval of Mining Operations Plan" dated 2 February 2018	The current MOP was approved by the delegate in February 2018. The previous MOP was approved by DRE on 8 November 2016.	C	
(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: <ul style="list-style-type: none"> • 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 lease; and • have regard to any relevant guidelines adopted by the Director-General. 	Mining Operations Plan 1 December 2017	The MOP addresses all the requirements of this condition.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
(c)	The leaseholder may apply to the Director-General to amend an approved MOP at any time.	Mining Operations Plan 1 December 2017	MCCM has sought amendments to the MOP during the audit period, to allow for minor changes in the proposed activities.	Note	
(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 Mining Act 1992, the Environmental Planning and Assessment Act 1979, Protection of the Environment Operations Act 1997, 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 Occupational Health and Safety Act 2000; 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.		Noted	Note	
(e)	A MOP ceases to have effect 7 years after date of approval or other such period as identified by the Director-General.	Mining Operations Plan 1 December 2017	The current MOP completion date is 1 January 2023.	C	
4. Environment Management Report					
(a)	The lease holder must lodge Environmental Management Reports (EMR) with the Director-General annually or at dates otherwise directed by the Director-General.	2015 Annual Review 2016 Annual Review 2017 Annual Review (draft) Correspondence from MCCM to DP&E submitted Annual Returns	The Annual Reviews are considered to satisfy the requirements for the Environmental Management Report (EMR). These are submitted annually.	C	
(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;	2015 Annual Review 2016 Annual Review 2017 Annual Review (draft)	The annual reviews report compliance of the MOP for each year.	C	
5. Environmental Incident Report					
(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;	Interview with Environmental Officer	There have been no incidents that fall into the definition of an incident as described in condition (b).	NT	
(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.		Noted	Note	
(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.		Noted	Note	
6. Additional Environmental Reports					
	Additional environmental reports may be required from time to time as directed in writing by the Director-General and must be lodged as instructed		No additional environmental reports have been requested in writing from the DG.	NT	
7. Rehabilitation					
	Any disturbance as a result of activities under this lease must be rehabilitated to the satisfaction of the Director-General.	Mining Operations Plan 1 December 2017	No areas of the CL have yet been rehabilitated to completion.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
8. Extraction Plan Condition					
(a)	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.		No underground mining operations have occurred at MCCM to date.	NT	
(b)	The lease holder must not undertake any underground mining operations that may cause subsidence except in accordance with an approved Extraction Plan		No underground mining operations have occurred at MCCM to date.	NT	
(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.		No underground mining operations have occurred at MCCM to date.	NT	
(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.		No underground mining operations have occurred at MCCM to date.	NT	
9. Working Requirement					
	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.	Interview with Commercial Manager Maules Creek JV Profit & Loss Statement	The auditor sighted evidence to demonstrate the Site employees more than 167 appropriately trained people and spends in excess of \$3,000,000 per annum on operations.	C	
10. Blasting					
	<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.		No exceedances of the ground vibration peak particle velocity have been recorded during the audit period.	C	
	<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.		Refer to CoA Condition 18. Only the 120dB criteria has been exceeded with regards to this condition, as the other recorded exceedances are below the 5% allowable exceedance criteria.	NC	Refer to CoA Condition 18.
11. Safety					
	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 recorded injuries of persons or stock in the vicinity of the operations has been reported or identified as related to MCCM's operations.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
12. Prevention of soil erosion and pollution					
	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.	Mining Operations Plan 1 December 2017	The MOP outlines that all exploration activities, proposed in the period, will be within already disturbed mining boundary and not require work in undisturbed areas.	C	
13. Transmission lines, Communication lines and Pipelines					
	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.		MCCM operations have not interfered or impaired any of the relevant utilities during the audit period.	NT	
14. Roads and Tracks					
(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.		Refer to CoA Condition 14.	NT	
(b)	During wet weather the use of any road or track must be restricted so as to prevent damage to the road or track.	Traffic Management Plan June 2017	The complete restriction of road and track use during wet weather is not possible, as operation of MCCM is required to continue even in wet weather. While MCCM has road restrictions in place, such as approval routes, restricted access to a number of roads (including some that require keys to open gates), there currently is no commitment to minimise or restrict as far as reasonably possible the use of roads or tracks during wet weather. MCCM advised that a number of roads are not accessible during wet weather and therefore access is not possible.	ANC	MCCM should endeavour and commit to restricting unnecessary traffic movement on roads and tracks in wet weather.
(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.	Traffic Management Plan June 2017	The TMP outlines all the approved routes for use by the MCCM and outlines the restricted access routes for MCCM.	C	
(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.	Interview with Environmental Superintendent	The site has not constructed any temporary access tracks and has no temporary access tracks in use.	NT	
15. Trees and Vegetation					
	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.	Forest Permit Authority and Use Arrangement for Access and Environmental Monitoring Level 2 signed 28 June 2016	The only landholder where tree felling is required is the Forestry Corporation for clearing works within the Leard State Forest. MCCM have in place an agreement with the Forestry Corporation as executed in June 2016.	C	
	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. <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> subject to any conditions stipulated.	Refer above	Refer above	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
17. Resource Recovery					
(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.	Interview with Environmental Officer	No such notice has been received from the DG.	NT	
(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.				
(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.				
18. Indemnity					
	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.	Executed Coal Lease 375	Executed Coal Lease states that the site accepts the renewal of the lease and agree to be bound by the conditions specified and in effect agree to indemnify the Crown against this Condition.	C	
19. Security					
	A security in the sum of \$120,000 must be given and maintained with the Minister by the lease holder for the purpose of ensuring the fulfilment by the lease holder of obligations under this lease.	Correspondence from DP&E (DRG) "Coal Lease 375, Mining Act 1973; Mining Lease 1701 and Mining Lease 1719, Mining Act 1992; Aston Coal 2 Pty Ltd, ICRA MC Pty Ltd, J-Power Australia Pty Ltd – Notice of assessment for security (Assessed Deposit)" dated 2 March 2018 Trade & Investment NSW - Resources & Energy Division Details of COAL LEASE 375 (Act 1973)	The Auditor sighted the security held for CL in accordance with the Assessed Deposit requirements from DRG in March 2018.	C	
23. Suspension of Mining Operations					
	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.		Noted	Note	
24. Cooperation Agreement					
	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: <ul style="list-style-type: none"> access arrangements operational interaction procedures dispute resolution information exchange well location timing of drilling potential resource extraction conflicts and rehabilitation issues <p>Note: <u>Exploration Reports (Geological and Geophysical)</u> 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 57 of the Mining Regulation 2010. Reports must be prepared in accordance with <u>Exploration Reporting: A guide for reporting on exploration and prospecting in New South Wales</u> (Department of Industry and Investment, 2010).</p>	Minutes of the Whitehaven Coal (WHC) / Santos Cooperation Meeting	MCCM has undertaken a meeting with Santos (the owner of PEL 1) which overlaps with MCCM's CL and MLs to address this condition.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
25. Trigonometrical Stations and Survey Marks					
(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.	Letter from NSW Government Spatial Services "Removal of Survey Mark SS37718 for Maules Creek Mine extension" dated 18 February 2017	MCCM has removed survey point #SS37718 with approval from NSW Spatial Services, approval no. 17/003 dated February 2017.	C	
(b)	A person must not insert in any land any mark resembling a permanent survey mark unless authorised to do so by the Surveying and Spatial Information Regulation 2006.	Interview with Environmental Officer	Not required during the audit period.	NT	
(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 Surveying and Spatial/Information Regulation 2006.		As per condition (a) MCCM held the approval to complete the removal.	C	

Annex D.2

Compliance with Mining Lease 1701

Table D.2.1 Mining Lease 1701

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
1. Notice to Landholders					
(a)	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.	2015 Independent Environmental Audit Maules Creek Coal Pty Limited by SMEC dated 22 August 2016	Not relevant to this audit period. The 2015 IEA notes that the lands associated with ML1701 is owned by MCCM.	NT	
(b)	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.	2015 Independent Environmental Audit Maules Creek Coal Pty Limited by SMEC dated 22 August 2016	Not relevant to this audit period. The 2015 IEA notes that the lands associated with ML1701 is owned by MCCM.	NT	
2. Rehabilitation					
	Any disturbance resulting from the activities carried out under this mining lease must be rehabilitated to the satisfaction of the Minister.	Mining Operations Plan 1 December 2017	No areas of the ML have been rehabilitated to completion as yet.	NT	
3. Mining Operations Plan and Annual Rehabilitation Report					
(a)	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.	Correspondence from DP&E (DRG) "Coal Lease 375 (CL375), Mining Act 1973; Mining Lease 1701, (ML1701), Mining Act 1992; Mining Lease 1719 (ML1719), Mining Act 1992; Aston Coal 2 Pty Ltd, ICRA MC Pty Ltd, J - Power Australia Pty Ltd -Approval of Mining Operations Plan" dated 2 February 2018	The current MOP was approved by the delegate in February 2018. The previous MOP was approved by DRE on 8 November 2016.	C	
(b)	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 <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 mining lease.	Mining Operations Plan 1 December 2017	The MOP addresses all the requirements of this condition.	C	
(c)	The MOP must be prepared in accordance with the <i>ESG3: Mining Operations Plan (MOP) Guidelines September 2013</i> published on the Department's website at www.resources.nsw.gov.au/environment	ESG3: Mining Operations Plan (MOP) Guidelines September 2013	The MOP is prepared in accordance with the Guidelines.	C	
(d)	The lease holder may apply to the Minister to amend an approved MOP at any time.	Mining Operations Plan 1 December 2017	MCCM has sought amendments to the MOP during the audit period, to allow for minor changes in the proposed activities.	Note	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
(e)	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 <i>Environmental Planning and Assessment Act 1979, the Protection of the Environment Operations Act 1997, the Mine Health and Safety Act 2004 / Coal Mine Health and Safety Act 2002 and Mine Health and Safety Regulation 2007 / Coal Mine Health and Safety Regulation 2006 or the Work Health and Safety Act 2011</i> ; 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	Note	
(f)	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 www.resources.nsw.gov.au/environment . <i>Note: The Rehabilitation Report replaces the Annual Environmental Management Report.</i>	2015 Annual Review 2016 Annual Review 2017 Annual Review (draft) Correspondence from MCCM to DP&E submitted Annual Returns	The Annual Reviews report on progress of rehabilitation. These are submitted annually and are considered to satisfy this condition.	C	
4. Compliance Report					
(a)	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.	2015 Annual Review 2016 Annual Review 2017 Annual Review (draft) Correspondence from MCCM to DP&E submitted Annual Returns	The Annual Reviews report on compliance for MCCM's activities. These are submitted annually and are considered to satisfy this condition.	C	
(b)	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.	2015 Annual Review 2016 Annual Review 2017 Annual Review (draft)	The Annual Reviews report on compliance against the ML for each year.	C	
(c)	The Compliance Report must be lodged with the Department annually on the grant anniversary date for the life of this mining lease.	2015 Annual Review 2016 Annual Review 2017 Annual Review (draft) Correspondence from MCCM to DP&E submitted Annual Returns	The Annual Reviews are submitted annually and are considered to satisfy this condition.	C	
(d)	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.	Interview with Environmental Officer	No application to renew, transfer or cancel the ML has occurred during the audit period.	NT	
(e)	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.	Interview with Environmental Officer	There have been no requests to lodge the Annual Review at any other date/s.	NT	
(f)	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.		Expiry of the ML has not occurred in the audit period.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
5. Environmental Incident Report					
(a)	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 <i>Protection of the Environment Operations Act 1997</i>), 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. <i>Note. Refer to www.resources.nsw.gov.au/environment for notification contact details.</i>	Interview with Environmental Officer	There have been no incidents notified under this ML during this audit period.	NT	
(b)	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. <i>Note. The lease holder should have regard to any relevant Director General's guidelines in the preparation of an Environmental Incident Report. Refer to www.resources.nsw.gov.au/environment for further details.</i>	Interview with Environmental Officer	There have been no incidents notified under this ML during this audit period.	NT	
(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 <i>Protection of the Environment Operations Act 1997</i> arising in connection with significant surface disturbing activities including mining operations, mining purposes and prospecting operations, under this mining lease.	Interview with Environmental Officer	There has been no incidents notified under section 148 of PoEO for this ML.	NT	
6. Extraction Plan					
(a)	(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		No underground mining operations have occurred at MCCM to date.	NT	
(b)	The lease holder must not undertake any underground mining operations that may cause subsidence except in accordance with an approved Extraction Plan.		As above.	NT	
(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.		As above.	NT	
(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.		As above.	NT	
7. Resource Recovery					
	The lease holder must optimise recovery of the minerals that are the subject of this mining lease to the extent economically feasible.		Maximising mineral recovery is in the best interests of MCCM to maximise potential revenue.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
8. Group Security					
	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.	CL_23_1 Security Bond JPA CL_23_2 Security Bond Itochu CL_23_3 Security Bond WHC	The Auditor sighted Deeds of Security Bonds totalling \$33,390,000.	C	
9. Cooperation Agreement					
	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: <ul style="list-style-type: none"> • access arrangements • operational interaction procedures • dispute resolution • information exchange • well location • timing of drilling • potential resource extraction conflicts; and • rehabilitation issues. 	Minutes of the Whitehaven Coal (WHC) / Santos Cooperation Meeting	MCCM has undertaken a meeting with Santos (the owner of PEL 1) which overlaps with MCCM's CL and MLs to address this condition.	C	
SPECIAL CONDITIONS					
<i>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.</i>					
10. Prescribed Dam					
(a)	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.		No mining within this area has occurred.	C	
(b)	Where the lease holder desires to mine within the notification area he or she must: <ol style="list-style-type: none"> 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 provide such information as the Minister may direct. 		Mining within the notification area has not proposed and therefore no notice has been issued.	NT	
(c)	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. This sub-paragraph is complied with if: <ol style="list-style-type: none"> 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). the notifications referred to in clause (a) are accompanied by a description or plan of the area to be mined. 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. 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 where the Dams Safety Committee has made recommendations the approval is in terms that are: <ul style="list-style-type: none"> - in accordance with those recommendations; or - where the Minister does not accept those recommendations or any of them - in accordance with a determination under sub-paragraph (ii) of this paragraph. 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: <ul style="list-style-type: none"> - as determined by agreement between the Minister and the Minister administering the Dams Safety Act 1978; or - in the event of failure to reach such agreement- as determined by the Premier. 		As above.	NT	
(d)	The Minister, on notice from the Dams Safety Committee, may at any time or times: <ol style="list-style-type: none"> cancel any approval given where a notice pursuant to Section 18 of the Dams Safety Act 1978 is given. suspend for a period of time, alter, omit from or add to any approval given or conditions imposed. 		As above.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Exploration Reporting					
	<p><i>Note: Exploration Reports (Geological and Geophysical)</i></p> <p><i>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.</i></p> <p><i>Reports must be prepared in accordance with <u>Exploration Reporting: A guide for reporting on exploration and prospecting in New South Wales</u> (Department of Trade and Investment; Regional Infrastructure and Services 2010).</i></p>			Noted	Note

