

Independent Environmental Audit Moolarben Coal Mine

transport | community | mining | industrial | food & beverage | energy



Prepared for:

Yancoal Australia Ltd

Client representative:

Graham Chase

Date:

14 January 2019

Rev 2

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A	Internal Draft	C. Lestrangle	K. Holmes	K. Holmes	18/12/2018
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Acronyms

AQMP	Air Quality Management Plan
BioMP	Biodiversity Management Plan
BOMP	Biodiversity Offset Management Plan
BMP	Blast Management Plan
CCC	Community Consultative Committee
CHPP	Coal Handling Preparation Plant
DECC	Department of Environment and Climate Change
DoI	Department of Industries
DPI	Department of Planning and Infrastructure
DP&E	Department of Planning and Environment (formerly DP&I)
DRE	Department of Resources and Energy
ELA	EcoLogical Australia
EMP	Environmental Management Plan
EMS	Environmental Management Strategy
EPA	NSW Environment Protection Authority
EPBC	Environmental Protection and Biodiversity Conservation
EPL	Environmental Protection Licence
ESAP	Energy Savings Action Plan
GDP	Ground Disturbance Permit
GHGMP	Green House Gas Management Plan
GWMP	Ground Water Management Plan
HMP	Heritage Management Plan
IEA	Independent Environmental Audit
LMP	Landscape Management Plan
LW	Long wall
MCO	Moolarben Coal Operations
MCM	Moolarben Coal Mine
ML	Mining Lease
MOP	Mine Operations Plan
MPEA	Mine Production Environmental Assistant
NMP	Noise Management Plan
NOW	NSW Office of Water
NPWS	National Parks and Wildlife Services
NRAR	Natural Resources Access Regulator
OC	Open-cut
OEH	NSW Office of Environment and Heritage
PA	Project Approval
RAPs	Registered Aboriginal Parties
RFS	Rural Fire Service
RMP	Rehabilitation Management Plan
SoC	Statement of Commitments
SWB	Site Water Balance
SWMP	Surface Water Management Plan
UCM	Ulan Coal Mine
UG	Under-ground
VPA	Voluntary Planning Agreement
WMP	Water Management Plan
Yancoal	Yancoal Australia Ltd.

Executive Summary

pitt&sherry was engaged by Yancoal Australia Ltd / Moolarben Coal Mine (MCM), to conduct an Independent Environmental Audit (IEA) of the Moolarben Coal Mine located at 4250 Ulan Rd, Ulan New South Wales (NSW) 2850. The audit comprised a site inspection on Wednesday 17 October 2018 and Thursday 18 October 2018, as well as document review, interviews with personnel, consultation with agencies and reporting of the findings. The audit was undertaken in accordance with the brief outlined in the **pitt&sherry** proposal (dated 28 June 2018). Environmental performance of the project is reviewed by way of compliance with the requirements and conditions of the following regulatory approvals and provides recommendations to improve the environmental performance of the project.

- Consolidated Consent on PA50_0117 and PA08_0135
- Environmental Protection Licence (EPL) No. 12932
- EPBC Approval: EPBC 2007/329, EPBC 2008/4444 and EPBC 2013/6926
- Mining Leases: ML1605, ML1606, ML1628, ML1691 and ML1715
- Water licences: 20BL173935, WAL39799 (20BL172002), WAL39799 (20BL173923), WAL37582, WAL36340

The IEA was required in accordance with PA05_0117 Schedule 5, Condition 9 and PA08_0135 Schedule 6 condition 9 for the mine. In line with this, an initial independent external environmental audit was to be undertaken by 31 December 2015 and every 3 years thereafter. The previous IEA was undertaken in December 2015 and finalised in April 2016. The present audit covered the period from 1 January 2016 to 16 October 2018.


The site was found to be in good condition during the site inspection and the operations were contained to within the site boundaries. Detailed review of documentation and interviews identified a number of issues that need to be addressed and these are outlined in the compliance section of this audit report (Table 4) as well as summarised below.

In general, operational environmental management activities observed during the site inspection were being carried out in a competent manner, with the non-compliances identified by the Auditors being the exception. Those non-compliances and observations are detailed in the body of this report.

During the site inspection and audit review, non-compliances and opportunities for improvement were identified in the following areas:

- Over pressure limits
- Stockpile placement
- Confirmation of species credit calculations
- Monitoring equipment power failures
- Finalising covenant terms for the offset
- Records / Documents Management.

Auditor Certification

Independent Audit Certification Form	
Development Name	Moolarben Coal Mine
Development Consent No.	PA05_0117 PA08_0135
Description of Development	Coal Mine
Development Address	4250 Ulan Rd, Ulan NSW 2850
Proponent	Yancoal Australia Ltd.
Operator Address	Moolarben Coal Locked Bag 2003 Mudgee NSW 2850
Independent Audit	
Title of Audit	Moolarben Coal Mine Independent Environmental Audit
<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 19011:2011 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	Ken Holmes
Address	4 Baeckea Place, Frenchs Forest, NSW
Email Address	kholmes@pittsh.com.au
Auditor Certification (if relevant)	Exemplar Global 14065
Date	14 January 2019

1. Introduction

pitt&sherry was engaged by Yancoal Australia Ltd / Moolarben Coal Mine, to conduct an Independent Environmental Audit (IEA) of the Moolarben Coal Mine located at 4250 Ulan Rd, Ulan New South Wales (NSW) 2850. The IEA was required in accordance with PA05_0117 Schedule 5, Condition 9 and PA08_0135 Schedule 6 condition 9 for the mine. In line with this, an initial independent external environmental audit was to be undertaken by 31 December 2015 and every 3 years thereafter. The previous IEA was undertaken in December 2015 and finalised in April 2016. The present audit covered the period from 1 January 2016 to 16 October 2018.

This IEA report details the audit process, presents the audit findings and provides recommendations that if implemented will facilitate improved compliance with environmental approvals.

1.1 Moolarben Coal Mine

Yancoal Australia Ltd (Yancoal) operates the Moolarben Coal Mine, located at 4250 Ulan Rd, Ulan, NSW.

The Project Approval PA05_0117 was granted on 06 September 2007 under Section 75J of the NSW *Environmental Planning and Assessment Act* 1979 (EP&A Act) by the NSW Minister for Planning and has been modified 13 times since that time with another modification (modification 14) yet to be approved.

The Project Approval PA08_0135 was granted on 30 January 2015 under Section 75J of the NSW EP&A Act by the Planning Assessment Commission of NSW and has been modified two times since that time with another modification (modification 3) yet to be approved.

1.2 Audit Summary

Audit Title:	Moolarben Coal Mine Independent Environmental Audit
Site:	4250 Ulan Rd, Ulan NSW 2850
Client Contact:	Graham Chase
Position:	Environmental and Community Manager
Client:	Yancoal Australia Ltd.
Client Address:	Locked Bag 2003 Mudgee NSW 2850 Australia
Mine Address:	4250 Ulan Rd, Ulan NSW 2850
Client Telephone:	02 6376 1407
Client Email:	Graham.Chase@yancoal.com.au
Auditor Team:	Ken Holmes – Certified Lead Auditor Dr Avanish Panikkar – Air Quality/Environmental Auditor; Dr Doug Ford – Environmental Noise; Adam Bishop – Surface Water Management; Dr Yohannes Woldeyohannes – Groundwater Management; Isaac Mamott – Ecology/Mine Rehabilitation; and Sandra Wallace – Aboriginal Heritage Cathy Lestrage – Environmental Auditor

Auditor's Telephone:	0438 046 261
Auditor's Email:	Kholmes@pittsh.com.au
Date of Site Visit	17-18 October 2018
Audit Scope:	<p>The audit was undertaken as per the brief outlined in the pitt&sherry proposal (dated 28 June 2018). As such, the audit provides an assessment of the environmental performance of the project by way of compliance with the requirements and conditions of the following regulatory approvals and provides recommendations to improve the environmental performance of the project.</p> <ul style="list-style-type: none"> • Consolidated Consent on PA50_0117 and PA08_0135 • Environmental Protection Licence (EPL) No. 12932 • EPBC Approval: EPBC 2007/329, EPBC 2008/4444 and EPBC 2013/6926 • Mining Leases: ML1605, ML1606, ML1628, ML1691 and ML1715 • Water licences: 20BL173935, WAL39799 (20BL172002), WAL39799 (20BL173923), WAL37582, WAL36340

2. Audit process

The audit process and methodology are described in this section, and comprised the following key undertakings:

- Preliminary planning activities
- Review of information and preparation of a compliance register (audit protocol / checklist)
- Site inspection and interviews:
 - Opening meeting
 - Site inspection
 - Review of relevant records
- Review of additional information provided after the site inspection
- Preparation of this audit report.

2.1 Preliminary Activities

Off-site planning for the site audit comprised:

- Initial discussions with Graham Chase, Environment and Community Manager, to organise the site inspection
- Prepare and Review the audit protocol / compliance checklist
- Completion of a pitt&sherry Site Risk Assessment
- Undertake Moolarben Coal Mine safety induction
- Review of Moolarben Coal Mine online information
- Submission of a preliminary document / record request
- Consultation with relevant agencies.

2.1.1 Approval of the audit team

MCO sought the Secretary's endorsement for an audit team to undertake the Independent Environmental Audit under Project Approval 05_0117 for Moolarben Coal Project Stage 1 and Project Approval 08_0135 for Moolarben Coal Project Stage 2.

The Secretary approved the following team on 16 July 2018:

- Ken Holmes — Lead Auditor
- Dr Avanish Panikkar — Air Quality/Environmental Auditor
- Dr Doug Ford — Environmental Noise
- Adam Bishop – Surface Water Management
- Dr Yohannes Woldeyohannes – Groundwater Management
- Isaac Mamott — Ecology/Mine Rehabilitation
- Sandra Wallace — Aboriginal Heritage

This IEA has been undertaken by the approved audit team.

2.1.2 Consultation with Agencies

In accordance with PA05_0117, Schedule 5, Condition 9(b) and PA08_0135, Schedule 6, Condition 9(b), pitt&sherry consulted with the following agencies during the audit planning stage:

- Department of Resources and Geoscience (DRG)
- Department of Primary Industries: Land and Water (DPI-Lands and Water)
- Department of Primary Industries: Natural Resources Access Regulator (DPI Natural Resources Access Regulator)
- Department of Planning and Environment (DP&E)
- NSW Environment Protection Authority (EPA)
- NSW Office of Environment and Heritage (OEH)
- Mid-Western Regional Council

Emails were sent to each of the above agencies on 2 October 2018 advising them of the planned audit and the scope of the audit and inviting them to provide comments/requirements or specific environmental issues they required the audit to target.

Responses were received as below:

- Mid-Western Regional Council: Brad Cam via email (2 October 2018)
- DPI (Lands and Water): Ryan Shepherd via email (2 October 2018)
- DP&E: Chris Schultz via email (9 October 2018)
- DPI (Natural Resources Access Regulator): Ryan Shepherd via email (31 October 2018)

Council advised that no issues have been raised with Council during the audit period.

DPI noted that the task had been registered by their water referrals team.

DP&E advised the items listed below were of interest based on their records:

- Monitoring equipment reliability – stream flow gauges, weather station, TEOM – are the processes in place to ensure continuity of results adequate?

- Groundwater drawdown – is further investigation required based on monitoring results/trends or have the TARPs been used appropriately?
- Hydrocarbon management in boxcut for underground operations and fuel farm – an inspection of the site by regulatory agencies in May 2018 identified significant deficiencies. It was indicated by Management that capital funds had been allocated to implement improvements
- Permit to disturb process, particularly for dewatering bores (liaison with RAPs) – have they been undertaken in accordance with the approved procedure?

DP&E also advised that penalty notices were issued over the IEA period for a stockpile area near CHPP, production exceedance and a blast exceedance.

The Natural Resources Access Regulator (NRAR) advised the items listed below were of interest based on their records:

- Assessment as to whether the Moolarben Coal Mine holds the required water entitlements and licences under the Water Management Act 2000 or Water Act 1912 (as applicable)
- Compliance with the conditions of any water licences and approvals held
- Identification of all water storages for the mine and identification of their licensing status being either exempt, subject to harvestable rights or regulated via a Water Access Licence
- Quantification of both active and passive take by the Moolarben Coal Mine from each relevant water source and a comparison against previously modelled predictions
- Monitoring bores are integrated into the monitoring programme
- The Aquifer Interference Policy (AIP) criteria pertaining to it are applied
- Compliance against performance measures within the consent related to water sources, including the Guidelines for Controlled Activities on Waterfront Land and design and installation of creek crossings, management of clean water diversions and sediment dams, stream diversion performance measures and aquatic and riparian ecosystem performance measures
- Compliance with the requirements of the Water Management Plan and Extraction Management Plan

These conditions have been added to the compliance register (refer **Appendix B**).

2.2 Information Review and Compliance Register

Prior to the site inspection the Auditors reviewed and revised the compliance register which formed both the audit checklist used during the site inspection and is the compliance register presented in the Appendices of this report. The compliance register specifies the conditions within:

- Consolidated Consent on PA50_0117 and PA08_0135
- Environmental Protection Licence (EPL) No. 12932
- EPBC Approval: EPBC 2007/329, EPBC 2008/4444 and EPBC 2013/6926
- Mining Leases: ML1605, ML1606, ML1628, ML1691 and ML1715
- Water licences: 20BL173935, WAL39799 (20BL172002), WAL39799 (20BL173923), WAL37582, WAL36340

2.3 Site Audit

The audit team conducted the site inspection component of the Moolarben Coal Mine audit on 17-18 October 2018.

2.3.1 Opening Meeting

Following site inductions, the opening meeting was held on-site at Moolarben Mine office. It was attended by the following personnel:

- Graham Chase (Environmental & Community Manager)
- Trent Cini (Senior Environment & Community Coordinator)
- Grant Arnold (HR and HST Manager)
- Henk Hemmer (Project Manager)
- Mark Pratt (Commercial Manager)
- Michelle Frankham (Environment & Community Coordinator)
- Mat Croake (Environment & Community Coordinator)
- Tim Oliphant (Open Cut Mine Manager)
- Dave Hobson (Maintenance Manager)
- Trent Moorman (CHPP Manager)
- Steve Archinal (General manager)
- Ken Holmes (Lead Auditor)
- Cathy Lestrangle (Environmental Auditor)

Introductions were made, and the purpose and scope of the audit was outlined. An explanation of the audit process was communicated. That is, a site inspection, site interviews and detailed review of records in order to identify compliance with the approval conditions relevant to the current operations at the site.

2.3.2 Site Inspection

A general tour of the site was attended by the audit team, Ken Holmes and Cathy Lestrangle, accompanied by Graham Chase and Trent Cini. Further site inspection visit was also undertaken to visit specific areas of interest, by Ken Holmes and Cathy Lestrangle, accompanied by Graham Chase and Trent Cini. After undertaking necessary site inductions, this included observation of:

- Discharge areas
- Coal Handling Preparation Plant (CHPP)
- Train loading area
- Sediment dams
- Chemical and fuel storage areas
- Waste storage areas
- Open cut operations
- Rehabilitation areas
- Aboriginal Heritage Conservation Area
- Biodiversity offset areas

Photographs from the site inspection visit are reproduced in **Appendix A** of this report.

2.3.3 Site Interviews

Audit interview comprised of discussions during site inspection visit and also at the Moolarben Mines offices with:

- Graham Chase - Environmental & Community Manager
- Trent Cini - Senior Environment & Community Coordinator at Moolarben Coal
- Trent Moorman (CHPP Manager)
- Michelle Frankham (Environment & Community Coordinator)

2.3.4 Document review

Compliance related documents that were not available prior to, and during site discussions of, the audit, were requested to be provided following the audit. Graham Chase assisted with the provision of documentation following the audit, through secure file transfer mechanisms. The key documents reviewed during this audit are listed in the Compliance Registers against specific conditions.

2.4 Reporting

The compliance register was completed using notes and observations recorded during the site inspection / interviews and review of appropriate documentation. The completed compliance registers are presented in **Appendix B**. A summary of the non-compliances identified during this audit are provided in Table 4. The audit criteria used to determine compliance for this audit is defined in Table 1.

Table 1 Compliance assessment criteria

Assessment	Criteria
Compliant	<p>Compliance</p> <p>The site complies with the requirements of applicable regulatory instruments (DA/Licence/Permit) & associated environmental requirements.</p> <p>A judgment made by an auditor that the activities undertaken and the results achieved fulfil the specified requirements of the audit criteria. While further improvements may still be possible, the minimum requirements are being met.</p>
Non-Compliant	<p>Non-Compliance</p> <p>Clear evidence has been collected to demonstrate the particular requirement has not been complied with and is within the scope of the audit.</p> <p>Site displays little or no evidence of compliance with the requirements of the regulatory documentation.</p> <p>Note: Where the auditor has not been able to collect sufficient verifiable evidence to demonstrate that the intent and all elements of the requirement of the regulatory approval have been complied with within the scope of the audit. In the absence of sufficient verification, the auditor may in some instances be able to verify by other means (visual inspection, personal communication, etc.) that a requirement has been met. In such a situation, the requirement should still be assessed as not verified.</p> <p>As the condition cannot be verified it is treated as a non-compliance.</p>
Observation	<p>Observation (Minor non-compliance)</p> <p>Evidence of controls being partially in place, but with some gaps evident.</p> <p>* May have an understanding of requirement but cannot verify its implementation.</p>
Not Triggered	<p>Not Applicable / Not Triggered</p> <p>The respective condition / requirement was not activated within the scope of the audit.</p>
Noted	<p>A statement or fact, where no assessment of compliance is required.</p>

Risk levels for any non-compliances were identified consistent with Table 2.

Table 2 Risk levels for non-compliances

Risk Level	Description
High	Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence.
Medium	Non-compliance with: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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. Statutory Compliance and Recommendations

The environmental performance of the Moolarben Coal Mine has been reviewed by assessing compliance against the various documentation related to project approval, as listed in section 2.2 of this report. Compliance Registers presented in **Appendix B** provide a detailed review of the compliance status of the site, including recommendations to address non-conformances.

3.1 Summary of Compliance Status

A summary of compliance with statutory requirements is provided in Table 3. The number of conditions include sub-clauses within each approval document.

Table 3 Summary of Statutory Compliance

Approval/ Licence	No. of Conditions	Compliant	Non- Compliant	Observation	Noted	Not Assessed	n/a or Not Triggered
PA05_0117 and PA08_0135 (including statement of conditions)	313	206	7	4	27	-	69
EPL No. 12932	87	62	3	-	20	-	2
EPBC Approval	37	24	2	-	3	-	8
Mining Leases: ML1605, ML1606, ML1628, ML1691 and ML1715	115	70	1	1	18	6	19
Water licences: 20BL173935, WAL39799 (20BL172002), WAL39799 (20BL173923), WAL37582, WAL36340	67	43	1	-	11	-	12
Sub-TOTAL	619	405	14	5	79	6	110
TOTAL							619

3.2 Non-Compliances and Observations

Non-compliances identified during the site inspection, interviews and document reviews are recorded in detail in the Compliance Registers in **Appendix B** and are summarised in Table 4. Observations are listed in Table 5. Recommendations have been made to address all identified Non-Compliances and Observations. Please note that Table 4 includes conditions that could not be verified as compliant during this IEA.



Table 4 Non-Compliances and Recommendations

No.	Condition	Observation	Recommendation	Risk Level
PA05_0117				
2/2	<p>Terms of Approval</p> <p>2. The Proponent shall carry out the project with:</p> <p>(a) Generally, in accordance with the EA; and</p> <p>(b) In accordance with the statement of commitments and conditions of this approval.</p>	<p>Note</p> <p>DP&E issued a Penalty notice dated 26/10/2017 regarding stockpile placement. The penalty notice included an Order from DP&E (dated 24 November 2017) to remedy the breach of condition 2 of Schedule 2 of the Approvals.</p> <p>In response MCO have included this stockpile in Stage 1 Modification 14 and Stage 2 Modification 3 application. These are currently undergoing assessment by DP&E. These modifications were due for approval by 23/11/2018 so as to meet the conditions of the Order. However, a letter from DP&E (dated 13/11/2018) granted an extension of the conditions of the Order which is now due prior to 31/03/2019. As of 11/12/2018 neither modification had been approved by DP&E.</p> <p>DP&E issued a Penalty notice in 2017 regarding exceedance of blast overpressure criteria. The penalty notice was dated 26/05/2017.</p>	<p>There is no further recommendation:</p> <p>MCO investigated the causes of the overpressure exceedances and implemented remedial measures as required.</p> <p>The CHPP stockpile has been included in the Stage 1 Modification 14 and Stage 2 Modification 3 application.</p>	Medium
3/64	<p>Waste</p> <p>64. 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>(c) monitor and report on effectiveness of the waste minimisation and management measures in the Annual Review.</p>	<p>a) The 2017 Annual report states that MCO maintains Total Integrated Waste Management Service to manage waste streams generated onsite and to maximise the levels of recycling. Dewatered coal fines (rejects) are disposed of back into the completed pit (there is no tailings dam associated with this operation).</p> <p>(b) Section 2.3.6 of the MOP states that: 'All general domestic waste (e.g. general solid [putrescibles] and general solid [non-putrescible] waste as defined in Waste Classification Guidelines Part 1: Classifying Waste [EPA,</p>	<p>Whilst the requirement for PA05_0117 Schedule 3 Condition 52 (c) was not met in the 2016 report MCO have since included this waste minimisation and management reporting in their Annual Reviews. As such there are no recommendations.</p>	Administrative non-compliance



No.	Condition	Observation	Recommendation	Risk Level
		<p>2014]) and general recyclable products will continue to be collected by an appropriately licensed contractor'.</p> <p>During the site inspection the auditor observed colour coded and signed waste receptacles for the following waste streams: general waste; paper and cardboard; scrap steel; empty drums; oil filters and oily rags; hydraulic hoses; chemical anchors; timber bin and waste grease. During the site inspection it was confirmed that waste oil and grease is stored in a bunded storage area the auditor also observed flammable liquid cabinets with appropriate separation and bunding.</p> <p>(c) The 2016 Annual Review did not report on the effectiveness of waste minimisation. However, section 6.8 'Waste Management' of the 2017 Annual Review contained waste data from 2012 to 2017 and provided comments on the effectiveness of waste minimisation and management measures.</p> <p>The 2018 Annual Review had not been prepared at the time of the audit.</p>		
PA08_0135				
2/2	<p>Terms of Approval</p> <p>2. The Proponent shall carry out the project with:</p> <p>(a) Generally, in accordance with the EA; and</p> <p>(b) In accordance with the statement of commitments and conditions of this approval.</p>	<p>Noted</p> <p>DP&E issued a Penalty notice dated 26/10/2017 regarding stockpile placement. The penalty notice included an Order from DP&E (dated 24 November 2017) to remedy the breach of condition 2 of Schedule 2 of the Approvals.</p> <p>In response MCO have included this stockpile in Stage 1 Modification 14 and Stage 2 Modification 3 application. These are currently undergoing assessment by DP&E. These modifications were due for approval by 23/11/2018 so as to meet the conditions of the Order.</p>	<p>There is no further recommendation:</p> <p>MCO investigated the causes of the overpressure exceedances and implemented remedial measures as required.</p> <p>The CHPP stockpile has been included in the Stage 1 Modification 14 and Stage 2 Modification 3 application.</p>	Medium



No.	Condition	Observation	Recommendation	Risk Level																
		<p>However, a letter from DP&E (dated 13/11/2018) granted an extension of the conditions of the Order which is now due prior to 31/03/2019. As of 11/12/2018 neither modification had been approved by DP&E.</p> <p>DP&E issued a Penalty notice in 2017 regarding exceedance of blast overpressure criteria. The penalty notice was dated 26/05/2017.</p>																		
3/9	<p>Blasting Criteria</p> <p>9. The Proponent shall ensure that blasting on the Moolarben mine complex does not cause exceedances of the criteria in Table 7 of the Conditions of consent. Table 7: Blasting criteria</p> <table border="1"> <thead> <tr> <th>Location</th> <th>Air-blast over pressure (dB (Lin Peak))</th> <th>Ground vibration (mm/s)</th> <th>Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td>Residence on privately owned land</td> <td>120</td> <td>10</td> <td>0%</td> </tr> <tr> <td></td> <td>115</td> <td>5</td> <td>5% of the total number of blasts over a period of 12 months.</td> </tr> <tr> <td>All public infrastructure</td> <td>-</td> <td>50</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 to exceed these criteria and has advised the Department in writing of the terms of this agreement.</p>	Location	Air-blast over pressure (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	0%	<p>MCO schedules blast times and these are advertised on the MCO website.</p> <p>MCO manages blasting in accordance with the Blast Management Plan (BMP)</p> <p>Upon review of the records, it was found that one exceedance for blast overpressure was observed during 2017. On 17 February 2017 air blast overpressure from an overburden blast event in OC4 Strip 2 exceeded 120dB at a noise sensitive location. The incident was reported to DP&E and NSW EPA. Overpressure exceedances were investigated, and a revision of blasting procedures was completed. No complaints were received about the exceedance.</p> <p>All blasts for 2016 were below the prescribed levels for overpressure and vibration. A sample of the 2018 monitoring data was reviewed (January 2018 to August 2018) and found no blast exceedances.</p>	<p>There is no further recommendation:</p> <p>MCO investigated the causes of the overpressure exceedances and implemented remedial measures as required.</p>	Medium
Location	Air-blast over pressure (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	0%																	
3/32	The Proponent shall prepare and implement a Water Management Plan (that includes a Surface Water Management Plan)	MCO reported in the 2017 Annual Review that stream flow recording (data collection) was non-compliant due to the breakdown of monitoring equipment. Data was	There is no recommendation	Low																



No.	Condition	Observation	Recommendation	Risk Level
		<p>supplemented with data from Ulan Coal and Wilpinjong Coal. MCO resolved the issue by replacing the stream flow monitoring equipment. Current data capture is close to 100%.</p>		
3/35	<p>Regent Honeyeater Study</p> <p>35. Within 6 months of the date of this approval, the Proponent shall calculate:</p> <p>(a) the impacts generated by the project on the Regent Honeyeater in species credits; and</p> <p>(b) the species credits that would be generated for the Regent Honeyeater from implementation of the offset strategy described in condition 30 above, in accordance with the NSW Biodiversity Offset Policy for Major Projects, and to the satisfaction of OEH.</p>	<p>(a) A letter to the Secretary dated 31/08/2015 was sighted during the audit regarding Regent Honey eater species credit calculations</p> <p>(b) A letter from EcoLogical Australia to Yancoal (dated 28/07/2015) was sighted during the audit. The letter shows that the number of credits generated by conservation management (559 ha of existing woodland, 1,439 ha of derived native grassland (DNG) and 1,502 ha of mine site ecological rehabilitation) meets the habitat and offset requirements of the Regent Honeyeater.</p> <p>A letter from MCO to DP&E (dated 31/07/2015) includes the findings from the EcoLogical Australia (ELA) letter and states that the disturbance of Regent Honeyeater habitat is adequately compensated for by the rehabilitation and offset properties.</p> <p>A letter from OEH to MCO and DP&E (dated 14/10/2015) was sited during the audit. OEH still had concerns regarding the suitability of offset calculations and made several recommendations.</p> <p>A letter from MCO to OEH (dated 10/02/2016) addressed concerns raised by OEH and provides further information. OEH has yet to provide a response to this.</p> <p>As the Auditor was not provided with evidence that the calculation of species credits has been completed to the satisfaction of OEH compliance with this condition cannot be verified.</p>	<p>Contact OEH to confirm that they are satisfied with the calculation of species credits for the Regent Honeyeater.</p>	<p>Low</p>



No.	Condition	Observation	Recommendation	Risk Level
3/52	<p>Waste 52. 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>(c) monitor and report on effectiveness of the waste minimisation and management measures in the Annual Review.</p>	<p>(a) The 2017 Annual report states that MCO maintains Total Integrated Waste Management Service to manage waste streams generated onsite and to maximise the levels of recycling. Dewatered coal fines (rejects) are disposed of back into the completed pit (there is no tailings dam associated with this operation).</p> <p>(b) Section 2.3.6 of the MOP states that: 'All general domestic waste (e.g. general solid [putrescibles] and general solid [non-putrescible] waste as defined in Waste Classification Guidelines Part 1: Classifying Waste [EPA, 2014]) and general recyclable products will continue to be collected by an appropriately licensed contractor'.</p> <p>During the site inspection the auditor observed colour coded and signed waste receptacles for the following waste streams: general waste; paper and cardboard; scrap steel; empty drums; oil filters and oily rags; hydraulic hoses; chemical anchors; timber bin and waste grease. During the site inspection it was confirmed that waste oil and grease is stored in a bunded storage area the auditor also observed flammable liquid cabinets with appropriate separation and bunding.</p> <p>(c) The 2016 Annual Review did not report on the effectiveness of waste minimisation. However, section 6.8 'Waste Management' of the 2017 Annual Review contained waste data from 2012 to 2017 and provided comments on the effectiveness of waste minimisation and management measures.</p> <p>The 2018 Annual Review had not been prepared at the time of the audit.</p>	<p>Whilst the requirement for PA08_0135 Schedule 3 Condition 52 (c) was not met in the 2016 report MCO have since included this waste minimisation and management reporting in their Annual Reviews. As such there are no recommendations.</p>	<p>Administrative non-compliance</p>
<p>EPL No. 12932</p>				



No.	Condition	Observation	Recommendation	Risk Level
L6.3	The air blast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	The following non-compliance had been noted in the 2017 EPL Return: Exceedance of air blast overpressure limit on 17 Feb 2017 at noise sensitive location - EPA is monitoring future compliance	There is no further recommendation: MCO investigated the causes of the overpressure exceedances and implemented remedial measures as required.	Medium
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: refer to Tables within M2.2 of the Licence.	The following non-compliance and action taken has been noted by EPA: 2015: Dust Gauge 12 (EPA 7) was installed following the approval of the location thus one round of measurement was missed. 2016: TEOM5 (EPA 15) and TEOM6 (EPA 27) did not monitor PM10 continuously for 17hours due to power outage and on one day due to routine maintenance. 2017: Failure to monitor continuously for PM10 at EPA identification number 27 (TEOM07), due to power outage. Yancoal has installed a temporary E-Sampler unit following outages.	An observation is noted due to recurring non-compliance. It is recommended that the power issues are permanently resolved so that the temporary sampler is not relied upon.	Low
M2.2	Air Monitoring Requirements, refer to Tables within M2.2 of the Licence.	The following non-compliance and action taken has been noted by EPA: 2015: TEOM 6 (EPA 27) did not monitor PM10 due power failure due to a trip in wet weather. It is noted that this station is located upwind of the site and is not representative of any residences. 2016: TEOM5 (EPA 15) and TEOM6 (EPA 27) did not monitor PM10 continuously for 17hours due to power outage and on one day due to routine maintenance. 2017: Failure to monitor continuously for PM10 at EPA identification number 27 (TEOM07), due to power outage. Yancoal has installed a temporary E-Sampler unit following outages.	An observation is noted due to recurring non-compliance. It is recommended that the power issues are permanently resolved so that the temporary sampler is not relied upon.	Low
EPBC Approval (2008/4444)				
C03 pg. 2	To compensate for the loss of 123.3 hectares of the White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (WBGW)	EPBC 2008-4444 was approved on 18 May 2015. Following approval MCO submitted the Biodiversity Offset Management Plan (BOMP) for EPBC 2008-4444 on	MCO to continue to consult with DotEE to resolve this issue and document these efforts.	Medium



No.	Condition	Observation	Recommendation	Risk Level
	<p>ecological community and 902 hectares of habitat for EPBC listed threatened species, the approval holder must prepare and submit (within 3 months after the approval), a Biodiversity Offset Management Plan (BOMP) for the proposed EPBC Offset Areas, for the Minister's written approval. The BOMP must;</p> <p>a. Identify those lands described as the Offset Areas at Schedule 2 (Figures 1-7) of this notice that are necessary to achieve the outcomes required by the Environmental Offsets Policy 2012. This must include offset attributes, shapefiles, textile descriptions and maps to clearly define the location and boundaries of the offset area (s).</p> <p>b. Provide a survey and description of the current condition (prior to any management activities) of the offset areas identified in Condition 3a.</p> <p>c. Detail management actions and regeneration and revegetation strategies to be undertaken on the offset areas to improve the ecological quality of these areas, including:</p> <p>I. a description and timeframe of measures that would be implemented to improve the condition of the ecological communities on the site;</p> <p>II. Performance and completion criteria for evaluating the management of the offset area, and criteria for triggering remedial action;</p> <p>III. a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria;</p> <p>IV. a description of potential risks to the successful implementation of the plan, a description of the measures that will be implemented to mitigate against these risks and a description of the</p>	<p>19 August 2015. The BOMP was based on the BOMP for EPBC 2013-3296 approved on 17 December 2014.</p> <p>The DotEE provided their review in September 2015, and in response MCO issued an updated BOMP and reconciliation of comments in March 2016. DotEE provided additional comments in November 2016 which included details of DotEEs change in expectations for the BOMP. This included a change in BOMP structure and content.</p> <p>At this point MCO reconsidered its approach. As MCO has a number of management plans that cover the various Biodiversity offsets and their associated approval requirements, MCO had previously sought to develop the specific BOMPs with the view to then compile a single Complex Wide management plan. Given DotEEs feedback, MCO decided to progress with a complex wide BOMP the cover all state approvals and all EPBC approvals. MCO discussed the approach of developing a single Biodiversity Offset Management Plan (Complex Wide BOMP). The intention has been to develop the BOMP following the confirmation of the relevant Covenant Terms for the offset. This is consistent with the agreed approach with the NDW DPE.</p> <p>MCO wrote to DoE (18/12/2017) requesting extension time due to continued delay finalising the covenant terms, however no specific response was received. The extended time taken to finalise the Covenants Terms has resulted in an associated impact on the timing of the Complex Wide BOMP.</p> <p>A complex wide BOMP was submitted by MCO to the DotEE for consultation on the 30th of November 2018.</p>		



No.	Condition	Observation	Recommendation	Risk Level
	<p>contingency measures that will be implemented if defines triggers arise; and</p> <p>V. details of who would be responsible for monitoring, reviewing, and implementing the plan. The approved BOMP must be published on the approval holder's internet website, within 1 month of being approved and for a period of 5 years thereafter. The approved BOMP must be implemented.</p>			
C04 pg. 2	<p>To compensate for the loss of 123.3 hectares of the White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (WBGW) ecological community and 902 hectares of habitat for EPBC listed threatened species, within 24 months of the date of this approval, the approval holder must secure the lands identified as the Offset Areas at Schedule 2 (Figures 1-7) of this notice as a biodiversity offset by a legal instrument under relevant nature conservation legislation on the title of the land. This instrument must:</p> <ol style="list-style-type: none"> Provide for the protection of the land in perpetuity; Prevent any future development activities, including mining and mineral extraction; Ensure the active management of the land; and Be provided to the Department within 3 months of it being issued, as evidence of compliance with this condition. 	<p>MCO is currently committed to secure the 8 EPBC2008/4444 Offset properties. Of the 8 offsets 1 has been transferred to the National Parks Estate (Complete) and 1 secured through a Conservation Agreement. 6 are to be secured through covenants on title, The process in currently in progress.</p> <p>The Offset security mechanisms have been approved by the NSW DPE on 2 March 2016, with the Commonwealth DotEE approving Covenants in December 2014. MCO submitted draft Covenant Terms to the NSW DPE on 23 November 2015, based on covenant terms approved by the same department in 18 December 2014. The NSW DPE provided their initial response to the terms approximately 16 months later. Since the original submission of the Draft Covenants, the covenants have been with DPE for over 32 months and with MCO for approximately 7 months.</p> <p>As at 8 November 2018, MCO is waiting for a response from DoE.</p>	<p>MCO to continue to consult with DotEE to resolve this issue and document these efforts.</p>	Administrative Non-compliance
Mining Lease 1605				
Condition 3	<p>Mining operations must not be carried out otherwise than in accordance with a Mining Operations Plan (MOP) which has been approved by the Director-General of the Department of</p>	<p>Establishment of a soil stockpile not identified in the Approved Mining Operations Plan.</p>	<p>Update the MOP following approval of the stockpile location.</p>	Medium



No.	Condition	Observation	Recommendation	Risk Level
	Primary Industries. Operations, mining purposes and prospecting.	The CHPP stockpile has been included in the Stage 1 Modification 14 and Stage 2 Modification 3 application and will be included in the revised MOP.		
Water Licence (WAL39799-(20BL172002))				
C 09	(9) The license holder must within 2 months of issue of the licence, and within 2 months of construction for new bores, provide the Department of Primary Industries Water with: (I) Details of the bore on the prescribed form (new bores)	Form A was provided to DPI however this was outside the 2-month notification period for the new bores. Form A contains details of the bore.	Ensure that bore notifications are sent to DPI within the prescribed period.	Administrative non-compliance

Table 5 Observations and recommendations

No.	Condition	Observation	Recommendation	Risk Level
PA 05_0117				
5_0117 3/36	Biodiversity Management Plan 36. The Proponent shall prepare and implement a Biodiversity Management Plan (BioMP) for the project to the satisfaction of the Secretary. This plan must: (d) include a detailed description of the measures that would be implemented for: <ul style="list-style-type: none"> enhancing the quality of existing vegetation and fauna habitat; restoring native vegetation and fauna habitat on the biodiversity offset areas through focusing on assisted natural regeneration, targeted vegetation establishment and the introduction of naturally scarce fauna habitat features (where necessary); maximising the salvage of resources within the approved disturbance area - including vegetative, soil and cultural heritage resources – for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area; 	<ul style="list-style-type: none"> This is covered in sections 4 (Vegetation clearance protocol), 5 (Collection and use of locally sourced native seeds and supplementary tube stock planting), 6 (Strategies to manage vegetation onsite and improve vegetation connectivity) and 7 (Additional Biodiversity Management Measures). The plan states that subsequent revisions of this BioMP will incorporate the Biodiversity Offset Strategy requirements under Condition 36, Schedule 3 of PA05_0117 and Condition 39, Schedule 3 of PA08_0135. A letter from the Secretary (dated 20/07/2015) was sighted during the audit regarding staging of MCOs Biodiversity Management Plan. The letter stated that DP&E approved the staging of the biodiversity management plan which will need to exclude offsets until long term security is approved. <p>As no details about mitigation measures has been provided only a reference to future revision of the BioMP</p>	Ensure that the updated plan covers all requirements of this Condition and seek approval of DP&E of the updated plan.	Administrative non-compliance / not yet completed

No.	Condition	Observation	Recommendation	Risk Level
	<ul style="list-style-type: none"> rehabilitating the environmental bunds on site as soon as practicable and maintaining the landscaping on the bunds once it has been established; collecting and propagating seed; minimising the impacts on fauna on site, including undertaking pre-clearance surveys; managing any potential conflicts between the proposed restoration works in the biodiversity areas and any Aboriginal heritage values (both cultural and archaeological); 	<p>the proponent has not yet complied with this condition. However, as a staged approach has been approved the proponent is in compliance with this condition.</p> <p>The biodiversity offset strategies are covered in PA05_0117 (Appendix 8) and PA08_0135 (Appendix 7).</p> <ul style="list-style-type: none"> This is covered in section 4.2.3 and section 7.6 Rehabilitation of environmental bunds is covered in section 7.1. Collecting and propagating seed is covered in section 5. Pre-clearing surveys are covered in section 4.2 and fauna management is covered in section 4.3. <p>The plan states that subsequent revisions of this BioMP will incorporate managing any potential conflicts between the proposed restoration works in the biodiversity areas and any Aboriginal heritage values (both cultural and archaeological).</p> <p>As no details about mitigation measures has been provided only a reference to future revision of the BioMP the proponent has not yet complied with this condition. However, as a staged approach has been approved the proponent is not non-complaint.</p>		
05_0117 3/36	<p>Biodiversity Management Plan</p> <p>36. The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(f) identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate against these risks; and</p>	<p>Potential risks to the successful implementation of the biodiversity offset strategy and contingency measures are not included in the BioMP but have been included in Section 3.3 (Table 12) of the Landscape Management Plan (LMP).</p> <p>Section 11 of the BioMP provides details of the contingency plan to manage any unprecedented impacts and their consequences.</p>	As part of the approved BioMP staged preparation ensure that the next revision of the plan either addresses the risks directly or references the relevant section(s) of the Land Management Plan.	Administrative non-compliance / not yet completed



No.	Condition	Observation	Recommendation	Risk Level
		<p>A letter from the Secretary (dated 20/07/2015) was sighted during the audit regarding staging of MCOs Biodiversity Management Plan. The letter stated that DP&E approved the staging of the biodiversity management plan which will need to exclude offsets until long term security is approved.</p> <p>As no details about risks have been provided only a reference to future revision of the BioMP the proponent has not yet complied with this condition. However, as a staged approach has been approved the proponent is not non-complaint.</p>		
05_0117 5/5	<p>Revision of Strategies, Plans and Programs</p> <p>5. Within 3 months of the submission of:</p> <p>(a) the submission for annual review under condition 4 above;</p> <p>(b) the submission for incident report under condition 7 below;</p> <p>(c) the submission for audit under condition 9 below; or</p> <p>(d) any modification 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. Where this review leads to revisions in any such document, then within four weeks of the review the revised document must be submitted to the Secretary for approval.</p> <p>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.</p>	<p>Based on the review of MCO's management plans, (including tracking of reviews and revisions, the auditor considers that the intent of this condition has been met by MCO.</p> <p>The Revision Control Chart at the start of every Management Plan includes details of revisions.</p> <p>Document review requirements are not included in the EM Strategy and references to triggers for the review of individual plans is not consistent in each plan. For example, the NMP does not reference review of the plan after the submission of an incident report. The BLMP does not reference any review requirements. The BMP and CHMP only make reference to review after modification of projects approvals.</p> <p>However, Section 6 of the EMS (V4) as approved by October 2018 states: <i>"These plans will be reviewed, and if necessary revised within 3 months of the submission of an annual review, incident report, independent audit or any modification to the Project Approvals, in accordance with Condition 5,</i></p>	There are no recommendations (as the recent revision of the EMS as closed out this issue)	Administrative non-compliance



No.	Condition	Observation	Recommendation	Risk Level
		<p><i>Schedule 5 and Condition 5, Schedule 6 of the Project Approvals (05_0117 and 08_0135, respectively)."</i></p> <p>Revision V4 of the EMS was approved in October 2018 (after completion of the site audit) and now includes reference to the relevant revision triggers.</p>		
PA 08_0135				
08_0135 6/5	<p>Revision of Strategies, Plans and Programs</p> <p>5. Within 3 months of the submission of:</p> <p>(a) the submission for annual review under condition 4 above;</p> <p>(b) the submission for incident report under condition 7 below;</p> <p>(c) the submission for audit under condition 9 below; or</p> <p>(d) any modification of this approval, the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within four weeks of the review the revised document must be submitted to the Secretary for approval.</p> <p>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.</p>	<p>Based on the review of MCO's management plans, (including tracking of reviews and revisions, the auditor considers that the intent of this condition has been met by MCO.</p> <p>The Revision Control Chart at the start of every Management Plan includes details of revisions.</p> <p>Document review requirements are not included in the EM Strategy and references to triggers for the review of individual plans is not consistent in each plan. For example, the NMP does not reference review of the plan after the submission of an incident report. The BLMP does not reference any review requirements. The BMP and CHMP only make reference to review after modification of projects approvals.</p> <p>Revision V4 of the EMS was approved in October 2018 (after completion of the site audit) and now includes reference to the relevant revision triggers.</p>	There are no recommendations (as the recent revision of the EMS as closed out this issue)	Administrative non-compliance

3.3 Opportunities for Improvement

During the site inspection and documentation review, a range of observations related to environmental risk management and performance were identified. These observations and subsequent recommendations are presented below.

3.3.1 Over pressure limits

One overpressure exceedance was recorded and a penalty notice from DP&E was issued. MCO investigated the causes of the overpressure exceedances and implemented remedial measures as required.

3.3.2 Stockpile placement

An unauthorised stockpile resulted in the issue of a penalty notice from DP&E. In response MCO have included this stockpile in Stage 1 Modification 14 and Stage 2 Modification 3 application.

3.3.3 Confirmation of species credit calculations

There is insufficient evidence to confirm that OEH are satisfied with the species credit calculations generated for the Regent Honeyeater from implementation of the offset strategy. It is recommended that MCO contact OEH to confirm that they are satisfied with MCOs approach.

3.3.4 Monitoring equipment power failures

There have been recurring measurement failures from monitoring equipment due to power outages. It is recommended that the power issues are permanently resolved so that the temporary sampler is not relied upon.

3.3.5 Finalising covenant terms for the offset

DoE have yet to approve and finalise covenant terms for the Biodiversity Security Offsets. MCO decided to progress with a complex wide BOMP the cover all state approvals and all EPBC approvals. A complex wide BOMP was submitted by MCO to the DotEE for consultation on the 30th of November 2018 however this has not been approved at the time of the audit and the covenant terms have yet to be finalised. It is recommended that MCO continue to consult with DotEE to resolve this issue and document these efforts.

3.3.6 Records/ document management

There were several occasions where certain aspects have not been reported as required by specific conditions.

4. Limitations

This section should be read before reliance is placed on any of the opinions, advice, recommendations or conclusions herein set out.

This report has been prepared for and at the request of Yancoal Australia Ltd / Moolarben Coal Mine (The Client) pursuant to their appointment of Pitt & Sherry (Operations) Pty Ltd, (**pitt&sherry**), to act as its Independent Environmental Auditor. Save for the Client, no duty is undertaken, or warranty or representation made to any party in respect of the opinions, advice, recommendations or conclusions herein set out.

Regard should be had to the terms and conditions of **pitt&sherry's** Proposal when considering this report and reliance to be placed on it.

All work carried out in preparing this report has used, and is based upon, **pitt&sherry's** professional knowledge and understanding of the current relevant environmental legislation.

Changes in the below may cause the opinion, advice, recommendations or conclusions set out in this report to become inappropriate or incorrect. **pitt&sherry** will have no obligation to advise the Client of any such changes, or of their repercussions.

This report is based on observations during the Environmental Audit and information provided by the client. The information collected during the audit is believed to be true and is solely based on visual inspection (or site conditions and documentation presented) and information provided by the auditee. **pitt&sherry** is of the belief that all the information provided by the auditee is correct and true at the time of the audit.

Assessment of the adequacy of any environmental management strategies, plans and programs was limited to a brief desktop review only with regards to the Audit Scope. The EMS was not reviewed against ISO14001.

The content of this report represents the professional opinion of experienced environmental consultants. **pitt&sherry** does not provide specialist legal advice and the advice of appropriate legal professionals may be required.

Appendix A

Site Photographs



Waste Management onsite



Waste signage onsite

Date & Time: Fri Nov 9 12:35:20 AEDT 2018
Position: 55 S 758841 6423940
Altitude: 436m
Datum: WGS-84
Azimuth/Bearing: 271° N89W 4818mils (True)
Zoom: 1X
Moolarben Coal Operations
EPL Monitoring Point
Dam 101
EPL ID 24



Monitoring point with appropriate signage that indicates the EPA point identification number.

Date & Time: Fri Nov 9 14:29:00 AEDT 2018
Position: 55 S 762589 6424830
Altitude: 432m
Datum: WGS-84
Azimuth/Bearing: 347° N13W 6169mils (True)
Zoom: 1X
Moolarben Coal Operations
EPL Monitoring Point
WP 08
EPL ID 26



Monitoring point with appropriate signage that indicates the EPA point identification number.

Date & Time: Fri Nov 9 14:13:01 AEDT 2018
Position: 55 S 763547 6423570
Altitude: 426m
Datum: WGS-84
Azimuth/Bearing: 305° N55W 5422mils (True)
Zoom: 1X
Mootarben Coal Operations
EPL Monitoring Point
Dam 403
EPL ID 35



Monitoring point with appropriate signage that indicates the EPA point identification number.



Discharge point with appropriate signage that indicates the EPA point identification number



Progressive rehabilitation area



Progressive rehabilitation area signage



Red Hills Conservation area signage



Combustible liquid storage



Combustible liquid storage



Dust monitor with appropriate signage that indicates the EPA point identification number



MCO fire-fighting equipment

Appendix B

Compliance Registers

Moolarben Coal							
Detailed Findings and Recommendations							
Project Approvals 05_0117 and PA 08_0135							
Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
Schedule 2, Administrative Conditions							
Obligation to Minimise Harm to the Environment							
PA05_0117	2	1	Obligation to Minimise Harm to the Environment 1. In addition to meeting the specific performance criteria established under this approval, the Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the project.	Noted	N/A	N/A	N/A
PA08_0135	2	1	Obligation to Minimise Harm to the Environment 1. In addition to meeting the specific performance criteria established under this approval, the Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the project.	Noted	N/A	N/A	N/A
PA05_0117	2	2	Terms of Approval 2. The Proponent shall carry out the project with: (a) generally in accordance with the EA; and (b) in accordance with the statement of commitments and conditions of this approval. Notes: • The general layout of the project is shown in Appendix 2; and • The statement of commitments is shown in Appendix 3.	NC	Noted DP&E issued a Penalty notice dated 26/10/2017 regarding stockpile placement. The penalty notice included an Order from DP&E (dated 24 November 2017) to remedy the breach of condition 2 of Schedule 2 of the Approvals. In response MCO have included this stockpile in Stage 1 Modification 14 and Stage 2 Modification 3 application. These are currently undergoing assessment by DP&E. These modifications were due for approval by 23/11/2018 so as to meet the conditions of the Order. However, a letter from DP&E (dated 13/11/2018) granted an extension of the conditions of the Order which is now due prior to 31/03/2019. As of 11/12/2018 neither modification had been approved by DP&E. DP&E issued a Penalty notice in 2017 regarding exceedance of blast overpressure criteria. The penalty notice was dated 26/05/2017.	Penalty Notices (Stockpile Placement 26/10/2017 and blast overpressure 26/05/2017) DP&E Letter (Project Approval 05_0117 and 08_0135 Order) dated 24/11/2017 Stage 1 Modification 14 and Stage 2 Modification 3 application DP&E Letter (Modification of Development Control Order) dated 13/11/2018	There is no further recommendation: MCO investigated the causes of the overpressure exceedances and implemented remedial measures as required. The CHPP stockpile has been included in the Stage 1 Modification 14 and Stage 2 Modification 3 application.
PA08_0135	2	2	Terms of Approval 2. The Proponent shall carry out the project with: (a) generally in accordance with the EA; and (b) in accordance with the statement of commitments and conditions of this approval. Notes: • The general layout of the project is shown in Appendix 2; and • The statement of commitments is shown in Appendix 3.	NC	Noted DP&E issued a Penalty notice dated 26/10/2017 regarding stockpile placement. The penalty notice included an Order from DP&E (dated 24 November 2017) to remedy the breach of condition 2 of Schedule 2 of the Approvals. In response MCO have included this stockpile in Stage 1 Modification 14 and Stage 2 Modification 3 application. These are currently undergoing assessment by DP&E. These modifications were due for approval by 23/11/2018 so as to meet the conditions of the Order. However, a letter from DP&E (dated 13/11/2018) granted an extension of the conditions of the Order which is now due prior to 31/03/2019. As of 11/12/2018 neither modification had been approved by DP&E. DP&E issued a Penalty notice in 2017 regarding exceedance of blast overpressure criteria. The penalty notice was dated 26/05/2017.	Penalty Notices (Stockpile Placement 26/10/2017 and blast overpressure 26/05/2017) DP&E Letter (Project Approval 05_0117 and 08_0135 Order) dated 24/11/2017 Stage 1 Modification 14 and Stage 2 Modification 3 application DP&E Letter (Modification of Development Control Order) dated 13/11/2018	MCO investigated the causes of the overpressure exceedances and implemented remedial measures as required. The CHPP stockpile has been included in the Stage 1 Modification 14 and Stage 2 Modification 3 application.
PA05_0117	2	3	3. If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.	Noted	N/A	N/A	N/A
PA08_0135	2	3	3. If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.	Noted	N/A	N/A	N/A
PA05_0117	2	4	4. The Proponent shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of: (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this approval; (b) any reports, reviews or audits commissioned by the Department regarding compliance with this approval; and (c) the implementation of any actions or measures contained in these documents.	C	(a) Section 5 of the Annual Reviews contains actions required from the previous audit period. DP&E have made several recommendations from the 2016 Annual Review which are addressed in Table 9 of the 2017 Annual Review. A letter from DP&E regarding the Annual Review 2016 requesting points to be addressed in future audits (dated 2/05/2017) was sighted during the audit. These points were checked and found to be address in the 2017 Annual Review. A letter from DP&E regarding the Annual Review 2017 requesting points to be addressed in future audits (dated 31/05/2018) was sighted during the audit. The 2017 Annual Review was amended to address these comments. (b) DP&E issued a Penalty notice in 2017 regarding stockpile placement. The penalty notice included an Order from DP&E (dated 24/11/2017) to remedy the breach of condition 2 of Schedule 2 of the Approvals. (c) In response MCO have included this stockpile in in Stage 1 Modification 14 and Stage 2 Modification 3 application. These are currently undergoing assessment by DP&E. These modification must be approved by 23/11/2018 so as to meet the conditions of the Order However a letter from DP&E (dated 13/11/2018) granted an extension of the conditions of the Order which is now due prior to 31/03/2019. As of 11/12/2018 neither modification had been approved by DP&E.	(a) Annual Review 2016 and 2017 DP&E Letters (dated 02/05/2017 and 31/05/2018) RE: Review of Annual reports (b) Penalty Notice (Stockpile Placement 26/10/2017) DP&E Letter (dated 24/11/2017) RE: Project Approval 05_0117 and 08_0135 Order (c) Stage 1 Modification 14 and Stage 2 Modification 3 application DP&E Letter (Modification of Development Control Order) dated 13/11/2018	There are no recommendations.

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	2	4	4. The Proponent shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of: (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this approval; (b) any reports, reviews or audits commissioned by the Department regarding compliance with this approval; and (c) the implementation of any actions or measures contained in these documents.	C	Refer to audit findings in PA05_0117 Schedule 2, Condition 4	Refer to audit findings in PA05_0117 Schedule 2, Condition 4	Refer to audit findings in PA05_0117 Schedule 2, Condition 4
PA05_0117	2	5	Mining Operations 5. The Proponent may carry out mining operations on the site until 31 December 2038. Note: Under this approval, the Proponent is required to rehabilitate the site and perform 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.	Noted	The date of this audit is October 2018 and thus this condition has not yet been triggered.	N/A	There are no recommendations.
PA08_0135	2	5	Lapsing of Approval 5. If the project has not been physically commenced within 5 years of the date of this approval, then this project approval shall lapse.	C	Progress of project is evident through reports and plans as prepared to comply with the modified project consent requirements. The operations of the project are well underway as identified during the site inspection.	Management Plans Site Inspection	There are no recommendations.
PA05_0117	2	5A	Longwall Sequencing 5A. The Proponent shall ensure longwall mining of panels LW9 to LW14 (as marked in Figure 7.1 of Appendix 7): (a) Does not commence until LW1-LW8 have been completed and (b) Progress in sequence numbered, i.e. panel LW9 is to be completed first and panel LW14 is to be completed last. Note: The Proponent is also required to satisfy the requirements of condition 78A of Schedule 3, prior to the commencement of mining in each longwall panel LW9-LW14.	Not triggered	Underground 4 has not commenced during the reporting period	N/A	There are no recommendations.
PA08_0135	2	6	Mining Operations 6. The Proponent may carry out mining operations on the site until 31 December 2038. Note: Under this approval, the Proponent is required to rehabilitate the site and perform 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.	Not triggered	The date of this audit is October 2018 and thus this condition has not yet been triggered.	N/A	There are no recommendations.
PA05_0117	2	6	Coal Extraction 6. The Proponent shall not extract more than: (a) 8 million tonnes of ROM coal from the open-cut mining operations of the project in any calendar year except 2015 and 2016; (b) 9 million tonnes of ROM coal from the open-cut mining operations of the project in the calendar years 2015 and 2016; and (c) 8 million tonnes of ROM coal from the underground mining operations of the project in any calendar year.	C	(a) The 2017 Annual Review states that 4,975,112 tonnes of ROM coal was extracted from open-cut mining operations (OC1, 2 & 3) from 1 January 2017 to the 31 December 2017. The 2016 Annual Review states 8,842,743 tonnes of ROM coal was extracted from open-cut mining operations (OC1, 2 & 3) from 1 January 2016 to the 31 December 2016. It should be noted that the 2016 Open Cut Extraction Limit was 9 million tonnes. A minor discrepancy was found between the open cut coal production figures supplied to the auditor (SAP report) and the 2017 Annual Review. Coal extract data (YTD September 2018) was viewed during the audit and was found to be compliant with these limits at the time of the audit. (b) The 2016 Annual Review states 8,842,743 tonnes of ROM coal was extracted from open-cut mining operations (OC1, 2 & 3) from 1 January 2016 to the 31 December 2016. It should be noted that the 2016 Open Cut Extraction Limit was 9 million tonnes. Note: This audit covers operations from January 2016 to October 2018 and has not provided comment on 2015 operations (c) The 2017 Annual Review states that 1,717,257 tonnes of ROM coal was extracted from underground operations from 1 January 2017 to the 31 December 2017. The SAP database was viewed during the audit and these figures were confirmed. The 2016 Annual Review states that 422,086 tonnes of ROM coal was extracted from open cut mining operations from 1 January 2016 to the 31 December 2016. The SAP database was viewed during the audit and these figures were confirmed. A minor discrepancy was found between the underground coal production figures supplied to the auditor (SAP report) and the 2016 Annual Review Coal extract data (YTD September 2018) was viewed during the audit and was found to be compliant with these limits at the time of the audit.	(a) 2016 Annual review; 2017 Annual Review SAP Database Report Production Numbers 2016 SAP Database Report Production Numbers 2017 Coal Extraction targets by Stage (Jan 2018 to Sept 2018) (b) 2016 Annual review SAP Database Report Production Numbers 2016 SAP Database Report Production Numbers 2017 Coal Extraction targets by Stage (Jan 2018 to Sept 2018) (c) 2016 Annual review; 2017 Annual Review SAP Database Report Production Numbers 2016 SAP Database Report Production Numbers 2017 Coal Extraction targets by Stage (Jan 2018 to Sept 2018)	Ensure that the coal production quantities provided in the Annual Reviews are accurate.
PA08_0135	2	7	Coal Extraction 7. The Proponent shall not extract more than: (a) 12 million tonnes of ROM coal from the open cut mining operations of the project in any calendar year; and (b) 8 million tonnes of ROM coal from the underground mining operations of the project in any calendar year. Notes: • The above limits should be read in conjunction with the extraction, processing and coal transport limits in the Moolarben Coal Stage 1 approval (MP 05_0117); • The total ROM coal extracted from the Moolarben mine complex (open-cut and underground mining) is no more than 21 million tonnes in any calendar year. • No more than 13 million tonnes of coal from the Moolarben mine complex can be processed (washed) in any calendar year. • No more than 18 million tonnes can be transported from the Moolarben mine complex in any calendar year.	C	(a) The 2017 Annual Review states that 8,022,824 tonnes of ROM coal was extracted from open cut mining operations (OC4) from 1 January 2017 to the 31 December 2017. The 2016 Annual Review states that 2,972,741 tonnes of ROM coal was extracted from open cut mining operations (OC4) from 1 January 2016 to the 31 December 2016. Coal extract data (YTD September 2018) was viewed during the audit and was found to be compliant with these limits at the time of the audit. (b) The 2017 Annual Review states that 1,717,257 tonnes of ROM coal was extracted from underground operations from 1 January 2017 to the 31 December 2017. The 2016 Annual Review states that 422,086 tonnes of ROM coal was extracted from open cut mining operations from 1 January 2016 to the 31 December 2016. Coal extract data (YTD September 2018) was viewed during the audit and was found to be compliant with these limits at the time of the audit.	(a) 2016 Annual review; 2017 Annual Review (b) 2016 Annual review; 2017 Annual Review SAP Database Report Production Numbers 2016 SAP Database Report Production Numbers 2017 Coal Extraction targets by Stage (Jan 2018 to Sept 2018)	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	2	7	<p>Coal Handling & Processing</p> <p>7. The proponent shall not:</p> <p>(a) Wash more than 13 million tonnes of coal at the coal handling and preparation plant on site in any calendar year except in the year 2017;</p> <p>(b) Handle a total of more than 13 million tonnes of ROM coal on site that have been extracted from the open cut mining operations at the Moolarben Coal Complex in any calendar year; and</p> <p>(c) Handle a total of more than 8 million tonnes of ROM coal on site that have been extracted from the underground mining operations at the Moolarben mine complex in any calendar year.</p>	C	<p>PA05_0117 (Stage 1) approves Open cut 1, 2 and 3 (OC1, OC2, OC3) operations, and underground 4 (there is no underground 3) and includes modification to stage 1 operations so that it can process stage 2 coal. PA08_0135 (Stage 2) approves Open cut 4 (OC4) and underground 1 and 2 (UG1 and UG2).</p> <p>(a) The 2017 Annual Review states that 13,499,408 tonnes of coal was washed from 1 January 2017 to the 31 December 2017. The 2016 Annual Review states that 12,155,570 tonnes of coal was washed from 1 January 2016 to the 31 December 2016. Coal extract data (YTD September 2018) was viewed during the audit and was found to be compliant with these limits at the time of the audit.</p> <p>(b) The 2017 Annual Review states that 12,997,936 tonnes of ROM coal have been extracted from open cut mining operations from 1 January 2017 to 31 December 2017. The 2016 Annual Review states that 11,815,484 tonnes of ROM coal have been extracted from open cut mining operations from 1 January 2016 to 31 December 2016. The 2018 Annual review was not available at the time of the audit. A weekly plan for the week beginning 30/11/2017 was sighted during the audit which shows that MCO are reaching their operational limit for the year and have restricted their operations accordingly. Coal extract data (YTD September 2018) was viewed during the audit and was found to be compliant with these limits at the time of the audit.</p> <p>(c) The 2017 Annual Review states that 1,717,257 tonnes of ROM coal have been extracted from underground mining operations from 1 January 2017 to 31 December 2017. The 2017 SAP database was viewed during the audit and these figures were confirmed. The 2016 Annual Review states that 422,086 tonnes of ROM coal have been extracted from underground mining operations from 1 January 2016 to 31 December 2016. Coal extract data (YTD September 2018) was viewed during the audit and was found to be compliant with these limits at the time of the audit.</p>	<p>(a) 2016 Annual review; 2017 Annual Review SAP Database Report Production Numbers 2016 SAP Database Report Production Numbers 2017 Coal Extraction targets by Stage (Jan 2018 to Sept 2018)</p> <p>(b) 2016 Annual review; 2017 Annual Review MCO Weekly Plan 30/11/2017 SAP Database Report Production Numbers 2016 SAP Database Report Production Numbers 2017 Coal Extraction targets by Stage (Jan 2018 to Sept 2018)</p> <p>(c) 2016 Annual review; 2017 Annual Review SAP Database Report Production Numbers 2016 SAP Database Report Production Numbers 2017 Coal Extraction targets by Stage (Jan 2018 to Sept 2018)</p>	There are no recommendations
PA08_0135	2	8	<p>Coal Processing and Transport</p> <p>8. The Proponent shall ensure that all coal extracted from the project is sent to the Moolarben Stage 1 mine surface infrastructure area for processing and/or transport to market.</p>	C	<p>The 2016 and 2017 Annual Reviews states that:</p> <p>'ROM coal is transported via conveyor to the Coal Handling Preparation Plant (CHPP) for processing. Product Coal is transported to the product coal stockpile prior to railing. Coarse rejects are co-mingled with dewatered fine rejects and transported by conveyor to the Rejects Bin and then trucked back to the open pit for selective placement with mine spoils'.</p> <p>The Indicative General Arrangement Figure (Figure 2.2 of the Stage 1 Project Approval document) shows that the CHPP is located within the Moolarben Stage 1 mine surface infrastructure area.</p> <p>During the site inspection this process was observed and this condition assessed as complaint.</p>	<p>2016 Annual Review and 2017 Annual Review Indicative General Arrangement (Figure 2.2 of Stage 1 Project Approval 05_0117) Auditor observations during site inspection</p>	There are no recommendations.
PA05_0117	2	7A	<p>In the 2017 calendar year, the proponent may wash up to 13.5 million tonnes of coal at the coal handling and preparation plant.</p>	C	<p>The 2017 Annual Review states that 13,499,408 tonnes of coal was washed from 1 January 2017 to the 31 December 2017. Coal reporting sheet shows a marked decrease in ROM export during December period as the operations near the washing limit. The coal reporting sheet was sighted during the audit. The auditor observed that tonnes of coal exported dropped from roughly 1,150,000 during the rest of the year to 150,000 during December.</p>	<p>2017 Annual Review Coal reporting sheet for 2017</p>	There are no recommendations.
PA08_0135	2	9	<p>Structural Adequacy</p> <p>9. The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.</p> <p>Notes: • Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates (where applicable) for the proposed building works; and • Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.</p>	C	<p>Several new buildings and structures occurred during the reporting period such as the offices for Underground operations. MCO provided the Building Certificates for all new structures created during the audit period.</p> <p>The construction certificate verifies that the work that will be carried out complies with the Building Code of Australia (BCA) .</p> <p>The occupation certificates stated that the buildings are suitable for occupation or use in accordance with its classification under the BCA.</p>	<p>Construction Certificates - Whitehall Building Certifiers: Construction Certificate (Workshop, Store and Office facilities) dated 13/03/2017 - Whitehall Building Certifiers: Occupation Certificate (Workshop, Store and Office facilities) dated 1/09/2017 - Whitehall Building Certifiers: Occupation Certificate (Offices, Covered carpark and walkway) dated 30/05/16</p>	There are no recommendations.

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	2	8	<p>Coal Transport</p> <p>8. The Proponent shall ensure that:</p> <p>(a) all product coal is transported from the site by rail; and</p> <p>(b) no more than 7 laden trains leave the site each day on average when calculated over any calendar year;</p> <p>(c) no more than 9 laden trains leave the site each day; and</p> <p>(d) no more than 18 million tonnes are transported from the site in any calendar year.</p>	C	<p>(a) The 2017 and 2016 Annual Review states that: 'All product coal was loaded onto trains via the Train Load-out in Moolarben rail loop and transported via rail to port'.</p> <p>(b) and (c) The 2017 Annual Review (reporting on activities occurring between 1 January 2017 and 31 December 2017) states that the maximum number of train movements per day was 7 with an average of 3.9 per day.</p> <p>The 2016 Annual Review (reporting on activities occurring between 1 January 2016 and 31 December 2016) states that the maximum number of train movements per day was 7 with an average of 3 per day.</p> <p>The Register of Trains for 2018 was reviewed by the auditor during the site inspection. The Register of Trains logs all train movements and relevant details such a weight and cancellations. The auditor observed that as of 18/10/2018 1,540 trains have moved coal from the MCO site giving a current year to date average of 5.2 train movements per day. Train planning for 2018 gives an average of 5.6 trains per day. Maximum number of train movements per day for 2018 was 8 per day.</p> <p>A copy of Rail Load times for all train movements during the reporting period was reviewed by the auditor and found that the maximum trains per day for:</p> <ul style="list-style-type: none"> - 2016 was 7 per day - 2017 was 8 per day - 2018 was 8 per day <p>(d) Total product coal was 9,348,787 for 2016, 12,380,408 for 2017 and forecast as 14,974,657 for 2018. The Register of Trains for 2018 was reviewed by the auditor during the site inspection. The Register of Trains logs all train movements and relevant details such a weight and cancellations.</p>	<p>(a) 2017 Annual Review; 2016 Annual Review and Auditor observations during site inspection</p> <p>(b) and (c) 2017 Annual Review; 2016 Annual Review; 2018 Register of Trains (observed during the audit)</p>	There are no recommendations.
PA08_0135	2	10	<p>Demolition</p> <p>10. The Proponent shall ensure that all demolition work is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.</p>	Not triggered	Buildings have been removed and relocated but no demolition has occurred.	N/A	There are no recommendations.
PA05_0117	2	9	<p>Structural Adequacy</p> <p>9. The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA. Notes: • Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works. • Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.</p>	C	See PA08_0135 Schedule 2, Condition 9.	See PA08_0135 Schedule 2, Condition 9.	There are no recommendations.
PA08_0135	2	11	<p>Protection of Public Infrastructure</p> <p>11. 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.</p> <p>Note: This condition does not apply to any damage to public infrastructure subject to compensation payable under the Mine Subsidence Compensation Act 1961, or to damage to roads caused as a result of general road usage.</p>	Not triggered	MCO environmental representative advised the auditors that there have been no recorded impacts on roads or other infrastructure during the audit period.	N/A	There are no recommendations.
PA05_0117	2	10	<p>Demolition</p> <p>10. The Proponent shall ensure that all demolition work is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.</p>	Not triggered	Buildings have been removed and relocated but no demolition has occurred.	N/A	There are no recommendations.
PA08_0135	2	12	<p>Operation of Plant and Equipment</p> <p>12. The Proponent shall ensure that all plant and equipment used at the site, or in connection with the project, is:</p> <p>(a) maintained in a proper and efficient condition; and is</p> <p>(b) operated in a proper and efficient manner</p>	C	<p>(a) MCO advised that plant and equipment is maintained using the Maintenance Schedule (SAP Records Management). The maintenance schedule was sighted during the site inspection.</p> <p>(b) During the site inspection, the plant and equipment was observed to be operated in proper and efficient manner. Based on the observation of plant and equipment being used on site at the time of the audit, this condition is assessed as compliant.</p>	<p>(a) Maintenance Schedule (SAP Records Management).</p> <p>(b) Auditor observations during the site inspection</p>	There are no recommendations.
PA05_0117	2	11	<p>Protection of Public Infrastructure</p> <p>11. 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. Note: This condition does not apply to any damage to public infrastructure subject to compensation payable under the Mine Subsidence Compensation Act 1961, or to damage to roads caused as a result of general road usage.</p>	Not triggered	MCO environmental representative advised the auditors that there have been no recorded impacts on roads or other infrastructure during the audit period.	N/A	There are no recommendations.

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	2	13	<p>Staged Submission of Strategies, Plans or Programs</p> <p>13. With the approval of the Secretary, the Proponent may:</p> <p>(a) submit any strategy, plan or program required by this approval on a progressive basis; and</p> <p>(b) combine any strategy, plan, program, review, audit or report required by this approval with any similar strategy, plan, program, review, audit or report required under Project Approval 05_0117 for the Moolarben Coal Project Stage 1.</p> <p>Notes:</p> <ul style="list-style-type: none"> While any strategy, plan or program may be submitted on a progressive basis, the Proponent will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times; 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. 	C	<p>(a) A letter from the Secretary dated 3/08/2018 was sighted during the audit regarding Biodiversity Management. The letter stated that DP&E approved the staging of the biodiversity management plan to progressively address biodiversity offsets and rehabilitation.</p> <p>Management advised that all plans used during the audit period have been approved by DP&E or have been submitted to DP&E and are awaiting approval.</p> <p>A letter from the Secretary dated 13/07/2016 was sighted during the audit regarding approval of the submitted Environmental Management Plans.</p> <p>(b) The strategies, plans or programs have been developed for both the Stage 1 and Stage 2 development in a single document, where practicable. Management advised auditors that they were seeking to combine the biodiversity aspects into one plan.</p> <p>Management advised that all plans used during the audit period have been approved by DP&E or have been submitted to DP&E and are awaiting approval</p>	<p>(a) - Letter from DP&E (3/08/2018) sighted during the audit</p> <p>- DPE Letter (13/07/2016) Moolarben Coal Complex (05_117 and 08_0135) RE: Approval of Environmental Management Plans - Management Assertion</p> <p>Management Plans (AQMP, BioMP, Blast Fume Management Strategy, Blast Management Plan, ESAP, EMS, EPBC Biodiversity Offset MP, GHGMP, HMP, LMP, NMP, Pollution Incident Response Management Plan, RMP, WMP)</p>	There are no recommendations.
PA05_0117	2	12	<p>Operation of Plant and Equipment</p> <p>12. The Proponent shall ensure that all plant and equipment used at the site, or in connection with the project, is:</p> <p>(a) maintained in a proper and efficient condition; and is:</p> <p>(b) operated in a proper and efficient manner.</p>	C	<p>(a) MCO advised that plant and equipment is maintained using the Maintenance Schedule (SAP Records Management). The maintenance schedule was sighted during the site inspection.</p> <p>(b) During the site inspection, the plant and equipment was observed to be operated in proper and efficient manner. Based on the observation of plant and equipment being used on site at the time of the audit, this condition is assessed as compliant.</p>	<p>(a) Maintenance Schedule (SAP Records Management)</p> <p>(b) Auditor observations during the site inspection</p>	There are no recommendations.
PA08_0135	2	13A	<p>13A. With the agreement of the Secretary, the Proponent may prepare a revision of or a stage of a strategy, plan or program without taking consultation with all parties nominated under the applicable condition in this consent.</p>	C	<p>A letter from the Secretary dated 21/08/2017 was sighted during the audit regarding approval of environmental management plans.</p> <p>During the audit a letter from DP&E (dated 13/07/2016) was sighted which states that no consultation is required for revision of certain plans.</p> <p>These plans are: the Blast Management plan; Blast fume management plan; Energy savings plan; Environmental Management Strategy (EMS); Landscape management plan (LMP); Biodiversity Management Plan (BioMP); Rehabilitation management plan and Greenhouse Gas Management Plan (GHGMP).</p> <p>However the following plans still require consultation:</p> <ul style="list-style-type: none"> Water Management Plan (WMP) - Consult with DPI Water and the EPA Noise Management Plan (NMP) - Consult with the EPA Air Quality Management Plan (AQMP) - Consult with the EPA Heritage Management Plan (HMP) - Consult with OEH and Registered Aboriginal Parties (RAPs) <p>The AQMP was reviewed by the auditors during the audit (17/10/2018) Letter evidence from DP&E (21/08/2017) and EPA (4/08/2016) was sighted during the audit.</p>	<p>Letter from DP&E (dated 13/07/2016) RE: Consultation exemptions of specific management plan revisions.</p> <p>Letter from DP&E (dated 21/08/2017) RE: Approval of Environmental Management Plans</p> <p>Letter from DP&E (dated 21/08/2017) RE: Approval of AQMP</p> <p>Letter from EPA (dated 04/08/2016) RE: AQMP: EPA does not review or endorse management plans.</p>	There are no recommendations.
PA05_0117	2	13	<p>Staged Submission of Strategies, Plans or Programs</p> <p>13. With the approval of the Secretary, the Proponent may:</p> <p>(a) submit any strategy, plan or program required by this approval on a progressive basis; and</p> <p>(b) combine any strategy, plan, program, review, audit or report required by this approval with any similar strategy, plan, program, review, audit or report required under Project Approval 08_0135 for the Moolarben Coal Project Stage 2.</p> <p>Notes:</p> <ul style="list-style-type: none"> While any strategy, plan or program may be submitted on a progressive basis, the Proponent will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times; and If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program. 	C	Refer to audit findings for PA08_0135 Schedule 2, Condition 13.	Refer to audit findings for PA08_0135 Schedule 2, Condition 13.	Refer to audit findings for PA08_0135 Schedule 2, Condition 13.
PA05_0117	2	13A	<p>13A. With the agreement of the Secretary, the Proponent may prepare a revision of or a stage of a strategy, plan or program without undertaking consultation with all parties under the applicable condition in this consent.</p>	C	Refer to audit findings for PA08_0135 Schedule 2, Condition 13A.	Refer to audit findings for PA08_0135 Schedule 2, Condition 13A.	Refer to audit findings for PA08_0135 Schedule 2, Condition 13A.
PA05_0117	2	14	<p>Voluntary Planning Agreement</p> <p>14. Within 12 months of this approval, 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;</p> <p>(b) the terms of the Proponent's offer to the Minister on 4 September 2007, which includes the matters set out in Appendix 4</p>	C	<p>(a) MCO has a Voluntary Planning Agreement (VPA) that provides for payments of road maintenance contributions and community infrastructure contributions to the Council. A sample of invoices were reviewed during the audit showing that matters set out in Project Approval 05_0117 Appendix 4 are being paid in accordance with the Voluntary Planning Agreement.</p> <p>Invoice from Mid-Western Regional Council (dated 15/02/2018) Stage 2 Community Enhancement Contribution (\$230,533.57) was sighted during the audit.</p> <p>(b) Not covered during the current audit period</p>	<p>Project Approval 05_0117 Appendix 4 Voluntary Planning Agreement</p> <p>Invoice (No. 18 2078) from Mid-Western Regional Council (15/02/2018)</p>	There are no recommendations.

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation																																																						
PA08_0135	2	14	<p>Community Enhancement</p> <p>14. From the commencement of construction until mining operations under this approval cease, the Proponent shall pay to Council a total of \$515 a year for each full-time equivalent employee/contractor at the Moolarben mine complex in excess of 320. This payment is for the provision of infrastructure and services generated by the project. It is also to be indexed in accordance with the CPI for the previous quarter.</p>	C	<p>Management advised that current staff levels are approximately 750 full-time equivalent employees the majority of which are locally based.</p> <p>This figure is supported by the invoice from Council for \$230,533.57 for the "Stage 2 Community Enhancement Contribution".</p> <p>Management advised that operations recruitment is on-going</p>	<p>Invoice (No. 18 2078) from Mid-Western Regional Council (15/02/2018)</p> <p>Management assertion</p>	There are no recommendations.																																																						
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PA05_0117	3	1A	<p>NOISE CRITERIA</p> <p>Acquisition Upon Request</p> <p>1A. Upon receiving a written request for acquisition from the owner of the land listed in Table 1, the Applicant shall acquire the land in accordance with the procedures in conditions 5 and 6 of Schedule 5.</p> <p>Table 1: Land subject to acquisition upon request Receiver ID 32</p> <table border="1"> <thead> <tr> <th colspan="5">Table 1A: Land subject to acquisition upon request</th> </tr> <tr> <th></th> <th colspan="4">Receiver ID</th> </tr> <tr> <th></th> <th colspan="4">32</th> </tr> </thead> <tbody> <tr> <td colspan="5"><i>Note: To interpret the land referred to in Table 1, see the applicable figures in Appendix 5.</i></td> </tr> </tbody> </table> <p>Note: To interpret the land referred to in Table 1, see the applicable figures in Appendix 5.</p>	Table 1A: Land subject to acquisition upon request						Receiver ID					32				<i>Note: To interpret the land referred to in Table 1, see the applicable figures in Appendix 5.</i>					Not triggered	<p>Management advised that one property (Property number 32 - The "Stokes" property) has been acquired during the audit period however this property has been voluntarily acquired and was not purchased though an acquisition request.</p>	<p>Management assertion</p>	There are no recommendations.																																		
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PA05_0117	3	1	<p>1. The Proponent shall ensure that the noise generated by the Moolarben Mine Complex does not exceed the noise criteria in Table 1 at any residence on privately-owned land or the other specified locations. Table 1: Noise criteria dB(A)</p> <p>Table 1: Noise criteria dB(A)</p> <table border="1"> <thead> <tr> <th rowspan="2">Land Number</th> <th>Day</th> <th>Evening</th> <th colspan="2">Night</th> </tr> <tr> <th>L_{Aeq}(15min)</th> <th>L_{Aeq}(15min)</th> <th>L_{Aeq}(15min)</th> <th>L_{Aeq}(15min)</th> </tr> </thead> <tbody> <tr> <td>30, 63</td> <td>39</td> <td>39</td> <td>39</td> <td>45</td> </tr> <tr> <td>70</td> <td>37</td> <td>37</td> <td>37</td> <td>45</td> </tr> <tr> <td>75</td> <td>36</td> <td>36</td> <td>36</td> <td>45</td> </tr> <tr> <td>31</td> <td>36</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td>All other privately-owned residences</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td>Ulan Primary School</td> <td></td> <td>35 (internal) when in use</td> <td></td> <td>-</td> </tr> <tr> <td>Ulan Anglican Church</td> <td></td> <td>35 (internal) when in use</td> <td></td> <td>-</td> </tr> <tr> <td>Goulburn River National Park</td> <td></td> <td>50</td> <td></td> <td>-</td> </tr> <tr> <td>Munghorn Gap Nature Reserve</td> <td></td> <td>when in use</td> <td></td> <td>-</td> </tr> </tbody> </table> <p><i>Note: To interpret the land referred to in Table 1 see the applicable figures in Appendix 5.</i></p> <p>Note: To interpret the land referred to in Table 1 see the applicable figures in Appendix 5. Noise generated by the Moolarben Mine Complex is to be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy. Appendix 6 sets out the meteorological conditions under which these criteria apply, and the requirements for evaluating compliance with these criteria. 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 Number	Day	Evening	Night		L _{Aeq} (15min)	L _{Aeq} (15min)	L _{Aeq} (15min)	L _{Aeq} (15min)	30, 63	39	39	39	45	70	37	37	37	45	75	36	36	36	45	31	36	35	35	45	All other privately-owned residences	35	35	35	45	Ulan Primary School		35 (internal) when in use		-	Ulan Anglican Church		35 (internal) when in use		-	Goulburn River National Park		50		-	Munghorn Gap Nature Reserve		when in use		-	C	<p>The NMP states that MCO undertakes attended noise monitoring in the surrounding community. The frequency of monitoring is dependent on the location but ranges from monthly to annually. The NMP also states that MCO operates real time noise monitoring units to assess the ongoing performance of the operation.</p> <p>Monitoring is undertaken at: Ulan Public School (NA1); Cope Road (Receiver 258)(NA11 and ND2); Lagoons Road (NA2 and NR3); Winchester Crescent (NA12 and NR4); Upper Ridge Road (receiver 176)(NA3 and NR5); Lower Ridge Road (NA6); Moolarben Road (Receiver 28)(NA10 and NR10); Goulburn River National Park (GRNP); Munghorn Gap Nature Reserve (MGNR); MCO Administration (Weather Station WS1); Ulan Road (Weather Station WS3) and Mobile (Weather Station WS5). MCO has entered into a data sharing agreement with the Ulan Coal Mine for site ND2.</p> <p>Annual reviews for 2016 and 2017 were reviewed which show that MCO complied with the project specific criteria at all monitoring sites during attended noise monitoring.</p> <p>Noise monitoring data from Jan 2018 to August 2018 were reviewed which show that MCO complied with the project specific criteria at all monitoring sites during attended noise monitoring.</p>	<p>NMP</p> <p>Annual Review 2016 and 2017</p> <p>Monitoring results Jan 2018 to August 2018</p>	There are no recommendations.
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PA05_0117	3	2	<p>Land Acquisition Criteria</p> <p>2. If the noise generated by the Moolarben mine complex exceeds the criteria in Table 2A, then upon receiving a written request for acquisition from an owner of the land listed in Table 2A, the Proponent shall acquire the land in accordance with the procedures in conditions 10 and 11 of Schd. 4. Table 2A: Acquisition criteria dB(A) LAeq (15min)</p> <p>Table 2A: Acquisition criteria dB(A) LAeq (15min)</p> <table border="1"> <thead> <tr> <th>Receiver ID</th> <th>Day</th> <th>Evening</th> <th>Night</th> </tr> <tr> <th></th> <th>(L_{Aeq} (15min))</th> <th>(L_{Aeq} (15min))</th> <th>(L_{Aeq} (15min))</th> </tr> </thead> <tbody> <tr> <td>63</td> <td>43</td> <td>43</td> <td>42</td> </tr> <tr> <td>All other privately-owned residences</td> <td>40</td> <td>40</td> <td>40</td> </tr> </tbody> </table> <p><i>Note: To interpret the land referred to Table 2A, see the applicable figures in Appendix 5.</i></p> <p>Note: To interpret the land referred to in Table 2A, see the applicable figures in Appendix 5.</p>	Receiver ID	Day	Evening	Night		(L _{Aeq} (15min))	(L _{Aeq} (15min))	(L _{Aeq} (15min))	63	43	43	42	All other privately-owned residences	40	40	40	Not triggered	<p>Management advised that one property (Property number 32 - The "Stokes" property) has been acquired during the audit period however this property has been voluntarily acquired and was not purchased though an acquisition request.</p>	<p>Management assertion</p>	There are no recommendations.																																						
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PA08_0135	3	2	<p>Mitigation Upon Request</p> <p>2. Upon receiving a written request from the owner of any residence on the land listed in Table 2, the Proponent shall implement additional noise mitigation measures (such as double-glazing, insulation and/or air conditioning) at the residence in consultation with the landowner. These measures must be reasonable and feasible, and directed towards reducing the noise impacts of the project on the residence. If within 3 months of receiving this request from the owner, the Proponent and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution. Table 2 Residence subject to additional noise mitigation upon request.</p> <p><i>Table 2: Residence subject to additional noise mitigation upon request</i></p> <table border="1"> <thead> <tr> <th>Receiver ID</th> </tr> </thead> <tbody> <tr> <td>30</td> </tr> </tbody> </table> <p>Note: To interpret the land referred to in Table 2, see the applicable figures in Appendix 5.</p>	Receiver ID	30	Not triggered	Property number 30 (The "Cox" property) has been voluntarily purchased by MCO.	Management assertion	There are no recommendations.																																																				
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PA05_0117	3	3	<p>3. If the noise generated by the Moolarben mine complex contributes to exceedances of the relevant criteria in Table 2 on more than 25% of any privately-owned land (and a dwelling could be built on that land under existing planning controls), the Proponent shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 10-11 of Schd. 4.</p> <p>Table 2: Land acquisition criteria</p> <p><i>Table 2: Land acquisition criteria</i></p> <table border="1"> <thead> <tr> <th>Day/Evening/Night <i>L_{Aeq}(period)</i></th> <th>Receiver</th> </tr> </thead> <tbody> <tr> <td>55/50/45</td> <td>All privately-owned land</td> </tr> </tbody> </table> <p>Note: Noise generated by the complex is to be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy. Appendix 6 sets out the meteorological conditions under which these criteria apply, and the requirements for evaluating compliance with these criteria. 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>	Day/Evening/Night <i>L_{Aeq}(period)</i>	Receiver	55/50/45	All privately-owned land	Not triggered	<p>Annual reviews for 2016 and 2017 were reviewed which show that MCO complied with the project specific criteria at all monitoring sites during attended noise monitoring.</p> <p>A sample of noise monitoring data was reviewed (Jan 2018 to August 2018) which show that MCO complied with the project specific criteria at all monitoring sites during attended noise monitoring.</p>	<p>Annual Review 2016 and 2017</p> <p>Monitoring results Jan 2018 to August 2018</p>	There are no recommendations.																																																		
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PA08_0135	3	3	<p>Noise Criteria</p> <p>3. The Proponent shall ensure that the noise generated by the Moolarben mine complex does not exceed the criteria in Table 3 at any residence on privately-owned land or the other specified locations. Table 3: Noise criteria dB(A)</p> <p><i>Table 3: Noise criteria dB(A)</i></p> <table border="1"> <thead> <tr> <th rowspan="2">Receiver ID</th> <th>Day</th> <th>Evening</th> <th colspan="2">Night</th> </tr> <tr> <th><i>L_{Aeq}(15min)</i></th> <th><i>L_{Aeq}(15min)</i></th> <th><i>L_{Aeq}(15min)</i></th> <th><i>L_{A1}(15min)</i></th> </tr> </thead> <tbody> <tr> <td>30, 63</td> <td>39</td> <td>39</td> <td>39</td> <td>45</td> </tr> <tr> <td>70</td> <td>37</td> <td>37</td> <td>37</td> <td>45</td> </tr> <tr> <td>75</td> <td>36</td> <td>36</td> <td>36</td> <td>45</td> </tr> <tr> <td>31</td> <td>36</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td>All other privately-owned residences</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td>Ulan Primary School</td> <td></td> <td>35 (internal when in use)</td> <td></td> <td>-</td> </tr> <tr> <td>Ulan Anglican Church</td> <td></td> <td>35 (internal when in use)</td> <td></td> <td>-</td> </tr> <tr> <td>Goulburn River National Park</td> <td></td> <td>50</td> <td></td> <td>-</td> </tr> <tr> <td>Munghorn Gap Nature Reserve</td> <td></td> <td>when in use</td> <td></td> <td>-</td> </tr> </tbody> </table> <p>Note: To interpret the land referred to in Table 3, see the applicable figures in Appendix 5. Noise generated by the Moolarben mine complex is to be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy. Appendix 6 sets out the meteorological conditions under which these criteria apply, and the requirements for evaluating compliance with these criteria. However, these 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>	Receiver ID	Day	Evening	Night		<i>L_{Aeq}(15min)</i>	<i>L_{Aeq}(15min)</i>	<i>L_{Aeq}(15min)</i>	<i>L_{A1}(15min)</i>	30, 63	39	39	39	45	70	37	37	37	45	75	36	36	36	45	31	36	35	35	45	All other privately-owned residences	35	35	35	45	Ulan Primary School		35 (internal when in use)		-	Ulan Anglican Church		35 (internal when in use)		-	Goulburn River National Park		50		-	Munghorn Gap Nature Reserve		when in use		-	C	<p>Annual reviews for 2016 and 2017 were reviewed which show that MCO complied with the project specific criteria at all monitoring sites during attended noise monitoring.</p> <p>A sample of noise monitoring data was reviewed (Jan 2018 to August 2018) which show that MCO complied with the project specific criteria at all monitoring sites during attended noise monitoring.</p>	<p>Annual Review 2016 and 2017</p> <p>Monitoring results Jan 2018 to August 2018</p>	There are no recommendations.
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PA05_0117	3	4	<p>Noise Mitigation Criteria</p> <p>4. If the noise generated by the Moolarben mine complex exceeds the criteria in Table 3A then upon receiving a written request the Proponent shall implement additional noise mitigation measures (such as double-glazing, insulation and/or air conditioning) at the residence in consultation with the landowner. These measures must be reasonable and feasible, and directed towards reducing the noise impacts of the project on the residence. If within 3 months of receiving this request from the owner, the Proponent and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution. Table 3A: Mitigation criteria dB(A) L_{Aeq} (15min)</p> <p><i>Table 3A: Mitigation criteria dB(A) L_{Aeq} (15min)</i></p> <table border="1"> <thead> <tr> <th>Receiver ID</th> <th>Day <i>(L_{Aeq} (period))</i></th> <th>Evening <i>(L_{Aeq} (15min))</i></th> <th>Night <i>(L_{Aeq} (15min))</i></th> </tr> </thead> <tbody> <tr> <td>63</td> <td>40</td> <td>40</td> <td>39</td> </tr> <tr> <td>All privately owned residences other than those in Table 3</td> <td>37</td> <td>37</td> <td>37</td> </tr> </tbody> </table> <p>Note: To interpret the land referred to Table 3A, see the applicable figures in Appendix 5.</p> <p>Note: To interpret the land referred to Table 3A, see the applicable figures in Appendix 5.</p>	Receiver ID	Day <i>(L_{Aeq} (period))</i>	Evening <i>(L_{Aeq} (15min))</i>	Night <i>(L_{Aeq} (15min))</i>	63	40	40	39	All privately owned residences other than those in Table 3	37	37	37	Not Triggered	No requests for noise mitigation measures have been received during the audit period.	Management assertion	There are no recommendations.																																										
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PA08_0135	3	4	<p>Land Acquisition Criteria</p> <p>4. If the noise generated by the Moolarben mine complex exceeds the criteria in Table 4, then upon receiving a written request for acquisition from an owner of the land listed in Table 4, the Proponent shall acquire the land in accordance with the procedures in conditions 5 and 6 of Schedule 5.</p> <table border="1"> <caption>Table 4: Acquisition criteria dB(A) L_{Aeq} (15min)</caption> <thead> <tr> <th>Receiver ID</th> <th>Day (L_{Aeq} (15min))</th> <th>Evening (L_{Aeq} (15min))</th> <th>Night (L_{Aeq} (15min))</th> </tr> </thead> <tbody> <tr> <td>63</td> <td>43</td> <td>43</td> <td>42</td> </tr> <tr> <td>All other privately-owned residences</td> <td>40</td> <td>40</td> <td>40</td> </tr> </tbody> </table> <p>Note: To interpret the land referred to in Table 4, see the applicable figures in Appendix 5.</p>	Receiver ID	Day (L _{Aeq} (15min))	Evening (L _{Aeq} (15min))	Night (L _{Aeq} (15min))	63	43	43	42	All other privately-owned residences	40	40	40	Not triggered	Refer to audit findings for PA05_0117 Schedule 3 condition 2	Refer to audit findings for PA05_0117 Schedule 3 condition 2	There are no recommendations.
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PA05_0117	3	5	<p>Mitigation Upon Request</p> <p>5. Upon receiving a written request from the owner of the residence on the land listed in Table 3, the Proponent shall implement additional noise mitigation measures (such as double-glazing, insulation and/or air conditioning) at the residence in consultation with the landowner. These measures must be reasonable and feasible, and directed towards reducing the noise impacts of the Moolarben Mine Complex 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 3: Land subject to additional noise mitigation upon request Receiver ID 30</p> <table border="1"> <caption>Table 3: Land subject to additional noise mitigation upon request</caption> <thead> <tr> <th>Receiver ID</th> </tr> </thead> <tbody> <tr> <td>30</td> </tr> </tbody> </table> <p>Note: To interpret the land referred to in Table 3 see the applicable figures in Appendix 5. 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 the agreement.</p>	Receiver ID	30	Not triggered	Property number 30 (The "Cox" property) has been voluntarily purchased by MCO.	Management assertion	There are no recommendations.										
Receiver ID																			
30																			
PA08_0135	3	5	<p>Land Acquisition Criteria</p> <p>5. If the noise generated by the Moolarben mine complex contributes to exceedances of the relevant criteria in Table 5 on more than 25% of any privately-owned land (and a dwelling could be built on that land under existing planning controls), the Proponent shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 5 and 6 of Schedule 5.</p> <table border="1"> <caption>Table 5: Land acquisition criteria</caption> <thead> <tr> <th>Day/Evening/Night L_{Aeq}(period)</th> <th>Receiver</th> </tr> </thead> <tbody> <tr> <td>55/50/45</td> <td>All privately-owned land</td> </tr> </tbody> </table> <p>Note: Noise generated by the project is to be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy. Appendix 6 sets out the meteorological conditions under which these criteria apply, and the requirements for evaluating compliance with these criteria. 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 Refer Table 5 of the consent for Land Acquisition Criteria</p>	Day/Evening/Night L _{Aeq} (period)	Receiver	55/50/45	All privately-owned land	Not triggered	<p>Annual reviews for 2016 and 2017 were reviewed which show that MCO complied with the project specific criteria at all monitoring sites during attended noise monitoring.</p> <p>A sample of noise monitoring data was reviewed (Jan 2018 to August 2018) which show that MCO complied with the project specific criteria at all monitoring sites during attended noise monitoring.</p>	<p>Annual Review 2016 and 2017</p> <p>Monitoring results Jan 2018 to August 2018</p>	There are no recommendations.								
Day/Evening/Night L _{Aeq} (period)	Receiver																		
55/50/45	All privately-owned land																		

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation												
PA05_0117	3	6	<p>Operating Conditions The Proponent shall:</p> <p>(a) implement best management practice to minimise the operational, road and rail 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) minimise the noise impacts of the project during meteorological conditions when the noise limits in this approval do not apply (see Appendix 6);</p>	C	<p>(a) Management Practices are set out in Section 7.1 of the Noise Management Plan (NMP). These management practices include ways to minimise operational, road and rail noise.</p> <p>(b) Predictive meteorological forecasting and continuous noise monitoring is covered in section 7 and 8 of the NMP.</p> <p>MCO operate two predictive models which are used in conjunction with real-time response protocols as part of the comprehensive noise management system at the Moolarben Coal Complex:</p> <p>i) Predictive meteorological forecasting (Environmental Forecasting System) ii) Predictive noise level forecasting (Sound Advice)</p> <p>Real-time monitoring is conducted at ND2, NR3, NR4, NR5 and NR10.</p> <p>Checklist for MPEAs (14/10/18) shows that according to the environmental forecast there is low to medium noise risks for all locations. In response the shift crew were addressed on noise risk and additional noise mitigation implemented.</p> <p>The system has been programmed to provide SMS alerts to relevant staff/operators where noise levels reach predetermined triggers. These alerts will be used to guide the modification of operations to reduce noise levels.</p> <p>A "Green-Trigger" SMS was received during the audit period and sighted by the auditor. Responses to green alarm, amber alarm and red alarm were explained during the audit period and detailed in section 7.4 of the NMP. If operations are approaching noise limits there is a process to ensure that they are not exceeded.</p> <p>(c) Section 8.2.4 of the NMP states that "Weather conditions will be monitored (as per Section 8.4) and where adverse conditions are experienced or predicted, operational changes will be reviewed to avoid or reduce noise impacts".</p> <p>Checklist for MPEA's (14/10/18) shows that Ulan school was predicted to have some dust risks during the afternoon and that watercarts were planned to operate to address this risk.</p>	<p>(a) NMP</p> <p>(b) NMP "Green-Trigger" SMS</p> <p>(c) NMP MPEA Checklist: Environmental Responsibilities (14/10/2018)</p>	There are no recommendations												
PA05_0117	3	6	<p>Operating Conditions The Proponent shall:</p> <p>(d) only use locomotives and rolling stock that are approved to operate on the NSW rail network in accordance with the noise limits in ARTC's EPL</p> <p>(e) co-ordinate noise management with the noise management at Ulan and Wilpinjong mines to minimise cumulative noise impacts;</p> <p>(f) carry out regular monitoring to determine whether the project is complying with the relevant conditions of this approval, to the satisfaction of the Secretary.</p>	C	<p>(d) Compliant as per previous IEA (Trevor Brown & Associates, 2015) 'a letter from Pacific National stating it would only use locomotives and rolling stock that meet ARTC noise limits only use locomotives and rolling stock that are approved to operate on the NSW rail network in EPL 6142'.</p> <p>(e) A Data Sharing Deed signed on 16/01/2014 provides the protocol for sharing of environmental monitoring data between Moolarben Coal, Ulan Coal and Wilpinjong Coal.</p> <p>No cumulative impacts with Wilpinjong as there are no residences near both. However work has been done in terms of directional noise between UCM and MCO. The auditor sighted the Joint Mines Consultation Commitments Meeting Minutes (dated 10/11/2017) which raises the agreement on direction noise readings between UCM and MCO. Email evidence was also sighted (dated 15/05/2016 which request amending wind direction alarms.</p> <p>Noise data and forecasting is shared between Moolarben, Ulan and Wilpinjong mines, using Sentinex. This system was viewed during the audit.</p> <p>(f) A sample of noise monitoring data was reviewed (Jan 2018 to August 2018) which show that MCO complied with the project specific criteria at all monitoring sites during attended noise monitoring.</p>	<p>(d) Previous IEA (Trevor Brown & Associates, 2015) - Letter from Pacific National re Use of Locomotives and Rolling Stock that meet ARTC Noise Limits</p> <p>(e) Data Sharing Deed, 16/01/2014</p> <p>Email between MCO and UCM (dated 15/06/2016) RE: wind direction alarms.</p> <p>Sentinex data sharing system</p> <p>(f) Monitoring results Jan 2018 to August 2018</p>	There are no recommendations												
PA08_0135	3	6	<p>Noise Mitigation Criteria 6. If the noise generated by the Moolarben mine complex exceeds the criteria in Table 6 at any privately owned residence, then upon receiving a written request the Proponent shall implement additional noise mitigation measures (such as double-glazing, insulation and/or air conditioning) at the residence in consultation with the landowner. These measures must be reasonable and feasible, and directed towards reducing the noise impacts of the project on the residence.</p> <p>If within 3 months of receiving this request from the owner, the Proponent and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution. Table 6: Mitigation criteria dB(A) LAeq(15min)</p> <table border="1"> <caption>Table 6: Mitigation criteria dB(A) LAeq (15min)</caption> <thead> <tr> <th>Receiver ID</th> <th>Day (LAeq (15min))</th> <th>Evening (LAeq (15min))</th> <th>Night (LAeq (15min))</th> </tr> </thead> <tbody> <tr> <td>63</td> <td>40</td> <td>40</td> <td>39</td> </tr> <tr> <td>All privately owned residences other than those in Table 2</td> <td>37</td> <td>37</td> <td>37</td> </tr> </tbody> </table> <p>Note: To interpret the land referred to in Table 6, see the applicable figures in Appendix 5.</p>	Receiver ID	Day (LAeq (15min))	Evening (LAeq (15min))	Night (LAeq (15min))	63	40	40	39	All privately owned residences other than those in Table 2	37	37	37	Not Triggered	Refer to audit findings for PA05_0117 Schedule 3 condition 4	<p>Refer to audit findings for PA05_0117 Schedule 3 condition 4</p>	There are no recommendations.
Receiver ID	Day (LAeq (15min))	Evening (LAeq (15min))	Night (LAeq (15min))																
63	40	40	39																
All privately owned residences other than those in Table 2	37	37	37																

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	3	7	Noise Management Plan 7. 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 be submitted to the Secretary for approval by 31 March 2015;	C	Approval of the NMP (Version 3 - May 2015) was observed in Appendix C of the NMP (Agency Correspondence). The approval letter is dated 22 June 2015. MCO has submitted an updated revision of the NMP to DP&E (plan sent 25/08/2016). This plan is currently being updated by MCO. The March date specified in this condition is superseded as MCO have submitted a revision to the original plan. The original NMP was dated 31/03/2015. Correspondence with the EPA (letter dated 19/08/2016) was sighted stating that the EPA does not review or endorse environmental management plans.	NMP Letter sent to DP&E (25/08/2016) Letter from EPA (31/08/2016) stating that they did not review or endorse plans.	There are no recommendations.
PA05_0117	3	7	This plan must: (b) describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions in this approval;	C	Noise management measures to ensure compliance with the noise criteria and operating conditions are detailed in section 7 of the NMP. Responses to exceedances at continuous noise monitoring locations are set out in section 8.3 and responses to exceedances at real time monitoring locations are set out in section 7.4.	NMP	There are no recommendations.
PA05_0117	3	7	This plan must: (c) describe the proposed noise management system in detail;	C	The noise management system is described in section 7 of the NMP.	NMP	There are no recommendations.
PA05_0117	3	7	This plan must: (d) include a monitoring program that: i) uses attended noise monitoring to evaluate compliance of the project against the noise criteria in this approval;	C	The following compliance attended noise monitoring is used to evaluate the compliance of the project: Ulan Public School (NA1); Winchester Crescent (NA12); Lower Ridge Road (NA6); Goulburn River National Park (GRNP); and Munghorn Gap Nature Reserve (MGNR). Noise monitoring undertaken on site is set out in section 6.1 'Noise Monitoring' of the NMP.	NMP	There are no recommendations.
PA05_0117	3	7	This plan must: (d) include a monitoring program that: ii) includes a program to calibrate and validate the real-time noise monitoring results with the attended monitoring results over time (so the real-time noise monitoring program can be used as a better indicator of compliance with the noise criteria in this approval and trigger for further attended monitoring);	C	The following real time noise monitors are installed and operating: Cope Rd (Receiver 258) (ND2); Lagoons Road (NR3); Winchester Crescent (NR4); Upper Ridge Road (Receiver 176) (NR5); and Moolarben Road (Receiver 28)(NR10). The real time noise monitors are used in conjunction with attended noise monitoring to validate the real-time monitoring: Cope Rd (Receiver 258) (NA11); Lagoons Road (NA2); Winchester Crescent (NA12); Upper Ridge Road (Receiver 176) (NA3); and Moolarben Road (Receiver 28)(NA10). Noise monitoring undertaken on site is set out in section 6.1 'Noise Monitoring' of the NMP.	NMP	There are no recommendations.
PA05_0117	3	7	This plan must: (d) include a monitoring program that: iii) evaluates and reports on: - the effectiveness of the noise management system - compliance against the noise operating conditions	C	The noise monitoring program is described in section 8 of the NMP. - Effectiveness and improvement is covered in section 10 - Compliance is covered in section 8.2.5 and 8.2.6	NMP	There are no recommendations.
PA05_0117	3	7	This plan must: (d) include a monitoring program that: iv) defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.	C	This is set out in section 8.3 of the NMP	NMP	There are no recommendations.
PA08_0135	3	7	Operating Conditions 7a. The Proponent shall: (a) implement best management practice to minimise the operational and road noise of the project; (b) operate a comprehensive noise management system that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations, and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this approval; to the satisfaction of the Secretary. (c) minimise the noise impacts of the project during meteorological conditions when the noise limits in this approval do not apply (see Appendix 6); (d) only use locomotives and rolling stock that are approved to operate on the NSW rail network in accordance with the noise limits in ARTC's EPL; (e) co-ordinate noise management at the Moolarben mine complex with the noise management at Ulan and Wilpinjong mines to minimise cumulative noise impacts; (f) carry out regular monitoring to determine whether the Moolarben mine complex is complying with the relevant conditions of this approval, to the satisfaction of the Secretary.	C	Refer to audit findings in PA05_0117 schedule 3 condition 6	Refer to audit findings in PA05_0117 schedule 3 condition 6	There are no recommendations.

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation															
PA05_0117	3	8	<p>Blasting Criteria</p> <p>8. The Proponent shall ensure that the blasting on the Moolarben mine complex does not cause exceedances of the criteria in Table 4. Table 4 Blasting criteria</p> <p><i>Table 4: 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, churches and schools</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 a limit determined by the structural design methodology in AS 2187.2-2006, or its latest version, or other alternative limit for public infrastructure, to the satisfaction of the Secretary)</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, and 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, churches and schools	120	10	0%	115	5	5% of the total number of blasts over a period of 12 months	All public infrastructure	-	50 (or a limit determined by the structural design methodology in AS 2187.2-2006, or its latest version, or other alternative limit for public infrastructure, to the satisfaction of the Secretary)	0%	C	Upon review of the records, it was found that one exceedance for blast overpressure was observed during 2017. However this exceedance relates to Project Approval 08_0135.	EPA Penalty Notice 2016 Annual Review 2017 Annual Review Monthly Reporting data (Jan 2018 to August 2018)	There are no recommendations.
Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance																			
Residence on privately owned land, churches and schools	120	10	0%																			
	115	5	5% of the total number of blasts over a period of 12 months																			
All public infrastructure	-	50 (or a limit determined by the structural design methodology in AS 2187.2-2006, or its latest version, or other alternative limit for public infrastructure, to the satisfaction of the Secretary)	0%																			
PA08_0135	3	8	<p>Noise Management Plan</p> <p>8. The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with the EPA, and submitted to and approved by the Secretary prior to the commencement of any development on site under this approval;</p>	C	Refer to audit findings in PA05_0117 schedule 3 condition 7.	Refer to audit findings in PA05_0117 schedule 3 condition 7.	Refer to audit findings in PA05_0117 schedule 3 condition 7.															
PA08_0135	3	8	8. The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Secretary. This plan must:	C	Refer to audit findings in PA05_0117 schedule 3 condition 7.	Refer to audit findings in PA05_0117 schedule 3 condition 7.	Refer to audit findings in PA05_0117 schedule 3 condition 7.															
PA08_0135	3	8	(b) describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions in this approval;	C	Refer to audit findings in PA05_0117 schedule 3 condition 7.	Refer to audit findings in PA05_0117 schedule 3 condition 7.	Refer to audit findings in PA05_0117 schedule 3 condition 7.															
PA08_0135	3	8	(c) describe the proposed noise management system in detail; and	C	Refer to audit findings in PA05_0117 schedule 3 condition 7.	Refer to audit findings in PA05_0117 schedule 3 condition 7.	Refer to audit findings in PA05_0117 schedule 3 condition 7.															
PA08_0135	3	8	(d) include a monitoring program that:	C	Refer to audit findings in PA05_0117 schedule 3 condition 7.	Refer to audit findings in PA05_0117 schedule 3 condition 7.	Refer to audit findings in PA05_0117 schedule 3 condition 7.															
PA08_0135	3	8	<ul style="list-style-type: none"> evaluates and reports on: - the effectiveness of the noise management system; - compliance against the noise criteria in this approval; and - compliance against the noise operating conditions; 	C	Refer to audit findings in PA05_0117 schedule 3 condition 7.	Refer to audit findings in PA05_0117 schedule 3 condition 7.	Refer to audit findings in PA05_0117 schedule 3 condition 7.															
PA08_0135	3	8	8. The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Secretary. This plan must:	C	The NMP states that MCO undertakes attended noise monitoring in the surrounding community. The frequency of monitoring is dependent on the location but ranges from monthly to annually. These attended noise events are used to calibrate and validate real time noise monitoring units.	NMP	There are no recommendations.															
PA08_0135	3	8	(d) include a monitoring program that:	C	Section 6.1 (Table 5) in the NMP gives the location of the monitoring equipment, the type (attended or real-time) and the frequency of monitoring events.																	
PA08_0135	3	8	<ul style="list-style-type: none"> includes a program to calibrate and validate the real-time noise monitoring results with the attended monitoring results over time (so the real-time noise monitoring program can be used as a better indicator of compliance with the noise criteria in this approval and trigger for further attended monitoring); and 	C	The definitions table of the NMP states that an incident is 'a non-compliance for the purposes of the NMP'. Section 11 of the NMP describes the management and reporting of incidents, complaints and non-compliances and section 8.3.2 (Figure 6) provides a compliance review and evaluation process which includes identifying and notifying the Department and relevant stakeholders of any noise incidents	NMP	There are no recommendations.															
PA08_0135	3	8	<ul style="list-style-type: none"> defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents. 	C																		
PA05_0117	3	9	<p>Blasting Hours</p> <p>9. The Proponent shall only carry out blasting on the site between 9am and 5pm Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays, or at any other time without the written approval of the Secretary.</p>	C	<p>This criteria is set out in section 3.1 of the Blasting Management Plan (BMP)</p> <p>Blast data from 03/01/2018 to 29/09/2018 was reviewed and confirmed that blasting did not occur outside 9am and 5pm Monday to Saturday and that the majority of blasts either occurred around midday or 4pm. Current scheduled blasting times were reviewed and found no blasts to be carried out on Sundays or outside the approved timeframes.</p>	BMP Blast data 2018 (03/01/2018 to 29/09/2018) Monthly Reporting data (January 2018 to August 2018)	There are no recommendations.															