Annex D.3

Compliance with Mining Lease 1719

Table D.3.1 Mining Lease 1719

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
1. Notice to Landholders					
(a)	Within a period of three months from the date of grant/renewal of this mining lease, the leaseholder 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.	Interview with Environmental Officer	MCCM own all the land associated with ML 1719, therefore no notices were required to be served.	NT	
(b)	If there are ten or more landholders, the leaseholder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this 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.	Interview with Environmental Officer	MCCM own all the land associated with ML 1719, therefore no notice was required to be published.	NT	
2. Rehabilitation					
	Any disturbance resulting from the activities carried out under this mining lease must be rehabilitated to the satisfaction of the Minister.	Mining Operations Plan 1 December 2017	No areas of the ML have been rehabilitated to completion as yet.	NT	
3. Mining Operations Plan and Annual Rehabilitation Report					
(a)	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 leaseholder 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.	Correspondence from DP&E (DRG) "Coal Lease 375 (CL375), Mining Act 1973; Mining Lease 1701, (ML1701), Mining Act 1992; Mining Lease 1719 (ML1719), Mining Act 1992; Aston Coal 2 Pty Ltd, ICRA MC Pty Ltd, J - Power Australia Pty Ltd -Approval of Mining Operations Plan" dated 2 February 2018	The current MOP was approved by the delegate in February 2018. The previous MOP was approved by DRE on 8 November 2016.	C	
(b)	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 <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 mining lease.	Mining Operations Plan 1 December 2017	The MOP addresses all the requirements of this condition.	C	
(c)	The MOP must be prepared in accordance with the <i>ESG3: Mining Operations Plan (MOP) Guidelines September 2013</i> published on the Department's website at www.resources.nsw.gov.au/environment	ESG3: Mining Operations Plan (MOP) Guidelines September 2013	The MOP is prepared in accordance with the Guidelines.	C	
(d)	The leaseholder may apply to the Minister to amend an approved MOP at any time.	Mining Operations Plan 1 December 2017	MCCM has sought amendments to the MOP during the audit period, to allow for minor changes in the proposed activities.	Note	
(e)	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 <i>Environmental Planning and Assessment Act 1979</i> , the <i>Protection of the Environment Operations Act 1997</i> , the <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>Work Health and Safety Act 2011</i> ; 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	Note	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
(f)	The leaseholder 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 www.resources.nsw.gov.au/environment . <i>Note: The Rehabilitation Report replaces the Annual Environmental Management Report.</i>	2015 Annual Review 2016 Annual Review 2017 Annual Review (draft) Correspondence from MCCM to DP&E submitted Annual Returns	The Annual Reviews report on progress of rehabilitation. These are submitted annually and are considered to satisfy this condition.	C	
4. Compliance Report					
(a)	The leaseholder 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.	2015 Annual Review 2016 Annual Review 2017 Annual Review (draft) Correspondence from MCCM to DP&E submitted Annual Returns	The Annual Reviews report on compliance for MCCM's activities. These are submitted annually and are considered to satisfy this condition.	C	
(b)	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.	2015 Annual Review 2016 Annual Review 2017 Annual Review (draft)	The Annual Reviews report on compliance against the ML for each year.	C	
(c)	The Compliance Report must be lodged with the Department annually on the grant anniversary date for the life of this mining lease.	2015 Annual Review 2016 Annual Review 2017 Annual Review (draft) Correspondence from MCCM to DP&E submitted Annual Returns	The Annual Reviews are submitted annually and are considered to satisfy this condition.	C	
(d)	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.	Interview with Environmental Officer	No application to renew, transfer or cancel the ML has occurred during the audit period.	NT	
(e)	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.	Interview with Environmental Officer	There have been no requests to lodge the Annual Review at any other date/s.	NT	
(f)	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.		Expiry of the ML has not occurred in the audit period.	NT	
5. Environmental Incident Report					
(a)	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 <i>Protection of the Environment Operations Act 1997</i>), 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 leaseholder becomes aware of the breach. <i>Note. Refer to www.resources.nsw.gov.au/environment for notification contact details.</i>	Interview with Environmental Officer	There have been no incidents notified under this ML during this audit period.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
(b)	<p>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:</p> <p>(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.</p> <p><i>Note. The leaseholder should have regard to any relevant Director General's guidelines in the preparation of an Environmental Incident Report. Refer to www.resources.nsw.gov.au/environment for further details.</i></p>	Interview with Environmental Officer	There have been no incidents notified under this ML during this audit period.	NT	
(c)	In addition to the requirements set out in conditions 5(a) and (b), the leaseholder must immediately advise the Department of any notification made under section 148 of the <i>Protection of the Environment Operations Act 1997</i> arising in connection with significant surface disturbing activities including mining operations, mining purposes and prospecting operations, under this mining lease.	Interview with Environmental Officer	There has been no incidents notified under section 148 of PoEO for this ML.	NT	
6. Extraction Plan					
	NOT USED		-	-	
7. Resource Recovery					
	NOT USED		-	-	
8. Group Security					
	<p>The leaseholder 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), Mining Lease 1701 (Act 1992) This group security is extended to apply to this lease.</p>	CL_23_1 Security Bond JPA CL_23_2 Security Bond Itochu CL_23_3 Security Bond WHC	The auditor sighted Deeds of Security Bonds totalling \$33,390,000.	C	
9. Cooperation Agreement					
	<p>The leaseholder 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:</p> <ul style="list-style-type: none"> • access arrangements • operational interaction procedures • dispute resolution • information exchange • well location • timing of drilling • potential resource extraction conflicts; and • rehabilitation issues. 	Minutes of the Whitehaven Coal (WHC) / Santos Cooperation Meeting	MCCM has undertaken a meeting with Santos (the owner of PEL 1) which overlaps with MCCM's CL and MLs to address this condition.	C	
Exploration Reporting					
	<p><i>Note: <u>Exploration Reports (Geological and Geophysical)</u></i> The leaseholder 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. Reports must be prepared in accordance with <u>Exploration Reporting: A guide for reporting on exploration and prospecting in New South Wales (Department of Trade and Investment; Regional Infrastructure and Services 2010)</u>.</p>		Noted	Note	

Annex E

Water Access Licences
(WALs) - 12479, 12811, 13050,
27383, 27385, 29467, 2958

Table E.1 WAL 12479

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Take of water					
MW0697-00001	Where the licence holder is a member of a registered group formed under the plan, the licence holder must not cause or allow the combined restricted extraction calculated to apply to the group in any one year, to be exceeded.	Interview with Group Manager - Approvals and Biodiversity	MCCM is not part of a registered group formed under the plan.	NT	
MW0812-00001	This licence entitles its holder to the specified shares in the available water from the specified water source as described in this licence.		Note	Note	
MW0814-00001	The licence holder must only take water under this licence using the water supply work nominated by this licence, unless otherwise allowed by the Act or the plan.	Interview with Group Manager - Approvals and Biodiversity	Water was taken through approved works permit 90MW833037, that permits extraction of waters from the mine pit. Water take has only been undertaken in first half of 2018.	C	
MW0815-00001	The licence holder must comply with the terms of the extraction component specified on this licence, including the times, rates or circumstances in which, and the areas or locations from which, water may be taken under this licence, subject to any extraction restrictions in local impact areas.	Interview with Group Manager - Approvals and Biodiversity	Water can be extracted at any time under 90MW833037. The location is the Lot and DP that covers the mine pit (Lot 58 DP 754940). There is no rate applicable water take under 90MW833037.	C	
MW0820-00001	The licence holder must comply with all restrictions and reductions of extraction rates declared or ordered by the Minister to apply in a local impact area.	Interview with Group Manager - Approvals and Biodiversity	There have been no such orders from the Minister during the audit period.	NT	
MW0821-00001	The licence holder must comply with the water allocation account management rules established by the plan.	Interview with Group Manager - Approvals and Biodiversity	The water take from WAL12479 commenced in first half of 2018. Water take was through the mine pit. The pit captures water from rainfall, runoff and potentially other WALs and detailed calculations are required to determine the allocation of water associated with the WAL. Water take is calculated for the financial year (post 30 June). Therefore, water take for this WAL had not been calculated for audit period. Water take for the WAL, following the end of reporting period calculations, will be reported and submitted to the regulator through the annual review. Compliance of this condition is not yet able to be verified by the Auditor.	NV Obs	Ensure that water take calculations for WAL are undertaken at the end of the reporting period and reported through the annual review.
MW0822-00001	The licence holder must not take water under this licence if the resulting debit from the water allocation account for this licence will exceed the volume of water in the account.	Interview with Group Manager - Approvals and Biodiversity	Refer to above condition. Compliance of this condition is not yet able to be verified by the Auditor.	NV Obs	Refer to above condition.
MW0818-00001	The licence holder must comply with all applicable available water determination(s).		Note	Note	
MW0824-00001	The licence holder must not take water through a water supply work located in areas where the extraction is likely to cause an adverse local impact on water levels, water quality, aquifer integrity or on groundwater dependent ecosystems.	MCCM Environmental Assessment Appendix M Groundwater Impact Assessment	As per the EA, there are no groundwater dependent ecosystems that are likely to be impacted by the take of water under this WAL during this audit period.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
		Interview with Group Manager - Approvals and Biodiversity			
MW0819-00001	The licence holder must not take more water than is allowed pursuant to an applicable AWD unless the taking is pursuant to a lawful transfer or assignment under Chapter 3 Part 2 of the Act.	Interview with Group Manager - Approvals and Biodiversity	No such orders were received from the Minister during the audit period.	NT	
MW0683-00001	The licence holder must not take water for any purpose other than domestic consumption and stock watering purposes or other than in exercising native title rights, through a water supply work nominated on this licence if the water supply work is within 200 m of any high priority groundwater dependent ecosystem listed in Schedule 4 of the plan, or within 200 m of any creek or river, or where impact may occur on aboriginal cultural heritage values, unless the water supply work: (A) only draws water from an aquifer at depths approved by the Minister, and complies with all specifications of the Minister under clause 39 of the plan, or (B) was authorised by licence under the Water Act 1912.	Interview with Group Manager - Approvals and Biodiversity	Refer to condition MW0824-00001.	C	
Water management works					
MW0813-00001	The water supply work nominated by this licence is the water supply work authorised by a works approval nominated by this licence.		Note	Note	
Additional conditions					
MW0698-00001	The licence holder must comply with the access licence dealing principles as gazetted under section 71Z of the Act and all other access licence dealing rules established by the plan.		Note	Note	
MW0823-00001	The licence holder must pay any charge imposed by the Minister under section 114 of the Act or regulations, for the cost of activities or works under the plan.	Interview with Group Manager - Approvals and Biodiversity	No charges have been imposed during the audit period.	NT	

Table E.2 **WAL 12811**

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Take of water					
MW0697-00001	Where the licence holder is a member of a registered group formed under the plan, the licence holder must not cause or allow the combined restricted extraction calculated to apply to the group in any one year, to be exceeded.	Annual Reviews for 2015 – 2017 that require reporting on all water take as well as management assertion for first six month of 2018.	No water take from WAL 12811 during audit period.	NT	
MW0812-00001	This licence entitles its holder to the specified shares in the available water from the specified water source as described in this licence.	As above.	As above.	NT	
MW0814-00001	The licence holder must only take water under this licence using the water supply work nominated by this licence, unless otherwise allowed by the Act or the plan.	As above.	As above.	NT	
MW0815-00001	The licence holder must comply with the terms of the extraction component specified on this licence, including the times, rates or circumstances in which, and the areas or locations from which, water may be taken under this licence, subject to any extraction restrictions in local impact areas.	As above.	As above.	NT	
MW0821-00001	The licence holder must comply with the water allocation account management rules established by the plan.	As above.	As above.	NT	
MW0820-00001	The licence holder must comply with all restrictions and reductions of extraction rates declared or ordered by the Minister to apply in a local impact area.	As above.	As above.	NT	
MW0822-00001	The licence holder must not take water under this licence if the resulting debit from the water allocation account for this licence will exceed the volume of water in the account.	As above.	As above.	NT	
MW0818-00001	The licence holder must comply with all applicable available water determination(s).	As above.	As above.	NT	
MW0824-00001	The licence holder must not take water through a water supply work located in areas where the extraction is likely to cause an adverse local impact on water levels, water quality, and aquifer integrity or on groundwater dependent ecosystems.	As above.	As above.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
MW0819-00001	The licence holder must not take more water than is allowed pursuant to an applicable AWD unless the taking is pursuant to a lawful transfer or assignment under Chapter 3 Part 2 of the Act.	As above.	As above.	NT	
MW0683-00001	The licence holder must not take water for any purpose other than domestic consumption and stock watering purposes or other than in exercising native title rights, through a water supply work nominated on this licence if the water supply work is within 200 m of any high priority groundwater dependent ecosystem listed in Schedule 4 of the plan, or within 200 m of any creek or river, or where impact may occur on aboriginal cultural heritage values, unless the water supply work: (A) only draws water from an aquifer at depths approved by the Minister, and complies with all specifications of the Minister under clause 39 of the plan, or (B) was authorised by licence under the Water Act 1912.	As above.	As above.	NT	
Water management works					
MW0813-00001	The water supply work nominated by this licence is the water supply work authorised by a works approval nominated by this licence.	Not applicable.	Note.	Note	
Additional conditions					
MW0698-00001	The licence holder must comply with the access licence dealing principles as gazetted under section 71Z of the Act and all other access licence dealing rules established by the plan.	Annual Reviews for 2015 – 2017 that require reporting on all water take as well as management assertion for first six month of 2018.	No water take from WAL 12811 during audit period.	NT	
MW0823-00001	The licence holder must pay any charge imposed by the Minister under section 114 of the Act or regulations, for the cost of activities or works under the plan.	As above.	As above.	NT	

Table E.3 **WAL 13050**

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Take of water					
MW0605-00001	Water must be taken in compliance with the conditions of the approval for the nominated work on this access licence through which water is to be taken.	See below.	See conditions listed below.	C	
MW3574-00001	The licence holder must not take any water using the nominated water supply work approval if the water allocation account of this licence is, or will go into debit.	Reported water take volumes provided in Annual Reviews.	Water take during the audit period has been within the WAL allocation limits.	C	
MW0685-00001	The licence holder must not take any water under this licence unless it is in accordance with: (A) a nominated water supply work approval, and (B) a water supply order approved and accepted by WaterNSW.	Work approval cited. Examples of water supply orders cited.	Water supply work approval in place for audit period and water supply orders put in place prior to water take from Namoi River.	C	
MW0855-00001	The extraction component of this access licence may be amended by the Minister in accordance with the water-sharing plan for the water source specified on this licence.	Not applicable.	Note.	Note	
Reporting					
MW0799-00001	The licence holder must provide the Minister with figures recording the quantity of water taken via the nominated water supply works approval, when required to do so, and in the form specified by the Minister.	2015 to 2017 Annual Reviews.	Water take records consolidated annually and reported in the Annual Reviews.	C	

Table E.4 WAL 27383

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Take of water					
MW0812-00001	This licence entitles its holder to the specified shares in the available water from the specified water source as described in this licence.	Annual Reviews for 2015 - 2017 that require reporting on all water take as well as management assertion for first six month of 2018.	No water take from WAL 27383 during audit period.	NT	
MW0697-00001	Where the licence holder is a member of a registered group formed under the plan, the licence holder must not cause or allow the combined restricted extraction calculated to apply to the group in any one year, to be exceeded.	As above.	As above.	NT	
MW0814-00001	The licence holder must only take water under this licence using the water supply work nominated by this licence, unless otherwise allowed by the Act or the plan.	As above.	As above.	NT	
MW0815-00001	The licence holder must comply with the terms of the extraction component specified on this licence, including the times, rates or circumstances in which, and the areas or locations from which, water may be taken under this licence, subject to any extraction restrictions in local impact areas.	As above.	As above.	NT	
MW0820-00001	The licence holder must comply with all restrictions and reductions of extraction rates declared or ordered by the Minister to apply in a local impact area.	As above.	As above.	NT	
MW0822-00001	The licence holder must not take water under this licence if the resulting debit from the water allocation account for this licence will exceed the volume of water in the account.	As above.	As above.	NT	
MW0818-00001	The licence holder must comply with all applicable available water determination(s).	As above.	As above.	NT	
MW0821-00001	The licence holder must comply with the water allocation account management rules established by the plan.	As above.	As above.	NT	
MW0824-00001	The licence holder must not take water through a water supply work located in areas where the extraction is likely to cause an adverse local impact on water levels, water quality, aquifer integrity or on groundwater dependent ecosystems.	As above.	As above.	NT	
MW0819-00001	The licence holder must not take more water than is allowed pursuant to an applicable AWD unless the taking is pursuant to a lawful transfer or assignment under Chapter 3 Part 2 of the Act.	As above.	As above.	NT	
MW0683-00001	The licence holder must not take water for any purpose other than domestic consumption and stock watering purposes or other than in exercising native title rights, through a water supply work nominated on this licence if the water supply work is within 200 m of any high priority groundwater dependent ecosystem listed in Schedule 4 of the plan, or within 200 m of any creek or river, or where impact may occur on aboriginal cultural heritage values, unless the water supply work: (A) only draws water from an aquifer at depths approved by the Minister, and complies with all specifications of the Minister under clause 39 of the plan, or (B) was authorised by licence under the Water Act 1912.	As above.	As above.	NT	
Water management works					
MW0813-00001	The water supply work nominated by this licence is the water supply work authorised by a works approval nominated by this licence.	Not applicable.	Note.	Note	
Additional conditions					
MW0698-00001	The licence holder must comply with the access licence dealing principles as gazetted under section 71Z of the Act and all other access licence dealing rules established by the plan.	Annual Reviews for 2015 - 2017 that require reporting on all water take as well as management assertion for first six month of 2018.	No water take from WAL 27383 during audit period.	NT	
MW0823-00001	The licence holder must pay any charge imposed by the Minister under section 114 of the Act or regulations, for the cost of activities or works under the plan.	As above.	As above.	NT	

Table E.5 WAL 27385

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Take of water					
MW0697-00001	Where the licence holder is a member of a registered group formed under the plan, the licence holder must not cause or allow the combined restricted extraction calculated to apply to the group in any one year, to be exceeded.	Interview with Group Manager - Approvals and Biodiversity	MCCM is not part of a registered group formed under the plan.	NT	
MW0812-00001	This licence entitles its holder to the specified shares in the available water from the specified water source as described in this licence.		Note	Note	
MW0814-00001	The licence holder must only take water under this licence using the water supply work nominated by this licence, unless otherwise allowed by the Act or the plan.	Interview with Group Manager - Approvals and Biodiversity	Water was taken through approved works permit 90MW833037 that permits extraction of waters from the mine pit. Water take only commenced in first half of 2018.	C	
MW0815-00001	The licence holder must comply with the terms of the extraction component specified on this licence, including the times, rates or circumstances in which, and the areas or locations from which, water may be taken under this licence, subject to any extraction restrictions in local impact areas.	Interview with Group Manager - Approvals and Biodiversity	Water can be extracted at any time under 90MW833037. The location is the Lot and DP that covers the mine pit (Lot 58 DP 754940). There is no rate applicable water take under 90MW833037.	C	
MW0820-00001	The licence holder must comply with all restrictions and reductions of extraction rates declared or ordered by the Minister to apply in a local impact area.	Interview with Group Manager - Approvals and Biodiversity	There have been no such orders from the Minister during the audit period.	NT	
MW0821-00001	The licence holder must comply with the water allocation account management rules established by the plan.	Interview with Group Manager - Approvals and Biodiversity	The water take from WAL27385 commenced in first half of 2018. Water take was through the mine pit. The pit captures water from rainfall, runoff and potentially other WALs and detailed calculations are required to determine the allocation of water associated with the WAL. Water take is calculated for the financial year (post 30 June). Therefore, water take for this WAL had not been calculated for audit period. Water take for the WAL, following the end of reporting period calculations, will be reported and submitted to the regulator through the annual review. Compliance of this condition is not yet able to be verified by the Auditor.	NV Obs	Ensure that water take calculations for WAL are undertaken at the end of the reporting period and reported through the annual review.
MW0818-00001	The licence holder must comply with all applicable available water determination(s).		Note	Note	
MW0822-00001	The licence holder must not take water under this licence if the resulting debit from the water allocation account for this licence will exceed the volume of water in the account.	Interview with Group Manager - Approvals and Biodiversity	Refer to above condition MW0821-00001. Compliance of this condition is not yet able to be verified by the Auditor.	NV Obs	Refer to above condition MW0821-00001.
MW0824-00001	The licence holder must not take water through a water supply work located in areas where the extraction is likely to cause an adverse local impact on water levels, water quality, and aquifer integrity or on groundwater dependent ecosystems.	Interview with Group Manager - Approvals and Biodiversity	As per the EA, there are no groundwater dependent ecosystems that are likely to be impacted by the take of water under this WAL during this audit period.	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
MW0819-00001	The licence holder must not take more water than is allowed pursuant to an applicable AWD unless the taking is pursuant to a lawful transfer or assignment under Chapter 3 Part 2 of the Act.	Interview with Group Manager - Approvals and Biodiversity	No such orders were received from the Minister during the audit period.	NT	
MW0683-00001	The licence holder must not take water for any purpose other than domestic consumption and stock watering purposes or other than in exercising native title rights, through a water supply work nominated on this licence if the water supply work is within 200 m of any high priority groundwater dependent ecosystem listed in Schedule 4 of the plan, or within 200 m of any creek or river, or where impact may occur on aboriginal cultural heritage values, unless the water supply work: (A) only draws water from an aquifer at depths approved by the Minister, and complies with all specifications of the Minister under clause 39 of the plan, or (B) was authorised by licence under the Water Act 1912.	Interview with Group Manager - Approvals and Biodiversity	Refer to condition MW0824-00001.	C	
Water management works					
MW0813-00001	The water supply work nominated by this licence is the water supply work authorised by a works approval nominated by this licence.		Note	Note	
Additional conditions					
MW0698-00001	The licence holder must comply with the access licence dealing principles as gazetted under section 71Z of the Act and all other access licence dealing rules established by the plan.		Note	Note	
MW0823-00001	The licence holder must pay any charge imposed by the Minister under section 114 of the Act or regulations, for the cost of activities or works under the plan.	Interview with Group Manager - Approvals and Biodiversity	No charges have been imposed during the audit period.	NT	