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation															
PA08_0135	3	9	<p>Blasting Criteria</p> <p>9. The Proponent shall ensure that blasting on the Moolarben mine complex does not cause exceedances of the criteria in Table 7 of the Conditions of consent. Table 7: Blasting criteria</p> <table border="1"> <caption>Table 7: Blasting criteria</caption> <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 <i>(or a limit determined by the structural design methodology in AS 2187.2-2006, or its latest version, or other alternative limit for public infrastructure, to the satisfaction of the Secretary)</i></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 to exceed these criteria, and 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 <i>(or a limit determined by the structural design methodology in AS 2187.2-2006, or its latest version, or other alternative limit for public infrastructure, to the satisfaction of the Secretary)</i>	0%	NC	<p>MCO schedules blast times and these are advertised on the MCO website.</p> <p>MCO manages blasting in accordance with the Blast Management Plan (BMP)</p> <p>Upon review of the records, it was found that one exceedance for blast overpressure was observed during 2017. On 17 February 2017 air blast overpressure from an overburden blast event in OC4 Strip 2 exceeded 120dB at a noise sensitive location. The incident was reported to DP&E and NSW EPA. Overpressure exceedances were investigated and a revision of blasting procedures was completed. No complaints were received about the exceedance.</p> <p>All blasts for 2016 were below the prescribed levels for overpressure and vibration. A sample of the 2018 monitoring data was reviewed (January 2018 to August 2018) and found no blast exceedances.</p>	<p>Penalty Notice (Blast overpressure 26/05/2017)</p> <p>2016 Annual Review</p> <p>2017 Annual Review</p> <p>Monthly Reporting data (January 2018 to August 2018)</p>	<p>There is no further recommendation:</p> <p>MCO investigated the causes of the overpressure exceedances and implemented remedial measures as required.</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 <i>(or a limit determined by the structural design methodology in AS 2187.2-2006, or its latest version, or other alternative limit for public infrastructure, to the satisfaction of the Secretary)</i>	0%																			
PA05_0117	3	10	<p>Blasting Frequency</p> <p>10. The Proponent may carry out a maximum of:</p> <p>(a) 2 blasts a day; and</p> <p>(b) 9 blasts a week, averaged over a calendar year, at the Moolarben mine complex.</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, blasts misfires or blasts required to ensure the safety of the mine or its workers.</p> <p>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.</p>	C	<p>(a) Blast monitoring summary tables from the 2016 and 2017 Annual Review were examined. Number of blasts per day was checked against the requirements under this condition and found to be compliant.</p> <p>Blast data from 03/01/2018 to 29/09/2018 was reviewed and found that an additional blast was conducted on 14th June 2018. However this blast was conducted at open cut 4 which is not within the PA 05_0117 area and was due to a misfire. An additional fire was required to ensure the safety of the mine and its workers (refer PA08_0135 schedule 3, condition 11).</p> <p>(b) Blast monitoring summary tables from the 2016 and 2017 Annual Review were examined. Number of blasts per week was checked against the requirements under this condition and found to be compliant. During 2017 the annual average blasts per week was 2.6 and in 2016 the annual average blasts per week was 2.2.</p> <p>Blast data from 03/01/2018 to 29/09/2018 was reviewed and found that at the time of the audit 110 blasts occurred during 39 weeks with an average of approximately 2.8 blasts per week</p>	<p>2016 Annual Review</p> <p>2017 Annual Review</p> <p>Monthly Reporting data (January 2018 to August 2018)</p> <p>Blast data 2018 (03/01/2018 to 29/09/2018)</p>	<p>There are no recommendations.</p>															
PA08_0135	3	10	<p>Blasting Hours</p> <p>10. The Proponent shall only carry out blasting on 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>	C	<p>This criteria is set out in section 3.1 of the Blasting Management Plan (BMP)</p> <p>Blast data from 03/01/2018 to 29/09/2018 was reviewed and confirmed that blasting did not occur outside 9am and 5pm Monday to Saturday and that the majority of blasts either occurred around midday or 4pm. Current scheduled blasting times were reviewed and found no blasts to be carried out on Sundays or outside the approved timeframes.</p>	<p>BMP</p> <p>Blast data 2018 (03/01/2018 to 29/09/2018)</p> <p>Monthly Reporting data (January 2018 to August 2018)</p>	<p>There are no recommendations.</p>															
PA05_0117	3	11	<p>Property Inspections</p> <p>11. If the Proponent receives a written request from the owner of any privately-owned land within 2 kilometres of any approved open cut mining pit on site for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection updated, then within 2 months of receiving this request the Proponent shall:</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 other structures on the land, or update the previous property inspection report; and identify measures that should be implemented to minimise the potential blasting impacts of the project on these buildings and/or structures; and <p>(b) give the landowner a copy of the new or updated property inspection report. If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Proponent or the landowner disagrees with the findings of the property inspection report, either party may refer the matter to the Secretary for resolution.</p>	Not triggered	<p>A written request for a property inspection has not been requested by any owner of privately-owned land.</p>	<p>N/A</p>	<p>N/A</p>															

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	3	11	<p>Blasting Frequency</p> <p>11. The Proponent may carry out a maximum of:</p> <p>(a) 2 blasts a day; and</p> <p>(b) 9 blasts a week, averaged over a calendar year, at the Moolarben mine complex.</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, blast misfires or blasts required to ensure the safety of the mine or its workers.</p> <p>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.</p>	C	<p>(a) Blast monitoring summary tables from the 2016 and 2017 Annual Review were examined. Number of blasts per day was checked against the requirements under this condition and found to be compliant.</p> <p>Blast data from 03/01/2018 to 29/09/2018 was reviewed and found that an additional blast was conducted on 14th June 2018. This blast was conducted at open cut 4 which is within the PA 08_0135 area. Two blasts were conducted on Open Cut 4 (08_0135 consent area) at 12:07 and 12:12PM respectively. However, due to a misfire a portion of the OC4 S09 B12-14 was refired to ensure the safety of the mine and it's workers.</p> <p>This condition does not apply to blasts that generate ground vibration of 0.5mm/s or less at any residence on privately owned land, blasts misfires or blasts required to ensure the safety of the mine and it's workers. As none of the three blasts exceeded ground vibration of 0.5mm/s at any residence on privately owned land and as the additional blast was a re-fire of a misfire this blasting frequency condition has been complied with.</p> <p>(b) Blast monitoring summary tables from the 2016 and 2017 Annual Review were examined. Number of blasts per week was checked against the requirements under this condition and found to be compliant. During 2017 the annual average blasts per week was 2.6 and in 2016 the annual average blasts per week was 2.2.</p> <p>Blast data from 03/01/2018 to 29/09/2018 was reviewed and found that at the time of the audit 110 blasts occurred during 39 weeks with an average of approximately 2.8 blasts per week</p>	<p>2016 Annual Review</p> <p>2017 Annual Review</p> <p>Monthly Reporting data (January 2018 to August 2018)</p> <p>Blast data 2018 (03/01/2018 to 29/09/2018)</p>	There are no recommendations.
PA05_0117	3	12	<p>Property Investigations</p> <p>12. If the owner of any privately-owned land claims that buildings and/or structures on his/her land have been damaged as a result of blasting on the site, then within 2 months of receiving this claim 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 damage 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 the landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.</p>	Not triggered	<p>No damage has been reported to MCO. The closest privately owned house is approximately 4km from the mining operations.</p> <p>Some residents have complained about blast noise and ground vibrations.</p>	N/A	N/A
PA08_0135	3	12	<p>Property Inspections</p> <p>12. If the Proponent receives a written request from the owner of any privately-owned land within 2 kilometres of any approved open cut mining pit on site for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection updated, then within 2 months of receiving this request the Proponent shall:</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 other structures on the land, or update the previous property inspection report; and • identify measures that should be implemented to minimise the potential blasting impacts of the project on these buildings and/or structures; and <p>(b) give the landowner a copy of the new or updated property inspection report. If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Proponent or the landowner disagrees with the findings of the property inspection report, either party may refer the matter to the Secretary for resolution.</p>	Not triggered	<p>No damage has been reported to MCO. The closest privately owned house is approximately 4km from the mining operations.</p> <p>Some residents have complained about blast noise and ground vibrations.</p>	N/A	N/A

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	3	13	<p>Operating Conditions 13. The Proponent shall: (a) implement best practice blasting management 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; 	C	<p>(a) MCO undertakes blasting in accordance with the BMP. Mitigation measures are outlined in section 6 of the BMP 'Blast Management and Control Measures'</p> <ul style="list-style-type: none"> • MCO has developed a blasting protocol to protect the safety of people, property and livestock. Specific actions to protect public safety include: <ul style="list-style-type: none"> - A blast exclusion zone with measures such as sentries to prevent access to the blast exclusion zone - Notification of register residences, the public, emergency services - Procedures to be undertaken in the event of delays <p>During the site inspection evidence of notifications were sighted.</p> <ul style="list-style-type: none"> • MCO has written agreements to undertake blasting within 500m of certain public infrastructure. MCO has implemented specific procedures to manage blasting within 500 m of these infrastructure assets (refer section 6.3 of the BMP) and includes: <ul style="list-style-type: none"> - Agreed controls with asset owners - Monitoring and provision of results to asset owners - Notification - Investigation or inspection regimes <p>All private residences within 2km of Moolarben Coal Complex operations have been notified that they are entitled to a structural property inspection prior to the start of mining operations.</p> <ul style="list-style-type: none"> • This is set out in section 6.5 and 6.6 of the BMP. Additionally MCO has developed a blast fume management strategy. MCO also operate a weather forecast model and monitoring system, air quality monitoring and base line studies. 	<p>(a) BMP Blast Fume Management Strategy Site Inspection</p>	There are no recommendations.
PA05_0117	3	13	<p>Operating Conditions 13. The Proponent shall:</p> <p>(b) operate a suitable system to enable the public to get up-to-date information on the proposed blasting Schd. on site; and</p> <p>(c) co-ordinate the timing of blasting on site with the timing of blasting at the Ulan and Wilpinjong mines to minimise cumulative blasting impacts, to the satisfaction of the Secretary.</p>	C	<p>(b) Public notice practices are set out in section 6.2 of the BMP which states: 'Any private landholder within 2 km of open cut operations at the Moolarben Coal Complex (or any other private landowner) that registers an interest in being informed of the blasting schedule is notified via telephone, e-mail or as otherwise agreed between the parties'. A pre-blast notification register is maintained with contact numbers for those residents that have registered an interest in receiving the blast schedule. Registered parties receive a text message to notify them of blasts. Less than 20 external parties are on the register.</p> <p>In order to keep the general local community informed of the blasting activities at the Moolarben Coal Complex, MCO operates and maintains a 24 hour free-call Community Response Hotline (1800 556 484) and a public website (www.moolarbencoal.com.au) where up-to-date information on the blasting schedule is available'.</p> <p>(c) Cumulative impacts are covered in section 6.8 of the BMP which states: 'A communications protocol has been developed with Ulan Coal Mine and Wilpinjong Coal Mine so that cumulative impacts from simultaneous blasting are avoided. This protocol outlines that blast times are rescheduled where there is potential for blasts to occur concurrently. The protocol requires positive email, fax or telephone communication to be made prior to each blast with both Ulan Coal Mine and Wilpinjong Coal Mine'. Evidence of a Blast Communication Notification email from Wilpinjong to MCO and Ulan (dated 17/10/2018) was sighted during the audit. Discussions between coordinators regarding blasting schedules was also sighted.</p>	<p>(b) BMP Community Response Hotline MCO website</p> <p>(c) BMP Blast Communication Notification (17/10/2018) Coordinator discussions</p>	There are no recommendations.
PA08_0135	3	13	<p>Property Investigations 13. If the owner of any privately-owned land claims that buildings and/or structures on his/her land have been damaged as a result of blasting on the site, then within 2 months of receiving this claim 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 (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 damage 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 the landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.</p>	Not triggered	<p>No damage has been reported to MCO. The closest privately owned house is approximately 4km from the mining operations.</p> <p>Some residents have complained about blast noise and ground vibrations.</p>	N/A	N/A

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	3	14	<p>14. The Proponent shall not undertake blasting on site within 500 metres of:</p> <p>(a) any public road;</p> <p>(b) the Gulgong to Sandy Hollow Railway Line;</p> <p>(c) the Wollar-Wellington 330kV Transmission Line; or</p> <p>(d) any land outside the site not owned by the Proponent, unless the Proponent has:</p> <ul style="list-style-type: none"> demonstrated to the satisfaction of the Secretary that the blasting can be carried out closer to the infrastructure or land without compromising the safety of people or livestock or damaging the infrastructure and/or other buildings and structures; 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 infrastructure or land; or a written agreement with the relevant infrastructure owner or landowner to allow blasting to be carried out closer to the infrastructure or land, and the Proponent has advised the Department in writing of the terms of this agreement. 	C	<p>Auditor observations during the site inspection confirmed that the current blast area for Stage 1 is greater than 500m from Railway and Transmission lines and any property not owned by the mine.</p>	<p>CCC Meetings - 14 June 2016 - 6 December 2016 - 14 March 2017 - 12 September 2017 - 12 June 2018</p> <p>Community Engagement Register Extract Meeting with Ulan Public School 04/02/2015</p> <p>AQMP</p> <p>MPEA Checklist: Environmental Responsibilities (14/10/2018)</p> <p>NMP</p> <p>M</p>	There are no recommendations.
PA08_0135	3	14	<p>Operating Conditions</p> <p>14. 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; <p>Note: To identify the Aboriginal rock shelter sites, see the applicable figure in Appendix 8 of the consent.</p>	C	<p>(a) This is set out in section 6 of the BMP.</p> <p>No complaints have been received by the Mine in relation to blasting impacts on public safety, property damage or dust or fume emissions.</p>	<p>BMP HMP MCO website Complaints Register</p>	There are no recommendations.
PA08_0135	3	14	<p>Operating Conditions</p> <p>14. The Proponent shall:</p> <p>(b) ensure that blasting on the site does not damage Aboriginal rock shelter sites S2MC229 (AHIMS No. 36-3-1376), S2MC232 (AHIMS No. 36-3-1379) or S2MC233 (AHIMS No. 36-3-1380);</p> <p>Note: To identify the Aboriginal rock shelter sites, see the applicable figure in Appendix 8 of the consent.</p>	C	<p>(b) This is set out in section 6.4 of the BMP and 5.8.3 of the HMP.</p> <p>- MCO will engage a suitably qualified expert (e.g. geotechnical engineer) to determine the appropriate blast vibration limits to ensure that damage is avoided for Sites S2MC232 and S2MC233. This will occur prior to blasting within 500 m of these sites.</p> <p>Rock shelter site S2MC229 underwent a salvage program in 2015 in accordance with the Heritage Management Plan (HMP). The salvage report "Moolarben Coal Project Stage 2, Open Cut 4, Additional Aboriginal Survey and Salvage" (dated December, 2017) was sighted by auditors. The other two sites (S2MC232 and S2MC233) are greater than 500m from operations.</p> <p>All Aboriginal rock shelter sites have blast monitors onsite. No exceedances have been reported at these locations during the audit period.</p>	<p>BMP HMP</p> <p>Niche (Moolarben Coal Project Stage 2, Open Cut 4, Additional Aboriginal Survey and Salvage, December 2017)</p>	There are no recommendations.
PA08_0135	3	14	<p>Operating Conditions</p> <p>14. The Proponent shall:</p> <p>(c) operate a suitable system to enable the public to get up-to-date information on the proposed blasting Schedule on site; and</p> <p>(d) co-ordinate the timing of blasting on site with the timing of blasting at the Ulan and Wilpinjong mines to minimise cumulative blasting impacts, to the satisfaction of the Secretary.</p> <p>Note: To identify the Aboriginal rock shelter sites, see the applicable figure in Appendix 8 of the consent.</p>	C	<p>(c) Public notice practices are set out in section 6.2 of the BMP which states: 'Any private landholder within 2 km of open cut operations at the Moolarben Coal Complex (or any other private landowner) that registers an interest in being informed of the blasting schedule is notified via telephone, e-mail or as otherwise agreed between the parties'.</p> <p>A pre-blast notification register is maintained with contact numbers for those residents that have registered an interest in receiving the blast schedule. Registered parties receive a text message to notify them of blasts. Less than 20 external parties are on the register.</p> <p>In order to keep the general local community informed of the blasting activities at the Moolarben Coal Complex, MCO operates and maintains a 24 hour free-call Community Response Hotline (1800 556 484) and a public website (www.moolarbencoal.com.au) where up-to-date information on the blasting schedule is available'.</p> <p>(d) Cumulative impacts are covered in section 6.8 of the BMP which states: 'A communications protocol has been developed with Ulan Coal Mine and Wilpinjong Coal Mine so that cumulative impacts from simultaneous blasting are avoided. This protocol outlines that blast times are rescheduled where there is potential for blasts to occur concurrently. The protocol requires positive email, fax or telephone communication to be made prior to each blast with both Ulan Coal Mine and Wilpinjong Coal Mine'.</p> <p>Evidence of a Blast Communication Notification email from Wilpinjong to MCO and Ulan (dated 17/10/2018) was sighted during the audit. Discussions between coordinators regarding blasting schedules was also sighted.</p>	<p>(c) BMP Community Response Hotline MCO website</p> <p>(d) BMP Blast Communication Notification (17/10/2018) Coordinator discussions</p>	There are no recommendations.

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	3	15	<p>Blast Management Plan 15. The Proponent shall prepare and implement a Blast Management Plan for the project prior to undertaking any blasting on site to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with the EPA and be submitted to the Secretary for approval by 31 March 2015;</p>	C	<p>a) During the audit a letter from DP&E (dated 25/02/2015) was sighted. DP&E reviewed the Blast Management Plan and Blast Flume Management Strategy and is satisfied that they generally address the requirements set out in the relevant conditions of the project approval.</p> <p>A further revision (V4) was submitted to the DP&E and the NSW EPA on 30/03/2015. During the audit a letter from MCO to DP&E and the EPA (dated 30/03/2015) was sighted.</p> <p>Letter evidence of EPA consultation was sighted during the audit (dated 8/4/2015) stating that the EPA do not review or endorse management plans.</p>	<p>(a) BMP</p> <p>Letter from DP&E (dated 25/02/2015) RE: Moolarben Coal Approval of Management Plans/Strategy</p> <p>Letter to DP&E and EPA (dated 30/03/2015) RE: Moolarben Coal Complex: Stage 1 Project Approval (05_0117) and Stage 2 Project Approval (08_0135) – Blast Management Plan</p> <p>Letter from EPA dated 8/4/2015 was sighted during the audit</p>	There are no recommendations
PA05_0117	3	15	<p>Blast Management Plan 15. The Proponent shall prepare and implement a Blast Management Plan for the project prior to undertaking any blasting on site to the satisfaction of the Secretary. This plan must:</p> <p>(b) describe the measures that would be implemented to ensure compliance with the blast criteria and operating conditions of this approval;</p>	C	<p>(b) Blast management and control measures are covered in Section 6 of the BMP 'Blast Management and Control Measures'.</p>	<p>(b) BMP</p>	There are no recommendations
PA05_0117	3	15	<p>Blast Management Plan 15. The Proponent shall prepare and implement a Blast Management Plan for the project prior to undertaking any blasting on site to the satisfaction of the Secretary. This plan must:</p> <p>(c) propose and justify any alternative ground vibration limits for public infrastructure in the vicinity of the site (if relevant); and</p> <p>(d) include a monitoring program for evaluating compliance with the blasting criteria and operating conditions of this approval.</p>	C	<p>(c) This is covered in Section 6.3 of the BMP. Alternative ground vibration limits are as follows: <i>'Based on work undertaken by Terrock Consulting Engineers, TransGrid and MCO have agreed that peak particle velocity (i.e. ground vibration limits) for the Wollar-Wellington 330 kV transmission line should not exceed 50 millimetres per second (mm/s) for tension towers and 100 mm/s for suspension towers. Blasting limits for ARTC infrastructure (i.e. rail line, culverts, bridges) are managed according to a risk management approach agreed to between MCO and ARTC. Notwithstanding, by managing blasting such that vibration at the 330 kV suspension towers does not exceed 50 mm/s, a vibration limit of 50 mm/s at ARTC infrastructure is also maintained.'</i></p> <p>(d) This is covered in section 7 of the BMP. A sample of the Monthly Environmental Monitoring Reports were checked to confirm monitoring has been undertaken as per the BMP.</p>	<p>(c) BMP</p> <p>(d) BMP Monthly Environmental Monitoring Reports (Jan 2018 - August 2018)</p>	There are no recommendations
PA08_0135	3	15	<p>15. The Proponent shall not undertake blasting on site within 500 metres of:</p> <p>(a) any public road; (b) the Gulgong to Sandy Hollow Railway Line; (c) the Wollar-Wellington 330kV Transmission Line; or (d) any land outside the site not owned by the Proponent,</p> <p>unless the Proponent has:</p> <ul style="list-style-type: none"> demonstrated to the satisfaction of the Secretary that the blasting can be carried out closer to the infrastructure or land without compromising the safety of people or livestock or damaging the infrastructure and/or other buildings and structures; 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 infrastructure or land; or a written agreement with the relevant infrastructure owner or landowner to allow blasting to be carried out closer to the infrastructure or land, and the Proponent has advised the Department in writing of the terms of this agreement. 	C	<p>MCO has written agreements with TransGrid and Australian Rail Track Corporation (ARTC) to undertake blasting within 500 metres (m) of the Wollar-Wellington 330 kV transmission line and within 500 m of ARTC infrastructure, respectively.</p> <p>Auditor observations during the site inspection confirmed that the current blast area for Stage 2 is greater than 500m from Railway and Transmission lines and any property not owned by the mine.</p> <p>Section 6.3 of the BMP details specific procedures to manage blasting within 500m of these infrastructure assets including: <i>' - Communication protocols to inform TransGrid and ARTC of proposed blasting activities within 500 m of the applicable infrastructure; - implementation of agreed controls, including but not limited to vibration limits; - monitoring and provision of monitoring results, post blasting; - notifications regarding criteria exceedances or infrastructure damage; - investigation or inspection regimes required post blasting; and - responsibility for repair of any MCO related blasting impacts'</i></p> <p>Approval of the BMP by the Secretary's nominee (Version 4 - May 2015) was observed in Appendix C of the BMP (Agency Correspondence). The approval letter is dated 22 June 2015.</p>	<p>Site investigations</p> <p>BMP Section 6.3</p> <p>BMP Appendix C</p>	There are no recommendations
PA05_0117	3	16	<p>Odour 16. The Proponent shall ensure that no offensive odours, as defined under the POEO Act, are emitted from the site.</p>	C	<p>This is set out in section 6.2 of the Air Quality Management Plan (AQMP), "Odour and Fume"</p> <p>There was no offensive odours detected during the site inspection.</p> <p>There have been no complaints in response to odour generated from mine activities.</p>	<p>AQMP</p> <p>Site inspection</p> <p>Community Complaints Register Summary 2016, 2017 and 2018</p>	There are no recommendations.
PA08_0135	3	16	<p>Blast Management Plan 16. 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 prepared in consultation with the EPA, and submitted to and approved by the Secretary prior to conducting any blasting on site;</p> <p>(b) describe the measures that would be implemented to ensure compliance with the blast criteria and operating conditions of this approval;</p> <p>(c) propose and justify any alternative ground vibration limits for public infrastructure in the vicinity of the site (if relevant); and</p> <p>(d) include a monitoring program for evaluating and reporting on compliance with the blasting criteria and operating conditions of this approval.</p>	C	<p>Refer to audit findings in PA05_0117 schedule 3 condition 15.</p>	<p>Refer to audit findings in PA05_0117 schedule 3 condition 15.</p>	Refer to audit findings in PA05_0117 schedule 3 condition 15.

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation																							
PA05_0117	3	17	<p>Air Quality Criteria 17. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the Moolarben mine complex do not cause exceedances of the criteria listed in Tables 5, 6 and 7 at any residence on privately owned land.</p> <p><i>Table 5: Long term impact assessment criteria for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^aCriterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td>^a 90 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td>^a 30 µg/m³</td> </tr> </tbody> </table> <p><i>Table 6: Short term impact assessment criterion for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^aCriterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td>^a 50 µg/m³</td> </tr> </tbody> </table> <p><i>Table 7: Long term impact assessment criteria for deposited dust</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Maximum increase in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td>^aDeposited dust</td> <td>Annual</td> <td>^b 2 g/m²/month</td> <td>^a 4 g/m²/month</td> </tr> </tbody> </table> <p>Notes to Tables 5-7: a Cumulative (i.e. incremental increase in concentrations due to the Moolarben mine complex plus background concentrations due to all other sources); b Incremental impact (i.e. incremental increase in concentrations due to the Moolarben mine complex on its own); c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents, illegal activities or any other activity agreed by the Secretary.</p>	Pollutant	Averaging period	^a Criterion	Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³	Pollutant	Averaging period	^a Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³	Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level	^a Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month	C	<p>Air quality management measures are covered in section 6 of the AQMP.</p> <p>The 2016 Annual Review shows 2 exceedances to air quality criteria. MCO investigated the exceedances and found that the results were influenced by hazard reduction burns.</p> <p>The 2017 Annual Review shows 2 exceedances to air quality criteria. MCO investigated the exceedances which were influenced by a bush fire on Moolarben Road adjacent to the monitor.</p> <p>A sample of Monthly Environmental Monitoring Reports was reviewed and showed the following exceedances: - February 2018 report - exceedance at TEOM 4 - investigation revealed this was elevated due to bushfire - March 2018 report - exceedance at TEOM 6, TEOM 1, TEOM 7 and TEOM 4 - investigation revealed that the elevated readings were influenced by regional dust event - April 2018 report - exceedance at TEOM 7 - investigation revealed that the elevated readings were influenced by regional dust event - May 2018 report - exceedance at TEOM 6 - however this monitor is located upwind of MCO and therefore the exceedance was not caused by MCO operations - July 2018 report - exceedances at TEOM 6, PM01, PM02, TEOM 1, TEOM 7 and TEOM 4 - investigation revealed that the elevated readings were influenced by regional dust event</p> <p>Investigations into these exceedances showed that exceedances in particulate matter emissions were not generated by the Moolarben mine complex.</p>	<p>AQMP 2016 and 2017 Annual Review Monthly Environmental Monitoring Report (January to August 2018)</p>	<p>MCO has investigated the causes of the air quality exceedances all of which were caused by external factors such as regional dust events and bushfires.</p> <p>There are no further recommendations.</p>
Pollutant	Averaging period	^a Criterion																												
Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³																												
Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³																												
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^a Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month																											
PA08_0135	3	17	<p>Odour 17. The Proponent shall ensure that no offensive odours, as defined under the POEO Act, are emitted from the site.</p>	C	<p>This is set out in section 6.2 of the Air Quality Management Plan (AQMP), "Odour and Fume"</p> <p>There was no offensive odours detected during the site inspection.</p> <p>There have been no complaints in response to odour generated from mine activities.</p>	<p>AQMP Site inspection Community Complaints Register Summary 2016, 2017 and 2018</p>	There are no recommendations.																							
PA05_0117	3	18	<p>Mine-owned Land 18. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the Moolarben mine complex do not cause exceedances of the criteria listed in Tables 8, 9 and 10 at any occupied residence on mine-owned land (including land owned by another mine) unless: (a) the tenant and landowner has been notified of any health risks associated with such exceedances in accordance with the notification requirements under Schd. 4 of this approval;</p>	Not triggered	<p>Mitigation measures are set out in section 6 of the AQMP.</p> <p>(a) Whilst there have been several exceedances of the air quality acquisition criteria investigations into these exceedances have found that they have been caused by environmental or external factors such as bushfires and regional dust events and not by mining activities.</p> <p>Tenants are provided with health pamphlets ('Mine Dust and You' factsheet -- NSW Mines and Health). An example letter to tenants (dated 02/02/2018) was sighted during the audit.</p>	<p>AQMP (a) 2016 and 2017 Annual Review Monthly Environmental Monitoring Report (January to August 2018) 'Mine Dust and You' factsheet -- NSW Mines and Health Letter to tenants (dated 02/02/2018)</p>	There are no recommendations																							
PA05_0117	3	18	<p>Mine-owned Land 18. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the Moolarben mine complex do not cause exceedances of the criteria listed in Tables 8, 9 and 10 at any occupied residence on mine-owned land (including land owned by another mine) unless: (b) the tenant of any land owned by the Proponent can terminate their tenancy agreement without penalty at any time, subject to giving reasonable notice, and the Proponent uses its best endeavours to provide assistance with relocation and sourcing of alternative accommodation;</p>	Noted	N/A	N/A	N/A																							
PA05_0117	3	18	<p>Mine-owned Land 18. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the Moolarben mine complex do not cause exceedances of the criteria listed in Tables 8, 9 and 10 at any occupied residence on mine-owned land (including land owned by another mine) unless: (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 (if the residences is owned by another mine);</p>	Not triggered	No requests for dust mitigation have been requested.	N/A	N/A																							
PA05_0117	3	18	<p>Mine-owned Land 18. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the Moolarben mine complex do not cause exceedances of the criteria listed in Tables 8, 9 and 10 at any occupied residence on mine-owned land (including land owned by another mine) unless: (d) particulate matter air quality monitoring is regularly undertaken to inform the tenant and landowner of the actual particulate emissions;</p>	Not triggered	<p>No air quality monitoring at specific residences but there are monitors within close proximity to residential areas. The frequency of monitoring depends on the location but monitoring is either continuous, every 6 days or every 28 to 32 days.</p> <p>Air quality monitoring data is posted on the MCO website as part of the Monthly Environmental Monitoring Report and reported on in the CCC updates.</p>	<p>Monthly Environmental Monitoring Report (January to August 2018) Same of CCC Updates (June 2018, September 2017, March 2016)</p>	N/A																							

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation																							
PA05_0117	3	18	<p>Mine-owned Land</p> <p>18. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the Moolarben mine complex do not cause exceedances of the criteria listed in Tables 8, 9 and 10 at any occupied residence on mine-owned land (including land owned by another mine) unless:</p> <p>(e) data from this monitoring is presented to the tenant in an appropriate format, for a medical practitioner to assist the tenant in making informed decisions on the health risks associated with occupying the property, to the satisfaction of the Secretary.</p>	Not triggered	N/A	N/A	N/A																							
PA08_0135	3	18	<p>Air Quality Criteria</p> <p>18. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the Moolarben mine complex do not cause exceedances of the criteria listed in Tables 8, 9 and 10 at any residence on privately-owned land.</p> <p><i>Table 8: Long term impact assessment criteria for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^a Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td>^a 90 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td>^a 30 µg/m³</td> </tr> </tbody> </table> <p><i>Table 9: Short term impact assessment criterion for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^a Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td>^a 50 µg/m³</td> </tr> </tbody> </table> <p><i>Table 10: Long term impact assessment criteria for deposited dust</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Maximum increase in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td>^c Deposited dust</td> <td>Annual</td> <td>^b 2 g/m²/month</td> <td>^a 4 g/m²/month</td> </tr> </tbody> </table> <p>Notes to Tables 8-10: a Total impact (i.e. incremental increase in concentrations due to the complex plus background concentrations due to all other sources); b Incremental impact (i.e. incremental increase in concentrations due to the complex on its own); c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents, illegal activities or any other activity agreed by the Secretary.</p>	Pollutant	Averaging period	^a Criterion	Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³	Pollutant	Averaging period	^a Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³	Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level	^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month	C	<p>The 2016 Annual Review shows 2 exceedances to air quality criteria. MCO investigated the exceedances and found that the results were influenced by hazard reduction burns.</p> <p>The 2017 Annual Review shows 2 exceedances to air quality criteria. MCO investigated the exceedances which were influenced by a bush fire on Moolarben Road adjacent to the monitor.</p> <p>A sample of Monthly Environmental Monitoring Reports was reviewed and showed the following exceedances: - February 2018 report - exceedance at TEOM 4 - investigation revealed this was elevated due to bushfire - March 2018 report - exceedance at TEOM 6, TEOM 1, TEOM 7 and TEOM 4 - investigation revealed that the elevated readings were influenced by regional dust event - April 2018 report - exceedance at TEOM 7 - investigation revealed that the elevated readings were influenced by regional dust event - May 2018 report - exceedance at TEOM 6 - however this monitor is located upwind of MCO and therefore the exceedance was not caused by MCO operations - July 2018 report - exceedances at TEOM 6, PM01, PM02, TEOM 1, TEOM 7 and TEOM 4 - investigation revealed that the elevated readings were influenced by regional dust event</p> <p>Investigations into these exceedances showed that exceedances in particulate matter emissions were not generated by the Moolarben mine complex.</p>	<p>2016 and 2017 Annual Review</p> <p>Monthly Environmental Monitoring Report (January to September 2018)</p>	MCO has investigated the causes of the air quality exceedances and as these were not the result of mining operations, therefore, there are no further recommendations.
Pollutant	Averaging period	^a Criterion																												
Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³																												
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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																											
PA05_0117	3	19	<p>Air Quality Acquisition Criteria</p> <p>19. If particulate matter emissions generated by the Moolarben mine complex exceed the incremental criteria, or contribute to an exceedance of the relevant cumulative criteria, in Tables 8, 9 and 10 at any residence on privately-owned land or on more than 25% of any privately-owned land (and a dwelling could be built on that land under existing planning controls), then upon receiving a written request for acquisition from the landowner, the Proponent shall acquire the land in accordance with the procedures in conditions 10-11 of Schd. 4</p> <p><i>Table 5: Long term impact assessment criteria for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^a Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td>^a 90 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td>^a 30 µg/m³</td> </tr> </tbody> </table> <p><i>Table 6: Short term impact assessment criterion for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^a Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td>^a 50 µg/m³</td> </tr> </tbody> </table> <p><i>Table 7: Long term impact assessment criteria for deposited dust</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Maximum increase in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td>^c Deposited dust</td> <td>Annual</td> <td>^b 2 g/m²/month</td> <td>^a 4 g/m²/month</td> </tr> </tbody> </table> <p>Notes to Tables 5-7: a Cumulative (i.e. incremental increase in concentrations due to the Moolarben mine complex plus background concentrations due to all other sources); b Incremental impact (i.e. incremental increase in concentrations due to the Moolarben mine complex on its own); c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents, illegal activities or any other activity agreed by the Secretary.</p>	Pollutant	Averaging period	^a Criterion	Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³	Pollutant	Averaging period	^a Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³	Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level	^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month	Not triggered	<p>The 2016 Annual Review shows 2 exceedances to air quality criteria. MCO investigated the exceedances and found that the results were influenced by hazard reduction burns.</p> <p>The 2017 Annual Review shows 2 exceedances to air quality criteria. MCO investigated the exceedances which were influenced by a bush fire on Moolarben Road adjacent to the monitor.</p> <p>A sample of Monthly Environmental Monitoring Reports was reviewed and showed the following exceedances: - February 2018 report - exceedance at TEOM 4 - investigation revealed this was elevated due to bushfire - March 2018 report - exceedance at TEOM 6, TEOM 1, TEOM 7 and TEOM 4 - investigation revealed that the elevated readings were influenced by regional dust event - April 2018 report - exceedance at TEOM 7 - investigation revealed that the elevated readings were influenced by regional dust event - May 2018 report - exceedance at TEOM 6 - however this monitor is located upwind of MCO and therefore the exceedance was not caused by MCO operations - July 2018 report - exceedances at TEOM 6, PM01, PM02, TEOM 1, TEOM 7 and TEOM 4 - investigation revealed that the elevated readings were influenced by regional dust event</p> <p>Investigations into these exceedances showed that exceedances in particulate matter emissions were not generated by the Moolarben mine complex.</p>	<p>2016 and 2017 Annual Review</p> <p>Monthly Environmental Monitoring Report (January to September 2018)</p>	<p>MCO has investigated the causes of the air quality exceedances all of which were caused by external factors such as regional dust events and bushfires.</p> <p>There are no further recommendations.</p>
Pollutant	Averaging period	^a Criterion																												
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Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	3	19	<p>Mine-owned Land 19. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the Moolarben mine complex do not cause exceedances of the criteria listed in Tables 11, 12 and 13 at any occupied residence on mine-owned land (including land owned by another mining company) unless:</p> <p>(a) the tenant and landowner (if the residence is owned by another mining company) have been notified of any health risks associated with such exceedances in accordance with the notification requirements under Schedule 5 of this approval;</p>	Not triggered	Refer to audit findings in PA05_0117 schedule 3 condition 18.	Refer to audit findings in PA05_0117 schedule 3 condition 18.	Refer to audit findings in PA05_0117 schedule 3 condition 18.
PA08_0135	3	19	<p>Mine-owned Land 19. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the Moolarben mine complex do not cause exceedances of the criteria listed in Tables 11, 12 and 13 at any occupied residence on mine-owned land (including land owned by another mining company) unless:</p> <p>(b) the tenant of any land owned by the Proponent can terminate their tenancy agreement without penalty at any time, subject to giving reasonable notice;</p>	Noted	Refer to audit findings in PA05_0117 schedule 3 condition 18.	Refer to audit findings in PA05_0117 schedule 3 condition 18.	Refer to audit findings in PA05_0117 schedule 3 condition 18.
PA08_0135	3	19	<p>Mine-owned Land 19. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the Moolarben mine complex do not cause exceedances of the criteria listed in Tables 11, 12 and 13 at any occupied residence on mine-owned land (including land owned by another mining company) unless:</p> <p>(c) air mitigation measures such as air filters, a first flush roof water drainage system and/or air conditioning) are installed at the residence, if requested by the tenant or landowner (if the residence is owned by another mining company);</p>	Not triggered	Refer to audit findings in PA05_0117 schedule 3 condition 18.	Refer to audit findings in PA05_0117 schedule 3 condition 18.	Refer to audit findings in PA05_0117 schedule 3 condition 18.
PA08_0135	3	19	<p>Mine-owned Land 19. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the Moolarben mine complex do not cause exceedances of the criteria listed in Tables 11, 12 and 13 at any occupied residence on mine-owned land (including land owned by another mining company) unless:</p> <p>(d) air quality monitoring is regularly undertaken to inform the tenant or landowner (if the residence is owned by another mining company) of the actual particulate emissions at the residence; and</p>	Not triggered	Refer to audit findings in PA05_0117 schedule 3 condition 18.	Refer to audit findings in PA05_0117 schedule 3 condition 18.	Refer to audit findings in PA05_0117 schedule 3 condition 18.
PA08_0135	3	19	<p>Mine-owned Land 19. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the Moolarben mine complex do not cause exceedances of the criteria listed in Tables 11, 12 and 13 at any occupied residence on mine-owned land (including land owned by another mining company) unless:</p> <p>(e) data from this monitoring is presented to the tenant and landowner in an appropriate format for a medical practitioner to assist the tenant and landowner in making informed decisions on the health risks associated with occupying the property, to the satisfaction of the Secretary.</p>	Not triggered	Refer to audit findings in PA05_0117 schedule 3 condition 18.	Refer to audit findings in PA05_0117 schedule 3 condition 18.	Refer to audit findings in PA05_0117 schedule 3 condition 18.
PA05_0117	3	20	<p>Operating Conditions 20. The Proponent shall:</p> <p>(a) implement best management practice to minimise the off-site odour, fume and dust emissions of the project;</p> <p>(b) implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site;</p> <p>(c) minimise any visible off-site air pollution generated by the project;</p> <p>(d) minimise the surface disturbance of the site;</p>	C	<p>(a) This is covered in section 6 of the AQMP. Specifically odour and fume is covered in section 6.2, and dust is covered in section 6.1.</p> <p>(b) This is covered in section 6.3 of the AQMP and section 4 of the Greenhouse Gas Minimisation Plan (GGMP). Examples given by Management and observed onsite include: use of higher efficiency lighting (LED's); the new fleet of vehicles are fuel efficient vehicles; and MCO are completing engine changes on existing fleet to reduce fuel consumption.</p> <p>(c) This is covered in section 6 of the AQMP. The system involves proactive dust management such as predictive meteorological forecasting and reactive approaches such as real time response triggers. The community complaints registers for the audit period were reviewed. The 2017 complaints register contained one air quality complaint and the 2016 register contained two complaints. Investigations revealed no unusual mining operations were occurring at the time and monitoring results indicated acceptable dust levels.</p> <p>No visible off-site air pollution was observed during the site investigation.</p> <p>(d) This is covered in section 6.1.2 'Dust Mitigation Measures' of the AQMP in the Table 3 'Dust control measures'. MCO completes underground mining which minimises surface disturbance and also is completing their operations progressively and completing progressive rehabilitation activities including temporary cover crops to stabilise rehabilitation areas.</p>	<p>(a) AQMP</p> <p>(b) AQMP, GHGMP, site inspections and management assertion</p> <p>(c) AQMP, community complaints register 2016, 2017 and 2018 Site investigation</p> <p>(d) AQMP, site inspection</p>	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	3	20	<p>Operating Conditions 20. The Proponent shall:</p> <p>(e) operate a comprehensive air quality management system that uses a combination of predictive meteorological forecasting and real-time air quality monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this approval;</p>	C	<p>(e) Section 6.1.3 of the AQMP states that a 'Comprehensive air quality management system including predictive meteorological forecasting, predictive air quality forecasting and real-time air quality monitoring data (i.e. real-time response triggers) has been implemented at the Moolarben Coal Complex'. Section 6.1.3 also states that: 'The predictive meteorological and air quality forecasting system is available at any time to environmental employees and shift supervisors. Forecasts are reviewed at the start of each shift by the Mine Production Environmental Assistant (MPEA) and reported to the shift supervisor. The data is also reviewed each morning (weekdays only) by the Environment and Community Coordinator'.</p> <p>Section 6.1.4 states that: 'Real-time air quality monitoring data is used to identify when ambient levels of PM10 in the surrounding environment are elevated and require contingency action. Dust real-time response triggers (Table 4) have been established and are designed to provide a system to warn operational personnel (via SMS) of levels that are approaching a relevant criterion and to provide management/control actions'. Table 4 of the AQMP details the real-time response triggers and management/ control actions.</p> <p>Section 7.2 of the AQMP (Table 5) details the monitoring location and frequency. Sites TEOM01, TEOM04, TEOM06, TEOM07, and WS3 all provide continuous real time data to MCO. Air quality monitors were observed during the site inspection.</p> <p>During the audit a MPEA's Checklist: Environmental Responsibilities (dated 14/10/18) was reviewed by auditors. The checklist contained requirements to:</p> <ul style="list-style-type: none"> - Review Jacobs forecast and Met Eye at the start of each shift to understand the predicted conditions. An example Jacobs forecast was reviewed by auditors (dated 15/10/2018) which shows dust and noise risks at certain locations and wind speeds. - Communicate dust and noise risk to OCE and P5 <p>Checklist for MPEA's (14/10/18) shows that Ulan school is predicted to have some dust risks during the afternoon and that watercarts are planned to operate to address this risk. Checklist for MPEA's (06/10/18) shows that medium SE-ESE winds are expected and that two watercarts are planned to operate from the start of the shift to address this risk.</p>	<p>(e) AQMP Site inspection Mine Production Environmental Assistant (MPEA) Checklist: Environmental Responsibilities (31/01/2016) MPEA Checklist: Environmental Responsibilities (06/10/2018) MPEA Checklist: Environmental Responsibilities (19/08/2018) MPEA Checklist: Environmental Responsibilities (14/10/2018)</p>	There are no recommendations
PA05_0117	3	20	<p>Operating Conditions 20. The Proponent shall:</p> <p>(f) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see Note d under Table 9); and</p> <p>(g) co-ordinate the air quality management on site with the air quality management at the Ulan and Wilpinjong mines to minimise cumulative air quality impacts, to the satisfaction of the Secretary.</p>	C	<p>(f) Section 6.1.4 (Table 4) of the AQMP details adverse meteorological condition trigger conditions and corresponding management/ control actions.</p> <p>During the audit a MPEA's Checklist: Environmental Responsibilities (dated 14/10/18) was reviewed by auditors. The checklist contained requirements to:</p> <ul style="list-style-type: none"> - Review Jacobs forecast and Met Eye at the start of each shift to understand the predicted conditions. An example Jacobs forecast was reviewed by auditors (dated 15/10/2018) which shows dust and noise risks at certain locations and wind speeds. - Communicate dust and noise risk to OCE and P5 <p>Checklist for MPEA's (14/10/18) shows that Ulan school is predicted to have some dust risks during the afternoon and that watercarts are planned to operate to address this risk. Checklist for MPEA's (06/10/18) shows that medium SE-ESE winds are expected and that two watercarts are planned to operate from the start of the shift to address this risk.</p> <p>The Pre-blast Meteorological Assessment (sighted example dated 11/09/2018) contains a pre-blast design checklist which includes considerations of weather conditions, other blasting's at Wilpinjong or Ulan mines. The Pre-blast Meteorological Assessment also contains environmental readings three hours, one hour, half an hour and 10 minutes prior to the blast to confirm that conditions are suitable.</p> <p>The auditor also sighted the Environmental Alarms and Observations Spreadsheet which details the: alarm type; date, time, location of the alarm; observations of conditions; reading; actions taken; and MPEA responsible.</p> <p>(g) This is covered in section 7.0 of the AQMP. 'Air quality monitoring data is available to MCO under a data sharing agreement from both the neighbouring Ulan and Wilpinjong mines, with data made accessible upon request from MCO'. The air management system (predictive meteorological forecasting, predictive air quality forecasting and real-time quality monitoring data) is used to manage air emissions and mitigate potential cumulative impacts in cooperation with adjacent mines.</p>	<p>(f) AQMP Mine Production Environmental Assistant (MPEA) Checklist: Environmental Responsibilities (31/01/2016) MPEA Checklist: Environmental Responsibilities (06/10/2018) MPEA Checklist: Environmental Responsibilities (19/08/2018) MPEA Checklist: Environmental Responsibilities (14/10/2018) Pre-blast Meteorological Assessment (11/09/2018) Jacobs Environmental Forecast System (15/10/2018) - Environmental Alarms and Observations Spreadsheet (g) AQMP</p>	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation																									
PA08_0135	3	20	<p>Air Quality Acquisition Criteria</p> <p>20. If particulate matter emissions generated by the Moolarben mine complex exceed the incremental criteria, or contribute an exceedance of the relevant cumulative criteria, in Tables 11, 12 and 13 at any residence on privately-owned land or on more than 25% of any privately-owned land (and a dwelling could be built on that land under existing planning controls), then upon receiving a written request for acquisition from the landowner, the Proponent shall acquire the land in accordance with the procedures in conditions 5 and 6 of Schedule 5.</p> <p><i>Table 11: Long term land acquisition criteria for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^a Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td>^a 90 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td>^a 30 µg/m³</td> </tr> </tbody> </table> <p><i>Table 12: Short term land acquisition criteria for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^a Criterion</th> <th>Basis</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td>^b 50 µg/m³</td> <td>Increment ^b</td> </tr> </tbody> </table> <p><i>Table 13: Long term land acquisition criteria for deposited dust</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Maximum increase in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td>^c Deposited dust</td> <td>Annual</td> <td>^b 2 g/m²/month</td> <td>^a 4 g/m²/month</td> </tr> </tbody> </table> <p>^a Cumulative impact (i.e. incremental increase in concentrations due to the complex plus background concentrations due to all other sources); ^b Incremental impact (i.e. incremental increase in concentrations due to the complex 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, fire incidents, illegal activities or any other activity agreed by the Secretary.</p>	Pollutant	Averaging period	^a Criterion	Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³	Pollutant	Averaging period	^a Criterion	Basis	Particulate matter < 10 µm (PM ₁₀)	24 hour	^b 50 µg/m ³	Increment ^b	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	Not triggered	<p>The 2016 Annual Review shows 2 exceedances to air quality criteria. MCO investigated the exceedances and found that the results were influenced by hazard reduction burns.</p> <p>The 2017 Annual Review shows 2 exceedances to air quality criteria. MCO investigated the exceedances which were influenced by a bush fire on Moolarben Road adjacent to the monitor.</p> <p>A sample of Monthly Environmental Monitoring Reports was reviewed and showed the following exceedances: - February 2018 report - exceedance at TEOM 4 - investigation revealed this was elevated due to bushfire - March 2018 report - exceedance at TEOM 6, TEOM 1, TEOM 7 and TEOM 4 - investigation revealed that the elevated readings were influenced by regional dust event - April 2018 report - exceedance at TEOM 7 - investigation revealed that the elevated readings were influenced by regional dust event - May 2018 report - exceedance at TEOM 6 - however this monitor is located upwind of MCO and therefore the exceedance was not caused by MCO operations - July 2018 report - exceedances at TEOM 6, PM01, PM02, TEOM 1, TEOM 7 and TEOM 4 - investigation revealed that the elevated readings were influenced by regional dust event</p> <p>Investigations into these exceedances showed that exceedances in particulate matter emissions were not generated by the Moolarben mine complex.</p>	<p>2016 and 2017 Annual Review</p> <p>Monthly Environmental Monitoring Report (January to September 2018)</p>	<p>MCO has investigated the causes of the air quality exceedances all of which were caused by external factors such as regional dust events and bushfires.</p> <p>There are no further recommendations.</p>
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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																													
PA05_0117	3	20A	<p>Air Quality Management Plan</p> <p>20A. The Proponent shall prepare and implement an Air Quality Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with the EPA and be submitted to the Secretary for approval by 31 March 2015;</p> <p>(b) describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this approval;</p> <p>(c) describe the air quality management system;</p> <p>(d) include an air quality monitoring program that:</p> <ul style="list-style-type: none"> uses a combination of real-time and supplementary monitors to evaluate the performance of the project against the air quality criteria in this approval; adequately supports the air quality management system; evaluates and reports on the: - the effectiveness of the air quality management system; and - compliance against the air quality operating conditions; defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents. 	C	Refer to audit findings in PA08_0135 schedule 3 condition 22.	<p>Refer to audit findings in PA08_0135 schedule 3 condition 22.</p>	Refer to audit findings in PA08_0135 schedule 3 condition 22.																									
PA05_0117	3	20B	<p>Meteorological Monitoring</p> <p>20B. 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 NSW Industrial Noise Policy, unless a suitable alternative is approved by the Secretary following consultation with the EPA.</p>	C	<p>This is covered in section 3.1 of the AQMP. MCO utilises two permanent meteorological monitoring stations – WS01 – (MCO Administration Office), WS03 (Ulan Road), and one mobile unit, WS04.</p> <p>The meteorological station on Ulan Road (WS3) is the approved meteorological station and WS01 and WS04 are used to support data from WS3 as needed.</p> <p>(a) The monitoring and sampling satisfies the requirements of the Approved Methods.</p> <p>(b) Meteorological parameters recorded by WS03 includes temperature at 2m and 10m. Wilpinjong Coal Mine (WCM) operates an Automatic Weather Stations (AWSs) which is capable of continuous real-time measurement of temperature lapse rate in accordance with the Industrial Noise Policy (INP). MCO has an agreement to share the real-time temperature lapse rate data from the AWS at WCM. A summary of meteorological conditions at Moolarben Coal mine are included in the Annual Reviews.</p>	<p>(a) AQMP</p> <p>(b) AQMP and NMP Annuals Reviews 2016 and 2017</p>	There are no recommendations																									