Table E.6 WAL 29467

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Take of water					
MW0716-00001	The maximum volume of water that may be taken under this licence in any water year must not exceed a volume equal to: (A) the sum of water allocations accrued to the water allocation account for this licence from available water determinations in that year; plus (B) the water allocations carried over from the water year prior to that water year; plus (C) the net amount of any water allocations assigned to or from the water allocation account for this licence under section 71T of the Act; plus (D) any water allocations re-credited to the water allocation account for this licence in accordance with section 76 of the Act in that water year.	2015 - 2017 Annual Reviews.	Water take is based on estimation of groundwater seepage into mine pits. Volume based on measured pumping volumes from pit sumps, estimations of evaporation and rainfall on water balance of mine pits. Reported water take has been well below permitted volumes (<5% of licenced volumes).	C	
MW0631-00001	Water must not be taken under this access licence otherwise than in compliance with the conditions of the nominated water supply work approval.	See reference/evidence for other compliance conditions.	No non-compliances identified.	C	
Monitoring and recording					
MW0639-00001	When directed by the Minister by notice in writing, the licence holder of an access licence that nominates only a metered water supply work with a data logger must keep a logbook in accordance with any requirements that are specified in the notice.	Spreadsheet sighted. Examples of flowmeter field sheets sighted.	No direction given to keep a logbook. MCCM does however maintain a spreadsheet that records all water pumping monitoring data from the pit sumps.	C	
MW0633-00001	The licence holder must record the following in the logbook: (i) each date and period of time during which water is taken under this licence; (ii) the volume of water taken on that date; (iii) the water supply work approval number of the water supply work used to take the water on that date; (iv) the purpose or purposes for which the water taken on that date. (iv) the purpose or purposes for which the water taken on that date.	Spreadsheet with pumping volumes sighted as well as examples of flowmeter field sheets.	As noted earlier water take is based on estimation of groundwater, seepage into mine pits (and not from groundwater abstraction from groundwater, production bores). Water take is based on measured pumping volumes from pit sumps, and estimations of evaporation and rainfall on water balance of mine pits. As the water take is based on estimation of water inflows into the	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
			pits and not abstraction from groundwater bores work approvals are not submitted.		
MW0635-00001	The licence holder must record the following in the logbook: (vii) the volume of water taken in any water year from 1 July 2011, by comparison to the maximum volume of water permitted to be taken in that water year.	2015 - 2017 Annual Reviews.	Water take compared to permitted amount in WAL with comparison reported on an annual basis in the Annual Reviews.	C	
MW0636-00001	The licence holder must produce the logbook to the Minister for inspection, when requested.	Not applicable.	Note.	Note	
MW0632-00001	The licence holder must keep a log book, except where the access licence nominates only a metered work with a data logger. A "logbook" means a written record, kept in hard copy or electronic form, which accurately records all information required to be kept for this licence.	Spreadsheet with pumping volumes sighted.	Spreadsheet with pumping flow measurements from pit sumps kept.	C	
MW0637-00001	The licence holder must retain the information required to be recorded in the logbook for 5 years from the date to which that information relates.	Spreadsheet sighted.	Information on water use kept indefinitely by MCCM.	C	
Reporting					
MW0831-00001	The licence holder must notify the Minister, in writing, immediately upon becoming aware of a breach of any condition of this licence. Note: a notification does not authorise a breach, or continuing breach, of a condition of this licence.	Not applicable.	No breach of conditions recorded.	NT	
Additional conditions					
MW0717-00001	The maximum water allocation that may be carried over in the water allocation account for this access licence from one water year to the next is either: (A) 25 % of the access licence share component for access licences with share components expressed as ML/year; or (B) 0.25 ML per unit share of access licence share component for access licences with share components expressed as a number of unit shares.	Not applicable.	Note.	Note	

Table E.7 **WAL 29588**

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Take of water					
MW0716-00001	The maximum volume of water that may be taken under this licence in any water year must not exceed a volume equal to: (A) the sum of water allocations accrued to the water allocation account for this licence from available water determinations in that year; plus (B) the water allocations carried over from the water year prior to that water year; plus (C) the net amount of any water allocations assigned to or from the water allocation account for this licence under section 71T of the Act; plus (D) any water allocations re-credited to the water allocation account for this licence in accordance with section 76 of the Act in that water year.	Annual Reviews for 2015 - 2017 that require reporting on all water take as well as management assertion for first six month of 2018.	No water take from WAL 29588 during audit period.	NT	
MW0631-00001	Water must not be taken under this access licence otherwise than in compliance with the conditions of the nominated water supply work approval.	As above.	As above.	NT	
Monitoring and recording					
MW0639-00001	When directed by the Minister by notice in writing, the licence holder of an access licence that nominates only a metered water supply work with a data logger must keep a logbook in accordance with any requirements that are specified in the notice.	As above.	As above.	NT	
MW0633-00001	The licence holder must record the following in the logbook: (i) each date and period of time during which water is taken under this licence; (ii) the volume of water taken on that date; (iii) the water supply work approval number of the water supply work used to take the water on that date; (iv) the purpose or purposes for which the water taken on that date. (iv) the purpose or purposes for which the water taken on that date.	As above.	As above.	NT	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
MW0635-00001	The licence holder must record the following in the logbook: (vii) the volume of water taken in any water year from 1 July 2011, by comparison to the maximum volume of water permitted to be taken in that water year.	As above.	As above.	NT	
MW0636-00001	The licence holder must produce the logbook to the Minister for inspection, when requested.	As above.	As above.	NT	
MW0632-00001	The licence holder must keep a log book, except where the access licence nominates only a metered work with a data logger. A "logbook" means a written record, kept in hard copy or electronic form, which accurately records all information required to be kept for this licence.	As above.	As above.	NT	
MW0637-00001	The licence holder must retain the information required to be recorded in the logbook for 5 years from the date to which that information relates.	As above.	As above.	NT	
Reporting					
MW0831-00001	The licence holder must notify the Minister, in writing, immediately upon becoming aware of a breach of any condition of this licence. Note: a notification does not authorise a breach, or continuing breach, of a condition of this licence.	As above.	As above.	NT	
Additional conditions					
MW0717-00001	The maximum water allocation that may be carried over in the water allocation account for this access licence from one water year to the next is either: (A) 25 % of the access licence share component for access licences with share components expressed as ML/year; or (B) 0.25 ML per unit share of access licence share component for access licences with share components expressed as a number of unit shares.	As above.	As above.	NT	

Table E8 **WAL 36641**

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
Take of water					
MW0716-00001	The maximum volume of water that may be taken under this licence in any water year must not exceed a volume equal to: (A) the sum of water allocations accrued to the water allocation account for this licence from available water determinations in that year; plus (B) the water allocations carried over from the water year prior to that water year; plus (C) the net amount of any water allocations assigned to or from the water allocation account for this licence under section 71T of the Act; plus (D) any water allocations re-credited to the water allocation account for this licence in accordance with section 76 of the Act in that water year.	2015 - 2017 Annual Reviews.	Water take is based on estimation of groundwater seepage into mine pits. Volume based on measured pumping volumes from pit sumps, estimations of evaporation and rainfall on water balance of mine pits. Reported water take has been well below permitted volumes (<2% of licenced volumes).	C	
MW0631-00001	Water must not be taken under this access licence otherwise than in compliance with the conditions of the nominated water supply work approval.	See reference/evidence for other compliance conditions.	No non compliances identified.	C	
Monitoring and recording					
MW0635-00001	The licence holder must record the following in the logbook: (vii) the volume of water taken in any water year from 1 July 2011, by comparison to the maximum volume of water permitted to be taken in that water year.	2015 - 2017 Annual Reviews.	Water take compared to permitted amount in WAL with comparison reported on an annual basis in the Annual Reviews.	C	
MW0639-00001	When directed by the Minister by notice in writing, the licence holder of an access licence that nominates only a metered water supply work with a data logger must keep a logbook in accordance with any requirements that are specified in the notice.	Spreadsheet sighted. Examples of flowmeter field sheets sighted.	No direction given to keep a log book. MCCM does however maintain a spreadsheet that records all water pumping monitoring data from the pit sumps.	C	
MW0633-00001	The licence holder must record the following in the logbook: (i) each date and period of time during which water is taken under this licence; (ii) the volume of water taken on that date; (ii) the volume of water taken on that date;	Spreadsheet with pumping volumes sighted as well as examples of flowmeter field sheets.	As noted earlier water take is based on estimation of groundwater inflows into mine pits (and not from groundwater abstraction from	C	

No	Assessment Requirement	Reference/ Evidence	Comments	Compliance Status	Recommendations
	(iii) the water supply work approval number of the water supply work used to take the water on that date; (iv) the purpose or purposes for which the water taken on that date. (iv) the purpose or purposes for which the water taken on that date.		groundwater production bores). Water take is based on measured pumping volumes from pit sumps, and estimations of evaporation and rainfall on water balance of mine pits. As the water take is based on estimation of water inflows into the pits and not abstraction from groundwater bores work approvals are not submitted.		
MW0636-00001	The licence holder must produce the logbook to the Minister for inspection, when requested.	Not applicable.	Note.	Note	
MW0632-00001	The licence holder must keep a log book, except where the access licence nominates only a metered work with a data logger. A "logbook" means a written record, kept in hard copy or electronic form, which accurately records all information required to be kept for this licence.	Spreadsheet with pumping volumes sighted.	Spreadsheet with flow measurements from pit sumps kept.	C	
MW0637-00001	The licence holder must retain the information required to be recorded in the logbook for 5 years from the date to which that information relates.	Spreadsheet sighted.	Information on water use kept indefinitely by MCCM.	C	
Reporting					
MW0831-00001	The licence holder must notify the Minister, in writing, immediately upon becoming aware of a breach of any condition of this licence. Note: a notification does not authorise a breach, or continuing breach, of a condition of this licence.	Not applicable.	No breach of conditions recorded.	NT	
Additional conditions					
MW0717-00001	The maximum water allocation that may be carried over in the water allocation account for this access licence from one water year to the next is either: (A) 25 % of the access licence share component for access licences with share components expressed as ML/year; or (B) 0.25 ML per unit share of access licence share component for access licences with share components expressed as a number of unit shares.	Not applicable.	Note.	Note	

Annex F

Stakeholder Consultation

Nicole Whittaker

From: Oliver Moore
Sent: Friday, 22 June 2018 2:03 PM
To: Rebecca.Scrivener@epa.nsw.gov.au
Cc: Tony Dwyer; Scott Mitchell; Nicole Whittaker; Wijnand Gemson; Michael Gaggin
Subject: Maules Creek Coal Mine 2018 Independent Environmental Audit
Attachments: ERM Audit Terms of Reference (July 2018) - Maules Creek Coal Mine.pdf

Hi,

I am currently completing an independent environmental audit on the Conditions of Approval issued to Whitehaven Coal for the Maules Creek Coal Mine, PA 10_0138. The project also holds EPL #20221.

One of the requirements of the audit is that it is to be undertaken in consultation with relevant agencies. To that end, this email invites you to raise any questions or concerns regarding this project from an environmental management aspect.

The attached Terms of Reference outlines the audit process, and also introduces the approved team of suitably qualified, experienced and independent experts who will be undertaking the audit. The site inspection will be completed over the period 9 -12 July 2018, therefore it would be appreciated if there are any concerns, areas of focus etc, they are raised before this date.

I can be contacted at the details listed below to discuss further.

Kind regards

Olly

Oliver Moore
Principal Environmental Consultant

ERM
Level 15 | 309 Kent Street | Sydney NSW 2000
E Oliver.Moore@erm.com | W www.erm.com



Check out ERM's 2018 Sustainability Report

Nicole Whittaker

From: Oliver Moore
Sent: Friday, 22 June 2018 2:02 PM
To: Tim.Baker@dpi.nsw.gov.au
Cc: Tony Dwyer; Scott Mitchell; Nicole Whittaker; Wijnand Gemson; Michael Gaggin
Subject: Maules Creek Coal Mine 2018 Independent Environmental Audit
Attachments: ERM Audit Terms of Reference (July 2018) - Maules Creek Coal Mine.pdf

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Kind regards

Olly

Oliver Moore
Principal Environmental Consultant

ERM
Level 15 | 309 Kent Street | Sydney NSW 2000
E Oliver.Moore@erm.com | W www.erm.com



Check out ERM's 2018 Sustainability Report

Nicole Whittaker

From: Oliver Moore
Sent: Friday, 22 June 2018 2:04 PM
To: jeremy.arnott@planning.nsw.gov.au
Cc: 'Tony Dwyer'; Scott Mitchell; Nicole Whittaker; Wijnand Gemson; Michael Gaggin
Subject: Maules Creek Coal Mine 2018 Independent Environmental Audit
Attachments: ERM Audit Terms of Reference (July 2018) - Maules Creek Coal Mine.pdf

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Oliver Moore
Principal Environmental Consultant

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Level 15 | 309 Kent Street | Sydney NSW 2000
E Oliver.Moore@erm.com | W www.erm.com



Check out ERM's 2018 Sustainability Report

Nicole Whittaker

From: Oliver Moore
Sent: Friday, 22 June 2018 2:04 PM
To: Hagen.Ganahl@environment.gov.au
Cc: 'Tony Dwyer'; 'Scott Mitchell'; Nicole Whittaker; Wijnand Gemson; Michael Gaggin
Subject: Maules Creek Coal Mine 2018 Independent Environmental Audit
Attachments: ERM Audit Terms of Reference (July 2018) - Maules Creek Coal Mine.pdf

Hi,

I am currently completing an independent environmental audit on the Conditions of Approval issued to Whitehaven Coal for the Maules Creek Coal Mine, PA 10_0138. The project also holds EPL #20221.

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Kind regards

Olly

Oliver Moore
Principal Environmental Consultant

ERM
Level 15 | 309 Kent Street | Sydney NSW 2000
E Oliver.Moore@erm.com | W www.erm.com



Check out ERM's 2018 Sustainability Report

Nicole Whittaker

From: Oliver Moore
Sent: Friday, 22 June 2018 2:01 PM
To: Peter.Christie@environment.nsw.gov.au
Cc: Tony Dwyer; Scott Mitchell; Nicole Whittaker; Wijnand Gemson; Michael Gaggin
Subject: Maules Creek Coal Mine 2018 Independent Environmental Audit
Attachments: ERM Audit Terms of Reference (July 2018) - Maules Creek Coal Mine.pdf

Hi,

I am currently completing an independent environmental audit on the Conditions of Approval issued to Whitehaven Coal for the Maules Creek Coal Mine, PA 10_0138. The project also holds EPL #20221.

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Oliver Moore
Principal Environmental Consultant

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Level 15 | 309 Kent Street | Sydney NSW 2000
E Oliver.Moore@erm.com | W www.erm.com



Check out ERM's 2018 Sustainability Report

Nicole Whittaker

From: Oliver Moore
Sent: Friday, 22 June 2018 2:12 PM
To: Ruth.Crabb@environment.gov.au
Cc: 'Tony Dwyer'; 'Scott Mitchell'; Nicole Whittaker; Wijnand Gemson; Michael Gaggin; Hagen.Ganahl@environment.gov.au
Subject: RE: Maules Creek Coal Mine 2018 Independent Environmental Audit
Attachments: ERM Audit Terms of Reference (July 2018) - Maules Creek Coal Mine.pdf

Ruth,

I note Hagen is out of the office until early July and the out of office redirects to you. I wanted to give the Department of the Environment and Energy, Post Approval Section opportunity to respond.

Kind regards

Ollly

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

From: Oliver Moore
Sent: Friday, June 22, 2018 2:04 PM
To: 'Hagen.Ganahl@environment.gov.au' <Hagen.Ganahl@environment.gov.au>
Cc: 'Tony Dwyer' <TDwyer@whitehavencoal.com.au>; 'Scott Mitchell' <SMitchell@whitehavencoal.com.au>; Nicole Whittaker <Nicole.Whittaker@erm.com>; Wijnand Gemson <Wijnand.Gemson@erm.com>; Michael Gaggin <Michael.Gaggin@erm.com>
Subject: Maules Creek Coal Mine 2018 Independent Environmental Audit

Hi,

I am currently completing an independent environmental audit on the Conditions of Approval issued to Whitehaven Coal for the Maules Creek Coal Mine, PA 10_0138. The project also holds EPL #20221.

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The attached Terms of Reference outlines the audit process, and also introduces the approved team of suitably qualified, experienced and independent experts who will be undertaking the audit. The site inspection will be completed over the period 9 -12 July 2018, therefore it would be appreciated if there are any concerns, areas of focus etc, they are raised before this date.

I can be contacted at the details listed below to discuss further.

Kind regards

Ollly

Nicole Whittaker

From: Oliver Moore
Sent: Friday, 6 July 2018 10:40 AM
To: Heidi.Watters@Planning.nsw.gov.au; stephen.odonoghue@planning.nsw.gov.au
Cc: Scott Mitchell; Tony Dwyer; Michael Gaggin; Nicole Whittaker; Wijnand Gemson
Subject: FW: Maules Creek Coal Mine 2018 Independent Environmental Audit
Attachments: ERM Audit Terms of Reference (July 2018) - Maules Creek Coal Mine.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Heidi and Stephen,

Thank you for the call earlier Heidi. Stephen if you would like to discuss any items in the email, let me know a good time to call.

I am currently completing an independent environmental audit on the Conditions of Approval issued to Whitehaven Coal for the Maules Creek Coal Mine, PA 10_0138. The project also holds EPL #20221.

One of the requirements of the audit is that it is to be undertaken in consultation with relevant agencies. To that end, this email invites you to raise any questions or concerns regarding this project from an environmental management aspect.

The attached Terms of Reference outlines the audit process, and also introduces the approved team of suitably qualified, experienced and independent experts who will be undertaking the audit. The site inspection will be completed over the period 9 -12 July 2018, therefore it would be appreciated if there are any concerns, areas of focus etc, they are raised before this date.

I can be contacted at the details listed below to discuss further.

Kind regards

Olly

Oliver Moore
Principal Environmental Consultant

ERM
Level 15 | 309 Kent Street | Sydney NSW 2000
E Oliver.Moore@erm.com | W www.erm.com



Check out ERM's 2018 Sustainability Report

Nicole Whittaker

From: Oliver Moore
Sent: Friday, 6 July 2018 4:12 PM
To: Wijnand Gemson; Nicole Whittaker
Cc: Michael Gaggin
Subject: RE: Maules Creek IEA

Follow Up Flag: Follow up
Flag Status: Flagged

Some more to consider from the DP&E Post Approvals Team

- Sed Dams: Look at previous rain fall event and sed build up since – concern being the discharge when rainfall event happens with respect to sediment load
- Rehab: Progressive rehab, managing key resources, top soil management and progress against life of mine
- TARPs and triggers for investigation for surface and gw impacts
- Real-time monitoring – alarms and follow-up
- AQ – Using cumulative model for day to day operations to manage dust. Critique effectiveness of this approach
- Are dust trackers being effectively used at night and does this lead to revision of activities at on night shift.
- Use of dust carts at night and pre-shift?
- Hydrocarbon management as an indicator
- GW/AQ performance against EIS
- Effectiveness against commitments in Social Management Plan
- Managing feral animals and related impacts on neighbouring property / look at complaints

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

From: Oliver Moore
Sent: Friday, July 06, 2018 10:36 AM
To: Tony Dwyer <TDwyer@whitehavencoal.com.au>; 'Scott Mitchell' <SMitchell@whitehavencoal.com.au>
Cc: Michael Gaggin <Michael.Gaggin@erm.com>; Wijnand Gemson <Wijnand.Gemson@erm.com>; Nicole Whittaker <Nicole.Whittaker@erm.com>
Subject: FW: Maules Creek IEA

Scott and Tony,

I spoke with Heidi at DP&E in response to the email below. She was appreciative of the call and recognised that on occasion the endorsement letter sometimes covers this item off but they are keen to receive the Terms of Reference, which I will send through today. She pointed out the following areas of focus and will confirm these in writing:

- Progress of rehabilitation since the IBA specifically seeing and shaping
- Groundwater is a community focus, DP&E keen to understand monitoring since 2017 Annual Review
- Monitoring: calibration testing, condition and maintenance of equipment
- Response to blasting complaints
- Response to DP&E regarding water stored in pit

From: Heidi Watters <Heidi.Watters@Planning.nsw.gov.au>
Sent: Monday, July 9, 2018 8:07:44 AM
To: Oliver Moore
Cc: Steve O'Donoghue; Leah Cook
Subject: RE: Maules Creek Coal Mine 2018 Independent Environmental Audit

Hi Oliver

Thank you for the phone call and email last Friday. Apologies for the late reply.

As discussed, in addition to the implementation of management plans, other areas of focus for the IEA are:

- Location, siting and calibration of environmental monitoring equipment (blast monitors, AQ monitors, noise monitors)
- Status of the rehabilitation, particularly for the period following the Independent Biodiversity Audit

Other areas which I did not mention on Friday are:

- Progress of offset security
- Internal review of management plans – how are reviews tracked and dates of review(s) for each management plan should be included in the IEA report
- Status of commitments made in the Social Impact Management Plan

Please call if you have any further questions.

Regards

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



Planning &
Environment



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From: Tony Dwyer <TDwyer@whitehavencoal.com.au>
Sent: Thursday, July 05, 2018 5:09 AM
To: Oliver Moore <Oliver.Moore@erm.com>
Cc: Scott Mitchell <SMitchell@whitehavencoal.com.au>
Subject: FW: Final Feedback for ERM auditor July 2018

Oliver,

Find attached input from Libby Laird (MCCM CCC Member) for your consideration.