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	3	20C	<p>Ulan Public School</p> <p>The Proponent shall consult with DEC (Department of Education and Community) and, if requested:</p> <p>(a) implement agreed reasonable and feasible measures to ameliorate potential noise and/or dust impacts to Ulan Public School; or</p> <p>(b) on a reasonable basis relating to the adverse effect of noise and/or dust from the project, contribute to or meet reasonable costs toward relocating the school.</p>	C	<p>Consultation is undertaken with the Ulan Public School as part of CCC meetings and this consultation is used to determine any requirement to relocate the Ulan Public School. An extract of the community engagement register was viewed during the audit regarding interactions between the school and the mines including noise impacts from blasting.</p> <p>Air Quality</p> <p>A comprehensive air quality management system including predictive meteorological forecasting, predictive air quality forecasting and real-time air quality monitoring data (i.e. real-time response triggers) has been implemented at the Moolarben Coal Complex.</p> <p>The predictive air quality forecasting system is primarily used as an alert of possible elevated dust levels due to the operations, allowing MCO to temporarily modify proposed operations where relevant to minimise the risk of elevated dust dispersion.</p> <p>Ulan School (Site ID TEOMO1) has a continuous real time air quality monitor which measures Real time PM10.</p> <p>Noise</p> <p>The NMP states that MCO undertakes attended noise monitoring in the surrounding community. The frequency of monitoring is dependent on the location but ranges from monthly to annually. The NMP also states that MCO operates real time noise monitoring units to assess the ongoing performance of the operation.</p> <p>Attended noise monitoring is undertaken monthly at: Ulan Public School (NA1) and is used to evaluate the compliance of the project. There have been no reported exceedances at this location. Auditors reviewed monitoring data from January 2018 to August 2018 which confirmed compliance with noise criteria.</p>	<p>CCC Meetings - 14 June 2016</p> <p>- 6 December 2016</p> <p>- 14 March 2017</p> <p>- 12 September 2017</p> <p>- 12 June 2018</p> <p>Community Engagement Register Extract Meeting with Ulan Public School 04/02/2015</p> <p>AQMP</p> <p>MPFA Checklist: Environmental Responsibilities (14/10/2018)</p> <p>NMP</p> <p>Monthly Environmental Monitoring Reports (January 2018 to August 2018)</p>	There are no recommendations
PA08_0135	3	21	<p>Operating Conditions</p> <p>21. The Proponent shall:</p> <p>(a) implement best management practice to minimise the off-site odour, fume and dust emissions of the project;</p> <p>(b) implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site;</p> <p>(c) minimise any visible off-site air pollution generated by the project;</p> <p>(d) minimise the surface disturbance of the site;</p> <p>(e) operate a comprehensive air quality management system that uses a combination of predictive meteorological forecasting and real-time air quality monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this approval;</p>	C	Refer to audit findings in PA05_0117 schedule 3 condition 20.	Refer to audit findings in PA05_0117 schedule 3 condition 20.	Refer to audit findings in PA05_0117 schedule 3 condition 20.
PA08_0135	3	21	<p>(f) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see Note d above under Table 13); and</p> <p>(g) co-ordinate the air quality management at the Moolarben mine complex with the air quality management at the Ulan and Wilpinjong mines to minimise cumulative air quality impacts, to the satisfaction of the Secretary.</p>	C	Refer to audit findings in PA05_0117 schedule 3 condition 20.	Refer to audit findings in PA05_0117 schedule 3 condition 20.	Refer to audit findings in PA05_0117 schedule 3 condition 20.
PA08_0135	3	22	<p>Air Quality Management Plan</p> <p>22. The Proponent shall prepare and implement an Air Quality Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with the EPA, and submitted to and approved by the Secretary prior to the commencement of any development on site;</p> <p>(b) describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this approval;</p> <p>(c) describe the air quality management system;</p>	C	<p>Evidence of Secretary approval of the AQMP was attached as an appendice (Appendix F) of the EMS document. The letter states that DP&E has reviewed the AQMP and has approved this management plan.</p> <p>(a) MCO submitted the Air Quality Management Plan to EPA and received a letter (dated 31/08/2016) stating that the EPA do not review or endorse plans.</p> <p>(b) This is set out in section 6 of the AQMP.</p> <p>(c) This is set out in section 6.1.3 of the AQMP.</p> <p><i>The air quality management system uses a combination of predictive meteorological forecasting, predictive air quality forecasting and real-time air quality monitoring data (i.e. real-time response triggers).</i></p> <p><i>The predictive air quality forecasting system uses predicted meteorological data and exposed operational areas to predict the risk of dust dispersion as a result of operations at the Moolarben Coal Complex.</i></p> <p><i>The predictive air quality forecasting system is primarily used as an alert of possible elevated dust levels due to the operations, allowing MCO to temporarily modify proposed operations where relevant to minimise the risk of elevated dust dispersion'.</i></p>	<p>(a) AQMP (Appendix F) Letter from EPA (31/08/2016) stating that they do not review or endorse plans.</p> <p>(b) AQMP</p> <p>(c) AQMP</p>	There are no recommendations
PA08_0135	3	22	<p>Air Quality Management Plan</p> <p>22. The Proponent shall prepare and implement an Air Quality Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(d) include an air quality monitoring program that:</p> <ul style="list-style-type: none"> uses a combination of real-time and supplementary monitors to evaluate the performance of the project against the air quality criteria in this approval; 	C	<p>This is set out in section 7 and section 5.3 (Figure 6) of the AQMP.</p> <ul style="list-style-type: none"> MCO completed PM10 Real-Time Monitoring at four locations around Moolarben Coal Complex Deposited particulate matter monitoring with Dust Depositional (DD) gauges at eleven locations around the Moolarben Coal Complex; PM10 – High Volume Sampling (HVAS) monitoring at two sites – Ulan Village (PM01) and south-west of Open Cut 1 and west of Open Cut 2 (PM02) Meteorological monitoring is undertaken via Automatic Weather Stations (AWSs), with WS3 (located on Ulan Road). WS01 and WS04 are used to support data from WS3 as needed. <p>A sample of monthly environmental monitoring reports were reviewed which gave a summary of air quality monitoring results for the month and compared results to relevant air quality criteria.</p>	<p>AQMP</p> <p>Monthly environmental monitoring reports (January 2018 to August 2018)</p>	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	3	22	<p>Air Quality Management Plan 22. The Proponent shall prepare and implement an Air Quality Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(d) include an air quality monitoring program that:</p> <ul style="list-style-type: none"> adequately supports the air quality management system; 	C	<p>The air quality monitoring program is described in section 7 of the AQMP. The monitoring program includes:</p> <ul style="list-style-type: none"> Dust deposition PM10 (high volume) PM10 (Real-time) Total suspended particulate matter (TSP) Meteorological monitoring <p>The air quality monitoring also includes an assessment of data validity</p>	AQMP	There are no recommendations
PA08_0135	3	22	<p>Air Quality Management Plan 22. The Proponent shall prepare and implement an Air Quality Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(d) include an air quality monitoring program that:</p> <ul style="list-style-type: none"> evaluates and reports on the: <ul style="list-style-type: none"> i) the effectiveness of the air quality management system; ii) compliance with the air quality criteria; iii) compliance with the air quality operating conditions; and 	C	<p>The air quality monitoring program is described in section 7 of the AQMP.</p> <p>i) The effectiveness of the air quality management system is covered in section 7.2 'Assessment of data validity' and section 11 'Reporting and Communication' of the AQMP.</p> <p>ii) This is covered in section 8 of the AQMP. Air quality monitoring results are reported in the monthly Environmental Monitoring Reports, within the Annual Reviews, and reported during the CCC updates</p> <p>iii) Section 6.1.2 of the approved Air Quality Management Plan states: "MCO will complete a review of particulate emission controls at the Moolarben Coal Complex against industry best practice on a three yearly basis and report the findings in the relevant Annual Review." Management advised that this review was undertaken on the 2015 to 2017 period by Todoroski Air Sciences and that this report will be included in the 2018 Annual Review</p> <p>Section 6.3 of the AQMP covers greenhouse gas emissions. MCO reports on its hydrocarbon use and Greenhouse Gas Emissions annually through the National Pollution Inventory and National Greenhouse and Energy Reporting Scheme.</p> <p>The effectiveness of the AQ operational conditions are also evaluated through the AQMP reviews.</p>	<p>i) AQMP</p> <p>ii) AQMP: selection of Monthly Environmental Monitoring Reports (Aug 2017, Oct 2017, Jan 2018, June 2018); Annual Review 2016 and 2017</p> <p>iii) AQMP Management assertion</p>	During the next review of the AQMP revise Section 7 (Air Quality Monitoring Program) to include an assessment and reporting (this could be included in the Annual Reviews) of initiatives taken and performance against Condition 22 of the Approval.
PA08_0135	3	22	<p>Air Quality Management Plan 22. The Proponent shall prepare and implement an Air Quality Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(d) include an air quality monitoring program that:</p> <ul style="list-style-type: none"> defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents. 	C	<p>This is covered in section 8 and 11 of the AQMP 'Compliance Protocol' and 'Reporting and Communication'. A non-compliance is considered an air quality incident. A non-compliance occurs when monitoring data representative of sensitive receptors exceeds the prescribed criteria and are confirmed to be non-compliances (i.e. when considering events such as bushfires, prescribed burning, dust storms, fire incidents or local [non mining] dust sources).</p> <p>Notification is covered in section 11.2 of the AQMP 'Incident Reporting' which states that the event will be reported to DP&E and EPA immediately upon identifying the exceedance and MCO will submit a written report within 7 days of notifying DP&E and EPA.</p>	AQMP	There are no recommendations
PA08_0135	3	23	<p>Ulan Public School 23. The Proponent shall consult with DEC and, if requested:</p> <p>(a) implement agreed reasonable and feasible measures to ameliorate potential noise and/or dust impacts to Ulan Public School; or</p> <p>(b) on a reasonable basis relating to the adverse effect of noise and/or dust from the project, contribute to or meet reasonable costs toward relocating the school.</p>	C	Refer to audit findings in PA05_0117 schedule 3 condition 20C.	Refer to audit findings in PA05_0117 schedule 3 condition 20C.	There are no recommendations
PA08_0135	3	24	<p>Meteorological Monitoring 24. 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 NSW Industrial Noise Policy, unless a suitable alternative is approved by the Secretary following consultation with the EPA.</p>	C	Refer to audit findings in PA05_0117 schedule 3 condition 20B.	Refer to audit findings in PA05_0117 schedule 3 condition 20B.	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
			Water				
PA05_0117	3	29	<p>Water Supply 29. The Proponent shall ensure that:</p> <p>(a) it has sufficient water for all stages of the project, and if necessary, adjust the scale of operations on site to match its available water supply; and</p> <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>	C	<p>Sufficient water is ensured through the Water Management Plan (WMP) which includes the Site Water Balance (SWB), Surface Water Management Plan (SWMP), the Groundwater Management Plan (GWMP) and the Ulan Water sharing agreement.</p> <p>MCO have entered into a water sharing agreement with Ulan Coal Mine (UCM) as UCM are a water surplus site. MCO takes water from UCM through the water sharing plan. The Ulan Water sharing agreement was sighted during the audit period (Water Sharing Agreement dated 10/08/2009). The term will expire in 2030.</p> <p>Section 7 of the WMP 'Water Management' details the surface and groundwater monitoring including water take from Ulan Coal Mine, Groundwater levels/pressure and Groundwater take. Section 6.1.1 of the Groundwater Management Plan (GWMP) states that 'Groundwater extraction from all pumping bores is monitored by means of a flow-meter'. 'Operational water balance reviews will be performed monthly, collating all groundwater extractions, in-pit rainfall accumulation and runoff, as well as imported water to inform on-site water management'.</p> <p>The site water balance (SWB) indicates that the sites water comes from the following sources: - Groundwater inflows to open cut and underground mining operations - Runoff captured from the footprint of the mining disturbance area by the water management system - Groundwater extracted from advanced UG dewatering - Mine water imported from the Ulan Mine Complex under agreement with UCML - Groundwater extracted from production bores</p> <p>MCO management advised that whilst Moolarben Coal Mine is currently a water deficit site once underground operations expanded the site would become a water surplus site. At the time of the site inspection, water supply was observed as adequate.</p>	<p>WMP - GWMP - SWB - SWMP</p> <p>Ulan coal Mine and Moolarben Coal Mine - Water Sharing Agreement (dated 10/08/2009)</p> <p>Site Inspection</p> <p>Management assertion</p>	There are no recommendations
PA05_0117	3	29	<p>Water Supply 29. The Proponent shall ensure that:</p> <p>(b) any water supply constraints do not compromise any aspect of the environmental performance of the mine.</p> <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	<p>Sufficient water is ensured through the Water Management Plan (WMP) which includes the Site Water Balance (SWB), Surface Water Management Plan (SWMP), the Groundwater Management Plan (GWMP) and the Ulan Water sharing agreement.</p> <p>MCO have entered into a water sharing agreement with Ulan Coal Mine (UCM) as UCM are a water surplus site. MCO takes water from UCM through the water sharing plan. The Ulan Water sharing agreement was sighted during the audit period (Water Sharing Agreement dated 10/08/2009). The term will expire in 2030.</p> <p>MCO management advised that one underground operations expanded their site would also become a water surplus site.</p> <p>At the time of the site inspection, water supply was observed as adequate.</p>	<p>WMP - GWMP - SWB - SWMP</p> <p>Ulan coal Mine and Moolarben Coal Mine - Water Sharing Agreement (dated 10/08/2009)</p> <p>Site Inspection</p> <p>Management assertion</p>	Refer to audit findings in PA05_0117 schedule 3 condition 29
PA08_0135	3	25	<p>Water Supply 25. The Proponent shall ensure that:</p> <p>(a) it has sufficient water for all stages of the project, and if necessary, adjust the scale of operations on site to match its available water supply; and</p> <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>	C	Refer to audit findings in PA05_0117 schedule 3 condition 29	Refer to audit findings in PA05_0117 schedule 3 condition 29	Refer to audit findings in PA05_0117 schedule 3 condition 29
PA08_0135	3	25	<p>Water Supply 25. The Proponent shall ensure that:</p> <p>(b) any water supply constraints do not compromise any aspect of the environmental performance of the mine.</p> <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	Refer to audit findings in PA05_0117 schedule 3 condition 29	Refer to audit findings in PA05_0117 schedule 3 condition 29	Refer to audit findings in PA05_0117 schedule 3 condition 29
PA05_0117	3	30	<p>Compensatory Water Supply 30. 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>	Not triggered	<p>MCO reported that there have been no incidences of owners on privately-owned land whose water entitlements have been adversely impacted.</p> <p>Predicted impacts on private bores is set out in section 4.5.7 of the Water Management Plan, management measures are set out in section 7 and monitoring requirements are set out in section 5.3.</p>	<p>Management assertion</p> <p>WMP</p>	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation																						
PA08_0135	3	26	<p>Compensatory Water Supply 26. 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>	Not triggered	MCO reported that there have been no incidences of owners on privately-owned land whose water entitlements have been adversely impacted.	Management assertion	There are no recommendations																						
PA05_0117	3	31	<p>Water Pollution 31. Unless an EPL authorises otherwise, the Proponent shall comply with section 120 of the POEO Act. Section 120 - Prohibition of pollution of waters</p>	C	<p>MCO have entered into a water sharing agreement with Ulan Coal Mine (UCM) as UCM are a water surplus site. MCO takes water from UCM through the water sharing plan. The Ulan Water sharing agreement was sighted during the audit period (Water Sharing Agreement dated 10/08/2009). The term will expire in 2030.</p> <p>MCO management advised that going forward Moolarben Coal Mine would become a water surplus site.</p> <p>At the time of the audit the site is a water deficit site and was importing water from the Ulan Coal Mine through the water sharing agreement.</p> <p>Management advised that going forward Moolarben Coal mine would be a water surplus site.</p> <p>There are 3 discharge points for excess water. At the time of the audit, during a period of extended wet weather, the auditor did not see any evidence of off-site discharge of waters in breach of Section 120.</p>	<p>Ulan coal Mine and Moolarben Coal Mine - Water Sharing Agreement (dated 10/08/2009)</p> <p>Site Inspection</p> <p>Management assertion</p>	There are no recommendations																						
PA08_0135	3	27	<p>Water Pollution 27. Unless an EPL authorises otherwise, the Proponent shall comply with section 120 of the POEO Act.</p>	C	Refer to audit findings in PA05_0117 schedule 3 condition 31	Refer to audit findings in PA05_0117 schedule 3 condition 31	Refer to audit findings in PA05_0117 schedule 3 condition 31																						
PA05_0117	3	32	<p>Water Management Performance Measures 32. The Proponent shall comply with the performance measures in Table 11 to the satisfaction of the Secretary.</p> <p>Table 11: Water Management Performance Measures</p> <table border="1"> <thead> <tr> <th>Feature</th> <th>Performance Measure</th> </tr> </thead> <tbody> <tr> <td>Water Management - General</td> <td> <ul style="list-style-type: none"> Minimise cumulative water impacts with the other mines in the region Maximise water sharing with the other mines in the region Minimise the use of clean water on site </td> </tr> <tr> <td>The Drip</td> <td> <ul style="list-style-type: none"> Nil </td> </tr> <tr> <td>Construction and operation of linear infrastructure</td> <td> <ul style="list-style-type: none"> Design, install and maintain erosion and sediment controls generally in accordance with the series Managing Urban Stormwater: Soils and Construction including Volume 1, Volume 2A – Installation of Services and Volume 2C – Unsealed Roads Design, install and maintain the infrastructure within 40 m of watercourses generally in accordance with the Guidelines for Controlled Activities on Waterfront Land (DPI 2007), or its latest version Design, installation and maintenance of creek crossings generally in accordance with the Policy and Guidelines for Fish Friendly Waterway Crossings (NSW Fisheries, 2003) and Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries 2003), or their latest versions </td> </tr> <tr> <td>Mine Sediment Dams</td> <td> <ul style="list-style-type: none"> Design, install and maintain the dams generally in accordance with the series Managing Urban Stormwater: Soils and Construction – Volume 1 and Volume 2E Mines and Quarries </td> </tr> <tr> <td>Clean water diversion & storage infrastructure</td> <td> <ul style="list-style-type: none"> Use best endeavours to upgrade the existing clean water systems to capture and convey the 100 year ARI flood Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on site </td> </tr> <tr> <td>Mine water storages</td> <td> <ul style="list-style-type: none"> Mine water storage infrastructure is designed to store a 50 year ARI 72 hour storm event On-site storages (including tailings dams, mine infrastructure dams, groundwater storage and treatment dams) are suitably lined to comply with a permeability standard of < 1 x 10⁻⁸ m/s </td> </tr> <tr> <td>Tailings, acid forming and potentially acid forming materials</td> <td>In-pit emplacement, encapsulation or capping to prevent the migration of pollutants beyond the pit shell</td> </tr> <tr> <td>In-pit emplacement of tailings, acid forming and potentially acid forming materials</td> <td> <ul style="list-style-type: none"> Emplacement, encapsulation and capping to prevent or minimise the migration of pollutants beyond the pit shell of seepage from out of pit emplacement areas Adequate freeboard within the pit void to minimise the risk of discharge to surface waters </td> </tr> <tr> <td>Chemical and hydrocarbon storage</td> <td> <ul style="list-style-type: none"> Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standard </td> </tr> <tr> <td>Aquatic and riparian ecosystem, including the relevant sections of Moolarben Creek, Bora Creek and the Goulburn River</td> <td> <ul style="list-style-type: none"> Maintain or improve baseline channel stability Develop site-specific in-stream water quality objectives in accordance with ANZECC 2000 and Using the ANZECC Guidelines and Water Quality Objectives in NSW procedures (DECC 2006), or its latest version </td> </tr> </tbody> </table>	Feature	Performance Measure	Water Management - General	<ul style="list-style-type: none"> Minimise cumulative water impacts with the other mines in the region Maximise water sharing with the other mines in the region Minimise the use of clean water on site 	The Drip	<ul style="list-style-type: none"> Nil 	Construction and operation of linear infrastructure	<ul style="list-style-type: none"> Design, install and maintain erosion and sediment controls generally in accordance with the series Managing Urban Stormwater: Soils and Construction including Volume 1, Volume 2A – Installation of Services and Volume 2C – Unsealed Roads Design, install and maintain the infrastructure within 40 m of watercourses generally in accordance with the Guidelines for Controlled Activities on Waterfront Land (DPI 2007), or its latest version Design, installation and maintenance of creek crossings generally in accordance with the Policy and Guidelines for Fish Friendly Waterway Crossings (NSW Fisheries, 2003) and Why Do Fish Need To Cross The Road? 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Mine Sediment Dams	<ul style="list-style-type: none"> Design, install and maintain the dams generally in accordance with the series Managing Urban Stormwater: Soils and Construction – Volume 1 and Volume 2E Mines and Quarries 																												
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Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation																						
PA08_0135	3	28	<p>Water Management Performance Measures</p> <p>28. The Proponent shall comply with the performance measures in Table 14 to the satisfaction of the Secretary. Table 14: Water Management Performance Measures</p> <p><i>Table 14: Water Management Performance Measures</i></p> <table border="1"> <thead> <tr> <th>Feature</th> <th>Performance Measure</th> </tr> </thead> <tbody> <tr> <td>Water Management – General</td> <td> <ul style="list-style-type: none"> Minimise cumulative water impacts with the other mines in the region Maximise water sharing with the other mines in the region Minimise the use of clean water on site </td> </tr> <tr> <td>The Drip</td> <td> <ul style="list-style-type: none"> Nil impact on the water supply to the Drip. </td> </tr> <tr> <td>Construction and operation of linear infrastructure</td> <td> <ul style="list-style-type: none"> Design, install and maintain erosion and sediment controls generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction</i> including Volume 1, Volume 2A – <i>Installation of Services</i> and Volume 2C – <i>Unsealed Roads</i> Design, install and maintain the infrastructure within 40 m of watercourses generally in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land (DPI 2007)</i>, or its latest version Design, install and maintain creek crossings generally in accordance with the <i>Policy and Guidelines for Fish Friendly Waterway Crossings (NSW Fisheries, 2003)</i> and <i>Why Do Fish Need To Cross The Road? 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Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	3	33	<p>Water Management Plan</p> <p>33. The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with DPI Water and the EPA, by suitably qualified and experienced persons whose appointment has been approved by the Secretary and be revised and submitted to the Secretary for approval by 31 October 2016;</p> <p>(a1) include reference to the National Water Quality Management Strategy;</p> <p>(a2) include detailed performance criteria and describe measures to ensure that the Proponent complies with the Water Management Performance Measures (see Table 11);</p> <p>(b) in addition to the standard requirements for management plans (see Condition 3 of Schd. 5), this plan must include a:</p> <p>(i) 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 planning for future reporting periods; - water use and management on site, including details of water sharing between neighbouring mining operations; - reporting procedures, including the preparation of a site water balance for each calendar year; • describes the measures that would be implemented to: <ul style="list-style-type: none"> - minimise clean water use on site; - maximise water sharing with the other mines in the region; <p>(ii) Surface Water Management Plan, that includes:</p> <ul style="list-style-type: none"> • detailed baseline data on water flows and quality in the water bodies that could be affected by the project; • a detailed description of the water management system on site; • detailed plans, including design objectives and performance criteria, for the: <ul style="list-style-type: none"> - in-pit emplacement areas for tailings, acid forming and potentially acid forming materials; - final voids (see the Rehabilitation Objectives in Table 13); • detailed 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 and - stream and riparian vegetation health for Moolarben Creek, Bora Creek, and the Goulburn River; • a program to monitor and report on: - the effectiveness of the water management system; and - surface water flows and quality, stream and riparian vegetation health in the watercourses that could be affected by the project; and - downstream flooding impacts; • reporting procedures for the results of the monitoring program; and • a plan to respond to any exceedances of the performance criteria, and mitigate any adverse surface water impacts of the project; <p>(iii) Groundwater Management Plan, that includes:</p> <ul style="list-style-type: none"> • detailed baseline data on groundwater levels, yield and quality in the region and privately-owned groundwater bores that could be affected by the project; • groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts and detailed justification for those trigger levels; • a program to monitor and report on: <ul style="list-style-type: none"> - groundwater inflows to the underground and open cut mining operations; - the seepage/leachate from water storages, emplacements, backfilled voids and final voids; - background changes in groundwater yield/quality against mine-induced changes; - impacts of the project on: <ul style="list-style-type: none"> - regional and local (including alluvial) aquifers; - groundwater supply of potentially affected landowners; and - groundwater dependent ecosystems (including the Drip) and riparian vegetation; - a program to validate the groundwater model for the project, and compare the monitoring results with modelled predictions; and • a plan to respond to any exceedances of the groundwater assessment criteria. <p>(iv) a protocol that has been prepared in consultation with the owners of the Ulan and Wilpinjong mines to:</p> <ul style="list-style-type: none"> • minimise cumulative water quality impacts; • review opportunities of increased water sharing between these projects; • co-ordinate water quality monitoring programs as far as practicable; <p>- groundwater dependent ecosystems (including the Drip) and riparian vegetation;</p> <p>- a program to validate the groundwater model for the project, and compare the monitoring results with modelled predictions; and</p> <ul style="list-style-type: none"> • a plan to respond to any exceedances of the groundwater assessment criteria. <p>(iv) a protocol that has been prepared in consultation with the owners of the Ulan and Wilpinjong mines to:</p> <ul style="list-style-type: none"> • minimise cumulative water quality impacts; • review opportunities of increased water sharing between these projects; • 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 groundwater models. 	C	Refer to audit findings in PA08_0135 schedule 3 condition 29.	Refer to audit findings in PA08_0135 schedule 3 condition 29.	Refer to audit findings in PA08_0135 schedule 3 condition 29.

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	3	29	<p>Water Management Plan 29. The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with DPI Water and the EPA, by suitably qualified and experienced persons whose appointment has been approved by the Secretary;</p> <p>(b) be submitted to the Secretary for approval prior to the commencement of any development on site;</p>	C	<p>(a) Consultation is set out in section 1.5 of the Water Management Plan (WMP) which states that consultation has occurred with DPI Water (now Department of Industry - Crown Lands and Water Division [CL&W]), NSW EPA and DP&E. Correspondence with the EPA (letter dated 20/12/2017) was sighted stating that the EPA does not review or endorse environmental management plans. Correspondence with the DPI-Water (letter dated 13/02/2018) was sighted stating that DPI-Water has approved the SWMP and GWMP.</p> <p>Section 1.4 of the WMP states that Dr David Newton (WRM Water & Environment), Mr Peter Dundon (Dundon Consulting) and Dr Noel Merrick were approved by DP&E as suitably qualified and experienced experts for the preparation of the WMP on 11 February 2015. Approval from DP&E (letter dated 27/06/2016) endorsing the specialist was sighted during the audit.</p> <p>(b) Consultation is set out in section 1.5 of the WMP which states that consultation has occurred with DP&E. Evidence of Secretary approval of the WMP was attached as Appendix F of the EMS document. The letter (dated 31/07/2015) states that DP&E has reviewed the WMP and has approved this management plan.</p>	<p>(a) WMP Letter from EPA (20/12/2017) stating that they did not review or endorse plans</p> <p>Letter from DPI (13/02/2018) RE approval of SWMP (V3 Dec 2017) and GWMP (V2 Dec 2017)</p> <p>Letter from DP&E (27/06/2016) RE endorsement of specialists for WMP preparation</p> <p>(b) WMP Appendix F of the EMS</p>	There are no recommendations
PA08_0135	3	29	<p>Water Management Plan 29. The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(c) include reference to the National Water Quality Management Strategy;</p> <p>(d) include detailed performance criteria and describe measure to ensure that the Proponent complies with the Water Management Performance Measures (see Table 14);</p>	C	<p>(c) This is covered in Section 2.4.2 of the WMP. The process for water quality management is based on national guidelines that are implemented at State, regional and local levels. The WMP states that 'The Australian and New Zealand Environment and Conservation Council water quality guidelines have been considered where applicable in both the SWMP (Appendix 2 of the WMP) and the GWMP (Appendix 3 of the WMP) for the Moolarben Coal Complex'. ANZECC guidelines are considered in section 2.4 of the SWMP and section 8.1 of the GWMP.</p> <p>(d) This is covered in section 4 of the WMP 'Review and improvement of environmental performance' which states that 'MCO conducts an annual review of MCO Operations' this review includes a comparison of:</p> <ul style="list-style-type: none"> - monitoring results against the relevant statutory requirements, limits or performance measures/ criteria - monitoring results of the previous year - relevant predictions in the EA - identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance. 	<p>WMP - SWMP - GWMP</p>	There are no recommendations
PA08_0135	3	32	<p>Water Management Plan 29. The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>e) in addition to the standard requirements for management plans (see condition 3 of schedule 6) this plan must include a:</p> <p>i) 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 planning for future reporting periods; - water use and management on site, including details of water sharing between neighbouring mining operations; - reporting procedures, including the preparation of a site water balance for each calendar year; 	C	<p>Appendix 1 'Site Water Balance (SWB)' of the WMP contains:</p> <ul style="list-style-type: none"> - Sources of water supply (section 7 of the SWB) and water management contingencies (section 8.5 of the SWB) - Water use (sections 4 to 7 of the SWB) and water sharing (section 7.3 of the SWB) - Section 5 of the WMP contains reporting procedures and section 9 of the SWB includes the requirements for an annual review of the SWB. 	<p>WMP - SWB</p>	There are no recommendations
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PA08_0135	3	32	<p>ii) Surface Water Management Plan (SWMP), that includes:</p> <ul style="list-style-type: none"> • detailed baseline data on water flows and quality in the waterbodies that could be affected by the project; 	C	<p>This is covered in section 3.4 of the SWMP MCO monitors flow in Wilpinjong Creek (SW15), Murrumbidgee Creek (SW04) and Eastern Creek (SW17). Water quality monitoring has been undertaken in the Goulburn River, Bora Creek, Moolarben Creek, Murrumbidgee Creek, Lagoon Creek and Ryan's Creek. Stream health monitoring has been undertaken in the Goulburn River, Bora Creek, Moolarben Creek, Ryan's Creek, Murrumbidgee Creek, Wilpinjong Creek and Eastern Creek.</p>	<p>SWMP</p>	There are no recommendations
PA08_0135	3	32	<p>ii) Surface Water Management Plan, that includes:</p> <ul style="list-style-type: none"> • a detailed description of the water management system on site; 	C	<p>This is covered in section 4 of the SWMP</p>	<p>SWMP</p>	There are no recommendations
PA08_0135	3	32	<p>ii) Surface Water Management Plan, that includes:</p> <ul style="list-style-type: none"> • detailed plans, including design objectives and performance criteria, for the: <ul style="list-style-type: none"> - Murrumbidgee and Eastern Creek realignments - in-pit emplacement areas for tailings, acid forming and potentially acid forming materials - final voids (see the Rehabilitation Objectives in Table 14) 	C	<p>These items are covered in the Surface Water Management Plan and Rehabilitation Management Plan</p> <ul style="list-style-type: none"> - In-pit emplacement areas are covered in section 8.5 of the SWMP. - Final voids are covered in section 8.4 of the SWMP. 	<p>SWMP RMP</p>	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	3	32	<p>ii) Surface Water Management Plan, that includes:</p> <ul style="list-style-type: none"> detailed 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 stream and riparian vegetation health for Moolarben Creek, Bora Creek, Murrumbidgee Creek, Eastern Creek, Wilpinjong Creek and the Goulburn River 	C	<p>Performance criteria including trigger values for investigating adverse impacts is covered in the following sections of the SWMP:</p> <ul style="list-style-type: none"> The water management system is covered in section 5 and section 6 of the SWMP Downstream surface water quality is covered in section 5.1 and section 6 of the SWMP Downstream flooding impacts are covered in section 6 of the SWMP Stream health is covered in section 5.2 and section 6 of the SWMP. Stream health monitoring including aquatic and riparian edge plants are also covered in section 7.4. 	SWMP	There are no recommendations
PA08_0135	3	32	<p>ii) Surface Water Management Plan, that includes:</p> <ul style="list-style-type: none"> a program to monitor and report on: <ul style="list-style-type: none"> the effectiveness of the water management system; and surface water flows and quality, stream and riparian vegetation health in the watercourses that could be affected by the project; and downstream flooding impacts; reporting procedures for the results of the monitoring program; and a plan to respond to any exceedances of the performance criteria, and mitigate any adverse surface water impacts of the project; 	C	<ul style="list-style-type: none"> The monitoring and reporting program <ul style="list-style-type: none"> Section 7.5 of the SWMP covers management of onsite water management Section 7.0 of the SWMP covers surface water quality and flows (section 7.2), stream health (section 7.3 and 7.4) Downstream flooding impacts are covered in section 7.2 This is covered in section 9 and section 10 of the SWMP This is covered in section 10 of the SWMP. Protocols for managing non-compliances are also described in section 6 of the Environmental Management Strategy. 	SWMP Environmental Management Strategy	There are no recommendations
				NC	<p>MCO reported in the 2017 Annual Review that stream flow recording (data collection) was non-compliant due to the breakdown of monitoring equipment. Data was supplemented with data from Ulan Coal and Wilpinjong Coal. MCO resolved the issue by replacing the stream flow monitoring equipment. Current data capture is close to 100%.</p>	Annual Review	There are no recommendations
PA08_0135	3	32	<p>(iii) Groundwater Management Plan, that includes:</p> <ul style="list-style-type: none"> detailed baseline data on groundwater levels, yield and quality in the region and privately-owned groundwater bores that could be affected by the project; 	C	<p>These requirements are contained in the Groundwater Management Plan. Baseline data on groundwater levels is covered in Section 4 and Appendix 1. Yield and water quality in the region and privately-owned groundwater bores are covered in section 3.1, Table 6 and Appendix 2 of the GWMP.</p> <p>The GWMP also references the following reports and provide a detailed description of the available baseline data:</p> <ul style="list-style-type: none"> Moolarben Coal Project – Groundwater Assessment (Peter Dundon and Associates Pty Ltd, 2006), Moolarben Stage 2 Groundwater Assessment (Aquaterra Consulting Pty Ltd, 2008), Moolarben Complex Stage 2 – Preferred Project Report – Groundwater Impact Assessment (RPS Aquaterra, 2011), Moolarben Coal Project Stage 1 Optimisation Modification Groundwater Assessment (Australasian Groundwater & Environmental Consultants Pty Ltd, 2013) and Moolarben Coal Complex – UG1 Optimisation Modification – Groundwater Assessment (Dundon Consulting Pty Ltd, 2015)'. 	GWMP	There are no recommendations
PA08_0135	3	32	<p>(iii) Groundwater Management Plan, that includes:</p> <ul style="list-style-type: none"> groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts; 	C	<p>This is covered in section 8, table 10, and appendix 1 of the GWMP Appendix 1 gives specific values</p>	GWMP	There are no recommendations
PA08_0135	3	32	<p>(iii) Groundwater Management Plan, that includes:</p> <ul style="list-style-type: none"> a program to monitor and report on: <ul style="list-style-type: none"> groundwater inflows to the underground and open cut mining operations; the seepage/leachate from water storages, emplacements, backfilled voids and final voids; background changes in groundwater yield/quality against mine-induced changes; the permeability, hydraulic gradient, flow direction and connectivity of the palaeochannel and flows within Wilpinjong Creek (requires 3 additional monitoring piezometers within the main trunk of the paleo channel between the open cut 4 boundary and Wilpinjong Creek); impacts of the project on: <ul style="list-style-type: none"> regional and local (including alluvial) aquifers; groundwater supply of potentially affected landowners; and groundwater dependent ecosystems (including the Drip) and riparian vegetation; a program to validate the groundwater model for the project, and compare against monitoring results with modelled predictions 	C	<ul style="list-style-type: none"> This is covered in section 6.1.1. of the GWMP This is covered in section 6.1.4 This is covered in section 8 This is covered in sections 6 (6.4) , section 7, and section 8 This is covered in section 5.3, section 6 and section 8 This is covered in section 5.3 	GWMP	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation																																	
PA08_0135	3	32	(iii) Groundwater Management Plan , that includes: • a plan to respond to any exceedances of the groundwater assessment criteria.	C	This is covered in section 8.2 of the GWMP	GWMP	There are no recommendations																																	
PA08_0135	3	32	Water Management Plan 29. The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must: e) in addition to the standard requirements for management plans (see condition 3 of schedule 6) this plan must include a: (iv) a protocol that has been prepared in consultation with the owners of the Ulan and Wilpinjong mines to: • minimise cumulative water quality impacts; • review opportunities of increased water sharing between these projects; • 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 groundwater models.	C	• This is covered in section 2.4 of the WMP. MCO have entered into a water sharing agreement with Ulan Coal Mine (UCM) as UCM are a water surplus site. MCO takes water from UCM through the water sharing plan. The Ulan Water sharing agreement was sighted during the audit period (Water Sharing Agreement dated 10/08/2009). The term will expire in 2030.	WMP - GWMP Ulan coal Mine and Moolarben Coal Mine - Water Sharing Agreement (dated 10/08/2009)	There are no recommendations																																	
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PA05_0117	3	34	Biodiversity 34. The Proponent shall implement the biodiversity offset strategy for the project summarised in Table 12, and shown conceptually in Appendix 8, to the satisfaction of the Secretary. Table 12: Summary of Biodiversity Offset Strategy <i>Table 12: Summary of Biodiversity Offset Strategy</i> <table border="1"> <thead> <tr> <th>Area</th> <th>Offset Type</th> <th>Minimum Size Hectares</th> </tr> </thead> <tbody> <tr> <td>Area 3 Property 6</td> <td>Conserve: • 6 ha of existing EEC Enhance and conserve: • 2.6 ha of regenerating EEC</td> <td>8.6</td> </tr> <tr> <td>Areas 1, 2 and 3 Properties 6, 10, 12, 13, 14 and 15</td> <td>Enhance existing vegetation: • 1282 ha of native vegetation Revegetate: • 48 ha of existing disturbed land to EEC</td> <td>1330</td> </tr> <tr> <td>Area 1 Properties 12, 13, 14 and 15</td> <td>Revegetate: • 153 ha of cleared land to native vegetation</td> <td>153</td> </tr> <tr> <td>Clark</td> <td>Enhance existing vegetation: • 300 ha of existing native vegetation • 32 ha of EEC</td> <td>332</td> </tr> <tr> <td>Clifford</td> <td>Enhance existing vegetation: • 19 ha of native vegetation • 62 ha of EEC</td> <td>81</td> </tr> <tr> <td>Elward</td> <td>Enhance existing vegetation: • 146 ha of native vegetation • 24 ha of EEC</td> <td>170</td> </tr> <tr> <td>Property 5</td> <td>Enhance existing vegetation: • 40 ha of native vegetation • 25 ha of EEC</td> <td>65</td> </tr> <tr> <td>Properties 24 and 25</td> <td>Enhance existing vegetation: • 59 ha of native vegetation • 4 ha of EEC</td> <td>63</td> </tr> <tr> <td>Bobadeen</td> <td>Enhance existing vegetation: • 8 ha of native vegetation • 159 ha of EEC</td> <td>167</td> </tr> <tr> <td>Moolarmoo</td> <td>Enhance existing vegetation: • 25 ha of native vegetation • 19 ha of EEC</td> <td>44</td> </tr> </tbody> </table> Note: The EEC referred to in this table is the White Box Yellow Box Blakely's Red Gum Woodland as defined under the TSC Act and White Box Yellow Box Blakely's Red Gum Grassy Woodland as defined under the EPBC Act	Area	Offset Type	Minimum Size Hectares	Area 3 Property 6	Conserve: • 6 ha of existing EEC Enhance and conserve: • 2.6 ha of regenerating EEC	8.6	Areas 1, 2 and 3 Properties 6, 10, 12, 13, 14 and 15	Enhance existing vegetation: • 1282 ha of native vegetation Revegetate: • 48 ha of existing disturbed land to EEC	1330	Area 1 Properties 12, 13, 14 and 15	Revegetate: • 153 ha of cleared land to native vegetation	153	Clark	Enhance existing vegetation: • 300 ha of existing native vegetation • 32 ha of EEC	332	Clifford	Enhance existing vegetation: • 19 ha of native vegetation • 62 ha of EEC	81	Elward	Enhance existing vegetation: • 146 ha of native vegetation • 24 ha of EEC	170	Property 5	Enhance existing vegetation: • 40 ha of native vegetation • 25 ha of EEC	65	Properties 24 and 25	Enhance existing vegetation: • 59 ha of native vegetation • 4 ha of EEC	63	Bobadeen	Enhance existing vegetation: • 8 ha of native vegetation • 159 ha of EEC	167	Moolarmoo	Enhance existing vegetation: • 25 ha of native vegetation • 19 ha of EEC	44	C	Appendix 2 'BOMP Approval Correspondence' of the Biodiversity Offset Management Plan (BOMP) provides evidence of consultation with the Secretary and approval of the BOMP. The approval letter is dated 17 December 2014. The Biodiversity Management Plan (BioMP) is being staged and revisions of the plan will be submitted on a progressive basis. Section 6.5.2 of the 2016 Annual Review provides a summary of the Biodiversity offset works undertaken. Works included: Various monitoring activities; weed and feral animal baseline monitoring and control; native seed collection; fencing maintenance activities completed on 'Clark' and 'Property Five'; a feral animal monitoring program on all offset properties with the exception of Area 2 and Area 3 which will be included during the 2017 reporting period; a prescribed burn in the Goulburn River National Park which included a portion of Area 2 offset; two offset areas were gifted to the National Parks Estate; and offset security mechanisms for 17 of the 19 offset areas were prepared and issued to the DP&E for approval. Section 6.5.2 of the 2017 Annual Review provides a summary of the Biodiversity offset works undertaken. Works included: Various monitoring activities; baiting; weed control; fencing replacement and maintenance activities completed on Bobadeen, Area , Elward's, Dun Dun, Libertus and Ulan 18; track maintenance on Dun Dun; revegetation works undertaken on the Bobadeen offset including planting of tube stock and seed; and Avisford 1 offset area was gifted to the National Parks estate. Biodiversity offset areas are protected by: Conservation Agreements, through integration into National Parks estate; and Titles. During the site inspection management advised the regional location of each offset area and showed auditors each area on a map. Offset areas were also observed during the site inspection.	BOMP Letter from DP&E (dated 17/12/2014) RE approval of Biodiversity Offset Management Plan 2016 and 2017 Annual Reviews Site inspection	There are no recommendations
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Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation																											
PA08_0135	3	30	<p>30. The Proponent shall implement the biodiversity offset strategy for the project summarised in Table 15 and shown conceptually in Appendix 7 to the satisfaction of the Secretary. Table 15: Summary of the Biodiversity Offset Strategy</p> <p>Table 15: Summary of the Biodiversity Offset Strategy</p> <table border="1"> <thead> <tr> <th>Area</th> <th>Offset Type</th> <th>Minimum Size hectares (ha)</th> </tr> </thead> <tbody> <tr> <td>Dun Dun East</td> <td>Enhance existing vegetation: • 1368 ha of native vegetation • 408 ha of EEC Regenerate: • 380 ha of existing grassland to forest/woodland</td> <td>1776</td> </tr> <tr> <td>Dun Dun West</td> <td>Enhance existing vegetation: • 837 ha of native vegetation • 122 ha of EEC Regenerate: • 307 ha of existing grassland to forest/woodland</td> <td>959</td> </tr> <tr> <td>Avisford 1</td> <td>Enhance existing vegetation: • 300 ha of native vegetation • 102 ha of EEC Regenerate: • 7 ha of existing grassland to forest/woodland</td> <td>402</td> </tr> <tr> <td>Avisford 2</td> <td>Enhance existing vegetation: • 203 ha of native vegetation • 5 ha of EEC</td> <td>208</td> </tr> <tr> <td>Ulan 18</td> <td>Enhance existing vegetation: • 291 ha of native vegetation • 48 ha of EEC Regenerate: • 178 ha of existing grassland to forest/woodland</td> <td>339</td> </tr> <tr> <td>Onsite Offset</td> <td>Enhance existing vegetation: • 420 ha of native vegetation • 51 ha of EEC Regenerate: • 199 ha of existing grassland to forest/woodland</td> <td>471</td> </tr> <tr> <td>Old Bobadeen</td> <td>Enhance existing vegetation: • 90 ha of native vegetation • 400 ha of EEC Regenerate: • 409 ha of existing grassland to forest/woodland</td> <td>490</td> </tr> <tr> <td>Libertus</td> <td>Enhance existing vegetation: • 160 ha of native vegetation • 18 ha of EEC Regenerate: • 22 ha of existing grassland to forest/woodland</td> <td>178</td> </tr> </tbody> </table> <p>Notes: • To identify the areas referred to in Table 15, see the applicable figures in Appendix 7; • The amount of native vegetation includes forest/woodland and grassland but excludes woodland and grassland EECs. The combined total of native vegetation and EEC on each property equates to the minimum size available as an offset; • The amount of grassland available for regeneration includes sparsely vegetated woodland; and • The strategy includes the regeneration of existing grassland areas within each offset to woodland communities.</p>	Area	Offset Type	Minimum Size hectares (ha)	Dun Dun East	Enhance existing vegetation: • 1368 ha of native vegetation • 408 ha of EEC Regenerate: • 380 ha of existing grassland to forest/woodland	1776	Dun Dun West	Enhance existing vegetation: • 837 ha of native vegetation • 122 ha of EEC Regenerate: • 307 ha of existing grassland to forest/woodland	959	Avisford 1	Enhance existing vegetation: • 300 ha of native vegetation • 102 ha of EEC Regenerate: • 7 ha of existing grassland to forest/woodland	402	Avisford 2	Enhance existing vegetation: • 203 ha of native vegetation • 5 ha of EEC	208	Ulan 18	Enhance existing vegetation: • 291 ha of native vegetation • 48 ha of EEC Regenerate: • 178 ha of existing grassland to forest/woodland	339	Onsite Offset	Enhance existing vegetation: • 420 ha of native vegetation • 51 ha of EEC Regenerate: • 199 ha of existing grassland to forest/woodland	471	Old Bobadeen	Enhance existing vegetation: • 90 ha of native vegetation • 400 ha of EEC Regenerate: • 409 ha of existing grassland to forest/woodland	490	Libertus	Enhance existing vegetation: • 160 ha of native vegetation • 18 ha of EEC Regenerate: • 22 ha of existing grassland to forest/woodland	178	C	<p>Appendix 2 'BOMP Approval Correspondence' of the Biodiversity Offset Management Plan (BOMP) provides evidence of consultation with the Secretary and approval of the BOMP. 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PA08_0135	3	31	<p>Regeneration Areas</p> <p>31. The Proponent shall ensure that the regeneration of vegetation within the specified areas of the biodiversity offset strategy is focused on the re-establishment of flora species typical of the White Box Yellow Box Blakely's Red Gum Woodland as defined under the TSC Act and White Box Yellow Box Blakely's Red Gum Grassy Woodland as defined under the EPBC Act.</p>	C	<p>This is covered in section 6 of Biodiversity Management Plan (BioMP) which states that: <i>'Native vegetation rehabilitation and regeneration areas will target a mosaic of Box Gum Woodland, Sedimentary Ironbark Forest and Grassy Woodland communities. Box Gum Woodland associations will be targeted at species consistent with White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland'</i>.</p> <p>The Natural Regeneration/ Revegetation Monitoring in the 2016 and 2017 Annual Review noted that regeneration occurs in higher densities near remnant vegetation and paddock trees and Blakely's Red Gum was the most recorded regenerating species.</p>	<p>BioMP</p> <p>Site inspection</p> <p>Annual Review 2016 and 2017</p>	There are no recommendations																											
PA08_0135	3	32	<p>32. The Proponent shall use its best endeavours to work with the CLD to identify and implement any reasonable and feasible regeneration of vegetation on Crown lands in the vicinity of Pyramul Creek immediately to the south of the 'Dun Dun East' biodiversity offset area.</p>	Not Triggered	Mine management reported that no work done around Pyramul Creek.	N/A	There are no recommendations																											
PA08_0135	3	33	<p>Munghorn Gap Nature Reserve</p> <p>33. The Proponent shall ensure that:</p> <p>(a) the boundary of the project with the Munghorn Gap Nature Reserve is identified and surveyed prior to the commencement of open cut mining; and</p> <p>(b) a 50 meter buffer zone is maintained between the open cut mining and the Munghorn Gap Nature Reserve during the life of the project.</p>	C	<p>(a) A survey was undertaken as part of the mining lease ML1715 by Martin Alexander Burns Survey and Drafting Resources. The survey was viewed during the site inspection (Survey dated 25/03/2015). Management advised that stage 2 mining works which are covered by PA08_0135 began in August 2015.</p> <p>(b) Plan 3A and 3B of the Moolarben Coal Complex Mining Operations Plan (MOP) (Dec 2018) shows the boundaries between open cut mining and the Munghorn Gap Nature Reserve. This was measured and found that a 50m buffer was maintained. Additionally management advised that the boundary was demarcated with flagging tape and this visual marker was observed by auditors during the site inspection. MCO also use Automated Positioning Systems (APS) alarms to alert staff if they are near the boundary.</p>	<p>(a) Survey undertaken by Martin Alexander Burns Survey and Drafting Resources (Survey dated 25/03/2015) Management assertion</p> <p>(b) MOP Plans 3A and 3B Site inspection Management assertion</p>	There are no recommendations																											

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	3	34	<p>Habitat for Threatened Fauna Species</p> <p>34. The Proponent shall ensure that the biodiversity offset strategy provides suitable habitat for all the threatened fauna species confirmed and identified as being potentially present in the disturbance areas. Note: The threatened fauna species confirmed and identified as being potentially present in the disturbance areas are listed in Appendix 7.</p>	C	<p>Section 9 of the BioMP states the following: <i>'MCO will ensure that the Biodiversity Offset Strategy provides suitable habitat for all the threatened fauna species confirmed and identified as being potentially present in the disturbance areas'.</i></p> <p>Additional flora and fauna surveys were completed by Cumberland Ecology (Cumberland Ecology, February 2014) to provide additional biodiversity information on the Biodiversity Offset Strategy (BOS). The surveys confirmed that good quality habitat for all threatened and/or migratory species potentially impacted by the project is present within the properties included in the BOS.</p> <p>It should be noted that a Biodiversity Assessment Review and Biodiversity Offset Strategy has been prepared by ELA (2017) in accordance with the reporting requirements of the NSW Biodiversity Offsets Policy for Major Projects and underlying FBA and is presented in Appendix C (Stage 1 Modification 14). However as of 12/12/2018 Stage 1 Modification 14 has not yet been approved.</p>	<p>Ecological report and Biodiversity offset plan</p> <p>Moolarben Coal Project Stage 2 Biodiversity Offset Strategy: Additional Fauna and Flora Surveys (Cumberland Ecology, February 2014)</p>	Obtain a report from an appropriately qualified ecologist confirming compliance with this condition.
PA05_0117	3	35	<p>Long Term Security of Offset</p> <p>35. By the end of June 2015, unless otherwise agreed by the Secretary, the Proponent shall make suitable arrangements to provide appropriate long-term security for the offset areas in Table 12 in perpetuity, in consultation with OEH and to the satisfaction of the Secretary.</p> <p>Note: The preferred mechanisms for the provision of long-term conservation security are via Biobanking Arrangements and additions to the OEH Estate.</p>	C	<p>DP&E approved a staged approach to the Biodiversity Offset Security (letter dated 02/03/16). Letter viewed during the audit</p> <p>DP&E approved an extension for obtaining the biodiversity offset security mechanism. The letter stated that the Secretary approves an extension to March 2019. Letter dated 16/07/2018. Letter viewed during the audit.</p> <p>The Biodiversity Offset Strategy is shown in Appendix 8 of the Project Approval (05_0117).</p> <p>A Biodiversity Assessment Review and Biodiversity Offset Strategy has been prepared by ELA (2017) in accordance with the reporting requirements of the NSW Biodiversity Offsets Policy for Major Projects and underlying FBA and is presented in Appendix C (Stage 1 Modification 14)</p>	<p>Letter to DP&E RE: Biodiversity Offset Security. The Department endorses a staged approach (dated 02/03/16)</p> <p>Letter from DP&E RE: extension for Biodiversity offset security arrangements (dated 16/07/2018)</p> <p>Project Approval 05_0117 (Appendix 8 - Biodiversity Offset Strategy)</p> <p>Environmental Impact Assessment Mod 14 (Appendix C)</p>	There are no recommendations
PA08_0135	3	35	<p>Regent Honeyeater Study</p> <p>35. Within 6 months of the date of this approval, the Proponent shall calculate:</p> <p>(a) the impacts generated by the project on the Regent Honeyeater in species credits; and</p> <p>(b) the species credits that would be generated for the Regent Honeyeater from implementation of the offset strategy described in condition 30 above, in accordance with the NSW Biodiversity Offset Policy for Major Projects, and to the satisfaction of OEH.</p>	NC	<p>(a) A letter to the Secretary dated 31/08/2015 was sighted during the audit regarding Regent Honey eater species credit calculations</p> <p>(b) A letter from EcoLogical Australia to Yancoal (dated 28/07/2015) was sighted during the audit. The letter shows that the number of credits generated by conservation management (559 ha of existing woodland, 1,439 ha of derived native grassland (DNG) and 1,502 ha of mine site ecological rehabilitation) meets the habitat and offset requirements of the Regent Honeyeater.</p> <p>A letter from MCO to DP&E (dated 31/07/2015) includes the findings from the Ecological Australia (ELA) letter and states that the disturbance of Regent Honeyeater habitat is adequately compensated for by the rehabilitation and offset properties.</p> <p>A letter from OEH to MCO and DP&E (dated 14/10/2015) was sighted during the audit. OEH still had concerns regarding the suitability of offset calculations and made several recommendations.</p> <p>A letter from MCO to OEH (dated 10/02/2016) addressed concerns raised by OEH and provides further information. OEH has yet to provide a response to this.</p> <p>As the Auditor was not provided with evidence that the calculation of species credits has been completed to the satisfaction of OEH (compliance with this condition cannot be verified.</p>	<p>a) Letter to DP&E from MCO RE: Regent Honey eater species credit calculations (dated 31/07/2015)</p> <p>b) Letter from ELA to Yancoal (dated 28/07/2015) RE: Moolarben Coal Project Stage 2 Condition 35 – Regent Honeyeater Offset Calculations.</p> <p>Letter from MCO to DP&E (dated 31/07/2015) RE: Stage 2 Project Approval (08_0135) – Regent Honeyeater Species Credit Calculations</p> <p>Letter from OEH to MCO and DP&E (dated 14/10/2015) RE: Moolarben Coal Project Stage 2 Regent Honeyeater Offset Calculations.</p> <p>Letter from MCO to OEH (10/02/2016) RE: Moolarben Coal Project Stage 2 – Regent Honeyeater Offset Calculations</p>	Contact OEH to confirm that they are satisfied with the calculation of species credits for the Regent Honeyeater.
PA08_0135	3	36	<p>36. If the calculations carried out in condition 35 above identify a shortfall of species credits to offset the impacts of the project, then within 24 months of the date of this approval, the Proponent shall satisfy the outstanding offset requirements to the satisfaction of OEH. This can be achieved by one or more of the following:</p> <p>(a) acquiring or retiring credits under the Bio banking Scheme in the TSC Act;</p> <p>(b) making payments into an offset fund that has been developed by the NSW Government; and/or</p> <p>(c) providing supplementary measures.</p>	Not triggered	No shortfall was identified during correspondence with DP&E and OEH.	<p>Letter to DP&E from MCO RE: Regent Honey eater species credit calculations (dated 31/07/2015)</p> <p>Letter from OEH RE: Recommendations on credit calculations (dated 10/02/2016)</p>	N/A

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	3	36	<p>Biodiversity Management Plan 36. The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary.</p> <p>This plan must: (a) be prepared in consultation with OEH and be submitted to the Secretary for approval by 31 March 2015;</p>	C	<p>Section 1.4 of the BioMP states that: the 'BioMP has been prepared in consultation with the NSW Office of Environment and Heritage (OEH).</p> <p>Evidence of Secretary's approval of the BioMP was attached as an appendice (Appendix F) of the EMS document. The letter (dated 31 July 2015) states that DP&E has reviewed the BioMP and has approved this management plan.</p> <p>During the audit a letter to DP&E (dated 24/08/2016) from MCO was sighted which submitted a revised BioMP (BioMP August 2016) to DP&E. The responding letter from DP&E was also sighted (letter dated 03/08/2018) which stated that the Secretary approves the revised BioMP. The new BioMP approval supersedes the March 2015 approval date.</p> <p>During the audit a letter from DP&E (dated 13/07/2016) was sighted which states that no consultation is required for revision of certain plans.</p> <p>These plans are: the Blast Management plan; Blast fume management plan; Energy savings plan; EMS; Landscape management plan; BioMP; Rehabilitation management plan and Greenhouse Gas Management Plan.</p>	<p>Letter to DP&E (dated 24/08/2016) RE: revised BioMP August 2016</p> <p>Letter from DP&E (dated 03/08/2018) RE: Secretary approval of revised BioMP</p> <p>Letter from DP&E (dated 13/07/2016) RE: Consultation exceptions of specific management plan revisions.</p>	There are no recommendations
PA05_0117	3	36	<p>Biodiversity Management Plan 36. The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must: (b) 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 areas; • minimise biodiversity impacts of the project; and • implement the biodiversity offset strategy, including detailed performance and completion criteria; 	C	<ul style="list-style-type: none"> • This is covered in sections 4 (Vegetation clearance protocol), 5 (Collection and use of locally sourced native seeds and supplementary tube stock planting), 6 (Strategies to manage vegetation onsite and improve vegetation connectivity), 7 (Additional Biodiversity Management Measures), 8 (Biodiversity Monitoring program) and 9 (Biodiversity Offset Strategy) of the BioMP. Additionally Management Actions and Performance Targets for short term (1-3 years), Medium term (6-9 years) and Long-term Targets (complex completion) is covered in Section 10 (Table 4). • This is covered in section 6, section 7, section 8 and section 9 of the BioMP. • The biodiversity offset strategy is covered in section 9 of the BioMP, performance measures are covered in section 10 and completion criteria are detailed in Table 4. <p>During the audit a letter to DP&E (dated 24/08/2016) from MCO was sighted which submitted a revised BioMP (BioMP August 2016) to DP&E. The responding letter from DP&E was also sighted (letter dated 03/08/2018) which stated that the Secretary approves the revised BioMP. The new BioMP approval supersedes the March 2015 approval date.</p>	<p>BioMP</p> <p>Letter to DP&E (dated 24/08/2016) RE: revised BioMP August 2016</p> <p>Letter from DP&E (dated 03/08/2018) RE: Secretary approval of revised BioMP</p>	There are no recommendations
PA05_0117	3	36	<p>Biodiversity Management Plan 36. The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must: (c) include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary);</p>	C	<p>Section 10 (Table 4) describes the management actions, performance targets and completion criteria for the BioMP. Remedial action/ contingency plans are covered in section 11 of the BioMP.</p>	<p>BioMP</p>	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	3	36	<p>Biodiversity Management Plan 36. The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(d) include a detailed description of the measures that would 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 offset areas through focusing on assisted natural regeneration, targeted vegetation establishment and the introduction of naturally scarce fauna habitat features (where necessary); maximising the salvage of resources within the approved disturbance area - including vegetative, soil and cultural heritage resources – for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area; rehabilitating the environmental bunds on site as soon as practicable and maintaining the landscaping on the bunds once it has been established; collecting and propagating seed; minimising the impacts on fauna on site, including undertaking pre-clearance surveys; managing any potential conflicts between the proposed restoration works in the biodiversity areas and any Aboriginal heritage values (both cultural and archaeological); 	Observation	<ul style="list-style-type: none"> This is covered in sections 4 (Vegetation clearance protocol), 5 (Collection and use of locally sourced native seeds and supplementary tube stock planting), 6 (Strategies to manage vegetation onsite and improve vegetation connectivity) and 7 (Additional Biodiversity Management Measures). The plan states that subsequent revisions of this BioMP will incorporate the Biodiversity Offset Strategy requirements under Condition 36, Schedule 3 of PA05_0117 and Condition 39, Schedule 3 of PA08_0135. A letter from the Secretary (dated 20/07/2015) was sighted during the audit regarding staging of MCOs Biodiversity Management Plan. The letter stated that DP&E approved the staging of the biodiversity management plan which will need to exclude offsets until long term security is approved. As no details about mitigation measures has been provided only a reference to future revision of the BioMP the proponent has not yet complied with this condition. However as a staged approach has been approved the proponent is not non-complaint. <p>The biodiversity offset strategies are covered in PA05_0117 (Appendix 8) and PA08_0135 (Appendix 7).</p> <ul style="list-style-type: none"> This is covered in section 4.2.3 and section 7.6 Rehabilitation of environmental bunds is covered in section 7.1. Collecting and propagating seed is covered in section 5. Pre-clearing surveys are covered in section 4.2 and fauna management is covered in section 4.3. <ul style="list-style-type: none"> The plan states that subsequent revisions of this BioMP will incorporate managing any potential conflicts between the proposed restoration works in the biodiversity areas and any Aboriginal heritage values (both cultural and archaeological). <p>As no details about mitigation measures has been provided only a reference to future revision of the BioMP the proponent has not yet complied with this condition. However as a staged approach has been approved the proponent is not non-complaint.</p>	<p>BioMP</p> <p>PA05_0117</p> <p>PA08_0135</p> <p>DP&E Letter dated 20/07/2015 approved the staged preparation of the Biodiversity Management Plan</p>	Ensure that the updated plan covers all requirements of this Condition and seek approval of DP&E of the updated plan.
			<p>Biodiversity Management Plan 36. The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(d) include a detailed description of the measures that would be implemented for:</p> <ul style="list-style-type: none"> managing salinity; controlling weeds and feral pests; controlling erosion; managing grazing and agriculture on site; controlling access; and bushfire management; 	C	<ul style="list-style-type: none"> Salinity is covered in section 7.2. Weeds and federal pest control is covered in section 7.3. Erosion is covered in section 7.4 and section 7.5. Grazing and agriculture is covered in section 7.6. Access is covered in section 7.7. Bushfire is covered in section 7.8 	BioMP	There are no recommendations
PA05_0117	3	36	<p>Biodiversity Management Plan 36. The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>e) include a seasonally-based program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria;</p>	C	<p>This is covered in section 8 of the BioMP, performance is described in section 10 (table 4). These sections referenced seasonal timeframes such as 'Visual follow-up inspections for weeds undertaken annually in spring'.</p>	BioMP	There are no recommendations
PA05_0117	3	36	<p>Biodiversity Management Plan 36. The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(f) identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate against these risks; and</p>	Observation	<p>Potential risks to the successful implementation of the biodiversity offset strategy and contingency measures are not included in the BioMP but have been included in Section 3.3 (Table 12) of the Landscape Management Plan (LMP).</p> <p>Section 11 of the BioMP provides details of the contingency plan to manage any unprecedented impacts and their consequences.</p> <p>A letter from the Secretary (dated 20/07/2015) was sighted during the audit regarding staging of MCOs Biodiversity Management Plan. The letter stated that DP&E approved the staging of the biodiversity management plan which will need to exclude offsets until long term security is approved.</p> <p>As no details about risks have been provided only a reference to future revision of the BioMP the proponent has not yet complied with this condition. However as a staged approach has been approved the proponent is not non-complaint.</p>	<p>BioMP</p> <p>LMP</p> <p>DP&E Letter dated 20/07/2015 approved the staged preparation of the Biodiversity Management Plan</p>	As part of the approved BioMP staged preparation ensure that the next revision of the plan either addresses the risks directly or references the relevant section(s) of the Land Management Plan.

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	3	36	Biodiversity Management Plan 36. The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must: (g) include details of who would be responsible for monitoring, reviewing, and implementing the plan.	C	Roles and responsibilities are outlined in section 12 of the BioMP	BioMP	There are no recommendations
PA08_0135	3	37	Vegetation Information System Mapping Data 37. At the request of OEH, the Proponent shall provide OEH with detailed vegetation mapping and survey data associated with its lands to be conserved in perpetuity in accordance with this approval. This information is to be provided free of charge.	Not triggered	Not requested from OEH	N/A	There are no recommendations
PA05_0117	3	37	Conservation Bond 37. By 30 June 2015, unless otherwise agreed by the Secretary, the Proponent shall lodge a Conservation Bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan. The sum of the bond shall be determined by: (a) calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and (b) employing a suitably qualified quantity surveyor to verify the calculated costs, to the satisfaction of the Secretary. 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. 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. Notes: • Existing bonds which have been paid for the Redhill's, Area 1, Area 2 and Area 3 biodiversity offset areas remain current and are satisfactory to fulfil the requirements of this condition for those areas; • Alternative funding arrangements for long-term management of the Biodiversity Offset Strategy, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement or transfer to conservation reserve estate can be used to reduce the liability of the conservation and biodiversity bond, and • The sum of the bond may be reviewed in conjunction with any revision to the biodiversity offset strategy.	C	Compliant as per previous IEA	Previous IEA (Trevor Brown & Associates, 2015) - Letter to DP&E RE: Offset Security and Conservation Bond Extension (dated 27/04/2015) - Letter from DP&E RE: Extension of Time for Offset Security and Conservation Bond, (dated 27/04/2015) - Letter to DP&E RE: Status of Conservation Bond (dated 26/11/2015)	There are no recommendations
PA08_0135	3	38	Long Term Security of Offset 38. By the end of June 2015, unless otherwise agreed by the Secretary, the Proponent shall make suitable arrangements to provide appropriate long-term security for the offset areas in Table 15 in perpetuity, in consultation with OEH and to the satisfaction of the Secretary. Note: The preferred mechanisms for the provision of long-term conservation security are via Biobanking Arrangements and additions to the OEH Estate.	C	Refer to audit findings in PA05_0117 schedule 3 condition 35	Refer to audit findings in PA05_0117 schedule 3 condition 35	Refer to audit findings in PA05_0117 schedule 3 condition 35
PA05_0117	3	38	Protection of Aboriginal Heritage Items 38. Unless otherwise authorised under the NP&W Act, the Proponent shall ensure that the project does not cause any direct or indirect impact on the identified Aboriginal heritage items located outside the approved disturbance area of the project. Note: Identified Aboriginal heritage items are listed in Appendix 9.	Noted	No impacts have been recorded. MCO have followed the conditions in the Due Diligence Code of Practice and completed AHIMs searches and survey work to avoid direct or indirect impact on the identified Aboriginal heritage items located outside the approved disturbance area of the project.	N/A	N/A

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	3	39	<p>Biodiversity Management Plan 39. 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 OEH, and submitted to and approved by the Secretary prior to the commencement of any development on site; (b) describe the short, medium, and long term measures that would be implemented to: • manage the remnant vegetation and fauna habitat on the site; and • implement the biodiversity offset strategy; • integrate the implementation of the biodiversity offset strategy to the greatest extent practicable with the rehabilitation of the site; (c) include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary);</p>	C	Refer to audit findings in PA05_0117 schedule 3 condition 36	Refer to audit findings in PA05_0117 schedule 3 condition 36	Refer to audit findings in PA05_0117 schedule 3 condition 36
PA08_0135	3	39	<p>Biodiversity Management Plan 39. The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(d) include a detailed description of the measures that would be implemented over the next 3 years for:</p> <ul style="list-style-type: none"> • enhancing the quality of existing vegetation and fauna habitat in the biodiversity offset areas; • creating native vegetation and fauna habitat in the biodiversity offset areas and rehabilitation area through focusing on assisted natural regeneration, targeted vegetation establishment and the introduction of naturally scarce fauna habitat features (where necessary); • maximising the salvage of resources within the approved disturbance area - including vegetative and soil resources – for beneficial reuse in the enhancement of the biodiversity offset areas or rehabilitation area; • collecting and propagating seed; • protecting vegetation and fauna habitat outside the approved disturbance area on-site; • minimising the impacts on fauna on site, including undertaking pre-clearance surveys; • managing any potential conflicts between the proposed enhancement works in the biodiversity offset strategy areas and any Aboriginal heritage values (both cultural and archaeological) in these areas; • managing salinity; • controlling weeds and feral pests; • controlling erosion; • managing grazing and agriculture on site; • controlling access; and • bushfire management; 	C	Refer to audit findings in PA05_0117 schedule 3 condition 36	Refer to audit findings in PA05_0117 schedule 3 condition 36	Refer to audit findings in PA05_0117 schedule 3 condition 36
PA08_0135	3	39	<p>Biodiversity Management Plan 39. The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(e) include a seasonally-based program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria; (f) identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate against these risks; and (g) include details of who would be responsible for monitoring, reviewing, and implementing the plan.</p>	C	Refer to audit findings in PA05_0117 schedule 3 condition 36	Refer to audit findings in PA05_0117 schedule 3 condition 36	Refer to audit findings in PA05_0117 schedule 3 condition 36
PA05_0117	3	39	<p>Heritage Management Plan 39. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary within six (6) months from the date of approval for MOD 9. This plan must: (a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;</p>	C	<p>A Heritage Management Plan (HMP) has been prepared for the project. Section 1.2 of the HMP states that: <i>'Heritage Management Plan (HMP) has been prepared on behalf of MCO by Dr Andrew Sneddon and Dr Matthew Whincop of the University of Queensland Culture and Heritage Unit (whose appointment has been approved by the NSW Department of Planning & Environment [DP&E] [letter dated 11/02/2015] as "suitably qualified and experienced persons", to satisfy the requirements under Project Approval (05_0117) (Moolarben Coal Project Stage 1) (as modified) and Project Approval (08_0135) (Moolarben Coal Project Stage 2) (as modified)'. The letter from DP&E endorsing Dr Andrew Sneddon and Dr Matthew Whincop (dated 11/02/2015) was sighted during the audit.</i></p> <p>Section 1.4 of the HMP states that <i>'HMP has been provided to the NSW Office of Environment and Heritage (OEH) and the Registered Aboriginal Parties (RAPs) for their review and comment. Comments received within the specific time period were considered during finalisation of the HMP and prior to lodgement with the Secretary of the DP&E for approval'.</i> A letter from DP&E approving the HMP (dated 24/10/2017) was sighted during the audit.</p>	<p>HMP Letter from DP&E RE: Endorsement of suitably qualified professionals (dated 11/02/2015) Letter from DP&E RE: approval of revised HMP (September 2017 revision) (dated 24/10/2017)</p>	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	3	39	<p>Heritage Management Plan</p> <p>39. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary within six (6) months from the date of approval for MOD 9. This plan must:</p> <p>(b) be prepared in consultation with OEI and the Aboriginal stakeholders (in relation to the management of Aboriginal heritage values);</p>	C	<p>Section 1.4 of the HMP states that 'HMP has been provided to the NSW Office of Environment and Heritage (OEI) and the Registered Aboriginal Parties (RAPs) for their review and comment. Comments received within the specific time period were considered during finalisation of the HMP and prior to lodgement with the Secretary of the DP&E for approval'.</p> <p>MCO send the HMP to OEI and the RAPs in September 2016 (letter dated 21/09/2016) and received a response from OEI August 2017 which stated that OEI "were unable to provide further comment on the HMP".</p> <p>Written correspondence from the RAPs were received in September 2016. Section 5.1.1 (table 4) of the HMP provides a list of the RAPs contacted.</p>	<p>HMP</p> <p>Letter from MCO to OEI and RAPs RE: HMP consultation (dated 21/09/2016)</p> <p>Letter from OEI RE: comment on the HMP (dated 14/08/2017)</p>	There are no recommendations
PA05_0117	3	39	<p>Heritage Management Plan</p> <p>39. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary within six (6) months from the date of approval for MOD 9. This plan must:</p> <p>(c) include results of further archaeological survey of the 10 hectares of land (as identified on Figure 10 of Appendix F of the EA) that has not been surveyed, and any land adjacent to the open cut mines that has not been surveyed and may be subject to blasting impacts;</p>	C	<p>Appendix C of the HMP provides a summary of archaeological investigations at the Moolarben Coal Complex including the AECOM Due Diligence surveys (2015) which involved survey and assessment of the land adjacent to Open Cut 1 and Open Cut 2 in accordance with Condition 39(c) of the Stage 1 Project Approval (05_0117).</p> <p>Appendix D of the HMP provides a summary of management commitments for Aboriginal Archaeological sites</p>	<p>HMP</p> <p>AECOM Report: Aboriginal Archaeological Due Diligence Assessment for Moolarben Coal Project Stage 2 Mod 9 Project Approval, 12 May 2015</p>	There are no recommendations
PA05_0117	3	39	<p>Heritage Management Plan</p> <p>39. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary within six (6) months from the date of approval for MOD 9. This plan must:</p> <p>(d) include the following for the management of Aboriginal Heritage:</p> <ul style="list-style-type: none"> a detailed archaeological test excavation and potential salvage program for site S1MC331; a detailed archaeological test excavation and potential salvage program for sites S1MC343 and S1MC344, if it is determined by a qualified archaeologist that these sites may be subject to impacts associated with blasting; 	C	<ul style="list-style-type: none"> This is covered in Appendix A which states that: 'In accordance with Stage 1 Project Approval (05_0117), sites S1MC343 and S1MC344 have been subject to detailed test excavation and salvage'. This is covered in Appendix A which states that: 'In accordance with Stage 1 Project Approval (05_0117), salvage and test excavation was attempted at sites S1MC345 and S1MC352 however it was determined by a suitably qualified archaeologist that there was no suitable deposit to test, and the sites were considered unlikely to contact in tact and in situ deposits (AECOM, 2015). This condition is considered to be satisfied'. <p>The HMP has been prepared on behalf of by suitably qualified and experienced professional endorsed by DP&E.</p>	<p>HMP</p> <p>AECOM Report: Aboriginal Archaeological Due Diligence Assessment for Moolarben Coal Project Stage 2 Mod 9 Project Approval, 12 May 2015</p>	There are no recommendations
PA05_0117	3	39	<p>Heritage Management Plan</p> <p>39. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary within six (6) months from the date of approval for MOD 9. This plan must:</p> <p>(d) include the following for the management of Aboriginal Heritage:</p> <ul style="list-style-type: none"> a description of the measures that would be implemented for: <ul style="list-style-type: none"> protecting, monitoring and/or managing the heritage sites/items identified in Appendix 9 (non-Aboriginal Heritage) and any sites identified during the surveys required in (c) above; conserving the sites outside the surface disturbance area, including measures that would be implemented to secure, analyse and record the sites at risk of subsidence and/or blasting; managing the discovery of any human remains or previously unidentified Aboriginal objects on site; maintaining and managing reasonable access for Aboriginal stakeholders to heritage items on site; ongoing consultation with the Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage both on site and within any Aboriginal heritage conservation areas; and ensuring any workers on site receive suitable heritage inductions prior to carrying out any development on site, and that suitable records are kept of these inductions; 	C	<ul style="list-style-type: none"> This is covered in section 4 and section 6 of the HMP. Lists of heritage items considered in the HMP are provided in section 4.1 including Table 3. The heritage items covered in the HMP is consistent with those identified in Appendix 10 of Stage 1 PA (05_0117) and Appendix 9 of the Stage 2 (08_0135). This is covered in section 5.8 and 5.9. This is covered in section 5.10 and section 5.11. This is covered in section 5.16. This is covered in section 5.1.3. This is covered in section 7 of the HMP. 	<p>HMP</p>	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	3	39	<p>Heritage Management Plan 39. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary within six (6) months from the date of approval for MOD 9. This plan must:</p> <p>(d) include the following for the management of Aboriginal Heritage:</p> <ul style="list-style-type: none"> a strategy for the storage of any heritage items salvaged on site, both during the project and in the long term; 	C	<ul style="list-style-type: none"> This is covered in section 5.13 of the HMP 	HMP	There are no recommendations
PA05_0117	3	39	<p>Heritage Management Plan 39. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary within six (6) months from the date of approval for MOD 9. This plan must:</p> <p>(e) include a detailed plan for the implementation of the mitigation and management measures outlined for the specified heritage items in Appendix 10, including archival recording, historical research and archaeological assessment prior to any disturbance.</p>	C	This is covered in section 6 of the HMP.	HMP	There are no recommendations
PA08_0135	3	40	<p>Conservation Bond 40. By 31 December 2015, the Proponent shall lodge a Conservation Bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan. The sum of the bond shall be determined by:</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. 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>Notes:</p> <ul style="list-style-type: none"> 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 Bio banking Agreement or transfer to conservation reserve estate can be used to reduce the liability of the conservation and biodiversity bond, and The sum of the bond may be reviewed in conjunction with any revision to the biodiversity offset strategy. 	C	Compliant as per previous IEA and confirmed during this audit.	<p>Previous IEA (Trevor Brown & Associates, 2015)</p> <p>- Letter to DP&E RE: Offset Security and Conservation Bond Extension (dated 27/04/2015)</p> <p>- Letter from DP&E RE: Extension of Time for Offset Security and Conservation Bond, (dated 27/04/2015)</p> <p>- Letter to DP&E RE: Status of Conservation Bond (dated 26/11/2015)</p>	There are no recommendations
PA08_0135	3	41	<p>Protection of Aboriginal Heritage Items 41. Unless otherwise authorised under the NP&W Act, the Proponent shall ensure that the project does not cause any direct or indirect impact on the identified Aboriginal heritage items located outside the approved disturbance area of the project. Note: Identified Aboriginal heritage items are listed in Appendix 8.</p>	Noted	Refer to audit findings in PA05_0117 schedule 3 condition 38	Refer to audit findings in PA05_0117 schedule 3 condition 38	Refer to audit findings in PA05_0117 schedule 3 condition 38
PA08_0135	3	42	<p>Additional Survey 42. Prior to carrying out any development on site, unless the Secretary agrees otherwise, the Proponent shall:</p> <p>(a) carry out additional archaeological survey work in the vicinity of the proposed Stage 2 ROM Coal Facilities in consultation with OEH and Aboriginal stakeholders;</p> <p>(b) undertake a detailed analysis of the significance of the heritage items that are identified during the survey; and</p> <p>(c) recommend measures to avoid and/or mitigate the impacts of the project on these heritage items, to the satisfaction of the Secretary.</p>	C	<p>(a) Appendix C of the HMP provides a summary of archaeological investigations at the Moolarben Coal Complex including the AECOM Due Diligence surveys (2015) which involved survey and assessment of the land adjacent to Open Cut 1 and Open Cut 2.</p> <p>(b) The Aboriginal archaeological due diligence assessment (AECOM 2015) provides an analysis of the heritage items that are identified during the survey.</p> <p>(c) Management of Aboriginal and historic heritage are included in sections 5 and 6 of the HMP. The HMP including mitigation measures has been approved by DP&E. A letter from DP&E approving the HMP (dated 24/10/2017) was sighted during the audit.</p>	<p>(a) HMP AECOM Report: Aboriginal Archaeological Due Diligence Assessment for Moolarben Coal Project Stage 2 Mod 9 Project Approval, 12 May 2015</p> <p>(b) AECOM Report: Aboriginal Archaeological Due Diligence Assessment for Moolarben Coal Project Stage 2 Mod 9 Project Approval, 12 May 2015</p> <p>(c) Letter from DP&E RE: approval of revised HMP (September 2017 revision) (dated 24/10/2017)</p>	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation												
PA08_0135	3	43	43. Within 12 months of the date of this approval, unless the Secretary agrees otherwise, the Proponent shall carry out a detailed investigation into the Aboriginal cultural heritage values of the southern portion of the Dun Dun East biodiversity offset area (Lot 79, DP 704159), in the vicinity of Pyramul Creek, in consultation with OEH and Aboriginal stakeholders, and to the satisfaction of the Secretary.	C	Appendix C of the HMP provides a summary of archaeological investigations at the Moolarben Coal Complex including the Niche Aboriginal Cultural Heritage Values assessment (2016) which involves survey and assessment of the land in accordance with condition 43, Schedule 3 of the Stage 2 Project Approval (08_0135). Section 4 of the Aboriginal Cultural Heritage Values Assessment (Niche Environment and Heritage, 29 February 2016) details consultation undertaken with the Registered Aboriginal Parties (RAPs), invited stakeholders, participation in the survey and comments from the RAPs. A letter to OEH regarding the investigation of the Dun Dun East biodiversity offset area (dated 27/11/2015) was sighted during the audit. Management advised that at present they have not received a response from OEH.	Niche Report: Dun Dun East Biodiversity Offset Area, Hargraves NSW: Aboriginal Cultural Heritage Values Assessment (Niche Environment and Heritage, 29 February 2016). Letter to OEH RE: Dun Dun East investigation (dated 27/11/2015)	There are no recommendations												
PA08_0135	3	44	Heritage Conservation Area 44. The Proponent shall implement the heritage conservation strategy described in the EA, summarised in Table 16 and shown conceptually in Appendix 8, to the satisfaction of the Secretary. Table 16: Summary of Heritage Conservation Strategy <i>Table 16: Summary of the Heritage Conservation Strategy</i> <table border="1"> <thead> <tr> <th>Area</th> <th>Sites</th> <th>Minimum Size hectares (ha)</th> </tr> </thead> <tbody> <tr> <td>Murrumbidgee Creek Management Area</td> <td>40 sites - 5 of high significance, 6 of medium and 29 of low</td> <td>154</td> </tr> <tr> <td>Powers Conservation Area</td> <td>10 sites - 1 of high significance, 2 of medium and 7 of low significance</td> <td>63</td> </tr> <tr> <td>Red Hills Conservation Area</td> <td>42 sites - 2 of high significance, 9 of medium and 31 of low significance</td> <td>107</td> </tr> </tbody> </table> Note: To identify the areas referred to in Table 16, see the applicable figures in Appendix 8.	Area	Sites	Minimum Size hectares (ha)	Murrumbidgee Creek Management Area	40 sites - 5 of high significance, 6 of medium and 29 of low	154	Powers Conservation Area	10 sites - 1 of high significance, 2 of medium and 7 of low significance	63	Red Hills Conservation Area	42 sites - 2 of high significance, 9 of medium and 31 of low significance	107	C	Section 5.2 (Table 5 and Figure 3) of the HMP details the Heritage conservation areas which are consistent with Table 16 of PA08_0135. All three items are located within biodiversity conservation and heritage areas which have been surveyed and areas clearly signposted and fenced. During the audit inspection the heritage conservation area was viewed.	HMP Site inspection	There are no recommendations
Area	Sites	Minimum Size hectares (ha)																	
Murrumbidgee Creek Management Area	40 sites - 5 of high significance, 6 of medium and 29 of low	154																	
Powers Conservation Area	10 sites - 1 of high significance, 2 of medium and 7 of low significance	63																	
Red Hills Conservation Area	42 sites - 2 of high significance, 9 of medium and 31 of low significance	107																	
PA08_0135	3	45	Long Term Security of Heritage Conservation Area 45. Within 18 months of approval of the Heritage Management Plan, unless the Secretary agrees otherwise, the Proponent shall make suitable arrangements to protect the heritage conservation areas in Table 16 in perpetuity to the satisfaction of the Secretary. <i>Table 16: Summary of the Heritage Conservation Strategy</i> <table border="1"> <thead> <tr> <th>Area</th> <th>Sites</th> <th>Minimum Size hectares (ha)</th> </tr> </thead> <tbody> <tr> <td>Murrumbidgee Creek Management Area</td> <td>40 sites - 5 of high significance, 6 of medium and 29 of low</td> <td>154</td> </tr> <tr> <td>Powers Conservation Area</td> <td>10 sites - 1 of high significance, 2 of medium and 7 of low significance</td> <td>63</td> </tr> <tr> <td>Red Hills Conservation Area</td> <td>42 sites - 2 of high significance, 9 of medium and 31 of low significance</td> <td>107</td> </tr> </tbody> </table> Notes: • The location of the conservation areas are shown in the figure in Appendix 8. • The protection of the Aboriginal heritage conservation area/s may be combined with the protection of the biodiversity offset areas required under condition 30 of this approval.	Area	Sites	Minimum Size hectares (ha)	Murrumbidgee Creek Management Area	40 sites - 5 of high significance, 6 of medium and 29 of low	154	Powers Conservation Area	10 sites - 1 of high significance, 2 of medium and 7 of low significance	63	Red Hills Conservation Area	42 sites - 2 of high significance, 9 of medium and 31 of low significance	107	C	Section 5.2 (Table 5 and Figure 3) of the HMP details the Heritage conservation areas which are consistent with Table 16 of PA08_0135. In addition to the items listed in Table 16, MCO has identified two additional management areas: 1) Underground 2 Rock Shelter Management Area; and 2) Bora Creek Management Area. MCO will seek to minimise the risk of damage to Aboriginal archaeological sites across the Moolarben Coal Complex by promoting an awareness of heritage conservation areas via the induction process combined with restricting access to the heritage conservation areas. Additionally some heritage conservation areas will be fenced and the areas are clearly signposted. Management of the heritage conservation areas will include: - Erection of signs in the vicinity of each heritage conservation area that states that the area is sensitive and that unauthorised access is prohibited. - Access to each heritage conservation area will be restricted by appropriate means (e.g. access will be required to be authorised by the Environment and Community Manager or delegate). - The prohibition of unauthorised entry (e.g. entry will be allowed for actions described in this HMP and for works associated with the management of the biodiversity offsets). - The prohibition of all ground disturbance without consultation of this HMP. - The inclusion of heritage conservation areas within the cultural awareness training and site inductions. - Ongoing consultation with the RAPs in the conservation and management of Aboriginal cultural heritage within the heritage conservation areas. Signage and restricted access arrangements were observed during the site inspection. DP&E approved an extension for obtaining the heritage security mechanism. The letter stated that the Secretary approves an extension to March 2019. Letter dated 16/07/2018. Letter viewed during the audit.	HMP Letter from DP&E RE: Extension of Time for Security mechanisms (dated 27/04/2015)	There are no recommendations
Area	Sites	Minimum Size hectares (ha)																	
Murrumbidgee Creek Management Area	40 sites - 5 of high significance, 6 of medium and 29 of low	154																	
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PA08_0135	3	46	Heritage Management Plan 46. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must: (a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;	C	Refer to audit findings in PA05_0117 schedule 3 condition 39	Refer to audit findings in PA05_0117 schedule 3 condition 39	Refer to audit findings in PA05_0117 schedule 3 condition 39												
PA08_0135	3	46	Heritage Management Plan 46. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must: (b) be prepared in consultation with OEH and the Aboriginal stakeholders (in relation to the management of Aboriginal heritage values);	C	Refer to audit findings in PA05_0117 schedule 3 condition 39	Refer to audit findings in PA05_0117 schedule 3 condition 39	Refer to audit findings in PA05_0117 schedule 3 condition 39												
PA08_0135	3	46	Heritage Management Plan 46. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must: (c) be submitted to and approved by the Secretary prior to construction, unless the Secretary agrees otherwise;	C	Section 1.4 of the HMP states that 'HMP has been provided to the NSW Office of Environment and Heritage (OEH) and the Registered Aboriginal Parties (RAPs) for their review and comment. Comments received within the specific time period were considered during finalisation of the HMP and prior to lodgement with the Secretary of the DP&E for approval'. A letter from DP&E approving the HMP (dated 24/10/2017) was sighted during the audit.	HMP Letter from OEH RE: comment on the HMP (dated 14/08/2017)	There are no recommendations												

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	3	46	<p>Heritage Management Plan 46. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(d) include a description of the measures that would be implemented for:</p> <ul style="list-style-type: none"> managing the discovery of human remains or previously unidentified heritage items on site; and ensuring any workers on site receive suitable heritage inductions prior to carrying out any development on site, and that suitable records are kept of these inductions; 	C	Refer to audit findings in PA05_0117 schedule 3 condition 39	Refer to audit findings in PA05_0117 schedule 3 condition 39	Refer to audit findings in PA05_0117 schedule 3 condition 39
PA08_0135	3	46	<p>Heritage Management Plan 46. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(e) include the following for the management of Aboriginal Heritage:</p> <ul style="list-style-type: none"> a detailed plan of management for the Murrumbidgee Creek, Red Hills and Powers conservation areas; a description of the measures that would be implemented for: <ul style="list-style-type: none"> protecting, monitoring and/or managing (including any proposed archaeological investigations and/or salvage measures) the heritage items identified in the tables in Appendix 8; managing the discovery of previously unidentified Aboriginal items on site; conserving the sites outside the surface disturbance area (see Appendix 8), including measures that would be implemented to secure, analyse and record the sites at risk of subsidence; maintaining and managing reasonable access for Aboriginal stakeholders to heritage items on site and within any Aboriginal heritage conservation areas; ongoing consultation with the Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage both on site and within any Aboriginal heritage conservation areas; and a strategy for the storage of any heritage items salvaged on site, both during the project and in the long term; 	C	Refer to audit findings in PA05_0117 schedule 3 condition 39	Refer to audit findings in PA05_0117 schedule 3 condition 39	Refer to audit findings in PA05_0117 schedule 3 condition 39
PA08_0135	3	46	<p>Heritage Management Plan 46. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(f) include a detailed plan for the implementation of the mitigation and management measures outlined for the specified heritage items in Appendix 9, including archival recording, historical research and archaeological assessment prior to any disturbance.</p>	C	Refer to audit findings in PA05_0117 schedule 3 condition 39	Refer to audit findings in PA05_0117 schedule 3 condition 39	Refer to audit findings in PA05_0117 schedule 3 condition 39
PA08_0135	3	47	<p>Ulan Road Strategy 47. The Proponent shall:</p> <p>(a) work with Council and the owners of the Ulan and Wilpinjong mines to develop a detailed plan for the implementation of the Ulan Road Strategy; and</p> <p>(b) make financial contributions towards the implementation of this detailed plan, in accordance with the requirements in the plan, with its share of the mining companies' contribution for implementation of the strategy to be proportionate to its share of mining-related traffic to be generated on the road during the life of the strategy.</p> <p>If there is any dispute between the various parties involved in either the development of the detailed plan or the implementation of the strategy, then any of the parties may refer the matter to the Secretary for resolution.</p>	C	<p>(a) Moolarben Coal, Mid-Western Regional Council and the owners of the Ulan and Wilpinjong mines agreed to develop a detailed plan for the implementation of the Ulan Road Strategy. The agreement 'Deed of Agreement - Funding and delivery of Ulan Road upgrade and maintenance' (dated July 2014) was viewed during the audit.</p> <p>(b) A Deed of Agreement for Funding and Delivery of the Ulan Road Upgrade was signed by Moolarben Coal, Ulan Coal, Wilpinjong Coal and the Mid-Western Regional Council in July 2014. In accordance with the agreement 2 financial instalments will be made per year. Invoices were sighted for contributions to Road Upgrade as stipulated in this condition (Invoice No 18 1995, dated 22/01/2018). The invoice was for: Capital works (\$330, 255.33) and Maintenance (\$110,051.83).</p>	<p>Deed of Agreement - Funding and delivery of Ulan Road upgrade and maintenance (July 2014)</p> <p>Invoice for Ulan Road Upgrade (Invoice number: 18 1995)</p>	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	3	48	Ulan-Wollar Road Site Access 48. The Proponent shall design, construct, and maintain the site access intersection off Ulan-Wollar Road to the satisfaction of Council.	C	Ulan-Wollar Road Site Access was designed and constructed during the previous audit period and was constructed through Council by Council approved contractors. The Council agreement was sighted during the audit. The auditor observed that the site access intersection off Ulan Wollar Road was well maintained.	Site inspection	There are no recommendations
PA08_0135	3	49	Cope Road Maintenance 49. The Proponent shall pay Council \$480,000 (in 2013 dollar value) for the maintenance of Cope Road. This payment must be: (a) made in 4 instalments of \$120,000 over the first four years of mining operations, with the first payment to be made on the commencement of mining operations on site; (b) indexed in accordance with the CPI for the previous quarter.	C	Invoices were sighted for contributions to maintenance of Cope Road as stipulated in this condition (Invoice No 18 2077, dated 15/02/2018). The invoice was for: Stage 2 Cope Road maintenance (\$126,720)	Invoice for Cope Road Maintenance (Invoice number: 18 2077)	There are no recommendations
PA08_0135	3	50	Visual 50. The Proponent shall: (a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the project;	C	(a) The Environment Management Strategy states the following as mitigation measures: Visual <i>'Trees and shrubs will be planted to provide a visual screen along Cope Road and Saddlers Creek Road. Investigating the feasibility of targeted vegetation screen planting for affected properties along Ridge Road'</i> <i>Building-up out-of-pit embankments first so that continued operations are obscured by the embankment. Seeding and grassing embankment outer faces visually exposed to private residents as soon as practically possible to soften the view</i> Lighting <i>As far as practically possible, and where mine safety allows, management protocols will be established and implemented to:</i> <i>- Locate mobile lighting plant to be directed away from private residences.</i> <i>- Direct stationary lighting sources below the horizontal to minimise potential light spill.</i> <i>- Design lighting systems that minimise light spillage.</i> <i>- Avoid lighting of light coloured surfaces that have greater reflectivity.</i> Visual and lighting measures including visual screening along Ulan Road was observed during the site inspection The Community Complaints Register Summary for 2016,2017 and 2018 did not list any complaints for visual impacts or lighting impacts.	Environmental Management Strategy Manual: Position and Set up Mobile Lighting (Surface) Site inspection Community Complaints Register Summary 2016, 2017, 2018	There are no recommendations
PA08_0135	3	50	Visual 50. The Proponent shall: (b) ensure no fixed outdoor lights shine above the horizontal or above the building line or any illuminated structure;	C	This condition is regulated through MCO's Manual: <i>Position and Set up Mobile Lighting (Surface)</i> which was sighted during the audit and observed during the site inspection.	Manual: Position and Set up Mobile Lighting (Surface) Site inspection	There are no recommendations
PA08_0135	3	50	Visual 50. The Proponent shall: (c) ensure no in-pit mobile lighting rigs shine above the pit wall and other mobile lighting rigs do not shine above the horizontal;	C	This condition is regulated through MCO's Manual: <i>Position and Set up Mobile Lighting (Surface)</i> which was sighted during the audit and observed during the site inspection.	Manual: Position and Set up Mobile Lighting (Surface) Site inspection	There are no recommendations
PA08_0135	3	50	Visual 50. The Proponent shall: (d) ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting, or its latest version;	C	This condition is regulated through MCO's Manual: <i>Position and Set up Mobile Lighting (Surface)</i> which was sighted during the audit and observed during the site inspection. The Manual states that ' <i>prior to proceeding with work activities.... compliance with standards and safety regulations should be considered</i> '. External lighting complies with Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting	Manual: Position and Set up Mobile Lighting (Surface) Site inspection	There are no recommendations
PA08_0135	3	50	Visual 50. The Proponent shall: (e) provide for the establishment of trees and shrubs and/or the construction of mounding or bunding to minimise visual and lighting impacts on the Proponent's land adjoining public roads with views of the site;	C	Trees and shrubs have been planted to provide a visual screen where views of OC1 extension areas are visible to passing traffic or residences Visual screening along Ulan Road was observed during the site inspection. The Environment Management Strategy (EMS) states the following as mitigation measures: <i>- Trees and shrubs will be planted to provide a visual screen along Cope Road and Saddlers Creek Road.</i> <i>- Building-up out-of-pit embankments first so that continued operations are obscured by the embankment.</i> <i>- Seeding and grassing embankment outer faces visually exposed to private residents as soon as practically possible to soften the view.</i> Haul roads on the Moolarben Coal Complex site have been developed behind earthen bunds or out-of-pit emplacement where practicable. Out-of-pit embankments are build first so that operations are obscured by the embankment. Seeding and grassing embankment outer faces visually exposed to private residents as soon as practically possible to soften the view. This was observed during the site inspection. Investigation for targeted vegetation screening is covered in section 4.8 of the RMP. Progressive rehabilitation is covered in section 4.8 of the RMP.	RMP EMS Site inspection	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	3	50	<p>Visual</p> <p>50. The Proponent shall: (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.</p>	C	<p>During the site inspection the Auditor assessed the visual impact of the above ground infrastructure visible from Ulan Road or adjacent residences. The above ground infrastructure is generally located behind vegetated areas along Ulan Road, but is visible from residences in the vicinity of Ulan village. The visible infrastructure is in the auditor's opinion compliant with this condition.</p>	<p>Site inspection</p>	There are no recommendations
PA08_0135	3	51	<p>Bushfire Management</p> <p>51. The Proponent shall: (a) ensure that the project is suitably equipped to respond to any fires on site; and (b) assist the RFS and emergency services as much as practicable if there is a fire in the vicinity of the site.</p>	C	<p>(a) Section 4.5 of the Bushfire Management Plan details the fire fighting resources owned and maintained by MCO. This includes: - Cat 1 bushfire fighting tanker equivalent trucks (which includes 3000L water tank, fire trailer and breathing apparatus etc) - Fire reels and extinguishers - Three large graders - Six dozers Photo graphic evidence of firefighting equipment and maintenance records for equipment was provided by MCO In addition to equipment training is also provided to the Emergency Response Team (ERT) to ensure they are suitably equipped to respond to fires. The auditor viewed the Training Needs Analysis document (dated 16/03/2018) which identifies training required for the Emergency Response Team (ERT). Training identified includes but is not limited to: a basic fire overview; prepare equipment for emergency response; undertake vertical rescue; operate breathing apparatus and conduct fire team operations.</p> <p>(b) MCO assists the local RFS and Emergency services through training, drills and response to incidents. the ERT attended fires with the RFS in the vicinity of MCO (Moolarben Road). Photo graphic evidence of RPS Training Day at Moolarben Coal Mine was provided. Email (dated 22/10/2018) provides evidence of MCO participation in a scenario drill with local emergency services.</p> <p>During the audit an email from NSW RFS was viewed (dated 10/02/2017) thanking MCO for their assistance with a fire. Two Cat 1 trucks and 7 ERT team members were present. This email shows MCO attendance at fires with the RFS in the vicinity of MCO.</p> <p>A number of the ERT members are associated with the Cook's Gap Brigade or other brigades The auditors also viewed email evidence that MCO assisted NSW National Parks and Wildlife Services (NPWS) to clear escape routes in the hazard reduction burn area on MCO land.</p>	<p>(a) Bushfire Management Plan Photo graphic evidence of firefighting equipment was provided Routine Work Order (Maintenance) (dated 15/11/18) MCO – Skills (Training Needs Analysis) (dated 16/03/2018)</p> <p>(b) Photo graphic evidence of RPS Training Day at Moolarben Coal Mine was provided.</p> <p>Email chain between MCO and Emergency Management Officer Dubbo Police station (22/10/2018)</p> <p>Email from NSW RFS (dated 10/02/2017) RE: MCO assistance with a fire</p> <p>Management assertion</p> <p>Email from NPWS (7/04/2016) RE assistance clearing escape routes</p>	There are no recommendations
PA08_0135	3	52	<p>Waste</p> <p>52. 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 effectiveness of the waste minimisation and management measures in the Annual Review.</p>	NC	<p>(a) The 2017 Annual report states that MCO maintains Total Integrated Waste Management Service to manage waste streams generated onsite and to maximise the levels of recycling. Dewatered coal fines (rejects) are disposed of back into the completed pit (there is no tailings dam associated with this operation).</p> <p>(b) Section 2.3.6 of the MOP states that: '<i>All general domestic waste (e.g. general solid [putrescibles] and general solid [non-putrescible] waste as defined in Waste Classification Guidelines Part 1: Classifying Waste [EPA, 2014]) and general recyclable products will continue to be collected by an appropriately licensed contractor</i>'. During the site inspection the auditor observed colour coded and signed waste receptacles for the following waste streams: general waste; paper and cardboard; scrap steel; empty drums; oil filters and oily rags; hydraulic hoses; chemical anchors; timber bin and waste grease. During the site inspection it was confirmed that waste oil and grease is stored in a bunded storage area the auditor also observed flammable liquid cabinets with appropriate separation and bunding.</p> <p>(c) The 2016 Annual Review did not report on the effectiveness of waste minimisation. However section 6.8 'Waste Management' of the 2017 Annual Review contained waste data from 2012 to 2017 and provided comments on the effectiveness of waste minimisation and management measures.</p> <p>The 2018 Annual Review had not been prepared at the time of the audit.</p>	<p>(a) Annual Review 2017</p> <p>(b) MOP Site observations</p> <p>(c) Annual Reviews 2016 and 2017</p>	Whilst the requirement for PA08_0135 Schedule 3 Condition 52 (c) was not met in the 2016 report MCO have since included this waste minimisation and management reporting in their Annual Reviews. As such there are no recommendations.

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation														
PA08_0135	3	53	<p>Rehabilitation Objectives</p> <p>53. 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 depicted conceptually in the figures in Appendix 10), and comply with the objectives in Table 17.</p> <p><i>Table 17: Rehabilitation Objectives</i></p> <table border="1"> <thead> <tr> <th>Feature</th> <th>Objective</th> </tr> </thead> <tbody> <tr> <td>Mine site (as a whole)</td> <td> <ul style="list-style-type: none"> Safe, stable and non-polluting; Constructed landforms drain to the natural environment (excluding final voids); and Minimise visual impact of final landforms as far as is reasonable and feasible. Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems that is compatible with the conservation values of the adjacent Mungahorn Gap Nature Reserve and Goulburn River National Park, that is comprised of: <ul style="list-style-type: none"> 1502 ha of open woodland including Grey Box – Narrow-leaved Ironbark shrubby woodland on hills of the Hunter Valley, North Coast and Sydney Basin; Scribbly Gum – Brown Bloodwood woodland of the southern Brigalow Belt South; Rough-barked Apple – Coast Banksia shrubby woodland on Warkworth Sands of the central Hunter Valley, Sydney Basin; and White Box Yellow Box Blakely's Red Gum Woodland (EEC); aquatic habitat areas (within the diverted creek lines and retained water features); habitat for threatened fauna species; and wildlife corridors. </td> </tr> <tr> <td>Final Voids</td> <td> <ul style="list-style-type: none"> Minimise the size and depth of final voids so far as is reasonable and feasible, subject to meeting the objectives below Minimise the drainage catchment of the final void so far as is reasonable and feasible; Negligible high wall instability risk; The size and depth of the final voids must be designed having regard to their function as long-term groundwater sinks, to ensure that groundwater flows across the back-filled pit towards the final void; and Minimise risk of flood interaction for all flood events up to and including the Probable Maximum Flood level. </td> </tr> <tr> <td>Water quality</td> <td> <ul style="list-style-type: none"> Water retained on site is fit for the intended land use (s) for the post-mining domain(s) The potential ecological, hydrological and geomorphic impacts from post-mining water discharges on receiving creeks are assessed and appropriate mitigation measures are effectively implemented as part of the closure plan. </td> </tr> <tr> <td>Surface infrastructure</td> <td> <ul style="list-style-type: none"> To be decommissioned and removed, unless the Secretary Industry agrees otherwise. </td> </tr> <tr> <td>Degraded riparian areas along Wilpinjong Creek and along Murrumbidgee and Eastern Creeks downstream of the mined areas to the boundary of the Wilpinjong mine.</td> <td> <ul style="list-style-type: none"> Restore channel stability; Restore riparian and aquatic ecosystem function; and Include compensatory aquatic habitat areas. </td> </tr> <tr> <td>Community</td> <td> <ul style="list-style-type: none"> Ensure public safety; and Minimise adverse socio-economic effects associated with mine closure. </td> </tr> </tbody> </table>	Feature	Objective	Mine site (as a whole)	<ul style="list-style-type: none"> Safe, stable and non-polluting; Constructed landforms drain to the natural environment (excluding final voids); and Minimise visual impact of final landforms as far as is reasonable and feasible. Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems that is compatible with the conservation values of the adjacent Mungahorn Gap Nature Reserve and Goulburn River National Park, that is comprised of: <ul style="list-style-type: none"> 1502 ha of open woodland including Grey Box – Narrow-leaved Ironbark shrubby woodland on hills of the Hunter Valley, North Coast and Sydney Basin; Scribbly Gum – Brown Bloodwood woodland of the southern Brigalow Belt South; Rough-barked Apple – Coast Banksia shrubby woodland on Warkworth Sands of the central Hunter Valley, Sydney Basin; and White Box Yellow Box Blakely's Red Gum Woodland (EEC); aquatic habitat areas (within the diverted creek lines and retained water features); habitat for threatened fauna species; and wildlife corridors. 	Final Voids	<ul style="list-style-type: none"> Minimise the size and depth of final voids so far as is reasonable and feasible, subject to meeting the objectives below Minimise the drainage catchment of the final void so far as is reasonable and feasible; Negligible high wall instability risk; The size and depth of the final voids must be designed having regard to their function as long-term groundwater sinks, to ensure that groundwater flows across the back-filled pit towards the final void; and Minimise risk of flood interaction for all flood events up to and including the Probable Maximum Flood level. 	Water quality	<ul style="list-style-type: none"> Water retained on site is fit for the intended land use (s) for the post-mining domain(s) The potential ecological, hydrological and geomorphic impacts from post-mining water discharges on receiving creeks are assessed and appropriate mitigation measures are effectively implemented as part of the closure plan. 	Surface infrastructure	<ul style="list-style-type: none"> To be decommissioned and removed, unless the Secretary Industry agrees otherwise. 	Degraded riparian areas along Wilpinjong Creek and along Murrumbidgee and Eastern Creeks downstream of the mined areas to the boundary of the Wilpinjong mine.	<ul style="list-style-type: none"> Restore channel stability; Restore riparian and aquatic ecosystem function; and Include compensatory aquatic habitat areas. 	Community	<ul style="list-style-type: none"> Ensure public safety; and Minimise adverse socio-economic effects associated with mine closure. 	C	<p>The Rehabilitation Management Plan is incorporated into the following sections of the MOP: Section 5 (Rehabilitation Planning and Management), Section 7 (Rehabilitation implementation) and Section 8 (Rehabilitation monitoring and research).</p> <p>The objectives outlined in Table 13 of the Project Approval (PA05_0117) are included in section 2.1.3 ('Rehabilitation Objectives') of the Rehabilitation Management Plan (RMP). The objectives outlined in Table 17 of the Project Approval (PA08_0135) are also included in section 2.1.3 of the RMP.</p> <p>The objectives outlined in Table 13 and Table 17 are included in various sections of the RMP. Appendix B (Table B1) outlines where the rehabilitation objectives defined in Project Approvals (05_0117) and (08_0135) are addressed in the RMP.</p> <p>The 2016 and 2017 Annual reviews report on the progressive rehabilitation on site. The 2018 Annual Review was not available at the time of the audit.</p>	<p>MOP</p> <p>RMP</p> <p>Annual Review 2016; 2017</p>	There are no recommendations
Feature	Objective																				
Mine site (as a whole)	<ul style="list-style-type: none"> Safe, stable and non-polluting; Constructed landforms drain to the natural environment (excluding final voids); and Minimise visual impact of final landforms as far as is reasonable and feasible. Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems that is compatible with the conservation values of the adjacent Mungahorn Gap Nature Reserve and Goulburn River National Park, that is comprised of: <ul style="list-style-type: none"> 1502 ha of open woodland including Grey Box – Narrow-leaved Ironbark shrubby woodland on hills of the Hunter Valley, North Coast and Sydney Basin; Scribbly Gum – Brown Bloodwood woodland of the southern Brigalow Belt South; Rough-barked Apple – Coast Banksia shrubby woodland on Warkworth Sands of the central Hunter Valley, Sydney Basin; and White Box Yellow Box Blakely's Red Gum Woodland (EEC); aquatic habitat areas (within the diverted creek lines and retained water features); habitat for threatened fauna species; and wildlife corridors. 																				
Final Voids	<ul style="list-style-type: none"> Minimise the size and depth of final voids so far as is reasonable and feasible, subject to meeting the objectives below Minimise the drainage catchment of the final void so far as is reasonable and feasible; Negligible high wall instability risk; The size and depth of the final voids must be designed having regard to their function as long-term groundwater sinks, to ensure that groundwater flows across the back-filled pit towards the final void; and Minimise risk of flood interaction for all flood events up to and including the Probable Maximum Flood level. 																				
Water quality	<ul style="list-style-type: none"> Water retained on site is fit for the intended land use (s) for the post-mining domain(s) The potential ecological, hydrological and geomorphic impacts from post-mining water discharges on receiving creeks are assessed and appropriate mitigation measures are effectively implemented as part of the closure plan. 																				
Surface infrastructure	<ul style="list-style-type: none"> To be decommissioned and removed, unless the Secretary Industry agrees otherwise. 																				
Degraded riparian areas along Wilpinjong Creek and along Murrumbidgee and Eastern Creeks downstream of the mined areas to the boundary of the Wilpinjong mine.	<ul style="list-style-type: none"> Restore channel stability; Restore riparian and aquatic ecosystem function; and Include compensatory aquatic habitat areas. 																				
Community	<ul style="list-style-type: none"> Ensure public safety; and Minimise adverse socio-economic effects associated with mine closure. 																				
PA08_0135	3	54	<p>Progressive Rehabilitation</p> <p>54. The Proponent shall rehabilitate the site progressively as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim rehabilitation strategies shall be employed when areas prone to dust generation cannot be permanently rehabilitated. Note: It is accepted that some parts of the site that are progressively rehabilitated may be subject to further disturbance at some later stage of the project.</p>	C	<p>Section 2.3.9 and section 7.2 of the MOP provides details on the proposed rehabilitation to be completed progressively each year.</p> <p>Table 19 of the MOP addresses the status of rehabilitation at the commencement of the MOP and Table 21 gives a summary of rehabilitation proposed during the MOP Term.</p> <p>Section 8 'Rehabilitation' of the 2016 Annual Review and section 9 of the 2017 Annual Review outlines the rehabilitation activities undertaken during the reporting period, as well as objectives for the next reporting period.</p> <p>During the site inspection the auditor observed progressive rehabilitation at open cut 1 which includes seeding to stabilise and plantings. Management advised that they have 2-3 contractors for weed control which uses a combination of manual weed removal and spraying. The aim, as reported by MCC Management is to rehabilitate the areas to return them to woodland/forest or agricultural land used for grazing.</p>	<p>MOP</p> <p>RMP</p> <p>Annual Review 2016; 2017</p> <p>Site Inspections</p>	There are no recommendations														
PA05_0117	3	54	<p>Road Works</p> <p>54. Prior to the commencement of mining operations in open cut 2, the Proponent shall divert or close Carrs Gap Road to the satisfaction of Council.</p>	C	This aspect was completed prior to the audit period and completion of the works confirmed during the site inspection.	Site inspection	There are no recommendations														
PA08_0135	3	55	<p>Long Term Security of Rehabilitation Area</p> <p>55. Prior to relinquishing the mining lease that covers the site, unless the Secretary agrees otherwise, the Proponent shall make suitable arrangements to protect the rehabilitation areas with conservation value in perpetuity, in consultation with OEH and to the satisfaction of the Secretary.</p>	Not triggered	N/A	N/A	N/A														
PA05_0117	3	55	<p>Road Works</p> <p>55. Prior to the commencement of mining operations in open cut 3, the Proponent shall divert or close Moolarben Road to the satisfaction of Council.</p> <p>Note: These road works must be constructed in accordance with the relevant RMS or Austroads standards, and signposted and lit in accordance AS 1742 – Manual of Uniform Traffic Control Devices and AS/NZS 1158: 2005 – Lighting for Roads and Public Spaces.</p>	C	This aspect was completed prior to the audit period and completion of the works confirmed during the site inspection.	Site inspection	There are no recommendations														