Regs,

Tony

Tony Dwyer
Group Manager - Approvals and Biodiversity

Whitehaven Coal Limited
231 Conadilly Street, Gunnedah NSW 2380 Australia
Tel: +61 2 6741 9316 Mobile: +61 475 830 292
Email: TDwyer@whitehavencoal.com.au www.whitehavencoal.com.au



From: Darren Swain
Sent: Wednesday, 4 July 2018 8:30 PM
To: Tony Dwyer <TDwyer@whitehavencoal.com.au>; Scott Mitchell <SMitchell@whitehavencoal.com.au>; Lily Webster <LWebster@whitehavencoal.com.au>
Subject: Fwd: Final Feedback for ERM auditor July 2018

ERM CoA AUDIT TERMS OF REFERENCE – July 2018

ORGANISATION	PROJECT NAME
Whitehaven Coal	Maules Creek Coal Mine
ADDRESS REPRESENTATIVE	MANAGEMENT
Maules Creek Coal Mine, Therribri Road, Boggabri, NSW 2382	Scott Mitchell (Environment Superintendent)

DATE OF AUDIT (Site Component)	AUDIT TEAM
9 – 12 July 2018	Oliver Moore – Lead Auditor Nicole Whittaker – Support Auditor Wijnand Gemson – Water Specialist Nathan Lynch – Acoustics Specialist Iain Cowan – Air Quality Specialist Joanne Woodhouse – Heritage Specialist Guy Williams – Technical Oversight Will Weir – Technical Oversight

AUDIT TYPE

The audit is to be undertaken as a compliance requirement of Condition of Approval (CoA) number 10 of Schedule 5 (IEA) of the Maules Creek Coal Mine Project Approval PA 10_0138, which requires completion of an independent audit every three years from the date of the approval.

OBJECTIVES

The primary objectives of the audit include:

- assess the environmental performance of the project and assess whether it is complying with the requirements in the CoA and all relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);
- identify any breaches or incomplete work of non-compliance to the requirements in the CoA.
- assess whether the Proponent is implementing best noise, blasting, and air quality management practice;
- 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 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;
- investigate and report on whether the Proponent is implementing best water management practice, including
 - by assessing and verify the methodology of the Water Balance Modelling (WBM) employed; the recording methodology, and the recording frequency by viewing the WBM files
 - Measures taken to minimise water usage and negative water quality impacts of the project during extreme meteorological conditions and/or extraordinary events
- conduct detailed on-ground offset audits– to verify performance against Approval Condition Schedule 3 Condition 56-
 - 56 (b) assessing the performance of the revegetation in the rehabilitation area completed to date against the completion criteria in the Rehabilitation Management Plan; and
 - 56 (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
 - 56 (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”.

- review the adequacy of any approved strategy, plan, or program required under the abovementioned consents/approvals; and
- recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under the abovementioned approvals.

SCOPE OF AUDIT

- the audit to be carried out in accordance with DP&E's Guidelines for Independent Audits;
 - the audit will be carried out in accordance with AS/NZS ISO 19011:2014: Guidelines for quality and/or environmental management systems auditing;
 - **the audit to be carried out within the national guidelines of groundwater modelling;**
 - **the audit to be carried out within the guidelines for environmentally sustainable development;**
 - review of compliance against the documentation identified in the CoA (as it relates to the current activities of the Maules Creek Coal Mine) which will include:
 - document review of compliance against the CoA, statement of commitments, and any other relevant consents/approvals;
 - **identification of any breaches found and applicable remediation**
 - site inspection to assess compliance against field implementation of active CoA;
 - review of supporting plans developed as part of the CoA and assessment of their adequacy towards effective environmental performance, including recalibration of the water model;
 - review of monitoring results and trends with comparison of monitoring results against regulatory limits and MCoA limits (where applicable);
 - **comparison of all monitoring results during the audit period compared with the original baseline (in particular, in relation to the Water Management Plan 2014-2016) including location of monitoring sites and applicability of these sites**
 - confirmation if any additional monitoring required for identified trends;
 - community complaints with review completed for any trends and identifying the source of an established trend;
 - review of any regulatory actions including any letters, penalty notices and prosecutions; and
 - review of previous Independent Environment Report (issued August 2016) audit report to verify close-out of actions.
 - consultation with the relevant agencies such as Department of Planning and Environment (DP&E), Environment Protection Agency (EPA), NSW Department of Industry (Division of Resource and Energy (DRE)) and DPI – Water and North West Local Land Service; Community Consultative Committee and Department of the Environment and Energy.
- The audit covers the period 1 July 2015 to 30 June 2018.

AUDIT CRITERIA

The audit will assess the level of compliance and environmental performance of the mine against the following approvals licences and management plans:

- Conditions of consent PA10_0138 including Statement of Commitments
- EPL 20221
- Mining Leases – CL375, ML1701, ML1719
- Water Access Licenses – 12479, 12811, 13050, 27383, 27385, 29467, 29588
- Management plans - the commitments in the management plans developed as part of the CoA have been implemented

Note: An Independent Biodiversity Audit (IBA) required by Schedule 3 condition 56 of the approval was undertaken in 2017. The IEA will refer to the findings of the IBA in assessment of compliance with this condition. This report will ensure it addresses to the fullest extent all in the IBA.

The documents which form part of the audit criteria should be provided prior to the audit so that the desktop review component can be completed prior to the site visit.

FINDINGS & RECOMMENDATIONS

A draft audit report will be prepared by the audit team and circulated for comment to Whitehaven Coal; with comments to be provided back to ERM within two weeks to enable finalisation of report and return to Whitehaven Coal for submission to DP&E by 30 September 2018.

The audit team, where appropriate, will develop recommendations to address the findings.

Recommendations will be agreed with Whitehaven Coal. Once agreed, recommendations become Audit "Actions". An action table will be developed after the draft report is issued and included in the final report for submission to the DP&E.

Further issues to examine:

1. Water

- Assess if the mine has investigated the connectivity between the coal seams and the alluvial aquifer
- Assess if the mine water balance and groundwater computer model has been validated against recorded water monitoring
- Assess if there are sufficient operational groundwater monitoring stations to effectively validate the model
- Assess if mine surface and ground water extraction records are able to be independently verified
- Assess if there are sufficient working water (groundwater and surface water) monitoring stations to ensure adaptive management conditions are being fulfilled in light of current environmental / seasonal changes
- Assess if the ongoing environmental reporting to the DPE is sufficient to enable the department to ensure adaptive management conditions are being fulfilled in light of current environmental / seasonal changes
- Assess the timeliness of water quality and quantity reporting for the surface and ground water monitoring is sufficient to ensure adaptive management conditions are being fulfilled
- Verify the number and operational status of monitoring bores against approval conditions
- Seek clarification on construction timeline for PAC recommendations re additional 17 groundwater monitoring stations
- Verify the groundwater monitoring bores along Back Creek accurately measure water quality and quantity along Back Creek?
- Assess Riparian Communities health along Back Creek and whether water extraction trigger criteria are adequate to meet the approval conditions

2. Offset Security Management.

- Assess Northern Offsets management audit up until the time of transfer to National Parks
- Assess re-vegetation works carried out on the Eastern & Western Offsets
- Assess flora species propagation and plantings in the Eastern & Western Offsets
- Assess habitat logs and rocks in situ and the accuracy of inspection records and status reports
- Assess the legality of the transfer to a second party of offset areas under the approval conditions
- Assess the ability for the Offset areas to be maintained and protected in perpetuity
- Assess whether additional offsets will need to be purchased to replace any areas that have been sold/transferred to the National Park Estate

- **Assess if there are processes/resources in place to ensure fulfillment of commitments in condition 44 of the Project Approval in relation to offset areas transferred to the National Park Estate?**

44. 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 [Secretary](#).

Table 16: Summary of the Biodiversity Offset Strategy

Area	Offset Type	Minimum Size (hectares)
Northern Offset Area currently owned or under option by Proponent	Existing native woodland / forest of 4,286 ha to be protected and enhanced. Additional native vegetation to be established with the restoration of at least 1,470 ha of derived native grassland including 1,396 ha of derived native grassland Box Gum Woodland EEC as listed under the TSC Act. Additional targeted restoration of up to 58 ha of low diversity derived native grassland, pasture improved and cultivated land to provide buffer to offset and connectivity between remnant vegetation. <i>Note: the final area of restoration of low diversity derived native grassland, pasture improved and cultivated land is subject to completion of the revised offset strategy required in condition 45.</i>	5,756

- **Assess if the long term security bond is adequate, post the transfer of offsets, to ensure section 44 commitments can be guaranteed**
- **Assess whether an adequate security bond is in place for all remaining offset areas**
- **Assess environmental performance of the offsets by conducting detailed on-ground offset and mine site inspections rather than desktop studies**

3. Waste

- **Assess mine waste management how is this being conducted - in particular re specific concern about the burial of tyres. Where is the big tyre pile now?**
- **Assess the status of MCCM greenhouse gas emissions and adherence to state imposed limits**
- **Assess whether Maule Creek coal mine adopted all reasonable and feasible means to limit the projects contribution to greenhouse gas emissions**

4. Mine site rehabilitation and re-vegetation

- **Assess if the mine has prepared progressive rehabilitation and mine closure plans that are suitable for the stage of the project**
- **Assess if sufficient funds have been put aside to rehabilitate the mine should the company fail unexpectedly.**
- **Assess if the current overburden height has reached the maximum approved height**
- **Assess if re-vegetation processes are behind schedule**
- **Assess if topsoils and subsoil has sufficient moisture holding ability and topsoil depth to sustain restored vegetation and biodiversity within the rehabilitated areas in order to meet State and Federal approval conditions**

5. Waste rock dumps, Tailings Dams and Topsoil

- **Assess if the dimensions of waste rock dumps including height, slope angles and area are within approval limits**
- **Assess if mitigation strategies are adequate to manage any acid and metalliferous drainage issues as per the approval conditions?**
- **Assess if the long-term drainage management system is adequate in the long-term as per the approval conditions?**

6. Blasts

- **Assess if Blasts fumes have left the site.**
- **Assess if Blast notifications to residents have been timely.**

7. Noise

- **Assess the sound power levels of the fixed plant and equipment**

8. Website

- **Assess if company website provides a level of data required by the approval**
 - **timeliness, reliability and accuracy of environmental data**
 - **reliability of document links**

END

Page 5 of 5

Thanks for the opportunity to participate.

Libby Laird

Community Rep

MC Coal Mine

4 July 2018

From: Jack Warnock [<mailto:jackwarnock@bigpond.com>]

Sent: Tuesday, 3 July 2018 12:37 PM

To: 'David Ross' <david.ross@phoenixstrategic.com.au>; 'Kerri Clarke' <kerriclarke2014@gmail.com>; 'libby laird' <libbylaird2@bigpond.com>; 'Steve Eather' <steveeather@bigpond.com>; 'Simmons Moodie' <simmons.moodie6@bigpond.com>; 'Cr Robert Kneale' <cr.kneale@narrabri.nsw.gov.au>; 'Catherine Collyer' <cathcollyer1@gmail.com>; 'Carolyn Nancarrow' <caz.nancarrow@gmail.com>

Cc: Darren Swain <DSwain@whitehavencoal.com.au>

Subject: RE: Independent Environmental Audit comments

Hullo David/Darren

Could the Auditors comment on the adequacy and number of monitoring bores being utilised? Is the appropriate information being gathered from the monitoring bores?

Does Maules Creek Coal hold the appropriate Groundwater Licences in Zone 11? I have read comments that the Zone 11 Licences are not "High Security" Licences, however I am not aware of "High Security" Groundwater entitlements in the Namoi Valley.

Could we be advised of the level of the current pit(s) being mined, in relation to relevant height datum for Maules Creek and the monitoring bore network? Is the pit(s) above or below Maules Creek bore water levels?