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	3	56	<p>Rehabilitation Management Plan</p> <p>56. The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Secretary Industry. This plan must:</p> <p>(a) be prepared in consultation with the Department, DPI Water, OEH, Council and the CCC;</p>	C	<p>Section 1.3 of the RMP 'Consultation and Peer Review of this RMP' states that the DP&E, DPI-Water, OEH, the Mid-Western Regional Council (MWRC) and the Community Consultative Committee (CCC) for the Moolarben Coal Complex have been contacted and comments from these agencies have been considered and incorporated or addressed where appropriate in this RMP.</p> <p>During the audit a letter from DP&E (dated 13/07/2016) was sighted which states that no consultation is required for revision of certain plans.</p> <p>These plans are: the Blast Management plan; Blast fume management plan; Energy savings plan; EMS; Landscape management plan; BioMP; Rehabilitation management plan and Greenhouse Gas Management Plan</p>	<p>RMP</p> <p>Letter from DP&E (dated 13/07/2016) RE: Consultation exemptions of specific management plan revisions.</p>	There are no recommendations
PA08_0135	3	56	<p>Rehabilitation Management Plan</p> <p>56. The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Secretary Industry. This plan must:</p> <p>(b) be submitted to and approved by the Secretary Industry prior to the commencement of any development on site under this approval, unless the Secretary agrees otherwise;</p>	C	The MOP which contained the RMP as Attachment 3 has been approved by DP&E Division of Resources and Geoscience (DRG) (letter dated 19/06/2018).	<p>Letter from DP&E: DRG (dated 19/06/2018) RE: approval of MOP</p>	There are no recommendations
PA08_0135	3	56	<p>Rehabilitation Management Plan</p> <p>56. The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Secretary Industry. This plan must:</p> <p>(c) be prepared in accordance with any relevant DRE guideline;</p>	C	This is covered in Section 2.4 of the RMP	<p>RMP</p>	There are no recommendations
PA08_0135	3	56	<p>Rehabilitation Management Plan</p> <p>56. The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Secretary Industry. This plan must:</p> <p>(d) provide for periodic review and updating of the rehabilitation plans and management strategies to ensure best practice landform design and establishment strategies are employed;</p>	C	<p>Reporting and review requirements are covered in section 11 of the RMP and includes RMP review and revision (section 11.3).</p> <p>Additionally the RMP has been independently reviewed by Dr David Freudenberger. Review comments on the RMP have been addressed throughout and incorporated where relevant (section 1.3 and Appendix A)</p>	<p>RMP</p>	There are no recommendations
PA08_0135	3	56	<p>Rehabilitation Management Plan</p> <p>56. The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Secretary Industry. This plan must:</p> <p>(e) describe how the rehabilitation of the site would be integrated with the implementation the biodiversity offset strategy;</p>	C	Integration with the biodiversity offset strategy is covered in section 4.9 of the RMP.	<p>RMP</p>	There are no recommendations
PA08_0135	3	56	<p>Rehabilitation Management Plan</p> <p>56. The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Secretary Industry. This plan must:</p> <p>(f) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);</p>	C	<p>This is covered in section 6.</p> <p>Table 13 of the RMP provides the rehabilitation performance indicators and relinquishment criteria developed for the Mine to achieve the nominated post mining land use goals and rehabilitation objectives.</p>	<p>RMP</p>	There are no recommendations
PA08_0135	3	56	<p>Rehabilitation Management Plan</p> <p>56. The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Secretary Industry. This plan must:</p> <p>(g) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, and address all aspects of rehabilitation including mine closure, final landform, and final land use;</p>	C	<p>This is covered in the following sections of the RMP: Section 4 (Rehabilitation Planning), Section 5 (Rehabilitation implementation), Section 6 (Performance indicators and completion criteria), Section 7 (Rehabilitation monitoring program), Section 8 (Rehabilitation risks and contingency measures) to Section 9 (Intervention, adaptive management and continual improvement) and Section 12 (Mine Closure Planning).</p> <p>Final landform is addressed in section 4.3 and post-mining land use is addressed in section 4.4 which includes a figure of the final rehabilitation and Post Mining Land Use Domains (Figure 6).</p>	<p>RMP</p>	There are no recommendations
PA08_0135	3	56	<p>Rehabilitation Management Plan</p> <p>56. The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Secretary Industry. This plan must:</p> <p>(h) include interim rehabilitation where necessary to minimise the area exposed for dust generation;</p>	C	<p>Interim rehabilitation is covered in section 2.1.4 and section 4.7.</p> <p>Section 4.5 (Table 4) states that 'Mine water and sediment water will be preferentially used for operational requirements such as dust suppression and earthworks'.</p>	<p>RMP</p>	There are no recommendations
PA08_0135	3	56	<p>Rehabilitation Management Plan</p> <p>56. The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Secretary Industry. This plan must:</p> <p>(i) include a program to monitor, independently audit and report on the effectiveness of the measures, and progress against the detailed performance and completion criteria;</p>	C	This is covered in sections 7 and 11.	<p>RMP</p>	There are no recommendations
PA08_0135	3	56	<p>Rehabilitation Management Plan</p> <p>56. The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Secretary Industry. This plan must:</p> <p>(j) build to the maximum extent practicable on the other management plans required under this approval.</p>	Noted	N/A	<p>N/A</p>	N/A

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
			TRAFFIC				
PA05_0117	3	56	<p>Ulan Road Strategy 56. The Proponent shall:</p> <p>(a) work with Council and the owners of the Ulan and Wilpinjong mines to agree to develop a detailed plan for the implementation of the Ulan Road Strategy; and</p> <p>(b) make financial contributions towards the implementation of this detailed plan, in accordance with the requirements in the plan, with its share of the mining companies' contribution for the implementation of the strategy to be proportionate to its share of mining-related traffic to be generated on the road during the life of the strategy.</p> <p>If there is any dispute between the various parties involved in either the development of the detailed plan for the implementation of the strategy, or the implementation of the strategy, then any of the parties may refer the matter to the Secretary for resolution.</p>	C	<p>(a) Moolarben Coal, Mid-Western Regional Council and the owners of the Ulan and Wilpinjong mines agreed to develop a detailed plan for the implementation of the Ulan Road Strategy. The agreement 'Deed of Agreement - Funding and delivery of Ulan Road upgrade and maintenance' (dated July 2014) was viewed during the audit.</p> <p>(b) A Deed of Agreement for Funding and Delivery of the Ulan Road Upgrade was signed by Moolarben Coal, Ulan Coal, Wilpinjong Coal and the Mid-Western Regional Council in July 2014. In accordance with the agreement 2 financial instalments will be made per year. Invoices were sighted for contributions to Road Upgrade as stipulated in this condition (Invoice No 18 1995, dated 22/01/2018).</p> <p>The invoice was for: Capital works (\$330, 255.33) and Maintenance (\$110,051.83).</p>	<p>Deed of Agreement - Funding and delivery of Ulan Road upgrade and maintenance (July 2014)</p> <p>Invoice for Ulan Road Upgrade (Invoice number: 18 1995)</p>	There are no recommendations
PA05_0117	3	58	<p>Traffic Management 58. The Proponent shall:</p> <p>(a) Schedule the shift changes on site to occur outside of school bus hours; and</p> <p>(b) co-ordinate the shift changes on site with the shift changes of the adjoining Ulan and Wilpinjong mines to minimise the potential cumulative traffic impacts of the shift changes at the three mines.</p>	C	Shift changes are schedules according to the shift changes timetable. The timetable was sighted during the audit inspection and upon review it was determined that the shift changes were scheduled outside of school bus hours within minimal overlap between the adjoining mines.	Shift change timetable (Excel file)	There are no recommendations
PA05_0117	3	59	<p>Rail Transport - West 59. The Proponent shall not transport any coal west of the site through Gulgong and Mudgee without the written approval of the Secretary. In seeking this approval, the Proponent shall submit a report to the Secretary that:</p> <p>(a) has been prepared in consultation with Council;</p> <p>(b) demonstrates that the railway line has been suitably upgraded to accommodate the proposed coal train traffic;</p> <p>(c) describes:</p> <ul style="list-style-type: none"> the expected tonnages, train size, number, and rail scheduling of the proposed coal train movements (both laden and unladen); the measures that would be implemented to minimise, mitigate and/or manage the ongoing environmental effects of these coal train movements; and how the performance of these measures would be monitored. 	Not triggered	No coal has been transported west all coal is transported via freight train to the Port of Newcastle.	N/A	N/A
PA05_0117	3	60	<p>Monitoring of Coal Transport 60. The Proponent shall monitor the:</p> <p>(a) amount of coal transported from the site each year; and</p> <p>(b) date and time of each train movement generated by the project.</p>	C	<p>(a) During the audit the 'Register of Trains' was sighted. Rail transport is the only way to transport coal from site. The Register of Trains contained information such as weight, date, arrival and departure times.</p> <p>(b) During the audit the 'Register of Trains' was sighted. Rail transport is the only way to transport coal from site. The Register of Trains contained information such as weight, date, arrival and departure times.</p>	<p>(a) Register of Trains Site inspection</p> <p>(b) Register of Trains Site inspection</p>	There are no recommendations
PA05_0117	3	61	<p>Additional Visual Impact Mitigation 61. 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.</p> <p>These mitigation measures must be reasonable and feasible, and must be implemented within a reasonable timeframe.</p> <p>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.</p> <p>Notes: • The additional visual impact mitigation measures must be aimed at reducing the visibility of the mining operations on site from significantly affected residences, and do not require measures to reduce the visibility of the mining operations from other locations on the affected properties. • The additional visual impact mitigation measures do not necessarily have to include the implementation of measures on the affected property itself (i.e. the additional measures could involve the implementation of measures outside the affected property boundary that provide an effective reduction in visual impacts).</p>	Not triggered	N/A	N/A	N/A

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation																
PA05_0117	3	62	<p>Operation Conditions 62. The Proponent shall:</p> <p>(a) implement best management practice to minimise the visual and off-site lighting impacts of the project;</p> <p>(b) ensure no fixed outdoor lights shine above the horizontal;</p> <p>(c) ensure no in-pit mobile lighting rigs shine above the pit wall and other mobile lighting rigs do not shine above the horizontal;</p> <p>(d) ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting or its latest version;</p> <p>(e) provide for the establishment of trees and shrubs and/or the construction of mounding or bunding to minimise visual and lighting impacts on the Proponent’s land adjoining public roads with views of the site;</p> <p>(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.</p>	C	Refer to audit findings in PA08_0135 schedule 3 condition 50	Refer to audit findings in PA08_0135 schedule 3 condition 50	Refer to audit findings in PA08_0135 schedule 3 condition 50																
PA05_0117	3	63	<p>Bushfire Management 63. The Proponent shall:</p> <p>(a) ensure that the project is suitably equipped to respond to any fires on site; and</p> <p>(b) assist the RFS and emergency services as much as practicable if there is a fire in the vicinity of the site.</p>	C	Refer to audit findings in PA08_0135 schedule 3 condition 51	Refer to audit findings in PA08_0135 schedule 3 condition 51	Refer to audit findings in PA08_0135 schedule 3 condition 51																
PA05_0117	3	64	<p>Waste 64. 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>(c) monitor and report on effectiveness of the waste minimisation and management measures in the Annual Review.</p>	NC	Refer to audit findings in PA08_0135 schedule 3 condition 52	Refer to audit findings in PA08_0135 schedule 3 condition 52	Refer to audit findings in PA08_0135 schedule 3 condition 52																
PA05_0117	3	65	<p>Rehabilitation Objectives 65. The Proponent shall rehabilitate the site to the satisfaction of the Secretary Industry. This rehabilitation must be generally consistent with the proposed rehabilitation described in the EA (and depicted conceptually in the figure in Appendix 8), and comply with the objectives in Table 13. Table 13: Rehabilitation Objectives</p> <p><i>Table 13: Rehabilitation Objectives</i></p> <table border="1"> <thead> <tr> <th>Feature</th> <th>Objective</th> </tr> </thead> <tbody> <tr> <td>Mine site (as a whole)</td> <td> <ul style="list-style-type: none"> Safe, stable and non-polluting; Constructed landforms are to drain to the natural environment (excluding the final voids); Final landforms are to be consistent with the surrounding topography of the area, taking into account relief patterns and principles; and Minimise visual impact of final landforms as far as is reasonable and feasible. </td> </tr> <tr> <td>Final Voids</td> <td> <ul style="list-style-type: none"> Minimise the size and depth of final voids so far as is reasonable and feasible, subject to meeting the objectives below; Minimise the drainage catchment of the final void so far as is reasonable and feasible; Negligible high wall instability risk; The size and depth of the final voids must be designed having regard to their function as long-term groundwater sinks, to ensure that groundwater flows across the back-filled pit towards the final void; and Minimise risk of flood interaction for all flood events up to and including the Probable Maximum Flood level. </td> </tr> <tr> <td>Water quality</td> <td> <ul style="list-style-type: none"> Water retained on site is fit for the intended land use (s) for the post-mining domain(s). 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C	Refer to audit findings in PA08_0135 schedule 3 condition 53	Refer to audit findings in PA08_0135 schedule 3 condition 53	Refer to audit findings in PA08_0135 schedule 3 condition 53
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Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	3	67	67. The Proponent shall progressively landscape the environmental bunds on site	C	Section 4.7 of the RMP describes the progressive landscaping of environmental bunds. Section 2.3.9 and section 7.2 of the MOP provides details of the proposed rehabilitation to be completed progressively each year. Table 19 of the MOP addresses the status of rehabilitation at the commencement of the MOP and Table 21 gives a summary of rehabilitation proposed during the MOP Term. Section 8 'Rehabilitation' of the 2016 Annual Review and section 9 of the 2017 Annual Review outlines the rehabilitation activities undertaken during the reporting period, as well as objectives for the next reporting period. Landscaped environmental bunds were observed during the audit from Ulan Road.	RMP MOP Annual Review 2016: 2017	There are no recommendations
PA05_0117	3	68	Rehabilitation Management Plan 68. The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Executive Director, Mineral Resources. This plan must: (a) be prepared in consultation with the Department, DPI Water, OEH, Council and the CCC; (b) be submitted to the Executive Director, Mineral Resources for approval by 31 March 2015; (c) be prepared in accordance with any relevant DRE guideline; (c1) provide for the periodic review and updating of the rehabilitation plans and management strategies to ensure best practice landform design and establishment strategies are employed (d) describe how the rehabilitation of the site would be integrated with the implementation the biodiversity offset strategy; (e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary); (f) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, and address all aspects of rehabilitation including mine closure, final landform, and final land use; (g) include interim rehabilitation where necessary to minimise the area exposed for dust generation; (h) include a program to monitor, independently audit and report on the effectiveness of the measures, and progress against the detailed performance and completion criteria; and (i) build to the maximum extent practicable on the other management plans required under this approval.	C	Refer to audit findings in PA08_0135 schedule 3 condition 56	Refer to audit findings in PA08_0135 schedule 3 condition 56	Refer to audit findings in PA08_0135 schedule 3 condition 56
PA05_0117	3	69	The Drip 69. Notwithstanding the approval of Modification 9, there is to be no extraction of the additional coal resource approved under Modification 9 until the land tenure and surrounds associated with the natural feature known as 'the Drip' is resolved to ensure its conservation to the satisfaction of the Secretary and the Office of Environment and Heritage. This does not prohibit the implementation of the components for Modification 9 including construction and operation the approved water management infrastructure upgrade works.	C	A letter (dated 13/03/2015) from DP&E stating that the Department was 'Satisfied that Condition 69 Schedule 3 is resolved to ensure its conservation' was sighted during the audit.	Letter from DP&E RE: the drip (dated 13/03/2015)	There are no recommendations
PA05_0117	3	70	Energy Savings Action Plan 70. The Proponent shall prepare and implement an updated Energy Savings Action Plan for the project to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with DRE; (b) be prepared in accordance with the Guidelines for Energy Savings Action Plans (DEUS 2005, or its latest version); (c) be submitted to the Secretary for approval; and (d) include an updated program to monitor the effectiveness of measures to reduce energy use on site.	C	An Energy Savings Action Plan (ESAP) (December 2008) has been prepared for MCO by Advitech. (a) During the audit a letter from DP&E (dated 13/07/2016) was sighted which states that no consultation is required for revision of certain plans. These plans are: the Blast Management plan; Blast fume management plan; Energy savings plan; EMS; Landscape management plan; BioMP; Rehabilitation management plan and Greenhouse Gas Management Plan. (b) Section 8 of the ESAP 'References' states that the Department of Energy Utilities and Sustainability (DEUS), 2006, Guidelines for Energy Saving Action Plans was used in the preparation of the ESAP. (c) MCO submitted the ESAP to DP&E for review in April 2016. MCO received a response 19/06/2018 and after addressing the aspects outlined in the response have resubmitted the ESAP to DP&E in September 2018. A letter from DP&E approving the ESAP (dated 18/10/2018) was sighted during the audit. The letter states that the department is "satisfied that it addresses the requirements of Condition 70, Schedule 3 of PA05_0117). (d) The Annual Review 2017 states that the ESAP was revised in 2016 and is pending approval. Section 4 (Table 2) document the progress of implementation of energy savings actions between August 2016 version and 2018 version. Additionally Section 5.2 of the ESAP covers continuous improvement and research.	(a) ESAP (2008) (b) ESAP (2008) (c) ESAP (2008) Letter to DP&E RE: Review of ESAP (dated April 2016) Letter to DP&E RE: Response to ESAP review. Letter from DP&E (dated 18/10/2018) RE: Approval of the ESAP Letter from DP&E (dated 13/07/2016) RE: Consultation exemptions of specific management plan revisions. (d) ESAP (2008) and Annual Review 2017	There are no recommendations
PA05_0117	3	71	Gas Drainage 71. The Proponent shall implement all reasonable and feasible measures to minimise the greenhouse gas emissions from the underground mining operations to the satisfaction of the Secretary.	Not triggered	There has been no gas drainage as no underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation																										
PA05_0117	3	72	<p>Updated Greenhouse Gas Minimisation Plan</p> <p>72. Prior to carrying out underground mining operations, the Proponent shall submit an updated Greenhouse Gas Minimisation Plan to the Secretary. This plan must:</p> <p>(a) identify options for minimising greenhouse gas emissions from underground mining operations, with a particular focus on capturing and/or using these emissions;</p> <p>(b) investigate the feasibility of implementing each option;</p> <p>(c) propose the measures that would be implemented in the short to medium term on site; and</p> <p>(d) include a research program to inform the continuous improvement of the greenhouse gas minimisation measures on site.</p>	Not triggered	No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A																										
PA05_0117	3	73	<p>Subsidence Performance Measures - Natural and Heritage Features</p> <p>73. The Proponent shall ensure that the project does not cause any exceedances of the performance measures in Table 14, to the satisfaction of the Secretary. Table 14: Subsidence Impact Performance Measures</p> <p><i>Table 14: Subsidence Impact Performance Measures</i></p> <table border="1"> <tr> <td colspan="2">Special Feature</td> </tr> <tr> <td>The Drip and Goulburn River Gorge (see Appendix 7)</td> <td>Nil impact or environmental consequences</td> </tr> <tr> <td colspan="2">Water Resources</td> </tr> <tr> <td>Goulburn River and the bed of the Goulburn River (see Appendix 7)</td> <td>Negligible impact or environmental consequences. Remain outside the zone of recorded subsidence damage for longwall mining.</td> </tr> <tr> <td colspan="2">Land</td> </tr> <tr> <td>Cliff Line 3</td> <td>Minimise subsidence damage</td> </tr> <tr> <td colspan="2">Heritage Sites</td> </tr> <tr> <td>Aboriginal heritage sites 264, 262, 283, 286 and 287 (see Appendix 7)</td> <td>Reduce the likelihood of subsidence damage to low.</td> </tr> <tr> <td>Aboriginal heritage site 280 (see Appendix 7)</td> <td>Reduce the likelihood of subsidence damage to moderate.</td> </tr> <tr> <td>Historic heritage sites</td> <td>No greater subsidence impact or environmental consequences than predicted in the EA</td> </tr> <tr> <td colspan="2">Mine workings</td> </tr> <tr> <td>First workings under an approved Extraction Plan beneath any feature where performance measures in this table require negligible impact, negligible consequence or negligible loss</td> <td>To remain long-term stable and non-subsiding.</td> </tr> <tr> <td>Second workings</td> <td>To be carried out only within the longwall mining domains, in accordance with an approved Extraction Plan.</td> </tr> </table> <p>Notes:</p> <ul style="list-style-type: none"> The locations of the features referred to in Table 14 are shown in Appendix 7. The Proponent will be required to define more detailed performance indicators (including impact assessment criteria) for each of these performance measures in the various management plans that are required under this approval. Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of proposed methods, the Secretary will be the final arbiter. The requirements of this condition only apply to the impacts and consequences of mining operations, construction or demolition undertaken following the date of this approval. 	Special Feature		The Drip and Goulburn River Gorge (see Appendix 7)	Nil impact or environmental consequences	Water Resources		Goulburn River and the bed of the Goulburn River (see Appendix 7)	Negligible impact or environmental consequences. Remain outside the zone of recorded subsidence damage for longwall mining.	Land		Cliff Line 3	Minimise subsidence damage	Heritage Sites		Aboriginal heritage sites 264, 262, 283, 286 and 287 (see Appendix 7)	Reduce the likelihood of subsidence damage to low.	Aboriginal heritage site 280 (see Appendix 7)	Reduce the likelihood of subsidence damage to moderate.	Historic heritage sites	No greater subsidence impact or environmental consequences than predicted in the EA	Mine workings		First workings under an approved Extraction Plan beneath any feature where performance measures in this table require negligible impact, negligible consequence or negligible loss	To remain long-term stable and non-subsiding.	Second workings	To be carried out only within the longwall mining domains, in accordance with an approved Extraction Plan.	Not triggered	No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A
Special Feature																																	
The Drip and Goulburn River Gorge (see Appendix 7)	Nil impact or environmental consequences																																
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Second workings	To be carried out only within the longwall mining domains, in accordance with an approved Extraction Plan.																																
PA05_0117	3	74	<p>Offsets</p> <p>74. If the Proponent exceeds the performance measures in Table 14 and the Secretary determines that:</p> <p>(a) it is not reasonable or feasible to remediate the impact or environmental consequence; or</p> <p>(b) remediation measures implemented by the Proponent have failed to satisfactorily remediate the impact or environmental consequence; then the Proponent shall provide a suitable offset to compensate for the impact or environmental consequence, to the satisfaction of the Secretary.</p> <p>Note: Any offset required under this condition must be proportionate with the significance of the impact or environmental consequence. Impacts to the Drip cannot be offset and consequently the proponent shall ensure that the project has no impact on the Drip or the water supply to the Drip.</p>	Not triggered	No Indicators or performance measures were exceeded during the reporting period. No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A																										

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation																	
PA05_0117	3	75	<p>Subsidence Performance Measures - Built Features</p> <p>75. The Proponent shall ensure that the project does not cause any exceedances of the performance measures in Table 15, to the satisfaction of the Secretary. Table 15: Subsidence Impact Performance Measures - Built Features</p> <p><i>Table 15: Subsidence Impact Performance Measures – Built Features</i></p> <table border="1"> <tr> <td>Key public infrastructure:</td> <td>Always safe and serviceable.</td> </tr> <tr> <td>Gulgong-Sandy Hollow Railway Line</td> <td rowspan="2">Damage that does not affect safety or serviceability must be fully repairable, and must be fully repaired.</td> </tr> <tr> <td>Wellington 330kV Transmission Line</td> </tr> <tr> <td>Other infrastructure:</td> <td></td> </tr> <tr> <td>Roads</td> <td>Safe, serviceable and repairable unless the owner agrees otherwise in writing.</td> </tr> <tr> <td>Other built features and improvements, including fences</td> <td>Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated.</td> </tr> <tr> <td></td> <td>Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.</td> </tr> <tr> <td>Public Safety</td> <td></td> </tr> <tr> <td>Public safety</td> <td>Negligible additional risk</td> </tr> </table> <p>Notes:</p> <ul style="list-style-type: none"> The locations of the features referred to in Table 15 are shown in Appendix 7. The Proponent will be required to define more detailed performance indicators for each of these performance measures in Built Features Management Plans or Public Safety Management Plan (see condition 74 below). Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of proposed methods, the Secretary will be the final arbiter. The requirements of this condition only apply to the impacts and consequences of mining operations undertaken following the date of this approval. Requirements under this condition may be met by measures undertaken in accordance with the Mine Subsidence Compensation Act 1961. Requirements regarding safety or serviceability do not prevent preventative or mitigatory actions being taken prior to or during mining in order to achieve or maintain these outcomes. 	Key public infrastructure:	Always safe and serviceable.	Gulgong-Sandy Hollow Railway Line	Damage that does not affect safety or serviceability must be fully repairable, and must be fully repaired.	Wellington 330kV Transmission Line	Other infrastructure:		Roads	Safe, serviceable and repairable unless the owner agrees otherwise in writing.	Other built features and improvements, including fences	Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated.		Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.	Public Safety		Public safety	Negligible additional risk	Not triggered	No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A
Key public infrastructure:	Always safe and serviceable.																							
Gulgong-Sandy Hollow Railway Line	Damage that does not affect safety or serviceability must be fully repairable, and must be fully repaired.																							
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	Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.																							
Public Safety																								
Public safety	Negligible additional risk																							
PA05_0117	3	76	76. Any dispute between the Proponent and the owner of any built feature over the interpretation, application or implementation of the performance measures in Table 15 is to be settled by the Secretary, following consultation with the Secretary Industry. Any decision by the Secretary shall be final and not subject to further dispute resolution under this approval.	Not triggered	No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A																	
PA05_0117	3	77	<p>Extraction Plan</p> <p>77. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;</p>	Not triggered	No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A																	
PA05_0117	3	77	<p>Extraction Plan</p> <p>77. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(b) be approved by the Secretary before the Proponent carries out any of the second workings covered by the plan;</p>	Not triggered	No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A																	
PA05_0117	3	77	<p>Extraction Plan</p> <p>77. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(c) include detailed plans of existing and proposed first and second workings and any associated surface development;</p>	Not triggered	No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A																	
PA05_0117	3	77	<p>Extraction Plan</p> <p>77. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(d) include detailed performance indicators for each of the performance measures in Tables 14 and 15;</p>	Not triggered	No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A																	
PA05_0117	3	77	<p>Extraction Plan</p> <p>77. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(e) provide revised predictions of the potential subsidence effects, subsidence impacts and environmental consequences of the proposed second workings, incorporating any relevant information obtained since this approval;</p>	Not triggered	No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A																	

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	3	77	<p>Extraction Plan 77. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(f) describe the measures that would be implemented to ensure compliance with the performance measures in Tables 14 and 15, and manage or remediate any impacts and/or environmental consequences;</p>	Not triggered	No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A
PA05_0117	3	77	<p>Extraction Plan 77. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(g) include a Built Features Management Plan, which has been prepared in consultation with DRE and the owners of affected public infrastructure, to manage the potential subsidence impacts and/or environmental consequences of the proposed second workings, and which:</p> <p>i. addresses in appropriate detail all items of key public infrastructure and other public infrastructure and all classes of other built features;</p> <p>ii. has been prepared following appropriate consultation with the owner/s of potentially affected feature/s;</p> <p>iii. recommends appropriate remedial measures and includes commitments to mitigate, repair, replace or compensate all predicted impacts on potentially affected built features in a timely manner; and</p> <p>iv. in the case of all key public infrastructure, and other public infrastructure except roads, trails and associated structures, reports external auditing for compliance with ISO 31000 (or alternative standard agreed with the infrastructure owner) and provides for annual auditing of compliance and effectiveness during extraction of longwalls which may impact the infrastructure;</p>	Not triggered	No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A
PA05_0117	3	77	<p>Extraction Plan 77. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(h) include a Water Management Plan, which has been prepared in consultation with EPA and DPI Water, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on watercourses and aquifers, including:</p> <p>i. surface and groundwater impact assessment criteria, including trigger levels for investigating any potentially adverse impacts on water resources or water quality;</p> <p>ii. a program to monitor and report stream flows, assess any changes resulting from subsidence impacts and remediate and improve stream stability;</p> <p>iii. a program to monitor and report groundwater inflows to underground workings;</p> <p>iv. a program to predict, manage and monitor impacts on groundwater bores on privately-owned land</p>	Not triggered	No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A
PA05_0118	3	77	<p>Extraction Plan 77. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(h) include a Water Management Plan, which has been prepared in consultation with EPA and DPI Water, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on watercourses and aquifers, including:</p> <p>v. a program to confirm the location and saturated extent of the palaeochannel adjacent to the extents of underground 1 second workings, including drilling of additional investigation bores</p> <p>vi. validate, and if necessary revise, the groundwater model for the palaeochannel</p> <p>vii. monitor and report on the groundwater impacts of underground 1 second workings on the palaeochannel; and a program to monitor and report on the predicted groundwater impacts on the paleochannel adjacent to underground 1 boundary</p>	Not triggered	No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A
PA05_0117	3	77	<p>Extraction Plan 77. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(i) include a Biodiversity Management Plan, which has been prepared in consultation with OEH, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on aquatic and terrestrial flora and fauna, with a specific focus on threatened species, populations and their habitats; endangered ecological communities; and water dependent ecosystems;</p>	Not triggered	No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	3	77	<p>Extraction Plan 77. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(j) include a Land Management Plan, which has been prepared in consultation with any affected public authorities, to manage the potential impacts and/or environmental consequences of the proposed second workings on land in general;</p>	Not triggered	No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A
PA05_0117	3	77	<p>Extraction Plan 77. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(k) include a Heritage Management Plan, which has been prepared in consultation with OEH and relevant stakeholders for both Aboriginal and historic heritage, to manage the potential environmental consequences of the proposed second workings on both Aboriginal and non-Aboriginal heritage items, and reflects all requirements under conditions 38-39 of Schd. 3;</p>	Not triggered	No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A
PA05_0117	3	77	<p>Extraction Plan 77. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(l) include a Public Safety Management Plan, which has been prepared in consultation with DRE, to ensure public safety in the mining area;</p>	Not triggered	No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A
PA05_0117	3	77	<p>Extraction Plan 77. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(m) include a Subsidence Monitoring Program, which has been prepared in consultation with DRE, to:</p> <p>i. describe the on-going subsidence monitoring program;</p> <p>ii. provide data to assist with the management of the risks associated with subsidence;</p> <p>iii. validate the subsidence predictions;</p> <p>iv. analyse the relationship between the predicted and resulting subsidence effects and predicted and resulting impacts under the plan and any ensuing environmental consequences;</p> <p>v. inform the contingency plan and adaptive management process.</p>	Not triggered	No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A
PA05_0117	3	77	<p>Extraction Plan 77. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(n) include a contingency plan that expressly provides for adaptive management where monitoring indicates that there has been an exceedance of any performance measure in Tables 14 and 15, or where any such exceedance appears likely;</p>	Not triggered	No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A
PA05_0117	3	77	<p>Extraction Plan 77. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(o) proposes appropriate revisions to the Rehabilitation Management Plan required under condition 68 of Schd. 3;</p>	Not triggered	No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A
PA05_0117	3	77	<p>Extraction Plan 77. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(p) include a program to collect sufficient baseline data for future Extraction Plans. Note: To identify the longwall mining domains referred to in this condition, see Appendix 2.</p>	Not triggered	No underground mining activities have occurred under stage 1 during the audit period.	N/A	N/A

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	3	78A	<p>78A. Prior to the commencement of second workings in each of the longwall panels LW9-LW14, the Proponent shall:</p> <p>(a) Prepare a report analysing the subsidence, surface water and groundwater impacts of the previous panel, the data produced from the progress of first working, the cumulative impacts of the progress of longwall mining and updating the predicted impacts based on the available local data and current scientific understanding of these relevant fields (demonstrating compliance with the requirement of this approval);</p> <p>(b) Commission suitability qualified subsidence and groundwater experts whose appointment has been approved by the Secretary to review the report, and if necessary recommend changes to the monitoring programs and/or mine plan for subsequent panels;</p> <p>(c) Submit a copy of the report and expert review to the Department, DRE, OEH and DPI Water, including a response to any recommendations contained in the expert review;</p> <p>(d) Ensure: i. The report and any proposed adjustments to the mine plan is approved by the Secretary; and ii. That any requirements of the Secretary have been compiled with.</p> <p>Note – The locations of LW9-LW14 are marked in Appendix 7, figure 7.1</p>	Not triggered	N/A	N/A	N/A
PA05_0117	3	78	<p>78. The Proponent shall ensure that the management plans required under conditions 77(g)-(l) above include:</p> <p>(a) an assessment of the potential environmental consequences of the Extraction Plan, incorporating any relevant information that has been obtained since this approval</p> <p>(b) a detailed description of the measures that would be implemented to remediate predicted impacts.</p>	Not triggered	N/A	N/A	N/A
PA05_0117	3	79	<p>First Workings</p> <p>79. The Proponent may carry out first workings on site other than in accordance with an approved Extraction Plan, provided that DRE is satisfied that the first workings are designed to remain long-term stable and non-subsiding, except insofar as they may be impacted by approved second workings.</p>	Noted	N/A	Project Approval 05_0117 Schedule 3 condition 79 Project Approval 08_0135 Schedule 4 condition 7	N/A
PA05_0117	3	80	<p>Payment of Reasonable Costs</p> <p>80. The Proponent shall pay all reasonable costs incurred by the department to engage suitably qualified, experienced and independent experts to review the adequacy of any aspect of an Extraction Plan.</p>	Noted	N/A	Project Approval 05_0117 Schedule 3 condition 80 Project Approval 08_0135 Schedule 4 condition 8	N/A
Schedule 4							
PA05_0117	4	1	<p>Notification of Landowners/Tenants</p> <p>1. By the end of March 2015, the Proponent shall:</p> <p>(a) notify in writing the owners of:</p> <p>(a) any land in Table 1A and any land or residence exceeding the criteria in Tables 2A and 2 (respectively) of Schd. 3 that they have the right to require the Proponent to acquire their land at any stage during the project;</p> <p>(b) any residence on the land listed in Table 3 and any residence exceeding the criteria in Table 3A of Schd. 3 that they have the right to request the Proponent for additional noise mitigation measures to be installed at their residence at any stage during the project; and</p> <p>• 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> <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 Schd. 3 at any time during the life of the project.</p>	C	<p>Notifications completed in February 2015 prior to the audit period.</p> <p>Compliant as per the previous audit (IEA Trevor Brown and Associates Dec 2015)</p>	EA Trevor Brown and Associates Dec 2015	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	4	2	<p>2. Prior to entering into any tenancy agreement for any land owned by the Proponent that is predicted to experience exceedances of the recommended dust and/or noise criteria, or for any of the land listed in Table 3 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); and</p> <p>(b) advise the prospective tenants of the rights they would have under this approval, to the satisfaction of the Secretary</p>	Noted	N/A	AQMP	N/A
PA05_0117	4	3	<p>3. As soon as practicable after obtaining monitoring results showing:</p> <p>(a) an exceedance of any relevant criteria in Schd. 3, the Proponent shall notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the project is again complying with the relevant criteria; and</p> <p>(b) an exceedance of the relevant air quality criteria in Schd. 3, the Proponent shall send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land).</p>	Noted	N/A	AQMP	N/A
PA05_0117	4	4	<p>Independent Review</p> <p>4. If an owner of privately-owned land considers the project to be exceeding the criteria in Schd. 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 Schd. 3; and • if the project is not complying with these criteria then: <ul style="list-style-type: none"> o determine if more than one mine is responsible for the exceedance, and if so the relative share of each mine regarding the impact on the land; o 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>	Noted	N/A	N/A	N/A

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	4	10	<p>Land Acquisition</p> <p>10. 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 noise and/or air quality mitigation measures in conditions 4 and 5 of Schd. 3; <p>(b) the reasonable costs associated with:</p> <ul style="list-style-type: none"> relocating within the Mid-western Regional 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 will 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>	Noted	N/A	N/A	N/A
			<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>	Noted	N/A	N/A	N/A
PA05_0117	4	11	<p>11. The Proponent shall pay all reasonable costs associated with the land acquisition process described in condition 10 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.</p>	Noted	N/A	N/A	Noted

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation																												
PA08_0135	4	1	<p>Subsidence Performance Measures - Heritage and Natural Features</p> <p>1. The Proponent shall ensure that the project does not cause any exceedances of the performance measures in Table 18, to the satisfaction of the Secretary. Table 18: Subsidence Impact</p> <p><i>Table 18: Subsidence Impact Performance Measures</i></p> <table border="1"> <thead> <tr> <th colspan="2">Water Resources</th> </tr> </thead> <tbody> <tr> <td>Drainage Lines (DL1 – DL7)</td> <td>No greater subsidence impacts or environmental consequences than predicted in the EA</td> </tr> <tr> <th colspan="2">Land</th> </tr> <tr> <td>Cliffs C7, C9 and C10</td> <td>Negligible environmental consequences (that is occasional rockfalls, displacement or dislodgement of boulders or slabs or fracturing, that in total do not impact more than 0.5% of the total face of such cliffs within any longwall mining domain)</td> </tr> <tr> <td>Other cliffs</td> <td>No greater subsidence impacts or environmental consequences than predicted in the EA</td> </tr> <tr> <td>Minor cliffs Rock face features Steep slopes</td> <td>Minor environmental consequences (that is, occasional rockfalls, displacement or dislodgment of boulders or slabs, or fracturing, that in total do not impact more than 5% of the total face area of each such type of feature within any longwall mining domain)</td> </tr> <tr> <th colspan="2">Biodiversity</th> </tr> <tr> <td>Threatened species, threatened populations, or endangered ecological communities</td> <td>Negligible subsidence impacts or environmental consequences</td> </tr> <tr> <th colspan="2">Heritage Sites</th> </tr> <tr> <td>Aboriginal heritage site S2MC 236 (AHIMS No.s 36-3-0016 and 36-3-0134)</td> <td>Negligible subsidence impacts or environmental consequences</td> </tr> <tr> <td>Historic heritage sites</td> <td>No greater subsidence impact or environmental consequences than predicted in the EA</td> </tr> <tr> <th colspan="2">Mine workings</th> </tr> <tr> <td>First workings under an approved Extraction Plan beneath any feature where performance measures in this table require negligible subsidence impacts or negligible environmental consequences</td> <td>To remain long-term stable and non-subsiding</td> </tr> <tr> <td>Second workings</td> <td>To be carried out only in accordance with an approved Extraction Plan</td> </tr> </tbody> </table> <p>Notes: • The locations of the features referred to in Table 18 are shown in Appendix 4. • The Proponent will be required to define more detailed performance indicators (including impact assessment criteria) for each of these performance measures in the various management plans that are required under this approval. • Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of proposed methods, the Secretary will be the final arbiter. • The requirements of this condition only apply to the impacts and consequences of mining operations, construction or demolition undertaken following the date of this approval.</p>	Water Resources		Drainage Lines (DL1 – DL7)	No greater subsidence impacts or environmental consequences than predicted in the EA	Land		Cliffs C7, C9 and C10	Negligible environmental consequences (that is occasional rockfalls, displacement or dislodgement of boulders or slabs or fracturing, that in total do not impact more than 0.5% of the total face of such cliffs within any longwall mining domain)	Other cliffs	No greater subsidence impacts or environmental consequences than predicted in the EA	Minor cliffs Rock face features Steep slopes	Minor environmental consequences (that is, occasional rockfalls, displacement or dislodgment of boulders or slabs, or fracturing, that in total do not impact more than 5% of the total face area of each such type of feature within any longwall mining domain)	Biodiversity		Threatened species, threatened populations, or endangered ecological communities	Negligible subsidence impacts or environmental consequences	Heritage Sites		Aboriginal heritage site S2MC 236 (AHIMS No.s 36-3-0016 and 36-3-0134)	Negligible subsidence impacts or environmental consequences	Historic heritage sites	No greater subsidence impact or environmental consequences than predicted in the EA	Mine workings		First workings under an approved Extraction Plan beneath any feature where performance measures in this table require negligible subsidence impacts or negligible environmental consequences	To remain long-term stable and non-subsiding	Second workings	To be carried out only in accordance with an approved Extraction Plan	C	<p>The Annual Review 2017 (Section 8 'Mine Subsidence' Table 28) details assessment of subsidence performance indicator measures for Natural and Heritage Features. No Indicators or performance measures were exceeded during the 2017 reporting period.</p> <p>The Annual Review for 2016 did not contain an assessment of subsidence against performance measures as no secondary extraction occurred during that period.</p> <p>The 2018 Annual Review has not been prepared as of the date of this audit.</p>	<p>Annual Review 2016 and 2017</p> <p>UG1 Subsidence Line Monitoring Results - LW01 completion</p>	There are no recommendations
Water Resources																																			
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Second workings	To be carried out only in accordance with an approved Extraction Plan																																		
PA08_0135	4	2	<p>Offsets</p> <p>2. If the Proponent exceeds the performance measures in Table 18 and the Secretary determines that:</p> <p>(a) it is not reasonable or feasible to remediate the impact or environmental consequence; or</p> <p>(b) remediation measures implemented by the Proponent have failed to satisfactorily remediate the impact or environmental consequence; then the Proponent shall provide a suitable offset to compensate for the impact or environmental consequence, to the satisfaction of the Secretary. Note: Any offset required under this condition must be proportionate with the significance of the impact or environmental consequence.</p>	Not Triggered	<p>The Annual Review 2017 (Section 8 'Mine Subsidence' Table 28) details assessment of subsidence performance indicator measures for Natural and Heritage Features. No Indicators or performance measures were exceeded during the 2017 reporting period.</p> <p>The Annual Review for 2016 did not contain an assessment of subsidence against performance measures as no underground mining occurred during this period.</p>	<p>Annual Review 2016 and 2017</p>	There are no recommendations																												

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation																
PA08_0135	4	3	<p>3. The Proponent shall ensure that the project does not cause any exceedances of the performance measures in Table 19, to the satisfaction of the Secretary. Table 19: Subsidence Performance Measures - Built Features</p> <p><i>Table 19: Subsidence Impact Performance Measures – Built Features</i></p> <table border="1"> <thead> <tr> <th colspan="2">Key public infrastructure:</th> </tr> </thead> <tbody> <tr> <td>Guigong-Sandy Hollow Railway Line Ulan-Wollar Road</td> <td>Always safe and serviceable. Damage that does not affect safety or serviceability must be fully repairable, and must be fully repaired.</td> </tr> <tr> <th colspan="2">Other infrastructure:</th> </tr> <tr> <td>Murragamba Road Low voltage electricity power line</td> <td>Always safe. Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated. Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.</td> </tr> <tr> <td>Telecommunication cable Fibre-optic cable Murragamba Trig Station</td> <td>Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated. Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.</td> </tr> <tr> <td>Other built features and improvements, including fences</td> <td>Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated. Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.</td> </tr> <tr> <th colspan="2">Public Safety</th> </tr> <tr> <td>Public safety</td> <td>Negligible additional risk</td> </tr> </tbody> </table> <p>Notes: • The locations of the features referred to in Table 19 are shown in Appendix 4. • The Proponent will be required to define more detailed performance indicators for each of these performance measures in Built Features Management Plans or Public Safety Management Plan (see condition 5 below). • Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of proposed methods, the Secretary will be the final arbiter. • The requirements of this condition only apply to the impacts and consequences of mining operations undertaken following the date of this approval. • Requirements under this condition may be met by measures undertaken in accordance with the Mine Subsidence Compensation Act 1961. • Requirements regarding safety or serviceability do not prevent preventative or migratory actions being taken prior to or during mining in order to achieve or maintain these outcomes.</p>	Key public infrastructure:		Guigong-Sandy Hollow Railway Line Ulan-Wollar Road	Always safe and serviceable. Damage that does not affect safety or serviceability must be fully repairable, and must be fully repaired.	Other infrastructure:		Murragamba Road Low voltage electricity power line	Always safe. Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated. Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.	Telecommunication cable Fibre-optic cable Murragamba Trig Station	Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated. Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.	Other built features and improvements, including fences	Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated. Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.	Public Safety		Public safety	Negligible additional risk	Not triggered	<p>The Annual Review 2017 (Section 8 'Mine Subsidence' Table 29) details assessment of subsidence performance indicator measures for Built Features. No Indicators or performance measures were exceeded during the 2017 reporting period.</p> <p>The Annual Review for 2016 did not contain an assessment of subsidence against performance measures as no secondary extraction occurred during this period.</p>	Annual Review 2016 and 2017	There are no recommendations
Key public infrastructure:																							
Guigong-Sandy Hollow Railway Line Ulan-Wollar Road	Always safe and serviceable. Damage that does not affect safety or serviceability must be fully repairable, and must be fully repaired.																						
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Public Safety																							
Public safety	Negligible additional risk																						
PA08_0135	4	4	4. Any dispute between the Proponent and the owner of any built feature over the interpretation, application or implementation of the performance measures in Table 19 is to be settled by the Secretary, following consultation with the Secretary Industry. Any decision by the Secretary shall be final and not subject to further dispute resolution under this approval.	Not triggered	There have been no disputes recorded during the audit period	Management assertion	N/A																
PA08_0135	4	5	<p>Extraction Plan</p> <p>5. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;</p>	C	<p>The Extraction Plan has been prepared by MCO with assistance from Mine Subsidence Engineering Consultants (MSEC), HydroSimulations, WRM Water & Environment (WRM), Eco Logical Australia Pty Ltd (Eco Logical), Niche Environment and Heritage (Niche) and Resource Strategies.</p> <p>Section 1.3 of the Extraction Management Plan states that the appointment of the suitably qualified and experienced persons was endorsed by the Secretary of the DP&E.</p> <p>Attachment 2 of the Extraction Management Plan provides a table of consultation activities with government agencies and includes dates and summaries of consultation activities.</p> <p>During the audit a letter from DP&E (dated 10/12/2015) was sighted which endorsed suitably qualified professionals and a second letter from DP&E (dated 28/11/2016) was sighted which approved the extraction plan.</p>	Extraction Plan Letter from DP&E (dated 10/12/2015) RE: approval of the Extraction plan Letter from DP&E (dated 10/12/2015) RE: approval of the Extraction plan	There are no recommendations																
PA08_0135	4	5	<p>Extraction Plan</p> <p>5. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(b) be approved by the Secretary before the Proponent carries out any of the second workings covered by the plan;</p>	C	<p>Attachment 2 of the Extraction Management Plan provides a table of consultation activities with government agencies and includes dates and summaries of consultation activities.</p> <p>During the audit a letter from DP&E (dated 21/09/2017) was sighted which approved the extraction plan for the second workings on site.</p>	Extraction Plan Letter from DP&E (dated 21/09/2017) RE: approval of second workings	There are no recommendations																
PA08_0135	4	5	<p>Extraction Plan</p> <p>5. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(c) include detailed plans of existing and proposed first and second workings and any associated surface development;</p>	C	Plans of existing and proposed first and second workings and any associated surface development are covered in section 1.5 of the Extraction plan.	Extraction Plan	There are no recommendations																