Regards

Jack Warnock

Jack and Jacqui Warnock
WARNOCK Agronomics Pty Limited
1322 Maules Creek Road
P.O. Box 306
NARRABRI NSW 2390
Phone: 02 6794 4800
Mobile: 0427 944 800 (Jack); 0427 944 850 (Jacqui)

Item	Assessment requirement	Auditor recommendation	Audit classification	Proposed Action	Estimated completion date						
<i>PA10_0138</i>											
Schedule 2 Condition 10	SURRENDER OF EXISTING DEVELOPMENT CONSENT <i>By the end of 2013, or as otherwise agreed by the Secretary, 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.</i>	This is a legacy ANC. MCCM satisfied the requirements of this condition during the current audit period, however the required date was not met. No further action required.	ANC	No further action required	Not applicable.						
17	COMMUNITY ENHANCEMENT <i>By the end of March 2013, unless the Secretary 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.</i>	No further action required as this is a legacy ANC.	ANC	No further action required	Not applicable						
Schedule 3 Condition 7	Noise Criteria <i>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.</i> <small>Table 5: Noise criteria dB(A)</small> <table border="1"> <thead> <tr> <th>Land</th> <th>Day/Evening/Night L_{max}(15 min)</th> <th>Night L_{A1}(1 min)</th> </tr> </thead> <tbody> <tr> <td>All privately-owned residences</td> <td>35</td> <td>45</td> </tr> </tbody> </table> <small>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.</small> <i>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.</i>	Land	Day/Evening/Night L _{max} (15 min)	Night L _{A1} (1 min)	All privately-owned residences	35	45	MCCM is to ensure that all noise mitigation measures are implemented and TARP's are monitored and responded to accordingly to minimise the potential for noise exceedances.	NC	MCC will continue to monitor real time noise levels and respond to TARP levels and responsibilities specified within the NMP. Attended monitoring results and compliance will be reported within the required external reports (EPL monthly report and Annual Review).	Ongoing
Land	Day/Evening/Night L _{max} (15 min)	Night L _{A1} (1 min)									
All privately-owned residences	35	45									
12	Attenuation of Plant <i>The Proponent shall: (a) ensure that: • all mining trucks and water carts used on the site are commissioned as noise suppressed (or attenuated) units; • 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; • where reasonable and feasible, improvements are made to existing noise suppression equipment as better technologies become available; and (b) monitor and report on the implementation of these requirements annually on its website.</i>	MCCM needs to continue to implement improvement of controls to reduce the sound power levels of the equipment that exceeds the EA criteria.	NC	MCCM will continue to undertake SPL testing and report on mitigation measures within the Annual Review.	Ongoing						
24	BLASTING Operating Conditions <i>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:</i>	No further action required, as all necessary agreements are now in place.	ANC	Complete	Complete						

	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> demonstrated to the satisfaction of the Secretary 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 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. 				
33	<p>AIR QUALITY & GREENHOUSE GAS Operating Conditions The Proponent shall:</p> <p>(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;</p> <p>(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;</p> <p>(c) manage PM2.5 levels in accordance with any requirements of an EPL;</p> <p>(d) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see note d in condition 29);</p> <p>(e) minimise any visible off-site air pollution;</p> <p>(f) minimise the surface disturbance of the site generated by the project; and</p> <p>(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 Secretary.</p>	No further action required as the predictive model is now operational and the official caution related to a specific event with no ongoing air quality impacts.	ANC	Operation of the predictive tool is implemented and safeguards in place to ensure continued operation.	Complete
51	<p>Aquatic Habitat 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 Secretary.</p>	MCCM should consider engaging with DPI Fisheries to ensure the temporary pump station is satisfactory to align with the intent of this condition.	NT Obs	MCCM will contact DPI Fisheries to confirm adequacy of the temporary pump station.	April 2019
66	<p>Rail Transport Within 12 months of the completion of the Gunnedah Traffic Study, the Proponent shall:</p> <p>(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</p> <p>(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 Secretary.</p>	No further action required as this is a legacy ANC.	ANC	No further action required.	Complete.

70	<p>WASTE <i>The Proponent shall:</i></p> <p>(a) <i>implement all reasonable and feasible measures to minimise the waste (including coal reject) generated by the project;</i></p> <p>(b) <i>ensure that the waste generated by the project is appropriately stored, handled and disposed of; and</i></p> <p><i>monitor and report on the effectiveness of the waste minimisation and management measures in the Annual Review.</i></p>	Review waste management practices around segregation of waste.	NC	Reviewed. New waste management contract provider implemented.	Complete.
Schedule 4 Condition 2	<p>NOTIFICATION OF LANDOWNERS/TENANTS <i>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:</i></p> <p>(a) <i>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);</i></p> <p>(b) <i>advise the prospective tenants of the rights they would have under this approval; and</i></p> <p>(c) <i>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 Secretary.</i></p>	No further action required given that Tenancy Agreement is in accordance with this condition.	ANC	No further action required.	Complete.
Schedule 4 Condition 13	<p>Online Communication of Onsite Activities and Monitoring of Noise and Air Quality <i>The Proponent shall, within 3 months of the date of this approval:</i></p> <p>(a) <i>make the following information for the project publicly available on its website, on a daily basis and in a clearly understandable form:</i></p> <ul style="list-style-type: none"> • <i>daily weather forecasts for the coming week;</i> • <i>proposed operational responses to these weather forecasts;</i> • <i>real-time noise and air quality monitoring data (subject to any necessary caveats); and</i> • <i>any operational responses that were taken in response to the noise and air quality monitoring data, and</i> <p>(b) <i>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 Secretary</i></p>	MCCM should include on its website details about its daily "operational responses" to the weather forecast.	ANC	Complete. Daily website details now address the recommendation. Additionally, operational responses are already included within the respective management plans. Furthermore, a daily risk output from 'Envirosuite' informs weather conditions and risk levels, with controls already identified within the management plans applied accordingly. An administrative change was made to the new website format to include reference to proposed operational responses.	Complete
Appendix 5 Statement of Commitments	<p>Mining Operations</p> <p><i>Maules Creek Coal shall surrender its existing development consent DA 85/1819 following the grant of the Project Approval.</i></p>	Refer to CoA Schedule 2 condition 10. This is a legacy ANC. No further action required.	ANC	No further action required.	Complete.
EPL_20221					
4	<p>L2 Concentration limits Water and/or Land Concentration Limits POINT 2,3,5,7,9</p>	<p>No further action.</p> <p>Ensure monitoring in undertaken in accordance with all EPL parameters.</p>	ANC	Noted. Previously reported by MCCM.	Not applicable.

	<i>Pollutant</i>	<i>Units Measure</i>	<i>50 Percentile concentration limit</i>	<i>90 Percentile concentration limit</i>	<i>3DGM concentration limit</i>																								
	<i>Oil and Grease</i>	<i>Milligrams per litre</i>																											
	<i>pH</i>	<i>pH</i>																											
	<i>Total Suspended Solids</i>	<i>Milligrams per litre</i>	20	35																									
1	L3 Noise Limits <i>Noise generated at the premises must not exceed the noise limits in the table below.</i> <table border="1"> <thead> <tr> <th>Locality and location</th> <th>Day - LAeq(15 minute)</th> <th>Evening - LAeq(15 minute)</th> <th>Night - LAeq (15 minute)</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 minute)	Evening - LAeq(15 minute)	Night - LAeq (15 minute)	Night - LA1 (1 minute)	All privately owned residences	35	35	35	45	MCCM is to ensure that all noise mitigation measures are implemented and TARPs are monitored and responded to accordingly to minimise the potential for noise exceedances.	NC	Ongoing. Controls will continue to be implemented.	Ongoing										
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All privately owned residences	35	35	35	45																									
3	L3 Noise Limits <i>Noise generated at the premises that is measured at each noise monitoring point established under this licence must not exceed the noise levels specified in Column 4 of the table below for that point during the corresponding time periods specified in Column 1 when measured using the corresponding measurement parameters listed in Column 2.</i> <table border="1"> <thead> <tr> <th>Time period</th> <th>Measurement parameter</th> <th>Measurement frequency</th> <th>Noise level dB(A)</th> </tr> </thead> <tbody> <tr> <td>Day</td> <td>LAeq (15 minute)</td> <td>Monthly</td> <td>35</td> </tr> <tr> <td>Evening</td> <td>LAeq (15 minute)</td> <td>Monthly</td> <td>35</td> </tr> <tr> <td>Night</td> <td>LAeq (15 minute)</td> <td>Monthly</td> <td>35</td> </tr> <tr> <td>Night</td> <td>Night-LA1 (1 minute)</td> <td>Monthly</td> <td>45</td> </tr> </tbody> </table> <p><i>Note: Attended noise monitoring locations identified in the table above are taken to be representative of privately owned residences and are to be used for the purposes of determining compliance with noise limits identified in this licence, unless otherwise required in writing by the EPA.</i></p>					Time period	Measurement parameter	Measurement frequency	Noise level dB(A)	Day	LAeq (15 minute)	Monthly	35	Evening	LAeq (15 minute)	Monthly	35	Night	LAeq (15 minute)	Monthly	35	Night	Night-LA1 (1 minute)	Monthly	45	Refer to condition L3.1	NC	As above. Refer to condition L3.1	As above
Time period	Measurement parameter	Measurement frequency	Noise level dB(A)																										
Day	LAeq (15 minute)	Monthly	35																										
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Night	Night-LA1 (1 minute)	Monthly	45																										
1	O1 Activities must be carried out in a competent manner <i>Licensed activities must be carried out in a competent manner.</i> <i>This includes:</i> <ol style="list-style-type: none"> <i>the processing, handling, movement and storage of materials and substances used to carry out the activity; and</i> <i>the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.</i> 					Refer to CoA Condition 70.	NC	Noted. Waste management tender process complete and transition in contractor completed.	Complete.																				
2	M2 Requirement to monitor concentration of pollutants discharged Air Monitoring Requirements					It is understood that the loss of power and maintenance requirements are outside of MCCM's control, therefore no further action is required.	ANC	Noted. Calibration and maintenance periods will continue to occur. The NSW EPA have the	Complete																				

	<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> <p>POINT 19</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>Every 6 days</td> <td>AM-18</td> </tr> </tbody> </table> <p>POINT 20,21,22,23</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Particulates - Deposited Matter</td> <td>grams per square metre per month</td> <td>Monthly</td> <td>AM-19</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	PM10	micrograms per cubic metre	Continuous	AM-22	Pollutant	Units of measure	Frequency	Sampling Method	PM10	micrograms per cubic metre	Every 6 days	AM-18	Pollutant	Units of measure	Frequency	Sampling Method	Particulates - Deposited Matter	grams per square metre per month	Monthly	AM-19			<p>discretion to allow for reasonable time to maintain and calibrate equipment. Monitoring points were revised within a variation to EPL20221, approved in March 2018.</p>																	
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Particulates - Deposited Matter	grams per square metre per month	Monthly	AM-19																																										
2	<p>M3 Testing methods – concentration limits</p> <p><i>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.</i></p>	<p>MCCM should continue to work with EPA to gain approval for the revised methodology.</p>	ANC	<p>Approval received from EPA in September 2018. Complete.</p>	Complete																																								
1	<p>M4 Weather monitoring</p> <p><i>At the point(s) identified below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1 of the table below, using the corresponding sampling method, units of measure, averaging period and sampling frequency, specified opposite in the Columns 2, 3, 4 and 5 respectively.</i></p> <p>POINT 35</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Sampling method</th> <th>Units of measure</th> <th>Averaging period</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>Rainfall</td> <td>AM-4</td> <td>millimetres</td> <td>1 hour</td> <td>Continuous</td> </tr> <tr> <td>Wind Speed at 10 metres</td> <td>AM-2 & AM-4</td> <td>metres per second</td> <td>15 minutes</td> <td>Continuous</td> </tr> <tr> <td>Wind Direction at 10 metres</td> <td>AM-2 & AM-4</td> <td>Degrees</td> <td>15 minutes</td> <td>Continuous</td> </tr> <tr> <td>Temperature at 2 metres</td> <td>AM-4</td> <td>degrees Celsius</td> <td>15 minutes</td> <td>Continuous</td> </tr> <tr> <td>Temperature at 10 metres</td> <td>AM-4</td> <td>degrees Celsius</td> <td>15 minutes</td> <td>Continuous</td> </tr> <tr> <td>Total Solar Radiation</td> <td>AM-4</td> <td>Watts per square metre</td> <td>15 minutes</td> <td>Continuous</td> </tr> <tr> <td>Siting</td> <td>AM-1</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>	Parameter	Sampling method	Units of measure	Averaging period	Frequency	Rainfall	AM-4	millimetres	1 hour	Continuous	Wind Speed at 10 metres	AM-2 & AM-4	metres per second	15 minutes	Continuous	Wind Direction at 10 metres	AM-2 & AM-4	Degrees	15 minutes	Continuous	Temperature at 2 metres	AM-4	degrees Celsius	15 minutes	Continuous	Temperature at 10 metres	AM-4	degrees Celsius	15 minutes	Continuous	Total Solar Radiation	AM-4	Watts per square metre	15 minutes	Continuous	Siting	AM-1	-	-	-	<p>Annual maintenance is an operating requirement. No further action is required.</p>	ANC	<p>Noted. Maintenance will continue to be completed as required.</p>	Ongoing.
Parameter	Sampling method	Units of measure	Averaging period	Frequency																																									
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1	<p>M7 Blasting</p> <p><i>To determine compliance with conditions L4.1 to L4.4 inclusive:</i></p>	<p>Ensure that blast monitoring equipment is maintained to ensure all blast data is captured from all blast monitoring locations.</p>	ANC	<p>Noted. Blast monitoring equipment is maintained and calibrated.</p>	Ongoing																																								