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	4	5	<p>Extraction Plan</p> <p>5. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(d) include detailed performance indicators for each of the performance measures in Tables 18 and 19;</p>	C	<p>Subsidence management and monitoring is covered in section 3 of the Extraction Plan. Performance indicators and measures are covered in:</p> <ul style="list-style-type: none"> - Appendix A (Water Management Plan) - section 5 - Appendix B (Land Management Plan) - section 5 - Appendix C (Biodiversity Management Plan) - section 5 - Appendix D (Heritage Management Plan) - section 5 - Appendix E1 (ARTC), E2 (Mid-Western Regional Council), E3 (TransGrid), E4 (Essential Energy), E5 (Telstra) - section 5, section 7 and section 8. - Appendix F (Public Safety Management Plan) - section 6 and section 9 - Appendix G (Subsidence Management Plan) - section 5 and section 7 	Extraction Plan	There are no recommendations
PA08_0135	4	5	<p>Extraction Plan</p> <p>5. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(e) provide revised predictions of the potential subsidence effects, subsidence impacts and environmental consequences of the proposed second workings, incorporating any relevant information obtained since this approval;</p>	C	<p>A review of the subsidence predictions is described in section 2 of the Extraction Plan including a review of prediction methodology, Comparison with Previous Predictions of Subsidence Effects and Predicted Subsidence Impacts.</p> <p>This information is also included in Technical Report 1 (Subsidence Report).</p>	Extraction Plan	There are no recommendations
PA08_0135	4	5	<p>Extraction Plan</p> <p>5. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(f) describe the measures that would be implemented to ensure compliance with the performance measures in Tables 18 and 19, and manage or remediate any impacts and/or environmental consequences;</p>	C	<p>Subsidence management and monitoring is covered in section 3 of the Extraction Plan. Performance indicators and measures are covered in:</p> <ul style="list-style-type: none"> - Appendix A (Water Management Plan) - section 5 - Appendix B (Land Management Plan) - section 5 - Appendix C (Biodiversity Management Plan) - section 5 - Appendix D (Heritage Management Plan) - section 5 - Appendix E1 (ARTC), E2 (Mid-Western Regional Council), E3 (TransGrid), E4 (Essential Energy), E5 (Telstra) - section 5, section 7 and section 8. - Appendix F (Public Safety Management Plan) - section 6 and section 9 - Appendix G (Subsidence Management Plan) - section 5 and section 7 	Extraction Plan	There are no recommendations
PA08_0135	4	5	<p>Extraction Plan</p> <p>5. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(g) include a Built Features Management Plan, which has been prepared in consultation with DRE and the owners of affected public infrastructure, to manage the potential subsidence impacts and/or environmental consequences of the proposed second workings, and which:</p> <ul style="list-style-type: none"> • addresses in appropriate detail all items of key public infrastructure and other public infrastructure and all classes of other built features; • has been prepared following appropriate consultation with the owner/s of potentially affected feature/s; • recommends appropriate remedial measures and includes commitments to mitigate, repair, replace or compensate all predicted impacts on potentially affected built features in a timely manner; • in the case of all key public infrastructure, and other public infrastructure except roads, trails and associated structures, reports external auditing for compliance with ISO 31000 (or alternative standard agreed with the infrastructure owner) and provides for annual auditing of compliance and effectiveness during extraction of longwalls which may impact the infrastructure; 	C	<p>(g) A separate Build Features Management Plan has been prepared for each public infrastructure owner and these are included as Appendix E1 to E5 of the Extraction Plan: Appendix E1 (ARTC), E2 (Mid-Western Regional Council), E3 (TransGrid), E4 (Essential Energy), E5 (Telstra).</p> <p>i) Assets and infrastructure are described in section 4 of each Build Features Management Plan.</p> <p>ii) The Build Features Management Plans state that owners of affected assets were consulted during a risk assessment meeting which included representatives from MCO, the affected asset owners and Mine Subsidence Engineering Consultants (MSEC), who were the appointed experts endorsed by the Secretary. A description of the consultation undertaken has been provided in section 4.4 of each plan. Relevant consultation records are detailed in Attachment 2 (Table A2-1[Government Agencies], Table A2-2 [Infrastructure Owners], Table A2-3 [Aboriginal Stakeholders], Table A2-4 [Landowners]).</p> <p>iii) Management measures are covered in section 7 of each Build Features Management Plan and Contingency plans (including replacement, repair or compensation) are included in section 9 of each plan.</p> <p>iv) Auditing requirements are covered in section 13.1 of the Extraction plan</p>	<p>Build Features Management Plans (Appendix E1, E2, E3, E4 and E5 of the Extraction Plan)</p> <p>j) Build Features Management Plans (Appendix E1, E2, E3, E4 and E5 of the Extraction Plan)</p> <p>ii) Build Features Management Plans (Appendix E1, E2, E3, E4 and E5 of the Extraction Plan)</p> <p>Longwall 101-103 Extraction Plan (Attachment 2)</p> <p>iii) Build Features Management Plans (Appendix E1, E2, E3, E4 and E5 of the Extraction Plan)</p> <p>iv) Extraction Plan</p>	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	4	5	<p>Extraction Plan</p> <p>5. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(h) include a Water Management Plan, which has been prepared in consultation with EPA and DPI Water, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on watercourses and aquifers, including:</p> <ul style="list-style-type: none"> • surface and groundwater impact assessment criteria, including trigger levels for investigating any potentially adverse impacts on water resources or water quality; • a program to monitor and report stream flows, assess any changes resulting from subsidence impacts and remediate and improve stream stability; • a program to monitor and report groundwater inflows to underground workings; • a program to predict, manage and monitor impacts on groundwater bores on privately-owned land; 	C	<p>A Water Management Plan is included as Appendix A. Section 1.1 of Appendix A (Water Management Plan) states that:</p> <p><i>'The approved complex-wide Water Management Plan (WMP) (dated 31 July 2015) was developed in consultation with the Department of Primary Industries (DPI) Water'.</i></p> <p>MCO send a letter to DPI water and NSW EPA (Letters dated 7/04/2017) requesting comments on the Extraction Plan.</p> <p>DPI provided a response on 07/05/2017 with comments on Appendix A (WMP) of the UG1 longwalls 101-103 Extraction Plan and requested an additional monitoring bore.</p> <p>NSW EPA provided a response on 03/05/2017 stating that the EPA does not review or endorse management plans.</p> <ul style="list-style-type: none"> • Section 5 of the Water managements plan describes performance measures, indicators and investigation trigger levels. Section 5.2 (Table 8) covers surface water triggers and section 5.3 (Table 9) covers groundwater triggers. • Section 6 of the Water Management Plan describes water monitoring. Section 6.2 specifically covers surface water flow and quality and 6.3 covers groundwater. Section 9 covers continuous review and improvement of environmental performance. • This is set out in section 6.3. Groundwater inflows are determined by monitoring of dewatering (with flow meters), less metered supply inflows, estimated water stored underground, water loss in workings, and calculated recirculation from adjacent Open Cut workings. Reporting is covered in section 8 and 9. • Predicted impacts on private bores is set out in section 4.5.7 of the Water Management Plan, management measures are set out in section 7 and monitoring requirements are set out in section 5.3. 	<p>Water Management Plan (Appendix A of the Extraction Plan)</p> <p>Letter from MCO to DPI (dated 7/04/2017) RE Extraction plan review</p> <p>Letter from MCO to NSW EPA (dated 07/04/2017) RE Extraction plan review.</p> <p>Letter from DPI (dated 07/05/2017) RE Review of Extraction Plan</p> <p>Letter from NSW EPA (dated 03/05/2017) RE Extraction plan review</p> <p>Email between MCO officials RE DPI comments of WMP of Extraction Plan (dated 31/07/2017)</p>	There are no recommendations
PA08_0135	4	5	<p>Extraction Plan</p> <p>77. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(h) include a Water Management Plan, which has been prepared in consultation with EPA and DPI Water, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on watercourses and aquifers, including:</p> <ul style="list-style-type: none"> • a program to confirm the location and saturated extent of the palaeochannel adjacent to the extents of underground 1 second workings, including drilling of additional investigation bores • validate, and if necessary revise, the groundwater model for the palaeochannel • monitor and report on the groundwater impacts of underground 1 second workings on the palaeochannel; and a program to monitor and report on the predicted groundwater impacts on the paleochannel adjacent to underground 1 boundary 	C	<ul style="list-style-type: none"> • This is covered in section 4.5.4 of the Water Management Plan which describes the surveys undertaken to confirm the location and extend of the channels and the drilling investigations which were used to confirm the assumptions of the HydroSimulations modelling. This is also covered in Section 6 (Monitoring). <p>MCO send a letter to DPI water and NSW EPA (Letters dated 7/04/2017) requesting comments on the Extraction Plan.</p> <p>DPI provided a response on 07/05/2017 with comments on Appendix A (WMP) of the UG1 longwalls 101-103 Extraction Plan and requested an additional monitoring bore.</p> <p>NSW EPA provided a response on 03/05/2017 stating that the EPA does not review or endorse management plans.</p> <ul style="list-style-type: none"> • This is covered in section 4.5.4 which describes the surveys undertaken to confirm the location and extend of the channels and the drilling investigations which were used to confirm the assumptions of the HydroSimulations modelling. HydroSimulations modelling is provided as Attachment 3 to the Water Management Plan. <p>Review of the groundwater model is covered in section 7.2, which states that:</p> <p><i>'a groundwater modelling review and model recalibration (where required) will be conducted 2 years (and 5 yearly thereafter) after commencing Stage 2 coal extraction'.</i></p> <ul style="list-style-type: none"> • Monitoring is covered in section 6.3 and table 11 and reporting is covered in section 9. 	<p>Water Management Plan (Appendix A of the Extraction Plan)</p> <p>Letter from MCO to DPI (dated 7/04/2017) RE Extraction plan review</p> <p>Letter from MCO to NSW EPA (dated 07/04/2017) RE Extraction plan review.</p> <p>Letter from DPI (dated 07/05/2017) RE Review of Extraction Plan</p> <p>Letter from NSW EPA (dated 03/05/2017) RE Extraction plan review</p>	There are no recommendations
PA08_0135	4	5	<p>5. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(i) include a Biodiversity Management Plan, which has been prepared in consultation with OEH, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on aquatic and terrestrial flora and fauna, with a specific focus on threatened species, populations and their habitats; endangered ecological communities; and water dependent ecosystems;</p>	C	<p>A Biodiversity Management Plan is included as Appendix C of the Extraction Plan for UG1 Longwalls 101 to 103.</p> <p>NSW OEH provided a response to the request for review on 15/06/2017 and provided a list of recommendations.</p> <p>Potential impacts are covered in Section 4 (Predicted Subsidence Impacts and Environmental Consequences), Section 5 (Performance Measures and Indicators), Section 6 (Monitoring), Section 7 (Management Measures), Section 8 (Contingency plan) and Section 9 (Review and Improvement of Environmental Performance).</p>	<p>Biodiversity Management Plan (Appendix C of the Extraction Plan)</p> <p>Letter from OEH (dated 15/06/2017) RE Review of Longwall 101-103 Biodiversity Management Plan</p>	There are no recommendations
PA08_0135	4	5	<p>5. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(j) include a Land Management Plan, which has been prepared in consultation with any affected public authorities, to manage the potential impacts and/or environmental consequences of the proposed second workings on land in general;</p>	C	<p>A Land Management Plan (LMP) is included as Appendix B of the Extraction Plan for UG1 Longwalls 101 to 103. Section 1.1 of the LMP states that:</p> <p><i>'MCO has consulted with NSW Crown Land and the Mid-Western Regional Council as potentially affected public authorities'.</i></p> <p>Potential impacts are covered in Section 4 (Predicted Subsidence Impacts and Environmental Consequences), Section 5 (Performance Measures and Indicators), Section 6 (Monitoring), Section 7 (Management Measures), Section 8 (Contingency plan) and Section 9 (Review and Improvement of Environmental Performance).</p>	<p>Land Management Plan (Appendix B of the Extraction Plan)</p>	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	4	5	<p>5. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(k) include a Heritage Management Plan, which has been prepared in consultation with OEH and relevant stakeholders for both Aboriginal and historic heritage, to manage the potential environmental consequences of the proposed second workings on both Aboriginal and non-Aboriginal heritage items, and reflects all requirements under conditions 41-46 of Schedule 3;</p>	C	<p>A Heritage Management Plan is included as Appendix D of the Extraction Plan for UG1 Longwalls 101 to 103. Section 1.3 of the HMP states that: <i>'NSW Office of Environment and Heritage (OEH) and the Registered Aboriginal Parties (RAPs) for their review and comment. Comments received were considered before the LW101-103 HMP was finalised and lodged with the Secretary of the DP&E for approval'</i>.</p> <p>MCO contacted OEH (letter dated 15/03/2017) to request a review of the Longwall 101-103 Extraction Plans Heritage Management Plan.NSW OEH provided a response to the request for review on 15/06/2017 but had no specific comments on the HMP.</p> <p>Potential impacts are covered in Section 4 (Predicted Subsidence Impacts and Environmental Consequences), Section 5 (Performance Measures and Indicators), Section 6 (Monitoring and Management), Section 7 (Contingency plan) and Section 8 (Review and Improvement of Environmental Performance).</p>	<p>HMP (Appendix D of the Extraction Plan)</p> <p>Letter to OEH from MCO (dated 15/03/2017) RE request for review of Longwall 101-103 Heritage Management Plan</p> <p>Letter from OEH (dated 14/08/2017) RE Review of Longwall 101-103 Heritage Management Plan</p>	There are no recommendations
PA08_0135	4	5	<p>5. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(l) include a Public Safety Management Plan, which has been prepared in consultation with DRE, to ensure public safety in the mining area;</p>	C	<p>A Public Safety Management Plan is included as Appendix F of the Extraction Plan for UG1 Longwalls 101 to 103.</p> <p>MCO contacted DRE (letter dated 12/05/2017) to request a review of the Longwall 101-103 Extraction Plans Public Safety Management Plan. DRE provided a response to the request for review on 14/08/2017. DRG did not seek to make any comment. These letters were sighted during the audit.</p> <p>Potential impacts are covered in Section 4 (Predicted Subsidence Impacts and Environmental Consequences), Section 5 (Performance Measures and Indicators), Section 6 (Monitoring and Management), Section 7 (Contingency plan) and Section 8 (Review and Improvement of Environmental Performance).</p>	<p>Public Safety Management Plan (Appendix F of the Extraction Plan)</p> <p>Letter to DRE from MCO (dated 12/05/2017) RE request for review of Longwall 101-103 Extraction Plan: Public Safety Management Plan</p> <p>Letter from DRE (dated 14/08/2017) RE request for review of Longwall 101-103 Extraction Plan: Public Safety Management Plan</p>	There are no recommendations
PA08_0135	4	5	<p>5. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(m) include a Subsidence Monitoring Program, which has been prepared in consultation with DRE, to:</p> <ul style="list-style-type: none"> describe the on-going subsidence monitoring program; provide data to assist with the management of the risks associated with subsidence; validate the subsidence predictions; analyse the relationship between the predicted and resulting subsidence effects and predicted and resulting impacts under the plan and any ensuing environmental consequences; and inform the contingency plan and adaptive management process; 	C	<p>A Subsidence Monitoring Plan is included as Appendix G of the Extraction Plan for UG1 Longwalls 101 to 103.</p> <p>MCO contacted DRE (letter dated 12/05/2017) to request a review of the Longwall 101-103 Extraction Plans including the subsidence monitoring program. DRE provided a response to the request for review on 14/08/2017. DRG did not seek to make any comment and considers that subsidence is adequately covered by the MOP.</p> <p>Additionally a letter from MCO to DRG (letter dated 5/09/2017) was sighted. The letter requested a review of the latest version of the Longwall 101-103 Subsidence Monitoring Program. No additional comments were received from DRG.</p> <ul style="list-style-type: none"> This is covered in section 5 (Surface features included in the monitoring program) and section 7 (Monitoring). Section 7 (Table 3) describes the subsidence parameter monitoring components and the frequency of monitoring. The monitoring program as outlined in section 7 is designed to compare and validate the subsidence predictions. Analysis of subsidence effects, impacts and environmental consequences is covered in section 8 of the Subsidence Monitoring Plan. Contingency response is included in section 4.1 (Contingency Response) of the Extraction Plan and section 4.2 (Adaptive Management) 	<p>Subsidence Monitoring Plan (Appendix G of the Extraction Plan)</p> <p>Letter to DRE from MCO (dated 12/05/2017) RE request for review of Longwall 101-103 Extraction Plan</p> <p>Letter from DRE (dated 14/08/2017) RE request for review of Longwall 101-103 Extraction Plan</p> <p>Letter to DRG from MCO (dated 5/09/2017) RE request for review of Longwall 101-103 Subsidence Monitoring Program</p> <p>Longwalls 101-103 Extraction Plan</p>	There are no recommendations
PA08_0135	4	5	<p>5. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(n) include a contingency plan that expressly provides for adaptive management where monitoring indicates that there has been an exceedance of any performance measure in Tables 18 and 19, or where any such exceedance appears likely;</p>	C	<p>This is covered in section 4.1 (Contingency response) and 4.2 (Adaptive management).</p>	<p>Extraction Plan</p>	There are no recommendations
PA08_0135	4	5	<p>5. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(o) proposes appropriate revisions to the Rehabilitation Management Plan required under condition 56 of Schedule 3;</p>	C	<p>This is covered in section 3.7.</p>	<p>Extraction Plan</p>	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	4	5	<p>5. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:</p> <p>(p) include a program to collect sufficient baseline data for future Extraction Plans.</p> <p>Note: To identify the longwall mining domains referred to in this condition, see Appendix 2.</p>	C	<p>This is covered in Attachment 3 (Program to Collect Baseline Data for future extraction plans) and appendices A to F which all have a baseline data and extraction schedule section.</p> <ul style="list-style-type: none"> - Appendix A (Water Management Plan) - section 4 - Appendix B (Land Management Plan) - section 4 - Appendix C (Biodiversity Management Plan) - section 4 - Appendix D (Heritage Management Plan) - section 4 - Appendix E1 (ARTC), E2 (Mid-Western Regional Council), E3 (TransGrid), E4 (Essential Energy), E5 (Telstra) - section 4 - Appendix F (Public Safety Management Plan) - section 4 	Extraction Plan	There are no recommendations
PA08_0135	4	6	<p>6. The Proponent shall ensure that the management plans required under conditions 5(g)-(l) above include:</p> <p>(a) an assessment of the potential environmental consequences of the Extraction Plan, incorporating any relevant information that has been obtained since this approval; and</p> <p>(b) a detailed description of the measures that would be implemented to remediate predicted impacts.</p>	C	<p>(a) Potential environmental consequences of the extraction plan are covered in section 3 and Appendix A to D.</p> <ul style="list-style-type: none"> - Appendix A (Water Management Plan) - section 4 - Appendix B (Land Management Plan) - section 4 - Appendix C (Biodiversity Management Plan) - section 4 - Appendix D (Heritage Management Plan) - section 4 <p>(b) Remediation is covered in section 3.7 and Appendix A to D.</p> <ul style="list-style-type: none"> - Appendix A (Water Management Plan) - section 7 and 8 - Appendix B (Land Management Plan) - section 7 and 8 - Appendix C (Biodiversity Management Plan) - section 7 and 8 - Appendix D (Heritage Management Plan) - section 7 and 8 	Extraction Plan	There are no recommendations
PA08_0135	4	7	<p>First Workings</p> <p>7. The Proponent may carry out first workings on site other than in accordance with an approved Extraction Plan, provided that DRE is satisfied that the first workings are designed to remain long-term stable and non-subsiding, except insofar as they may be impacted by approved second workings.</p>	C	<p>During the audit a letter from DP&E (dated 04/05/2016) was sighted which states that DP&E approves the extraction plan. Another letter from DP&E was also sighted (dated 31/08/2018) which approves a revision of the Extraction Plan for areas outside the original extraction plan.</p>	<p>Letter from DP&E (dated 04/05/2016) RE: approval of Extraction plan</p> <p>Letter from DP&E (dated 31/08/2018) RE: approval of revision of Extraction plan</p>	There are no recommendations
PA08_0135	4	7A	<p>Second Workings under Palaeochannel</p> <p>7A. The Proponent shall ensure that the longwall panels of the project do not underlie any saturated section of the paleochannel in the vicinity of Wilpinjong Creek, unless it has demonstrated that it has obtained the necessary water licences, to the satisfaction of the Secretary.</p>	C	<p>Longwalls 101-103 do not impact palaeochannels in the vicinity of Wilpinjong Creek.</p> <p>Figure 4 of the Groundwater Technical Report (HydroSimulations UG1 Groundwater Assessment Review, March 2017) shows that Longwalls 104 and 105 come very close to the modelled palaeochannel outline. Longwalls 104 and 105 have not been completed during the reporting period and thus the impact to the paleochannel is yet to be determined and further investigations are required.</p> <p>To comply with this condition and the recommendations of the Groundwater Technical Report to install additional groundwater Monitoring bores, three additional bores were installed in July 2017. These are PZ211, PZ213 and PZ214 as shown in Figure 3 of the approved complex Groundwater Management plan. These are to the north east of LW101 and LW105. The 2017 Annual Review includes monitoring data for these bores and form A for these bores was sighted by auditors.</p>	<p>Groundwater Technical Report HydroSimulations UG1 Groundwater Assessment Review (dated 20 March 2017)</p> <p>GWMP 2017 Annual Review</p> <p>Form A PZ211 (24/07/2017) Form A PZ 213 (26/07/2017) Form A PZ214 (28/07/2017)</p>	There are no recommendations
PA08_0135	4	8	<p>Payment of Reasonable Costs</p> <p>8. The Proponent shall pay all reasonable costs incurred by the department to engage suitably qualified, experienced and independent experts to review the adequacy of any aspect of an Extraction Plan.</p>	Noted	N/A	N/A	N/A
PA08_0135	4	9	<p>Gas Drainage</p> <p>9. The Proponent shall implement all reasonable and feasible measures to minimise the greenhouse gas emissions from the underground mining operations to the satisfaction of the Secretary.</p>	C	<p>During the audit a letter from DP&E (dated 05/04/2016) was sighted which states that the Greenhouse Gas Minimisation Plan (GHGMP) has been approved by DP&E.</p> <p>Management measures are set out in Section 4 of the GHGMP.</p> <p>MCO reports on its hydrocarbon use and Greenhouse Gas Emissions annually through the National Pollution Inventory (NPI) and the National Greenhouse and Energy Reporting Scheme (NGERS)</p>	<p>Letter from DP&E (dated 05/04/2016) RE: GHGMP approval.</p>	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	4	10	<p>Greenhouse Gas Minimisation Plan</p> <p>10. Prior to carrying out underground mining operations, the Proponent shall submit an updated Greenhouse Gas Minimisation Plan to the Secretary. This plan must:</p> <p>(a) identify options for minimising greenhouse gas emissions from underground mining operations, with a particular focus on capturing and/or using these emissions;</p> <p>(b) investigate the feasibility of implementing each option;</p> <p>(c) propose the measures that would be implemented in the short to medium term on site; and</p> <p>(d) include a research program to inform the continuous improvement of the greenhouse gas minimisation measures on site.</p>	C	<p>During the audit a letter from DP&E (dated 05/04/2016) was sighted which requests that the GHG plan be updated.</p> <p>During the audit a letter from DP&E (dated 13/07/2016) was sighted which states that no consultation is required for revision of certain plans.</p> <p>These plans are: the Blast Management plan; Blast fume management plan; Energy savings plan; EMS; Landscape management plan; BioMP; Rehabilitation management plan and Greenhouse Gas Management Plan.</p> <p>(a) Section 4 of the GHGMP identifies and assesses the feasibility of greenhouse gas management controls for underground operations. Section 4 has options for GHG capture and reuse including: Flaring (open and closed); power generation; gas drainage; Thermal flow reversal reactors (TFRR); Regenerative Afterburners; and Hybrid Coal Gas Turbines.</p> <p>(b) Section 4.1 of the GHGMP assessed the feasibility of greenhouse gas management controls for underground operations.</p> <p>(c) Section 4 of the GHGMP identifies and assesses the feasibility of greenhouse gas management controls for underground operations</p> <p>(d) Section 5.2 of the GHGMP covers research and continuous improvement and states that Moolarben will 'review industry developments in fugitive underground gas emission management technologies and identify opportunities where relevant'.</p>	<p>Letter from DP&E (dated 05/04/2016) RE: Update of the GHG plan.</p> <p>Letter from DP&E (dated 13/07/2016) RE: Consultation exemptions of specific management plan revisions.</p> <p>(a) GHGMP</p> <p>(b) GHGMP</p> <p>(c) GHGMP</p> <p>(d) GHGMP</p>	There are no recommendations
PA05_0117	5	1	<p>Environmental Management</p> <p>1. The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must:</p> <p>(a) be submitted to the Secretary for approval within 6 months of the date of this approval;</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>	C	<p>An Environmental Management Strategy (EMS) (EMS Version 1) was prepared in December 2008 to satisfy Project Approval 05_0117 Schedule 5 condition 1. During the audit a letter from DP&E (dated 31/07/2015) was sighted which states that approval of the EMS was given by DP&E.</p> <p>The EMS was revised in 2016. During the audit a letter from DP&E (dated 13/07/2016) was sighted which states that no consultation is required for revision of certain plans. These plans are: the Blast Management plan; Blast fume management plan; Energy savings plan; EMS; Landscape management plan; BioMP; Rehabilitation management plan and Greenhouse Gas Management Plan. However this plan has not yet been approved by DP&E.</p> <p>(a) Appendix F of the EMS provides evidence that the EMS was submitted to the Secretary for approval and approval was granted on 31 July 2015.</p> <p>(b) The EMS provides the strategic framework for environmental management of the project.</p> <p>(c) Statutory approvals that apply to the project are covered in section 4 of the EMS.</p> <p>(d) Section 5.1 of the EMS and Appendix E describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project.</p>	<p>Appendix F of the EMS (Letter from DP&E re Approval of Environmental Management Strategy, 31 Jul 2015)</p> <p>Letter from DP&E (dated 13/07/2016) RE: Consultation exemptions of specific management plan revisions.</p> <p>Environmental Management Strategy (EMS)</p> <p>MCO website</p>	There are no recommendations
PA05_0117	5	1	<p>Environmental Management</p> <p>1. The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must:</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; 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 approval; and a clear plan depicting all the monitoring to be carried out in relation to the project. 	C	<p>(e) • Information dissemination is described in section 5.3 of the EMS which provides details about the community consultative committee (CCC), information provided on the MCO website and internal communications.</p> <ul style="list-style-type: none"> The complaints procedure is covered in section 5.4 of the EMS and the specific process is provided in Figure 5. Dispute resolution is covered in section 5.5 and the specific process is provided in Figure 6. A protocol for the managing and reporting of non-compliances with statutory requirements has been developed as a component of this EMS and is detailed in section 6.2. Response to emergencies is covered in section 5.2 and section 6.3. <p>(f) • Section 6 (Table 4) provides a summary of Required Environmental Management Strategies, Plans and Programs. These documents can be found on the MCO website.</p> <ul style="list-style-type: none"> Section 6 of the Environmental Management Plans 	<p>Environmental Management Strategy (EMS)</p> <p>MCO website</p>	There are no recommendations
PA05_0117	5	2	<p>Adaptive Management</p> <p>2. The Proponent must assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schd. 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.</p> <p>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 course of action; and</p> <p>(c) implement remediation measures as directed by the Secretary, to the satisfaction of the Secretary.</p>	Noted	<p>During the audit period there has been one exceedance of management criteria.</p> <p>DP&E issued a Penalty notice in 2017 regarding exceedance of blast overpressure criteria. The penalty notice was dated 26/05/2017.</p> <p>On 17 February 2017 air blast overpressure from an overburden blast event in OC4 Strip 2 exceeded 120dB at a noise sensitive location. The incident was reported to DP&E and NSW EPA. Overpressure exceedances were investigated and a revision of blasting procedures was completed. No complaints were received about the exceedance.</p> <p>DP&E issued a Penalty notice dated 26/10/2017 regarding stockpile placement. The penalty notice included an Order from DP&E (dated 24 November 2017) to remedy the breach of condition 2 of Schedule 2 of the Approvals.</p> <p>In response MCO have included this stockpile in Modification 14 currently undergoing assessment by DP&E.</p>	<p>Penalty Notices (Blast overpressure 26/05/2017; Stockpile Placement 26/10/2017)</p>	<p>There is no further recommendation</p> <p>MCO investigated the causes of the overpressure exceedances and implemented remedial measures as required.</p> <p>MCO have issued a Modification currently undergoing assessment to remedy the stockpile breach.</p>

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	5	3	<p>Management Plan Requirements</p> <p>3. The Proponent shall ensure that the management plans required under this approval 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 approval, licence or lease conditions); any relevant limits or performance measures/criteria; the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures; <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); 	C	<p>(a) Detailed baseline data is included in various sections of relevant management plan and Environmental Assessments.</p> <p>(b)</p> <ul style="list-style-type: none"> Relevant statutory requirements (including any relevant approval, licence or lease conditions) are provided in section 2 of the majority of the plans Relevant limits and specific performance and management measures/criteria are provided in sections 3 and 4 of the majority of plans. Performance measures and management measures are provided in sections 6 and 7 of the majority of plans. <p>(c) A description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria are generally provided in sections 6 and 7.</p> <p>(d)</p> <ul style="list-style-type: none"> monitoring programs and reporting are generally covered in section 7 and 8 in environmental performance of the project effectiveness of any management measures are usually covered in section 9 and 10. 	<p>- AQMP</p> <p>- BioMP</p> <p>- Blast Fume Management</p> <p>- Blast Management Plan</p> <p>- Energy Savings Management Plan</p> <p>- EMS</p> <p>- EPBC Biodiversity Offset Management Plan</p> <p>- GHGMP</p> <p>- Heritage Management Plan</p> <p>- Landscape Management Plan</p>	There are no recommendations
PA05_0117	5	3	<p>Management Plan Requirements</p> <p>3. The Proponent shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:</p> <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>	C	<p>(e) Contingency plans are usually covered in section 9 or 11.</p> <p>(f) investigation and implementation of ways to improve the environmental performance of the project over time are usually presented in section 10 of the environmental management plans and also within section 6, section 10 and section 12 of the 2016 Annual Review and section 6, 11 and 13 of the 2017 Annual Review.</p> <p>(g)</p> <p>The protocols for managing and reporting incidents, complaints; non-compliances with statutory requirements; and exceedances of the impact assessment criteria and/or performance criteria is outlined in sections 7, 8, and/or 11;</p> <p>(h) Periodic review of the plans is usually addressed in section 10 of the environmental management plans and in section 7 of the EMS.</p>	<p>- NMP</p> <p>- Pollution incident Response Management Plan</p> <p>- Rehabilitation Management Plan</p> <p>- WMP</p> <p>- Annual Review 2016 and 2017</p>	There are no recommendations
PA05_0117	5	4	<p>Annual Review</p> <p>4. By the end of March each year, or other timing as may be agreed by the Secretary, the Proponent shall review the environmental performance of the project to the satisfaction of the Secretary. This review must:</p> <p>(a) describe the development that was carried out in the previous calendar year, and the development that is proposed to be carried out over the next year;</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against the</p> <ul style="list-style-type: none"> the relevant statutory requirements, limits or performance measures/criteria; the monitoring results of previous years; and the 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;</p> <p>(f) describe what measures will be implemented over the next year to improve the environmental performance of the project.</p>	C	<p>(a) Section 2 of the 2017 Annual Review describes the scope of the annual review and section 4 provides and operations summary and section 13 describes the activities to be completed in the next reporting period. Section 2 of the 2016 Annual Review describes the scope of the annual review and section 4 provides and operations summary and section 12 describes the activities to be completed in the next reporting period. The 2018 annual review was not available at the time of the audit.</p> <p>(b) Section 6 of the 2016 and 2017 Annual Review covers environmental performance. Section 10 of the 2016 and 2017 Annual Review covers community complaints. The 2018 annual review was not available at the time of the audit.</p> <p>(c) Section 1 'Statement of compliance' in both the 2016 and 2017 Annual review and Table 1 and Table 2 in the 2017 Annual Review also identifies any non-compliances. Section 12 of the 2017 Annual Review and section 11 of the 2016 Annual Review provide details of the non-compliance and the actions that were taken. The 2018 annual review was not available at the time of the audit.</p> <p>(d) Environmental performance is covered in section 6 of both the 2016 and 2017 Annual reviews. This section provides a comparison to results from previous years for environmental factors (such as noise, air quality etc.). The 2018 annual review was not available at the time of the audit.</p> <p>(e) Comparison of monitoring data to previous monitoring and predicted impacts are covered in section 6 of both the 2016 and 2017 Annual review. The 2018 annual review was not available at the time of the audit.</p> <p>(f) Section 13 of the 2017 Annual Review describes the activities to be completed in the next reporting period. Section 12 of the 2016 Annual Review describes the activities to be completed in the next reporting period. The 2018 annual review was not available at the time of the audit.</p>	<p>Annual Review 2016, 2017</p>	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	5	5	<p>Revision of Strategies, Plans and Programs</p> <p>5. Within 3 months of the submission of:</p> <p>(a) the submission for annual review under condition 4 above;</p> <p>(b) the submission for incident report under condition 7 below;</p> <p>(c) the submission for audit under condition 9 below; or</p> <p>(d) any modification 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. Where this review leads to revisions in any such document, then within four weeks of the review the revised document must be submitted to the Secretary for approval.</p> <p>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.</p>	Observation	<p>Based on the review of MCO's management plans, (including tracking of reviews and revisions, the auditor considers that the intent of this condition has been met by MCO.</p> <p>The Revision Control Chart at the start of every Management Plan includes details of revisions.</p> <p>Document review requirements were not included in the EM Strategy used for the reporting period. Additionally, references to triggers for the review of individual plans is not consistent in each plan. For example, the NMP does not reference review of the plan after the submission of an incident report. The BLMP does not reference any review requirements. The BMP and CHMP only make reference to review after modification of projects approvals.</p> <p>However Section 6 of the EMS (V4) as approved by October 2018 states: <i>"These plans will be reviewed, and if necessary revised within 3 months of the submission of an annual review, incident report, independent audit or any modification to the Project Approvals, in accordance with Condition 5, Schedule 5 and Condition 5, Schedule 6 of the Project Approvals (05_0117 and 08_0135, respectively)."</i></p> <p>As the latest version of the EMS was not used during the audit period this condition has been marked as an observation.</p>	<p>EM Strategy Management Plans</p> <p>EM Strategy (v4) dated September 2018.</p>	There are no recommendations
PA05_0117	5	6	<p>Community Consultative Committee</p> <p>6. The Proponent shall operate a Community Consultative Committee (CCC) for the Moolarben mine complex to the satisfaction of the Secretary. This CCC must be operated in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version).</p> <p>Notes: • The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval; and • The CCC should be comprised of an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community.</p>	C	<p>Section 5.3 of the EMS states the following: <i>'Community Consultative Committee (CCC) has been established to the satisfaction of the Secretary of the Department of Planning and Environment (DP&E). The CCC is operated in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007).'</i></p> <p>Minutes of recent meetings (March 2016 to September 2018) were reviewed during the audit. Meetings have been held each three to four months. Minutes of CCC meetings are available on the Moolarben Coal website.</p>	<p>CCC meeting minutes (March 2016 to September 2018)</p> <p>EMS</p> <p>MCO website</p>	There are no recommendations
PA05_0117	5	7	<p>Incident Reporting</p> <p>7. The Proponent shall immediately notify 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>	C	<p>Reportable incidences are summarised in the Annual Reviews.</p> <p>Environmental reporting requirements including timing, submission and distribution method are summarised in Section 6 (Table 5) of the EMS. Incidents are reported to DP&E, EPA and other relevant agencies via email.</p> <p>The MOP provides the following summary of incident reporting: <i>MCO will notify the Secretary of the DP&E, the EPA and any other relevant agencies immediately after MCO becomes aware of the incident.</i></p> <p><i>Within seven days of the date of the incident, MCO will provide the Secretary of the DP&E and any relevant agencies with a detailed report on the incident. The report will:</i></p> <ul style="list-style-type: none"> - Describe the date, time and nature of the exceedance/incident; - Identifies the cause (or likely cause) of the exceedance/incident; - Describes what action has been taken to date; and - Describes the proposed measures to address the exceedance/incident. <p>Additionally most management plans state that either the MCO protocol for managing and reporting incidents will be followed or specifies that DP&E will be notified of the incident and that a report will be provided within 7 days.</p> <p>Evidence of notification was sighted during the audit for the blast overpressure incident.</p>	<p>Annual Review 2016 and 2017</p> <p>EMS</p> <p>MOP</p> <p>Management Plans</p> <p>Penalty Notices (Blast overpressure 26/05/2017)</p>	There are no recommendations
PA05_0117	5	8	<p>Regular Reporting</p> <p>8. The Proponent shall provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.</p>	C	<p>MCO provides monthly Environmental Monitoring Reports on its website, as well as reporting on environmental performance to the CCC during their meeting the minutes of which are published on the MCO website. Additionally the Annual Reviews are published online which includes an analysis of environmental performance over the year.</p>	<p>MCO website</p> <p>- 2016 Annual Review</p> <p>- 2017 Annual Review</p> <p>- Sample CCC meeting minutes (March 2016, December 2016, September 2017, June 2018)</p> <p>- Sample of Monthly Environmental Reports (January 2018 - August 2018)</p>	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	5	9	<p>Auditing</p> <p>9. By 31 December 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) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals; and</p> <p>(e) recommend measures or actions to improve the environmental performance of the Moolarben mine complex, and/or any strategy, plan or program required under these approvals.</p> <p>Note: • Notwithstanding the timing referred to above, audits must be carried out prior to the completion of longwall panels 4 and 8. The Proponent must liaise with the Department to determine the precise date of these audits. • This audit team should be led by a suitably qualified auditor, and include experts in the field of subsidence, surface water and groundwater management, noise, ecology and mine rehabilitation.</p>	C	<p>This Independent Environmental Audit (IEA) of the Moolarben Coal Complex was commissioned by Moolarben Coal in October 2018. The last IEA was completed three years previously by Trevor Brown & Associates (2015).</p> <p>(a) The audit has been conducted by a suitably qualified, experienced and independent team of experts endorsed by DP&E on 16/07/2018:</p> <ul style="list-style-type: none"> - Ken Holmes - Lead Auditor - Dr. Avanish Panikkar - Air Quality/ Environmental Auditor - Dr Doug Ford - Environmental Noise - Adam Bishop - Surface Water Management - Dr Yohannes Woldeyohannes - Groundwater Management - Isaac Mamott - Ecology/ Mine Rehabilitation - Sandra Wallace - Aboriginal Heritage <p>(b) Consultation with the DRG, DPI-Lands and Water, DPI - Natural Resources Access Regulator, DP&E, EPA, OEH and Mid-Western Regional Council occurred on 2/10/2018</p> <p>(c) The auditors assessed environmental performance of the project and compliance with the requirements in this approval, and any other relevant approvals, relevant EPL 12932 and Mining Lease environmental conditions (including assessments, plans and/or programs required under these approvals)</p> <p>(d) The auditors reviewed the adequacy of approved strategy, plans or programs required under the relevant approvals</p> <p>(e) The auditors identified and where relevant recommended measures or actions to improve the environmental performance of the Moolarben Coal Complex, and/or the strategy, plans or programs under the relevant approvals.</p>	<p>pitt&sherry IEA 2018</p> <p>Letter from DP&E RE: Endorsement of the Auditor and Experts for the Independent Environmental Audit (16/07/2018)</p>	There are no recommendations
PA05_0117	5	10	<p>10. Within 6 weeks of completing this audit, or as otherwise agreed by the Secretary, the Proponent shall submit a copy of the audit report to the Secretary with a response to any recommendations contained in the audit report.</p>	Noted	Refers to the process of responding to this audit.	N/A	There are no recommendations
PA05_0117	5	11	<p>Access to Information</p> <p>11. The Proponent shall:</p> <p>(a) make the following information publicly available on its website:</p> <ul style="list-style-type: none"> • the EA; • current statutory approvals for the project; • approved strategies, plans or programs required under the conditions of this approval; • a comprehensive summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval; • a complaints register, which is to be updated on a monthly basis; • minutes of CCC meetings; • the last five annual reviews; • any independent environmental audit, and the Proponent's response to the recommendations in any audit; • any other matter required by the Secretary; and <p>(b) keep this information up to date,</p> <p>(c) investigate and report on reasonable and feasible measures to make predictive meteorological data and real time monitoring data publicly available on its website to the satisfaction of the Secretary.</p>	C	<p>All of the documents listed in PA05_0117 Schedule 5 Condition 11 are on the website.</p> <p>Note: The complaints summary is reported yearly however the current year is updated monthly.</p>	MCO website	There are no recommendations
PA08_0135	5	1	<p>Notification of Landowners/Tenants</p> <p>1. Within 1 month 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"> • any land listed in Table 1 and any residence or land exceeding the criteria in Tables 4 or 5 (respectively) of Schedule 3 that they have the right to require the Proponent to acquire their land at any stage during the project; • any residence on the land listed in Table 2 and any residence exceeding the criteria in Table 6 of Schedule 3 that they have the right to request the Proponent for additional noise mitigation measures to be installed at their residence at any stage during the project; and • any privately-owned land within 2 kilometres of the approved open cut mining pit/s that they are entitled 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>	C	<p>This was completed in 2015 which is outside the audit period. However during the audit a letter from MCO to landowners/ tenants (dated 24/02/2015) was sighted which was compliant with PA08_0135 Schedule 5 Condition 1.</p>	<p>Letter from MCO to Landowners/Tenants (dated 24/02/2015) RE: Example letter to D&J Stokes at 1313 Moolarben Road.</p>	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	5	2	<p>2. Prior to entering into any tenancy agreement for any land owned by the Proponent that is predicted to experience exceedances of the recommended dust and/or noise criteria, or for any of the land listed in Table 3 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); and</p> <p>(b) advise the prospective tenants of the rights they would have under this approval, to the satisfaction of the Secretary.</p>	C	During the audit a letter from MCO to landowners/ tenants (dated 02/02/2018) was sighted which was compliant with PA08_0135 Schedule 5 Condition 2 and included a copy of the NSW Health fact sheet "Mine Dust and You".	Letter from MCO to Landowners/Tenants (dated 02/02/2018) RE: Health impacts of living near a mine and landowner rights	There are no recommendations
PA08_0135	5	3	<p>3. As soon as practicable after obtaining monitoring results showing:</p> <p>(a) an exceedance of any relevant criteria in Schedule 3, the Proponent shall notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the project is again complying with the relevant criteria; and</p> <p>(b) an exceedance of the relevant air quality criteria in Schedule 3, the Proponent shall send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land).</p>	Not triggered	N/A	N/A	N/A
PA08_0135	5	4	<p>Independent Review</p> <p>4. If an owner of privately-owned land considers the project to be exceeding the criteria in Schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the project on his/her land. 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"> determine if more than one mine is responsible for the exceedance, and if so the relative share of each mine regarding the impact on the land; identify the measures that could be implemented to ensure compliance with the relevant criteria; and <p>(b) give the Secretary and landowner a copy of the independent review.</p>	C	<p>Two independent reviews have been requested.</p> <p>1) Property 300, Collins and Marshall. Bridges Acoustics completed an Independent Noise Review at this property during September and October 2015. The report concluded that the measured noise levels, after filtering by frequency and time to remove the influence of non-mine sources such as road traffic and insects demonstrated compliance with noise criteria. The report did not recommend any additional operational noise mitigation or management measures. The request from DP&E for an independent review is contained in Appendix A of the Independent Noise Review.</p> <p>2) Property 76, Carbone. Bridges Acoustics completed an Independent Noise Review at this property during September and October 2015. The report concluded that the measured noise levels, after filtering by frequency and time to remove the influence of non-mine sources such as road traffic and insects demonstrated compliance with noise criteria. The report did not recommend any additional operational noise mitigation or management measures. The request from DP&E for an independent review is contained in Appendix A of the Independent Noise Review.</p> <p>Management stated that both reviews had been provided to the Secretary and the landowner.</p>	Bridges Acoustics Independent Noise Review Property 300, Collins and Marshall, January 2016 Bridges Acoustics Independent Noise Review Property 76, Carbone, January 2016 Management Assertion	There are no recommendations
PA08_0135	5	5	<p>Land Acquisition</p> <p>5. Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent shall make a binding written offer to the landowner based on:</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 noise mitigation measures in conditions 2 and 6 of Schedule 3; (b) the reasonable costs associated with: <ul style="list-style-type: none"> relocating within the Mid-Western Regional Council 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 reasonable compensation for any disturbance caused by the land acquisition process. <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. Upon receiving such a request, the Secretary will 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>	Not triggered	N/A	N/A	N/A

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
			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. 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. 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.				
PA08_0135	5	6	The Proponent shall pay all reasonable costs associated with the land acquisition process described in condition 5 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.	Not triggered	N/A	N/A	N/A
PA08_0135	6	1	<p>Environmental Management</p> <p>1. The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must:</p> <p>(a) be submitted to the Secretary for approval within 6 months of the date of this approval;</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; • 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 approval; and • a clear plan depicting all the monitoring to be carried out in relation to the project. 	C	Refer to audit findings in PA05_0117 schedule 5 condition 1	Refer to audit findings in PA05_0117 schedule 5 condition 1	Refer to audit findings in PA05_0117 schedule 5 condition 1
PA08_0135	6	2	<p>Adaptive Management</p> <p>2. The Proponent must assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schd. 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.</p> <p>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; (b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and</p> <p>(c) implement remediation measures as directed by the Secretary, to the satisfaction of the Secretary.</p>	Noted	Refer to audit findings in PA05_0117 schedule 5 condition 2	Refer to audit findings in PA05_0117 schedule 5 condition 2	Refer to audit findings in PA05_0117 schedule 5 condition 2

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	6	3	<p>Management Plan Requirements</p> <p>3. The Proponent shall ensure that the management plans required under this approval 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 approval, licence or lease conditions); any relevant limits or performance measures/criteria; the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures; <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>	C	Refer to audit findings in PA05_0117 schedule 5 condition 3	Refer to audit findings in PA05_0117 schedule 5 condition 3	Refer to audit findings in PA05_0117 schedule 5 condition 3
PA08_0135	6	4	<p>Annual Review</p> <p>4. By the end of March each year, or other timing as may be agreed by the Secretary, the Proponent shall review the environmental performance of the project to the satisfaction of the Secretary. This review must:</p> <p>(a) describe the development that was carried out in the previous calendar year, and the development that is proposed to be carried out over the next year;</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against the</p> <ul style="list-style-type: none"> the relevant statutory requirements, limits or performance measures/criteria; the monitoring results of previous years; and the 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>	C	<p>(a) Section 2 of the 2017 Annual Review describes the scope of the annual review and section 4 provides and operations summary and section 13 describes the activities to be completed in the next reporting period. Section 2 of the 2016 Annual Review describes the scope of the annual review and section 4 provides and operations summary and section 12 describes the activities to be completed in the next reporting period. The 2018 annual review was not available at the time of the audit.</p> <p>(b) Section 6 of the 2016 and 2017 Annual Review covers environmental performance. Section 10 of the 2016 and 2017 Annual Review covers community complaints. The 2018 annual review was not available at the time of the audit.</p> <p>(c) Section 1 'Statement of compliance' in both the 2016 and 2017 Annual review and Table 1 and Table 2 in the 2017 Annual Review also identifies any non-compliances. Section 12 of the 2017 Annual Review and section 11 of the 2016 Annual Review provide details of the non-compliance and the actions that were taken. The 2018 annual review was not available at the time of the audit.</p> <p>(d) Environmental performance is covered in section 6 of both the 2016 and 2017 Annual reviews. This section provides a comparison to results from previous years for environmental factors (such as noise, air quality etc.). The 2018 annual review was not available at the time of the audit.</p> <p>(e) Comparison of monitoring data to previous monitoring and predicted impacts are covered in section 6 of both the 2016 and 2017 Annual review. The 2018 annual review was not available at the time of the audit.</p> <p>(f) Section 13 of the 2017 Annual Review describes the activities to be completed in the next reporting period. Section 12 of the 2016 Annual Review describes the activities to be completed in the next reporting period. The 2018 annual review was not available at the time of the audit.</p>	Annual Review 2016, 2017	There are no recommendations
PA08_0135	6	5	<p>Revision of Strategies, Plans and Programs</p> <p>5. Within 3 months of the submission of:</p> <p>(a) the submission for annual review under condition 4 above;</p> <p>(b) the submission for incident report under condition 7 below;</p> <p>(c) the submission for audit under condition 9 below; or</p> <p>(d) any modification of this approval, the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within four weeks of the review the revised document must be submitted to the Secretary for approval.</p> <p>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.</p>	Observation	Refer to audit findings in PA05_0117 schedule 5 condition 5	Refer to audit findings in PA05_0117 schedule 5 condition 5	Refer to audit findings in PA05_0117 schedule 5 condition 5

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	6	6	<p>Community Consultative Committee</p> <p>6. The Proponent shall operate a Community Consultative Committee (CCC) for the Moolarben mine complex to the satisfaction of the Secretary. This CCC must be operated in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version).</p> <p>Notes: • The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval; and • The CCC should be comprised of an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community.</p>	C	<p>Section 5.3 of the EMS states the following: 'Community Consultative Committee (CCC) has been established to the satisfaction of the Secretary of the Department of Planning and Environment (DP&E). The CCC is operated in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007)'.</p> <p>Minutes of recent meetings (March 2016 to September 2018) were reviewed during the audit. Meetings have been held each three to four months. Minutes of CCC meetings are available on the Moolarben Coal website.</p>	<p>CCC meeting minutes (March 2016 to September 2018)</p> <p>EMS</p> <p>MCO website</p>	There are no recommendations
PA08_0135	5	7	<p>Incident Reporting</p> <p>7. The Proponent shall immediately notify 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>	C	Refer to audit findings in PA05_0117 schedule 5 condition 7	Refer to audit findings in PA05_0117 schedule 5 condition 7	Refer to audit findings in PA05_0117 schedule 5 condition 7
PA08_0135	6	8	<p>Regular Reporting</p> <p>8. The Proponent shall provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.</p>	C	Refer to audit findings in PA05_0117 schedule 5 condition 8	Refer to audit findings in PA05_0117 schedule 5 condition 8	Refer to audit findings in PA05_0117 schedule 5 condition 8
PA08_0135	6	9	<p>Auditing</p> <p>9. By 31 December 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) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals; and</p> <p>(e) recommend measures or actions to improve the environmental performance of the Moolarben mine complex, and/or any strategy, plan or program required under these approvals.</p> <p>Note: • Notwithstanding the timing referred to above, audits must be carried out prior to the completion of longwall panels 4 and 8. The Proponent must liaise with the Department to determine the precise date of these audits. • This audit team should be led by a suitably qualified auditor, and include experts in the field of subsidence, surface water and groundwater management, noise, ecology and mine rehabilitation.</p>	C	Refer to audit findings in PA05_0117 schedule 5 condition 9	Refer to audit findings in PA05_0117 schedule 5 condition 9	Refer to audit findings in PA05_0117 schedule 5 condition 9
PA08_0135	6	10	10. Within 6 weeks of completing this audit, or as otherwise agreed by the Secretary, the Proponent shall submit a copy of the audit report to the Secretary with a response to any recommendations contained in the audit report.	Noted	Refers to the process of responding to this audit.	N/A	There are no recommendations
PA08_0135	6	11	<p>Access to Information</p> <p>11. The Proponent shall:</p> <p>(a) make the following information publicly available on its website:</p> <ul style="list-style-type: none"> • the EA; • current statutory approvals for the project; • approved strategies, plans or programs required under the conditions of this approval; 	C	All of the documents listed in PA08_0135 Schedule 6 Condition 11 are on the website.	MCO website	There are no recommendations
PA08_0135	6	11	<p>Access to Information</p> <p>11. The Proponent shall:</p> <p>(a) make the following information publicly available on its website:</p> <ul style="list-style-type: none"> • a comprehensive summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval; • a complaints register, which is to be updated on a monthly basis; • minutes of CCC meetings; 	C	<p>All of the documents listed in PA08_0135 Schedule 6 Condition 11 are on the website.</p> <p>Note: The complaints summary is reported yearly however the current year is updated monthly.</p>	MCO website	There are no recommendations

Project Approval	Sch.	Con.	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	6	11	<p>Access to Information 11. The Proponent shall:</p> <p>(a) make the following information publicly available on its website:</p> <ul style="list-style-type: none"> • 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,</p> <p>(c) investigate and report on reasonable and feasible measures to make predictive meteorological data and real time monitoring data publicly available on its website to the satisfaction of the Secretary.</p>	C	<p>All of the documents listed in PA08_0135 Schedule 6 Condition 11 are on the website. All information was up to date at the time of the audit.</p>	<p>MCO website</p>	<p>There are no recommendations</p>

Moolarben Coal						
Detailed Findings and Recommendations						
Project Approvals 05_0117 and PA 08_0135						
Project Approval	Statement of Commitments	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	SoC 1	Protect The Drip and Goulburn River Corner Gorge The Drip and the Goulburn River Corner Gorge are shown on the plan titled "Moolarben Coal Mine – Preferred Mine Plan General Layout" contained in Appendix A9 to the "Moolarben Coal Project Response to Submissions". Moolarben will conduct its underground mining operations consistent with the Preferred Project Underground No. 4 layout to protect the Goulburn River features known as the Drip, the Goulburn River Corner Gorge and associated cliffs so that there is no damage whilst seeking to maximise recovery of coal resources and as may be required by any conditions of project approval for the Moolarben Coal Project.	C	The Drip', on the Goulburn River north of UG4, represents the only significant seep/spring GDE within the locality, with native vegetation reliant on this surface expression of water evident within the cliff line of 'The Drip'. A letter (dated 13/03/2015) from DP&E confirming that the Department was satisfied that land tenure and surrounds associated with the Natural feature known as 'The Drip' is resolves to ensure its conservation. This letter was sighted during the audit	Letter from DP&E RE: the drip (dated 13/03/2015)	There are no recommendations
PA05_0117	SoC 2	Shift Change Moolarben undertakes to schedule its major employee shift changes to times outside the hours of 8.15 to 9.00 am and 3.15 to 4.00 pm Monday to Friday to seek to reduce overlap of employee traffic and school transport and as may be required by any conditions of project approval for the Moolarben Coal Project.	C	Shift changes are schedules according to the shift changes timetable. The timetable was sighted during the audit inspection and upon review it was determined that the shift changes were scheduled outside of school bus hours within minimal overlap between the adjoining mines.	Shift change timetable (Excel file)	There are no recommendations
PA05_0117	SoC 3	Replace Water Moolarben will compensate or replace waters (similar quality and quantity) lost by a private landholder as a consequence of the Moolarben Coal Project in accordance with the adopted protocols and procedures contained in the Moolarben Coal Project Environmental Management System and as may be required by any conditions of project approval for the Moolarben Coal Project.	Not triggered	Predicted impacts on private bores is set out in section 4.5.7 of the Water Management Plan, management measures are set out in section 7 and monitoring requirements are set out in section 5.3. MCO reported that there have been no incidences of owners on privately-owned land whose water entitlements have been adversely impacted.	WMP Management assertion	There are no recommendations
PA05_0117	SoC 4	Environmental Management System Moolarben will prepare and implement an Environmental Management System containing Environmental Management Plans, and Mine Operating Plan for the life of the Moolarben Coal Project consistent with the Environmental Assessment Report, the Response to Submissions Report, the Preferred Project Report, subsequent modification applications and as may be required by any conditions of project approval for the Moolarben Coal Project.	C	An Environmental Management Strategy (EMS) (EMS Version 1) was prepared in December 2008 to satisfy Project Approval 05_0117 Schedule 5 condition 1. During the audit a letter from DP&E (dated 31/07/2015) was sighted which states that approval of the EMS was given by DP&E. The following Management Plans have been prepared for the Moolarben Coal Project are available on the MCO website: - AQMP - BioMP - Blast Fume Management Plan - Blast Management Plan - Energy Savings Action Plan - Environmental Management Strategy - EPBC Biodiversity Offset Management Plan - Green House Gas Management Plan - Heritage Management Plan (includes Aboriginal and Historic Heritage) - Landscape Management Plan - Rehabilitation Management Plan (including creek and aquatic rehabilitation) - Noise Management Plan - Water Management Plan including erosion and sediment control - Pollution Incident Response Management Plan The Mine Operations Plan (MOP) was prepared in December 2016 for operations between 1 December 2016 to 1 January 2019.	Appendix F of the EMS (Letter from DP&E re Approval of Environmental Management Strategy, 31 Jul 2015) Management Plan MOP MCO website	There are no recommendations
PA05_0117	SoC 5	Noise in School Rooms Moolarben in consultation with the Ulan Public School and the Department of Education will undertake agreed works to ameliorate potential noise and dust impacts associated with the Moolarben Coal Project upon classrooms and general school operations. OR Moolarben will, should the Department of Education request, on a reasonable basis relating to the effect of noise and dust from the Moolarben Coal Project, negotiate to contribute to or meet reasonable costs toward relocating the school.	C	Air Quality A comprehensive air quality management system including predictive meteorological forecasting, predictive air quality forecasting and real-time air quality monitoring data (i.e. real-time response triggers) has been implemented at the Moolarben Coal Complex. The predictive air quality forecasting system is primarily used as an alert of possible elevated dust levels due to the operations, allowing MCO to temporarily modify proposed operations where relevant to minimise the risk of elevated dust dispersion. Checklist for MPEA's (14/10/18) shows that Ulan school was predicted to have some dust risks during the afternoon and that watercarts were planned to operate to address this risk. Ulan School (Site ID TEOMO1) has a continuous real time air quality monitor which measures Real time PM10. Noise The NMP states that MCO undertakes attended noise monitoring in the surrounding community. The frequency of monitoring is dependent on the location but ranges from monthly to annually. The NMP also states that MCO operates real time noise monitoring units to assess the ongoing performance of the operation. Attended noise monitoring is undertaken monthly at: Ulan Public School (NA1) and is used to evaluate the compliance of the project. There have been no reported exceedances at this location. Auditors reviewed monitoring data from January 2018 to August 2018 which confirmed compliance with noise criteria. Consultation is undertaken with the Ulan Public School as part of CCC meetings and this consultation is used to determine any requirement to relocate the Ulan Public School.	AQMP MPEA Checklist: Environmental Responsibilities (14/10/2018) NMP Monthly Environmental Monitoring Reports (January 2018 to August 2018) CCC Meetings - 14 June 2016 - 6 December 2016 - 14 March 2017 - 12 September 2017 - 12 June 2018	There are no recommendations

Project Approval	Statement of Commitments	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	SoC 6	Land Purchase Commitment Moolarben will accept an obligation to purchase (if so required by any affected private landholder) any land affected by operations of the Moolarben Coal Project in accordance with any requirement to do so as provided in any project approval for the Moolarben Coal Project.	C	Management advised that Property number 32 (The "Stokes" property) has been acquired during the audit period however this property has been voluntarily acquired and was not purchased through an acquisition request. Property number 30 (The "Cox" property) has also been voluntarily purchased by MCO.	Management assertion	There are no recommendations.
PA05_0117	SoC 7	Mine Water Sharing Plan Moolarben will seek to enter into a mine water sharing plan in respect of mining operations of the Ulan Coal Mine and Wilpinjong Coal Mine under the auspices of the Director General of the Department of Planning and as may be required by any conditions of project approval for the Moolarben Coal Project.	C	Additionally MCO have entered into a water sharing agreement with Ulan Coal Mine (UCM) as UCM are a water surplus site. MCO takes water from UCM through the water sharing plan. The Ulan Water sharing agreement was sighted during the audit period (Water Sharing Agreement dated 10/08/2009). The term will expire in 2030.	Ulan coal Mine and Moolarben Coal Mine - Water Sharing Agreement (dated 10/08/2009)	There are no recommendations.
PA05_0117	SoC 8	Voluntary Planning Agreement Moolarben will enter into a Voluntary Planning Agreement with Mid Western Regional Council and the Minister for Planning incorporating the principles contained in the offer by Moolarben to the Minister for Planning on 4 September 2007 to enter into the Voluntary Planning Agreement.	C	A sample of invoices were reviewed during the audit showing that matters set out in Project Approval 05_0117 Appendix 4 are being paid in accordance with the Voluntary Planning Agreement. Invoice from Mid-Western Regional Council (dated 15/02/2018) Stage 2 Community Enhancement Contribution (\$230,533.57) was sighted during the audit.	Project Approval 05_0117 Appendix 4 Voluntary Planning Agreement Invoice (No. 18 2078) from Mid-Western Regional Council (15/02/2018)	There are no recommendations.
PA05_0117	SoC 9	Employ Local People Moolarben will, wherever possible and feasible, employ appropriately qualified persons residing within the local area.	C	Management advised that current staff levels are approximately 750 full-time equivalent employees the majority of which are locally based. This figure is supported by the invoice from Council for \$230,533.57 for the "Stage 2 Community Enhancement Contribution". Management advised that operations recruitment is on-going	Management assertion Invoice (No. 18 2078) from Mid-Western Regional Council (15/02/2018)	There are no recommendations.
PA05_0117	SoC 10	Traineeships Moolarben will provide traineeships for the youth of the local community.	C	A sample of Community meeting minutes were reviewed by auditors - 6 December 2016 - provided an Employment Update. Traineeships – 2nd intake to commence early in 2017 for the OC and UG (Cert 3) and apprenticeships were due to commence in early 2017. - 14 March 2017 - Provided an Employment Update. Traineeships - 13 trainees commenced in January (Cert 3). Next round will include 8 underground traineeships in March and 8 open cut in June. Four apprentices commenced in early 2017. 12 June 2018 - Provided an Employment Update. Traineeships - currently 4 Underground and 8 Open cut and 6 underground and 15 open cut apprenticeships. MCO also participated at the "Try a Trade" workshop at Mudgee High School - 26/27th June	CCC Meeting Minutes: - 6 December 2016 - 14 March 2017 - 12 June 2018	There are no recommendations.
PA05_0117	SoC 11	Dronvisa Quarry Moolarben will seek to enter into an operational agreement with Dronvisa Quarry with regard to the safe continuation of its operations in conjunction with underground mining.	C	MCO has an operational agreement with Dronvisa Quarry. The Deed of Novation (McCullough Robertson 24/12/2015) was viewed during the audit.	Deed of Novation Dronvisa land Access and Compensation Agreement (McCullough Robertson)	There are no recommendations.
PA05_0117	SoC 12	Ecology Moolarben will enter into such arrangements as may be required by the Secretary to provide for ecological offsets as proposed in the Environmental Assessment, Preferred Project Report, subsequent modification applications and as may be required by any conditions of project approval for the Moolarben Coal Project.	C	Appendix 2 'BOMP Approval Correspondence' of the Biodiversity Offset Management Plan (BOMP) provides evidence of consultation with the Secretary and approval of the BOMP. The approval letter is dated 17 December 2014. The Biodiversity Management Plan (BioMP) is being staged and revisions of the plan will be submitted on a progressive basis. During the site inspection management advised the regional location of each offset area and showed auditors each area on a map. Offset areas were also observed during the site inspection.	BOMP Letter from DP&E (dated 17/12/2014) RE approval of Biodiversity Offset Management Plan Site inspection	There are no recommendations.
PA05_0117	SoC 13	Flows in the Goulburn River – Co-operative Monitoring Program Moolarben will use its reasonable endeavours to agree and implement a monitoring program in cooperation with the Ulan and Wilpinjong mines (and to the reasonable requirement of the Director General who will consult with the DPI Water) to identify any potential for any change in the water flows in the Goulburn River due to mining at the Moolarben, Ulan and Wilpinjong mines and as may be required by any conditions of project approval for the Moolarben Coal Project.	C	A Data Sharing Deed signed on 16/01/2014 provides the protocol for sharing of environmental monitoring data between Moolarben Coal, Ulan Coal and Wilpinjong Coal, including access to flow data when required. Flow monitoring is carried out by Ulan Coal at Goulburn River and Moolarben Creek, and additional flow monitoring in Wilpinjong Creek downstream of the Moolarben Coal is carried out by the Wilpinjong Coal. Monitoring results presented in Annual reviews and monthly monitoring reports.	WMP Data Sharing Deed, 16/01/2014 2016 and 2017 Annual Reviews Sample of Monthly Environmental Monitoring Reports (January 2018 to August 2018)	There are no recommendations.
PA05_0117	SoC 14	Mine Water Management and Salinity – Sharing with Ulan and Wilpinjong Moolarben will use its reasonable endeavours to agree and implement a co-operative arrangement with and enter into a life of mine agreement between the Ulan and Wilpinjong mines (the "Mines") to establish, implement and operate water sharing and use plans and procedures with the objective of minimising the removal by the Mines of water from the environment and the discharge of mine waters by the Mines to the environment and which shall address the ability of the Mines to utilise mine water produced by the Mines between the Mines and as may be required by any conditions of project approval for the Moolarben Coal Project.	C	Additionally MCO have entered into a water sharing agreement with Ulan Coal Mine (UCM) as UCM are a water surplus site. MCO takes water from UCM through the water sharing plan. The Ulan Water sharing agreement was sighted during the audit period (Water Sharing Agreement dated 10/08/2009). The term will expire in 2030.	Ulan coal Mine and Moolarben Coal Mine - Water Sharing Agreement (dated 10/08/2009)	There are no recommendations.