	<p>a) Airblast overpressure and ground vibration levels must be measured and electronically recorded for monitoring points 31, 32, 33 and 34 for the parameters specified in Column 1 of the table below and</p> <p>b) The licensee must use the units of measure, sampling method and sample at the frequency specified opposite in the other columns.</p>				
<i>Coal Lease 375</i>					
Condition 10.	<p>Blasting</p> <p><i>Blast Overpressure</i> 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.</p>	Refer to CoA Condition 18.	NC	Noted. No further exceedances have occurred since this event. This unit was on mine owned land.	Not applicable.
Condition 14	<p>Roads and Tracks</p> <p><i>During wet weather the use of any road or track must be restricted so as to prevent damage to the road or track.</i></p>	MCCM should endeavour and commit to restricting unnecessary traffic movement on roads and tracks in wet weather.	ANC	The Resources Regulator completed an audit in May 2018 and identified this condition was compliant. Many tracks and roads are inaccessible in wet conditions. Pre-work notification to biodiversity contractors is provided to specify the level of access permitted, including excluding access where required. Section 6.12 of the Biodiversity Management Plan addresses control of access and designated tracks. No further controls are proposed.	Not applicable
<i>CoA PA 10_0138 (MOD 3, 17 January 2017)_Management Plans</i>					
25	<p>Blast Management Plan The Proponent shall prepare and implement a Blast Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be submitted to the Secretary 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"> • best management practice is being employed; and • compliance with the relevant conditions of this approval; <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>Ensure approval records for all plans requiring Secretary approval are maintained.</p> <p>Ensure that all blast notifications are issued in accordance with the BMP.</p>	ANC	Noted.	As required

	<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"> • compliance with the applicable criteria; and • minimising fume emissions from the site; and <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>				
40	<p>Water Management Plan <i>The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must be prepared in consultation with OEH, DPI Water and North West LLS, by suitably qualified and experienced person/s whose appointment has been approved by the Secretary, and be submitted to the Secretary for approval prior to the commencement of construction.</i> <i>In addition to the standard requirements for management plans (see condition 3 of schedule 5), this plan must include:</i></p> <p>(a) a Site Water Balance, that:</p> <ul style="list-style-type: none"> • includes details of: <ul style="list-style-type: none"> ○ sources and security of water supply, including contingency for future reporting periods; ○ water use on site; ○ water management on site; ○ any off-site water discharges; ○ reporting procedures, including the preparation of a site water balance for each calendar year; ○ a program to validate the surface water model, including monitoring discharge volumes from the site and comparison of monitoring results with modelled predictions; and • describes the measures that would be implemented to minimise clean water use on site; <p>(b) a Surface Water Management Plan, which includes:</p> <ul style="list-style-type: none"> • detailed baseline data on surface water flows and quality in the water-bodies that could potentially be affected by the project; • detailed baseline data on hydrology across the downstream drainage system of the Namoi River floodplain from the mine site to the Namoi River; • a detailed description of the water management system on site, including the: <ul style="list-style-type: none"> ○ clean water diversion systems; ○ erosion and sediment controls (dirty water system); ○ mine water management systems; ○ discharge limits in accordance with EPL requirements; ○ water storages; ○ mine access road and Maules Creek rail spur line; • detailed plans, including design objectives and performance criteria for: <ul style="list-style-type: none"> ○ design and management of final voids; ○ design and management for the emplacement of reject materials, sodic and dispersible soils and acid or sulphate generating materials; ○ design and management for construction and operation of the rail spur line and mine access road; 	<p>MCCM should follow-up with DP&E to achieve approval of the WMP to satisfy Condition 48(b).</p> <p>For the groundwater chemistry baseline, the Auditor suggests that MCCM consider undertaking a consolidated review and assessment of available baseline data. This review should include consideration (and potential exclusion) of data that may have been affected by elevated pH in cement grouted bores. Outputs of the assessment should include descriptive statistics of baseline chemistry data and evaluation of temporal trends and potential seasonal variation.</p>	C Obs	Noted. MCCM have engaged a consultant to undertake a review of chemical data. A comprehensive review will be undertaken in 2019 to address this observation. A review was also undertaken for the 2017 Annual Review (refer WHC website)	30 June 2019

- o o reinstatement of drainage lines on the rehabilitated areas of the site; and
 - o o control of any potential water pollution from the rehabilitated areas of the site;
- performance criteria for the following, including trigger levels for investigating any potentially adverse impacts associated with the project:
 - o the water management system;
 - o downstream surface water quality;
 - o downstream flooding impacts, including flood impacts due to the construction and
 - o operation of the rail spur line and mine access road, and flooding along Back Creek;
 - o and
 - o stream and riparian vegetation health, including the Namoi River;
- a program to monitor:
 - o the effectiveness of the water management system; and
 - o surface water flows and quality in the watercourses that could be affected by the project;
 - o downstream flooding impacts; and
- reporting procedures for the results of the monitoring program;
- 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
- (c) a Groundwater Management Plan, which includes:
 - 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;
 - the monitoring and testing requirements specified in the PAC recommendations for groundwater management as set out in Appendix 6;
 - detailed plans, including design objectives and performance criteria, for the design and management of:
 - o the proposed final void; and
 - o coal reject and potential acid forming material emplacement;
 - groundwater assessment criteria including trigger levels for investigating any potentially adverse groundwater impacts;
 - a program to monitor and assess:
 - o groundwater inflows to the open cut mining operations;
 - o the seepage/leachate from water storages, emplacements, backfilled voids and the final void;
 - o interconnectivity between the alluvial and bedrock aquifers;
 - o background changes in groundwater yield/quality against mine-induced changes;
 - o the impacts of the project on:
 - regional and local (including alluvial) aquifers;
 - groundwater supply of potentially affected landowners;
 - groundwater dependent ecosystems (including potential impacts on stygo-fauna and Melaleuca riparian forest communities) and riparian vegetation;
 - 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
 - a plan to respond to any exceedances of the performance criteria; and

	<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"> • minimise the cumulative water quality impacts of the mines; • review opportunities for water sharing/water transfers between mines; • co-ordinate water quality monitoring programs as far as practicable; • undertake joint investigations/studies in relation to complaints/exceedances of trigger levels where cumulative impacts are considered likely; and • co-ordinate modelling programs for validation, re-calibration and re-running of the groundwater and surface water models using approved mine operation plans. <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 area.</p>				
45	<p><i>Revised Biodiversity Offset Strategy</i> The Proponent shall prepare and implement a revised biodiversity offset strategy for the identified offset areas in Table 16 to the satisfaction of the Secretary. The revised Strategy must:</p> <p>(a) not reduce the size or quality of the proposed offset areas;</p> <p>(b) be consistent (as far as is possible) with the recommendations and objectives of the Leard Forest Mining Precinct Regional Biodiversity Strategy;</p> <p>(c) be prepared in consultation with OEH, North West LLS, CCC, DPI Lands and DoEE;</p> <p>(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;</p> <p>(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;</p> <p>(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;</p> <p>(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</p> <p>(h) be submitted to the Secretary 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 Secretary.</p>	There is an opportunity to update the BOS to ensure the consistency as required by condition (b).	ANC	Noted. The BOS has been revised to align, as far as possible, with the objectives of the RBS and is pending approval from DP&E.	Complete.
58	<p><i>Heritage Management Plan</i> The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared by suitably qualified and experienced person/s whose appointment has been endorsed by the Secretary;</p> <p>(b) be prepared in consultation with the OEH, North West LLS and the local Aboriginal stakeholders (in relation to the management of Aboriginal heritage values);</p> <p>(c) be submitted to the Secretary for approval prior to any development that may impact heritage items, unless the Secretary agrees otherwise;</p> <p>(d) include the following for the management of Aboriginal heritage:</p>	MCCM should follow-up with DP&E to achieve approval of the HHMP to satisfy Condition 58e.	C Obs	Approval by DP&E was received of the HHMP on 20 July 2018.	Complete.

	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> ○ sub-surface testing; ○ staged salvage, based on anticipated mine planning; ○ if relevant, historic heritage salvage at the Lawler's Waterhole site; ○ pre-disturbance monitoring; ○ site assessment and reporting; ○ research objectives to inform knowledge of Aboriginal occupation; ○ protection, storage and management of salvaged Aboriginal objects; ○ addressing relevant statutory requirements under the National Parks and Wildlife Act 1974; and ○ long term protection of salvaged Aboriginal objects; • a description of the measures that would be implemented for: <ul style="list-style-type: none"> ○ protecting, monitoring and managing Aboriginal sites on the site which are outside of the approved disturbance area; ○ maintaining and managing reasonable access for Aboriginal stakeholders to heritage items on the site and within the Biodiversity Offset Strategy areas; ○ 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; ○ 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; ○ 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; <p>(e) include the following for the management of historic heritage:</p> <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> ○ managing the discovery of human remains or previously unidentified heritage items on site; and ○ 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. <p><i>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 Secretary's approval of the Aboriginal Heritage Conservation Strategy.</i></p>				
WALs					
Water Access Licence (WAL) 12479 MW0821-00001	The licence holder must comply with the water allocation account management rules established by the plan.	Ensure that water take calculations for WAL are undertaken at the end of the reporting period and reported through the annual review	NV Obs	Noted. MCCM meter and track water extraction and sources and source volumes will continue to be	Noted. Annual Review

				included within the Annual Review.	
MW0822-00001	<i>The licence holder must not take water under this licence if the resulting debit from the water allocation account for this licence will exceed the volume of water in the account.</i>	Refer to above condition.	NV Obs	Noted. Refer to above condition.	As above
Water Access Licence (WAL) 27385 MW0821-00001	<i>The licence holder must comply with the water allocation account management rules established by the plan.</i>	Ensure that water take calculations for WAL are undertaken at the end of the reporting period and reported through the annual review.	NV Obs	Noted. MCCM meter and track water extraction and sources and source volumes will continue to be included within the Annual Review.	As above
MW0822-00001	<i>The licence holder must not take water under this licence if the resulting debit from the water allocation account for this licence will exceed the volume of water in the account.</i>	Refer to above condition MW0821-00001	NV Obs	Noted. Refer above.	As above