Project Approval	Statement of Commitments	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	SoC 15	<p>Salinity Off Sets Bobadeen Irrigation Scheme ("BIS") - Salinity Offset Management Plan ("SOMP") In the event that the Moolarben Coal Project reduces the capacity for the removal of salt from the Salinity Offset Management Plan area operated by Ulan Mine in conjunction with the Bobadeen Irrigation Scheme under Environment Protection Licence 394, then Moolarben will, at its election, either:</p> <ul style="list-style-type: none"> • take from Ulan that volume of water that would otherwise have been used in the BIS; OR • provide an area of land with equivalent salt removal capacity; AND • any disputed issue will be determined by an appropriately qualified expert agreed between Moolarben and Ulan and in default appointed by the Director General of Planning. 	Noted	N/A	N/A	N/A
PA05_0117	SoC 16	<p>Haulage of Coal to the West by Rail Prior to the haulage of coal by rail to the west of the Moolarben Coal Project, Moolarben shall notify the Secretary with details of expected tonnages, train size and rail scheduling and where practicable schedule rail haulage during daylight hours only through the town of Mudgee as may otherwise be required by any conditions of project approval for the Moolarben Coal Project.</p>	Not triggered	No haulage of coal by rail to the west has occurred during the audit period (1 January 2016 to October 2018)	N/A	N/A
PA05_0117	SoC 17	<p>Traffic Management – Mid Western Regional Council Moolarben acknowledges the need for it to contribute to the upgrade and maintenance of aspects of the local road system affected by the operation of the Moolarben Coal Project and commits to implement the Voluntary Planning Agreement in satisfaction of the principles of that agreement.</p>	C	<p>Moolarben Coal, Mid-Western Regional Council and the owners of the Ulan and Wilpinjong mines agreed to develop a detailed plan for the implementation of the Ulan Road Strategy. The agreement 'Deed of Agreement - Funding and delivery of Ulan Road upgrade and maintenance' (dated July 2014) was viewed during the audit.</p> <p>A Deed of Agreement for Funding and Delivery of the Ulan Road Upgrade was signed by Moolarben Coal, Ulan Coal, Wilpinjong Coal and the Mid-Western Regional Council in July 2014. In accordance with the agreement 2 financial instalments will be made per year. Invoices were sighted for contributions to Road Upgrade as stipulated in this condition (Invoice No 18 1995, dated 22/01/2018).</p> <p>The invoice was for: Capital works (\$330, 255.33) and Maintenance (\$110,051.83).</p>	<p>Deed of Agreement - Funding and delivery of Ulan Road upgrade and maintenance (July 2014)</p> <p>Invoice for Ulan Road Upgrade (Invoice number: 18 1995)</p>	There are no recommendations
PA05_0117	SoC 18	Additional Management and Mitigation– Modification of Stage 1				
PA05_0117	Air Quality	<p>Air Quality</p> <ul style="list-style-type: none"> • Management and monitoring of air quality will continue to be undertaken in accordance with the best management practices set out in an approved Air Quality Management Plan. • Dust control measures will be used on internal haul roads. • Raw coal transfer and rejects conveyors will be partially enclosed. • Dust sprays will be fitted to the dump hopper. • Water carts will be used to minimise dust generation from unsealed access tracks and construction areas, where required. • A TEOM will be located to the southwest of the project to enable pro-active dust management and compliance monitoring for private residences to the south of the project prior to mining in Open Cut 2. • Use of a TEOM located to the northeast of the project for measuring background dust levels. • MCO will continue to report annually in the AEMR, the total amount of greenhouse gas emissions from the MCP and the effectiveness of measures implemented to achieve energy savings. 	C	<p>Air quality management measures are covered in section 6 of the AQMP.</p> <p>The 2016 Annual Review, 2017 Annual Review and a sample of Monthly Environmental Monitoring Reports were reviewed which showed exceedances in air quality criteria however investigations have attributed these to bush fires, regional dust events and upwind factors. This indicates that Air quality management and monitoring is conducted in accordance with approved Air Quality Management Plan.</p> <p>All haulage roads are designated, and road surfaces are watered to manage dust generation.</p> <p>Dust curtains and sprays have been installed inside hoppers to manage dust generation during dumping of ROM coal into the hoppers. The hoppers are enclosed on three sides and roof and transfer points are also covered.</p> <p>Dust generated by truck haulage is managed with truck operators encouraged to radio directly to the water carts for application affected roads.</p> <p>Two TEOM have been installed to the southwest of the site on or near Ulan Road (TEOM4 and TEOM7) and an additional TEOM at Ulan School (TEOM1).</p> <p>MCO reports on its hydrocarbon use and Greenhouse Gas Emissions annually through the National Pollution Inventory and National Greenhouse and Energy Reporting Scheme. MCO also provides information on its environmental performance (including air quality) through various reporting and communication mechanisms such as through the Community Consultative Committee (CCC), annual review and on its website</p>	<p>AQMP</p> <p>2016 and 2017 Annual Review</p> <p>Site inspection</p> <p>Monthly Environmental Monitoring Report (January to August 2018)</p> <p>CCC meeting minutes - 6 December 2016 - 14 March 2017 - 12 June 2018</p> <p>2016 and 2017 Annual Review</p> <p>MCO website</p>	There are no recommendations

Project Approval	Statement of Commitments	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	Noise	<p>Noise</p> <ul style="list-style-type: none"> Management and monitoring of noise will continue to be undertaken in accordance with an approved Noise Management Plan, including proactive and reactive management. MCO further commits to: <ul style="list-style-type: none"> Limiting northern bore field construction hours from 7am to 6pm Monday to Friday (inclusive). Limiting surface water management infrastructure upgrade construction hours from 7:00am to 5:00pm Monday to Saturday (inclusive). Fitting haul trucks with noise attenuation equipment to meet sound power levels assumed in the Stage 1 EA and subsequent noise Impact assessments Specifying sound power levels in supply contracts for mobile plant and equipment , where appropriate. 	C	<p>Noise management is covered in section 7, monitoring is covered in section 8 of the NMP, and contingency measures are covered in section 9. The NMP states that MCO undertakes attended noise monitoring in the surrounding community. The frequency of monitoring is dependent on the location but ranges from monthly to annually. The NMP also states that MCO operates real time noise monitoring units to assess the ongoing performance of the operation. The 2016 Annual Review, 2017 Annual Review and a sample of Monthly Environmental Monitoring Reports were reviewed which showed that noise management controls are effective.</p> <p>MCO further commits to:</p> <ul style="list-style-type: none"> Northern bore field construction hours would be limited to 7am to 6pm Monday to Friday. Surface water management infrastructure upgrade construction hours are from 7:00am to 5:00pm Monday to Saturday. <p>MCO are in the process of replacing their truck fleet with a "quieter fleet' The trucks are fitted with customised rubber matting on the inside of the tray - Duratray's Suspended Dump Bodies - which dampens the sound of the rocks landing as they are loaded. The fleet was viewed during the audit inspection.</p>	<p>NMP</p> <p>2016 and 2017 Annual Review</p> <p>Management assertion</p> <p>Site inspection</p>	There are no recommendations
		<p>Noise</p> <ul style="list-style-type: none"> MCO further commits to: <ul style="list-style-type: none"> Specifying sound power levels in supply contracts for mobile plant and equipment , where appropriate. Fitting northern bore field water supply/dewatering bores with submersible pumps. Use of a temporary power supply generator located near the bore field pipeline outlet, at least 4km from the nearest private residence, unless power is provided from the electricity network. Maintaining awareness of best practice noise mitigation technologies and alternative operating methodologies, and continuing to investigate the potential for further noise reductions to the haul truck fleet through potential additional noise attenuation and mitigation opportunities (such as Duratray). Designing and locating the haul roads behind earthen bunds as far as practically possible. 	C	<p>MCO has implemented management and control measures to identify and manage noise impacts to ensure noise from Moolarben Coal Complex is managed to acceptable levels, including specification of plant and equipment Sound Power Levels (SWLs) in supply contracts.</p> <p>Additionally a program has been implemented to test the SWLs of all mobile equipment on a rolling three yearly basis. The results of this testing will be maintained by MCO in their monitoring database and will be used to inform ongoing servicing and maintenance of mobile equipment. The noise model will be rerun every three years and will use the updated results from the SWL testing.</p> <p>MCO has committed to fitting northern bore field (Figure 4 of the NMP) water supply/dewatering bores with submersible pumps.</p> <p>MCO has committed to the use of a temporary power supply generator at the bore field pipeline outlet, at least 4km from the nearest private residence.</p> <p>Moolarben Coal have implemented best practice noise mitigation technologies including noise mitigation works on their truck fleet . A portion of the fleet is fitted with customised rubber matting on the inside of the tray - Duratray's Suspended Dump Bodies - which dampens the sound of the rocks landing as they are loaded. The fleet was viewed during the audit inspection.</p> <p>Haul roads on the Moolarben Coal Complex site have been developed behind earthen bunds or out-of-pit emplacement where practicable. This was observed during the site inspection.</p>	<p>Plant and equipment maintenance schedule</p> <p>Management assertion and site inspection</p> <p>NMP</p> <p>Management assertion</p> <p>Site inspection</p>	There are no recommendations
PA05_0117	Biodiversity	<p>Biodiversity</p> <ul style="list-style-type: none"> Management and monitoring of ecology will continue to be undertaken in accordance with an approved Landscape Management Plan (or equivalent), which will be reviewed and updated as required to incorporate the Open Cut 1 and Open Cut 2 extension areas. Where possible, construction works in areas of known and potential threatened woodland species habitat will be avoided during their breeding cycle. Pre-clearing fauna surveys will be undertaken prior to ground clearing disturbance. One of two hollow bearing trees within the rail loop alignment will be retained (where possible). Tree hollows and other habitat features will be salvaged for use as compensatory habitat, in rehabilitation areas. The cleared area along the mining lease boundary will be rehabilitated and revegetated to enable cleared EEC to re-establish. Disturbed areas not required for ongoing access and maintenance will be rehabilitated. Endemic species will be used to supplement natural vegetation regeneration, where required. Groundcover will be maintained to minimise the risk of soil erosion, wherever practicable. Feral animals, weeds and pests will be controlled. 	C	<p>Management and monitoring of ecology will continue in accordance with the approved Landscape Management Plan (LMP), Biodiversity Management Plan (BioMP), Biodiversity Offset Management Plan (BOMP) and Rehabilitation Management Plan (RMP).</p> <p>Restrictions due to winter, spring and summer breeding/hibernating periods are detailed in section 4.3.1 of the BioMP.</p> <p>Pre-clearing fauna surveys are conducted prior to any vegetation clearing or surface disturbance. Additionally the auditor observed that hollow bearing trees are retained (where practicable), dead trees were planted for use as habitat and logs were retained onsite. Tree hollows and other habitat features are salvaged for use as compensatory habitat, in rehabilitation areas.</p> <p>The cleared area along the mining lease boundary is progressively rehabilitated and revegetated to enable re-establishment of cleared EEC. This is covered in section 3.7 (Table 14) of the LMP.</p> <p>Disturbed areas not required for ongoing access and maintenance are rehabilitated with endemic species to supplement natural vegetation regeneration. for example rehabilitation of the OC1 footprint using native vegetation to create Box Gum Woodlands and Sedimentary Ironbark Forests with stands of Allocasurina. During the site inspection the auditor observed progressive rehabilitation at open cut 1 which includes seeding to stabilise and plantings.</p> <p>Management advised that they have 2-3 contractors for weed control which uses a combination of manual weed removal and spraying. The aim is to rehabilitate the areas to return them to woodland / forest or agricultural land used for grazing. Section 6.5.2 of the 2016 and 2017 Annual Review provides a summary of the Biodiversity offset works undertaken. Works included: Various monitoring activities; baiting; weed control; fencing replacement and maintenance activities</p>	<p>LMP</p> <p>BioMP</p> <p>BOMP</p> <p>Rehabilitation Management Plan</p> <p>Site inspection</p> <p>Management assertion</p> <p>2016 and 2017 Annual Review</p>	There are no recommendations

Project Approval	Statement of Commitments	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	Biodiversity	<p>Biodiversity</p> <ul style="list-style-type: none"> MCO further commits to: Undertake a detailed flora and fauna inventory and mapping of the vegetation types and threatened species for properties proposed to offset the clearing impacts of the Open Cut 1 and Open Cut 2 extension areas. 	C	<ul style="list-style-type: none"> Moolarben Coal conducts flora and fauna inventory and mapping of the vegetation types and threatened species for properties proposed to offset the clearing impacts of the OC1 and OC2 extension areas. Eco Logical Australia (Eco Logical) was engaged by Moolarben Coal Operations (MCO) to undertake flora monitoring during autumn and flora and fauna monitoring during spring within the Stage 1, Stage 2 and Modification 9 Biodiversity Offset Areas (BOAs). No monitoring of fauna occurs within the autumn survey period. Monitoring was undertaken in accordance with the schedules and methods detailed within the MCO Landscape Management Plan (LMP). 	<p>Eco Logical MCO Stage 1 Biodiversity Offset Area Flora Monitoring – Autumn 2017 (October 2017)</p> <p>Eco Logical MCO Stage 1 Biodiversity Offset Area Flora & Fauna Monitoring – Spring 2017 (March 2018)</p> <p>Eco Logical MCO Stage 2 Biodiversity Offset Area Flora Baseline Monitoring – Autumn 2017 (October 2017)</p> <p>Eco Logical MCO Stage 2 Biodiversity Offset Area Flora & Fauna Baseline Monitoring – Spring 2017 (February 2018)</p> <p>Eco Logical MCO Modification 9 Biodiversity Offset Area Flora Monitoring – Autumn 2017 (October 2017)</p> <p>Eco Logical MCO Modification 9 Biodiversity Offset Area Flora & Fauna Monitoring – Spring 2017 (March 2018)</p> <p>Vegetation Clearance Protocol LMP</p> <p>BOMP</p> <p>BioMP</p>	There are no recommendations
PA05_0117	Biodiversity	<p>Biodiversity</p> <ul style="list-style-type: none"> Manage offset and rehabilitation areas in accordance with a Rehabilitation and Offset Management Plan (ROMP or equivalent plan) to improve biodiversity outcomes. Provide adequate funds to implement the management measures described in the ROMP. Implement the management actions specific to each property and report annually on the implementation of the plan to relevant stakeholders. Arrange for the independent review of the adequacy and implementation of the ROMP every three years. Provide long-term security of offset areas through an appropriate mechanism (such as a conservation covenant) agreed to with relevant stakeholders. Provide an alternative secure offset property of at least equivalent biodiversity value where long-term security of a nominated offset property is not achievable. Investigate potential roosting sites for bat activity on properties proposed to offset the impacts of Open Cut 1 and Open Cut 2 extension areas. Investigate use of artificial roosting sites for microbat habitat augmentation where offset areas are determined not to have sufficient roosting habitat. Carry out targeted spring surveys for Diuris Tricolour in potential habitat areas within Open Cut 1 and Open Cut 2 extension areas. Where Diuris Tricolour plants are identified in disturbance areas, these will be translocated to suitable offset property habitat areas consistent with the monitoring and reporting requirements of the Australian Network for Plant Conservation translocation guidelines (ANPC, 2004). Review land use history of Derived Native Grassland offset areas (including, where possible, cultivation, fertiliser application, soil nutrient levels and ground cover species) to inform appropriate management and performance and completion criteria. Where monitoring indicates these areas are not recovering as expected within the first five years of management alternative management measures will be investigated. Maintain existing third party access arrangements on offset properties, where required. Progressive rehabilitation of disturbed areas and re-use of habitat features (e.g. hollow logs, rocks) in rehabilitation areas to minimise the habitat resource competition in adjoining conservation reserves. 	C	<ul style="list-style-type: none"> Offset and rehabilitation areas are managed in accordance with a Vegetation Clearance Protocol, LMP, BOMP and BioMP. DP&E approved a staged approach to the Biodiversity Offset Security (letter dated 02/03/16). Letter viewed during the audit DP&E approved an extension for obtaining the biodiversity offset security mechanism. The letter stated that the Secretary approves an extension to March 2019. Letter dated 16/07/2018. Letter viewed during the audit. Section 6.5.2 of the 2016 and 2017 Annual Review provides a summary of the Biodiversity offset works undertaken. The works are in accordance with the Biodiversity Offset Management Plan (BOMP) The LMP, BOMP, BioMP and RMP are reviewed regularly and the adequacy and implementation of the Plans is assessed by independent experts. This IEA reviews the adequacy and implementation of these plans. DP&E approved an extension for obtaining the biodiversity offset security mechanism. The letter stated that the Secretary approves an extension to March 2019. Letter dated 16/07/2018. Letter viewed during the audit. Biodiversity offset areas are protected by: Conservation Agreements, through integration into National Parks estate; and Titles. Investigation of potential roosting sites for bat activity on properties proposed to offset the impacts of OC1 and OC2 extension areas and establishment of artificial roosting sites for microbat habitat augmentation is occurring with the placement of habitat tree stumps in rehabilitated areas on the site. The previous IEA by Trevor Brown & Associates (December 2015) states that <i>Targeted Spring surveys in September, October and November 2013 were conducted by EcoLogical Australia for the Pine Donkey Orchid (Diuris tricolour), in potential habitat areas within Open Cut 1 and Open Cut 2 extension areas. Diuris tricolour was not recorded during the targeted searches.</i> The previous IEA by Trevor Brown & Associates (December 2015) states that the review of land use history of Derived Native Grassland offset have been conducted. Third party access is maintained During the site inspection management advised the regional location of each offset area and showed auditors each area on a map. Offset areas were also observed during the site inspection. Rehabilitation areas included re-use of habitat features, planting of dead trees retaining hollow logs and creating rock piles. 	<p>Vegetation Clearance Protocol LMP</p> <p>BOMP</p> <p>BioMP</p> <p>Letter to DP&E RE: Biodiversity Offset Security. The Department endorses a staged approach (dated 02/03/16)</p> <p>Letter from DP&E RE: extension for Biodiversity offset security arrangements (dated 16/07/2018).</p> <p>Previous IEA (Trevor Brown & Associates, 2015)</p> <p>Letter to DP&E RE: Offset Security and Conservation Bond Extension (dated 27/04/2015)</p> <p>2016 and 2017 Annual Reviews</p> <p>Site inspection</p> <p>pitt&sherry IEA 2018 Management Assertion</p>	There are no recommendations

Project Approval	Statement of Commitments	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	Cultural Heritage	<p>Cultural Heritage</p> <ul style="list-style-type: none"> Cultural heritage sites will be monitored and managed according to the measures described in an approved Aboriginal Cultural Heritage Management Plan. Cultural heritage sites adjacent to and outside construction, mining and general disturbance areas will have appropriate controls in place to prevent potential disturbance. Cultural heritage monitoring and salvage will be undertaken by a qualified archaeologist and members of the Aboriginal Stakeholder community groups (Mudgee Local Aboriginal Land Council based in Mudgee; North-East Wiradjuri Pty Ltd, based in Ulan; Murong Gialinga Aboriginal and Torres Strait Islander Corporation, based in Mudgee; and Warrabinga Native Title Claimants Aboriginal Corporation, based in Kandos). Where additional cultural heritage sites are identified, these sites will be managed in accordance with the measures described in the Aboriginal Cultural Heritage Management Plan. Local Aboriginal community representatives will be involved in the recording, salvaging and storing of cultural heritage objects impacted by site works. The Aboriginal Cultural Heritage Management Plan will be updated to include: <ul style="list-style-type: none"> - Additional registered parties as necessary. - Sub-surface testing and potential salvage of S1MC343-345 and S1MC352 where blasting is assessed to adversely impact these sites. - Test excavation and potential salvage of S1MC331 and S1MC334. 	C	<ul style="list-style-type: none"> Management and monitoring of cultural heritage sites will continue in accordance with the approved Heritage Management Plan (HMP). Management of heritage items is covered in section 5 and section 6 of the HMP and monitoring is covered in sections 8,9 and 10. Cultural heritage sites adjacent to and outside construction, mining and general disturbance areas are protected with appropriate controls to prevent potential disturbance. Appendix C of the HMP provides a summary of archaeological investigations at the Moolarben Coal Complex including the AECOM Due Diligence surveys (2015) which involved survey and assessment of the land adjacent to Open Cut 1 and Open Cut 2 in accordance with Condition 39(c) of the Stage 1 Project Approval (05_0117). Sites S1MC343 and S1MC344 have been subject to detailed test excavation and salvage. Rock shelter site S2MC229 underwent a salvage program in 2015 in accordance with the Heritage Management Plan (HMP). The salvage report "Moolarben Coal Project Stage 2, Open Cut 4, Additional Aboriginal Survey and Salvage" (dated December, 2017) was sighted by auditors. Salvage and test excavation was attempted at sites S1MC345 and S1MC352 however it was determined by a suitably qualified archaeologist that there was no suitable deposit to test, and the sites were considered unlikely to contain in tact and in situ deposits (AECOM, 2015). Where additional cultural heritage sites are identified, the new sites are recorded, added to the site database, and managed in accordance with the measures described in the Heritage Management Plan. Section 5.1 of the HMP states that the RAPs will provide suitably qualified and/or experienced representatives to participate in archaeological survey, collection, excavation or monitoring required under this HMP. The AECOM report (AECOM 2015) states that the survey work was completed with representatives from RAP groups NEWCO, WNTCAC, Mudgee LALC and MGATSIC. The Heritage Management Plan has been updated to include additional registered parties as necessary, sub-surface testing and potential salvage of S1MC343-345 and S1MC352 and test excavation and potential salvage of S1MC331 and S1MC334. 	<p>HMP</p> <p>AECOM Report: Aboriginal Archaeological Due Diligence Assessment for Moolarben Coal Project Stage 2 Mod 9 Project Approval, 12 May 2015</p> <p>Niche (Moolarben Coal Project Stage 2, Open Cut 4, Additional Aboriginal Survey and Salvage, December 2017)</p>	There are no recommendations
PA05_0117	Water	<p>Water</p> <ul style="list-style-type: none"> Erosion and sediment control measures detailed in an approved Erosion and Sediment Control Plan (or equivalent) will be implemented. Water pressure will be monitored at the inlet and outlet of the water sharing and bore field pipeline network, and the entire length of pipeline will be inspected regularly. In the event that a leak or loss of pressure is detected in the water sharing or bore field pipeline network, pumping in that portion of the pipeline network will cease and the resultant cause investigated and remediated. Management and monitoring of surface water and groundwater will be undertaken in accordance with an approved Water Management Plan, which will be reviewed and updated, as necessary, to include the Open Cut 1 and Open Cut 2 extension areas and additional surface water management infrastructure. As part of this review, MCO will liaise with the DPI Water on the water licensing requirements for the open cut extension areas. MCO is committed to the effective management of water in the modified landform and where required will develop strategies to this effect, including returning rehabilitated areas to clean water catchments as promptly as practically possible. MCO will abide by the rules of any relevant water sharing plan and return water where required. 	C	<ul style="list-style-type: none"> Erosion and sediment control measures detailed in the approved Surface Water Management Plan, section 4.3 are implemented at the Moolarben Coal Complex site. The Ulan and Borefields pipelines are monitored through the Citect system by the CHPP. Leak detection is incorporated into the system with flow meters at the start and end of the lines. Regular inspections are undertaken, including the Monthly inspection. Evidence of the monthly inspection was sighted (Routine work order (Maintenance) dated 02/03/18). Pipeline inspections are also undertaken on start-up, and pumping status communicated in the daily shift reports. An example 24hr Environmental Inspection checklist (dated 3/12/18) was provided to auditors as was a copy of pump data from the Shift Pre-Start Talk. Regular inspections are undertaken, including the Monthly inspection. Evidence of the monthly inspection was sighted (Routine work order (Maintenance) dated 02/03/18). This inspection checks for leaks or damage. The Ulan Pump to Moolarben CHPP bore field pipeline network has the following controls. The Ulan pumps have a flow meter "FI2400A" inserted into the pipeline. It transmits current water flow Via PLC & radio link back to the Scada System. The Moolarben CHPP waterline has a flow meter "FI2400B" inserted into the pipeline. It transmits current water flow Via PLC & radio link back to the Scada System. Where differential flow is detected, the pumps automatically shut-down, Citect alarms occur in the CHPP control room and SMS alerts are issued. This initiates an inspection of the line to determine the cause of the alarm. These alarms are monitored by the CHPP control which is manned 24/7. MCO undertakes management and monitoring of surface water and groundwater (refer Appendix 2 and 3 of the WMP) in accordance with the approved Water Management Plan which is continuously reviewed and updated (section 4 of the WMP). MCO is committed to mine plan sequencing and the commitment to progressive rehabilitation including returning rehabilitated areas to clean water catchments as soon as practicable. This is covered in section 4 of the WMP. MCO abides by the rules of the Water Sharing Agreement with Ulan Coal. 	<p>SWMP (Appendix 2 of the WMP) WMP</p> <p>Routine work order (Maintenance) dated 02/03/18 24hr Environmental Inspection checklist (dated 3/12/18) Exert from the Shift Pre-Start Talk</p> <p>Routine work order (Maintenance) dated 02/03/18 Management assertion</p> <p>Ulan coal Mine and Moolarben Coal Mine - Water Sharing Agreement (dated 10/08/2009)</p>	There are no recommendations
PA05_0117	Rehabilitation	<p>Rehabilitation</p> <ul style="list-style-type: none"> Soils will be stockpiled and used to rehabilitate areas not required for ongoing operations. MCO is committed to progressively rehabilitating mined areas as soon as practical following disturbance, in accordance with an approved Landscape Management Plan (or equivalent Rehabilitation Plan), including returning areas disturbed by mining to their pre-mining land use (unless otherwise agreed with relevant stakeholders).The plan will be updated, as required, to include the Open Cut 1 and Open Cut 2 extension areas. The plan will consider use of terrestrial riparian buffers. The majority of the Open Cut 1 and Open Cut 2 extension areas will be rehabilitated for biodiversity outcomes. The 15.7 ha area of Class 3 agricultural land directly impacted by the Open Cut 1 and Open Cut 2 extension areas will be reinstated for agricultural purposes post mining. 	C	<ul style="list-style-type: none"> Top-soil is stripped and reused for rehabilitation, or stockpiled and used to rehabilitate areas not required for ongoing operations. Progressive rehabilitating of mined areas and overburden emplacements occurs as soon as practical in accordance with the LMP, RMP and MOP. The Plan are reviewed and updated, as required During the site inspection the auditor observed progressive rehabilitation at open cut 2 which includes seeding to stabilise and plantings. Management advised that the 15.7 ha area of Class 3 agricultural land directly impacted by the OC1 and OC2 extension areas will be reinstated for agricultural purposes post mining when mining is completed. This area was originally used for grazing. 	<p>Site inspection</p> <p>LMP</p> <p>RMP</p> <p>MOP</p> <p>Site inspection</p> <p>Management assertion</p>	There are no recommendations

Project Approval	Statement of Commitments	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA05_0117	Traffic	<p>Traffic</p> <ul style="list-style-type: none"> • Appropriate traffic management will be implemented for Ulan Road for construction vehicles entering and leaving the site to Ulan Road and along Saddlers Creek Road, where required. • MCO is committed to participate in the Ulan Road Strategy and will continue to consult with MWRC in relation to local road strategies. 	C	<p>Moolarben Coal, Mid-Western Regional Council and the owners of the Ulan and Wilpinjong mines agreed to develop a detailed plan for the implementation of the Ulan Road Strategy. The agreement 'Deed of Agreement - Funding and delivery of Ulan Road upgrade and maintenance' (dated July 2014) was viewed during the audit. MCO also contributed to maintenance of Cope Road.</p>	<p>Deed of Agreement - Funding and delivery of Ulan Road upgrade and maintenance (July 2014)</p>	There are no recommendations
PA05_0117	Visual	<p>Visual</p> <ul style="list-style-type: none"> • Trees and shrubs will be planted to provide a visual screen: <ul style="list-style-type: none"> - To the switch and bore pads located adjacent to Saddlers Creek Road, where required. - Along the southern edge of Cope Road, where views of Open Cut 1 extension areas will be possible, subject to landowner consent. • The Landscape Management Plan (or equivalent) will be reviewed and updated to describe the measures that will be implemented to manage visual impacts associated with the Open Cut 1 and Open Cut 2 extension areas, such as: <ul style="list-style-type: none"> - Vegetation screen planting, subject to land owner's consent, along the southern edge of Cope Road, in areas visually affected by direct views of the Open Cut 1 extension area. - Investigating the feasibility of targeted vegetation screen planting for affected properties along Ridge Road (with direct views from the residence to both Open Cut 1 and Open Cut 2 extension areas), to mitigate the visual and lighting impacts of Open Cut 1 and Open Cut 2 extension areas, subject to landowner consent. - Building-up out-of-pit embankments first so that continued operations are obscured by the embankment. Wherever possible out-of-pit emplacements around the perimeter will be established first, providing a visual screen while work is undertaken in the central part of the emplacement. - Seeding and grassing embankment outer faces visually exposed to private residents as soon as practically possible to soften the view. - Where possible, maintaining a strip of vegetation along the leading face of the ridgeline associated with the Open Cut 1 extension area to provide a visual screen to workings for as long as practical. - Use of operational screening measures such as landform re-establishment sequencing and lighting management. - Progressive rehabilitation. • As far as practically possible, and where mine safety allows, management protocols will be established and implemented to: <ul style="list-style-type: none"> - Locate mobile lighting plant to be directed away from private residences. - Direct stationary lighting sources below the horizontal to minimise potential light spill. - Design lighting systems that minimise light spillage. - Avoid lighting of light coloured surfaces that have greater reflectivity. 	C	<ul style="list-style-type: none"> • Trees and shrubs have been planted to provide a visual screen where views of OC1 extension areas are visible to passing traffic or residences Visual screening along Ulan Road was observed during the site inspection. • The Rehabilitation Management Plan was reviewed and updated to describe the measures to be implemented to manage visual impacts associated with the Open Cut 1 (OC1) and Open Cut 2 (OC2) extension areas. The Environment Management Strategy (EMS) states the following as mitigation measures: <ul style="list-style-type: none"> - <i>Trees and shrubs will be planted to provide a visual screen along Cope Road and Saddlers Creek Road.</i> - <i>Building-up out-of-pit embankments first so that continued operations are obscured by the embankment.</i> - <i>Seeding and grassing embankment outer faces visually exposed to private residents as soon as practically possible to soften the view .</i> <p>Investigation for targeted vegetation screening is covered in section 4.8 of the RMP. Progressive rehabilitation is covered in section 4.8 of the RMP.</p> <ul style="list-style-type: none"> • The EMS states the following as mitigation measures: <ul style="list-style-type: none"> - <i>Locate mobile lighting plant to be directed away from private residences.</i> - <i>Direct stationary lighting sources below the horizontal to minimise potential light spill.</i> - <i>Design lighting systems that minimise light spillage.</i> - <i>Avoid lighting of light coloured surfaces that have greater reflectivity.</i> <p>To direct stationary lighting below the horizontal MCO has created the <i>Manual lighting position and set-up procedure</i> which was sighted during the audit and observed during the site inspection. Management advised that lighting systems are designed / managed to minimise light spillage.</p>	<p>Site inspection</p> <p>RMP EMS Site inspection</p> <p>Manual lighting position and set-up procedure Site inspection Management assertion</p>	There are no recommendations
PA05_0117	Social	<p>Social</p> <ul style="list-style-type: none"> • MCO is committed to prevent or minimise negative social impacts resulting from the MCP and will use its best endeavours to enhance the social benefits of the Project in accordance with its Environment and Community Policy. 	C	<p>MCO has a Community Support Program. A sample of CCC Meeting minutes detailed successful applications to MCO for community support. Additionally MCO employ roughly 750 local people and provides traineeships and apprenticeships.</p> <p>Moolarben Coal, Mid-Western Regional Council and the owners of the Ulan and Wilpinjong mines agreed to develop a detailed plan for the implementation of the Ulan Road Strategy. The agreement 'Deed of Agreement - Funding and delivery of Ulan Road upgrade and maintenance' (dated July 2014) was viewed during the audit. MCO also contributed to maintenance of Cope Road.</p> <p>Invoice from Mid-Western Regional Council (dated 15/02/2018) Stage 2 Community Enhancement Contribution (\$230,533.57) was sighted during the audit.</p>	<p>CCC meeting minutes - 6 December 2016 - 13 June 2017 - 12 June 2018</p> <p>Deed of Agreement - Funding and delivery of Ulan Road upgrade and maintenance (July 2014)</p> <p>Invoice for Cope Road Maintenance (Invoice number: 18 2077)</p> <p>Invoice (No. 18 2078) from Mid-Western Regional Council (15/02/2018)</p>	There are no recommendations

Moolarben Coal						
Detailed Findings and Recommendations						
Project Approvals 05_0117 and PA 08_0135						
Project Approval	Statement of Commitments	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
Mining Operations						
PA08_0135	SoC 1	MCM will operate the Stage 1 and Stage 2 projects as a combined mining complex (the MCC) to extract up to 17 Mtpa of ROM coal comprising: <ul style="list-style-type: none"> • 13 Mtpa from combined open cut operations (with up to 8 Mtpa derived from Stage 1 OCs and up to 12 Mtpa from Stage 2 OC); and • up to 4 Mtpa from underground operations, for 24 years, generally in accordance with the Stage 2 EA and PPR. 	C	<p>The 2017 Annual Review states that 12,997,936 tonnes of ROM coal was extracted from combined open-cut mining operations from 1 January 2017 to the 31 December 2017 and 1,717,257 was extracted from underground operations. Stage 1 operations contributed 4,975,112 tonnes to the total and Stage 2 operations contributed 8,022,824 tonnes.</p> <p>The 2016 Annual Review states that 11,815,484 tonnes of ROM coal was extracted from combined open-cut mining operations from 1 January 2017 to the 31 December 2016 and 422,086 was extracted from underground operations. Stage 1 operations contributed 8,842,743 tonnes to the total and Stage 2 operations contributed 2,972,741 tonnes.</p> <p>2016 Open cut extraction limit was 9 million tonnes.</p> <p>There 2018 Annual Review was not available at the time of the audit. .</p>	2016 Annual review; 2017 Annual Review SAP Database Report Production Numbers 2016 SAP Database Report Production Numbers 2017	There are no recommendations
PA08_0135	SoC 2	MCM will ensure that open cut plant and equipment meet the sound power levels described in the noise impact assessment for the project, including specifying sound power levels and factory fitting of attenuation kits in relevant plant and equipment purchase contracts.	C	<p>MCO has implemented management and control measures to identify and manage noise impacts to ensure noise from Moolarben Coal Complex is managed to acceptable levels, including specification of plant and equipment Sound Power Levels (SWLs) in supply contracts.</p> <p>Additionally a program has been implemented to test the SWLs of all mobile equipment on a rolling three yearly basis. The results of this testing will be maintained by MCO in their monitoring database and will be used to inform ongoing servicing and maintenance of mobile equipment. The noise model will be rerun every three years and will use the updated results from the SWL testing.</p> <p>The plant and equipment maintenance schedule was viewed during the site inspection and management advised the additional noise management measures they were implementing such as noise mitigation works on the truck fleet. A portion of the fleet is fitted with customised rubber matting on the inside of the tray - Duratray's Suspended Dump Bodies - which dampens the sound of the rocks landing as they are loaded. The fleet was viewed during the audit inspection.</p>	NMP Plant and equipment maintenance schedule Management assertion and site inspection	There are no recommendations
PA08_0135	SoC 3	MCM will obtain all necessary licences and approvals required to operate the Stage 2 project, generally in accordance with the Stage 2 EA and PPR.	C	All approvals and licences required for the operation have been obtained	Approval and licences	There are no recommendations
Environmental Management						
PA08_0135	SoC 4	<p>MCM will revise the Stage 1 Environmental Management System to incorporate the MCC Stage 2 project in consultation with relevant regulators and stakeholders (where appropriate). This may require revision or preparation of monitoring and management plans as prescribed by the Project Approval, such as (where relevant):</p> <ul style="list-style-type: none"> • Environmental Monitoring Program; • Air Quality and Greenhouse Gas Management Plan (including energy savings actions); • Spontaneous Combustion Management Plan; • Noise Management Plan; • Blast Management Plan; • Water Management Plan (including groundwater and surface water); • Creek and Aquatic Rehabilitation Plan; • Rehabilitation Management Plan; • Biodiversity Management Plan; • Subsidence Management Plan; • Aboriginal Cultural Heritage Management Plan; • Non Aboriginal Heritage Management Plan; • Erosion and Sediment Control Plan; • Social Engagement and Issue Response Strategy; • Bushfire Management Plan; and • Waste Management Plan. <p>(Note where applicable or appropriate some of these plans may be combined).</p>	C	<p>MCO have revised their Environmental Management System to incorporate MCC Stage 2 operations and have consulted and revised the following management plans as appropriate.</p> <ul style="list-style-type: none"> - AQMP - BioMP - Blast Fume Management Plan - Blast Management Plan - Energy Savings Action Plan - Environmental Management Strategy - EPBC Biodiversity Offset Management Plan - Green House Gas Management Plan - Heritage Management Plan (includes Aboriginal and Historic Heritage) - Landscape Management Plan - Rehabilitation Management Plan (including creek and aquatic rehabilitation) - Noise Management Plan - Water Management Plan including erosion and sediment control - Pollution Incident Response Management Plan <p>MCO completes a monitoring program in accordance with stage 1 and stage 2 approvals. A sample of monthly monitoring reports was reviewed to confirm compliance.</p>	Management Plans MCO website Monthly Environmental Monitoring Reports (January 2018 to August 2018)	There are no recommendations

Project Approval	Statement of Commitments	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
Air Quality						
PA08_0135	SoC 5	MCM will use its best endeavours to implement industry best practice air quality management initiatives to minimise the air quality impacts of the MCC.	C	Air quality management measures are covered in section 6 of the AQMP. Specifically odour and fume is covered in section 6.2, and dust is covered in section 6.1. The system involves proactive dust management such as predictive meteorological forecasting and reactive approaches such as real time response triggers. The community complaints registers for the audit period were reviewed. The 2017 complaints register contained one air quality complaint and the 2016 register contained two complaints. Investigations revealed no unusual mining operations were occurring at the time and monitoring results indicated acceptable dust levels No visible off-site air pollution was observed during the site investigation.	AQMP Community complaints register 2016, 2017 and 2018 Site inspections	There are no recommendations
PA08_0135	SoC 6	The revised MCC Air Quality Management Plan (and future variations) will include a validation exercise of the real time response triggers.	C	Assessment of data validity is covered in section 7.2 of the AQMP. Where monitoring indicates elevated dust readings above the prescribed criteria (Table 2), MCO will initiate an assessment of the data to determine the validity of the elevated reading and whether an exceedance or a non-compliance event has occurred. In addition to this event driven validation process, a review of monitoring data will be undertaken monthly for dust deposition monitors and quarterly for HVAS and TEOM monitoring locations. Examples of exceedance investigations are given in the 2016 and 2017 Annual Review. The 2016 Annual Review shows 2 exceedances to air quality criteria. MCO investigated the exceedances and found that the results were influenced by hazard reduction burns. The 2017 Annual Review shows 2 exceedances to air quality criteria. MCO investigated the exceedances which were influenced by a bush fire on Moolarben Road adjacent to the monitor.	AQMP Annual Review 2016 and 2017	There are no recommendations
PA08_0135	SoC 7	MCM will complete a review of particulate emission controls implemented at the MCC against industry best practice on a three yearly basis and report the findings in the relevant Annual Review.	C	The 2016 annual review reported on emission for the 2015-2016 financial year and compared this to the emissions results of the 2014-2015 financial year and to the modelled emission estimates. Section 6.4 (Table 16) reviews monitoring data against criteria and based on performance provides comments on management implications and details any management actions. The 2017 annual review on emission for the 2016-2017 financial year and compared this to the emissions results of the 2015-2016 financial year and to the modelled emission estimates. Increases and variances from modelled estimates were explained in the annual reviews. Section 6.4 (Table 17) reviews monitoring data against criteria and based on performance provides comments on management implications and details any management actions. The 2018 annual review was not available at the time of the audit. Todoroski Air Services completed a review of particulate emission controls implemented at the MCC against industry best practice (Report dated 12/ 07/2018). Results will be reported in the 2018 Annual Review.	Annual Review 2016 and 2017 Todoroski Air Services Report (12/07/2018)	There are no recommendations

Project Approval	Statement of Commitments	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	SoC 8	MCM will develop and implement meteorological criteria to help ensure that blasting is not undertaken under unfavourable wind and/or atmospheric conditions which would result in an exceedance of relevant criteria.	C	<p>Section 6.1.4 (Table 4) of the AQMP details adverse meteorological condition trigger conditions and corresponding management/ control actions.</p> <p>During the audit a MPEA's Checklist: Environmental Responsibilities (dated 14/10/18) was reviewed by auditors. The checklist contained requirements to:</p> <ul style="list-style-type: none"> - Review Jacobs forecast and MetEye at the start of each shift to understand the predicted conditions. An example Jacobs forecast was reviewed by auditors (dated 15/10/2018) which shows dust and noise risks at certain locations and wind speeds. - Communicate dust and noise risk to OCE and P5 <p>Checklist for MPEA's (14/10/18) shows that Ulan school is predicted to have some dust risks during the afternoon and that watercarts are planned to operate to address this risk.</p> <p>Checklist for MPEA's (06/10/18) shows that medium SE-ESE winds are expected and that two watercarts are planned to operate from the start of the shift to address this risk.</p> <p>The Pre-blast Meteorological Assessment (sighted example dated 11/09/2018) contains a pre-blast design checklist which includes considerations of weather conditions, other blasting's at Wilpinjong or Ulan mines. The Pre-blast Meteorological Assessment also contains environmental readings three hours, one hour, half an hour and 10 minutes prior to the blast to confirm that conditions are suitable.</p> <p>The auditor also sighted the Environmental Alarms and Observations Spreadsheet which details the: alarm type; date, time, location of the alarm; observations of conditions; reading; actions taken; and MPEA responsible.</p>	<p>Mine Production Environmental Assistant (MPEA) Checklist: Environmental Responsibilities (31/01/2016)</p> <p>MPEA Checklist: Environmental Responsibilities (06/10/2018)</p> <p>MPEA Checklist: Environmental Responsibilities (19/08/2018)</p> <p>MPEA Checklist: Environmental Responsibilities (14/10/2018)</p> <p>Pre-blast Meteorological Assessment (11/09/2018)</p> <p>Jacobs Environmental Forecast System (15/10/2018)</p> <p>Environmental Alarms and Observations Spreadsheet</p>	There are no recommendations
PA08_0135	SoC 9	Where air quality impacts are predicted to exceed criteria at private residences in the PPR due to MCC operations, MCM will install a first flush system to the rain water tanks upon written request of the landholder.	Not triggered	<p>Several Air quality exceedances (exceedances detailed below) have been reported however investigations into these exceedances showed that exceedances in particulate matter emissions were not generated by the Moolarben mine complex. As such this condition has not been triggered. Additionally there has been no written requests for private residences.</p> <p>The 2016 Annual Review shows 2 exceedances to air quality criteria. MCO investigated the exceedances and found that the results were influenced by hazard reduction burns.</p> <p>The 2017 Annual Review shows 2 exceedances to air quality criteria. MCO investigated the exceedances which were influenced by a bush fire on Moolarben Road adjacent to the monitor.</p> <p>A sample of Monthly Environmental Monitoring Reports was reviewed and showed the following exceedances:</p> <ul style="list-style-type: none"> - February 2018 report - exceedance at TEOM 4 - investigation revealed this was elevated due to bushfire - March 2018 report - exceedance at TEOM 6, TEOM 1, TEOM 7 and TEOM 4 - investigation revealed that the elevated readings were influenced by regional dust event - April 2018 report - exceedance at TEOM 7 - investigation revealed that the elevated readings were influenced by regional dust event - May 2018 report - exceedance at TEOM 6 - however this monitor is located upwind of MCO and therefore the exceedance was now caused by MCO operations - July 2018 report - exceedances at TEOM 6, PM01, PM02, TEOM 1, TEOM 7 and TEOM 4 - investigation revealed that the elevated readings were influenced by regional dust event 	<p>2016 and 2017 Annual Review</p> <p>Monthly Environmental Monitoring Report (January to September 2018)</p>	MCO has investigated the causes of the air quality exceedances and as these were not the result of mining operations, therefore, there are no further recommendations.
Greenhouse Gas						
PA08_0135	SoC 10	MCM will undertake regular revision of energy efficiency initiatives to ensure that Scope 1 greenhouse gas emissions per tonne of product coal are kept to the minimum practicable level.	C	These requirements are covered in the Energy Savings Action Plan (ESAP) (December 2008) has been prepared for MCO by Advitech.	Energy Savings Action Plan	There are no recommendations

Project Approval	Statement of Commitments	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
Noise and Blasting						
PA08_0135	SoC 11	MCM will use its best endeavours to implement industry best practice noise control and management measures to minimise the noise impacts of the MCC.	c	<p>Management Practices are set out in Section 7.1 of the Noise Management Plan (NMP). These management practices include ways to minimise operational, road and rail noise.</p> <p>MCO operate two predictive models which are used in conjunction with real-time response protocols as part of the comprehensive noise management system at the Moolarben Coal Complex:</p> <p>i) Predictive meteorological forecasting (Environmental Forecasting System) ii) Predictive noise level forecasting (Sound Advice)</p> <p>Real-time monitoring is conducted at ND2, NR3, NR4, NR5 and NR10.</p> <p>The system has been programmed to provide SMS alerts to relevant staff/operators where noise levels reach predetermined triggers. These alerts will be used to guide the modification of operations to reduce noise levels.</p> <p>A "Green-Trigger" SMS was received during the audit period and sighted by the auditor. Responses to green alarm, amber alarm and red alarm were explained during the audit period and detailed in section 7.4 of the NMP</p> <p>The plant and equipment maintenance schedule was viewed during the site inspection and management advised the additional noise management measures they were implementing such as replacement of their truck fleet with a "quieter fleet" The trucks are fitted with customised rubber matting on the inside of the tray - Duratray's Suspended Dump Bodies - which dampens the sound of the rocks landing as they are loaded. The fleet was viewed during the audit inspection.</p>	NMP Green-Trigger SMS Management assertion Site inspection	There are no recommendations
PA08_0135	SoC 12	MCM will proactively manage its operations to ensure noise impacts are within the worst case predicted noise envelope.	c	Management Practices to ensure noise impacts are within the worst case predicted noise envelope are set out in Section 7.1 of the NMP.	NMP	There are no recommendations
PA08_0135	SoC 13	MCM will ensure noise monitoring is implemented to determine and manage the contribution to cumulative mine noise from the MCC at Property 258, including implementing at least quarterly attended noise monitoring and installing a directional noise monitor in the vicinity of the property in conjunction with the Ulan Mine, unless monitoring indicates there is no noise impact from the MCC at this property	c	Noise Monitoring Practices to determine and manage the contribution to cumulative mine noise are set out in Section 6.1 of the NMP. Attended noise monitoring location are described in Section 8.2 (Table 8) of the NMP which includes Cope Road (received 258) (Site ID NA11). Evidence of noise monitoring was provided in the 2016 and 2017 Annual Reports as well as from a sample of Environmental Monitoring Reports (January 2018 to August 2018)	2016 and 2017 Annual Review Monthly Environmental Monitoring Report (January to August 2018)	There are no recommendations
PA08_0135	SoC 14	MCM will work cooperatively with neighbouring mines to develop a blast monitoring system which is representative of the closest sensitive receivers to ensure compliance with the relevant blast criteria.	c	<p>Cumulative impacts are covered in section 6.8 of the BMP which states: 'A communications protocol has been developed with Ulan Coal Mine and Wilpinjong Coal Mine so that cumulative impacts from simultaneous blasting are avoided. This protocol outlines that blast times are rescheduled where there is potential for blasts to occur concurrently. The protocol requires positive email, fax or telephone communication to be made prior to each blast with both Ulan Coal Mine and Wilpinjong Coal Mine'.</p> <p>Evidence of a Blast Communication Notification email from Wilpinjong to MCO and Ulan (dated 17/10/2018) was sighted during the audit . Discussions between coordinators regarding blasting schedules was also sighted.</p> <p>The Pre-blast Meteorological Assessment (sighted example dated 11/09/2018) contains a pre-blast design checklist which includes considerations of weather conditions, other blasting's at Wilpinjong or Ulan mines.</p>	BMP Blast Communication Notification (17/10/2018) Coordinator discussions Pre-blast Meteorological Assessment (11/09/2018)	There are no recommendations
PA08_0135	SoC 15	The sound power of the conveyor used in the NIA will be provided to equipment manufacturers and suppliers to help ensure that the conveyor is maintained at these levels during operations	c	Noise management measures including maintenance of equipment and enclosure of high noise emission risk stationary equipment such as conveyors are described in section 7 of the NMP. The plant and equipment maintenance schedule was viewed during the site inspection.	NMP Plant and equipment maintenance schedule	There are no recommendations

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PA08_0135	SoC 16	MCM will continue to advise neighbours of blasting schedules upon request so that any concerns regarding blasting and impacts to pets and livestock can be managed by neighbours.	C	Public notice practices are set out in section 6.2 of the BMP which states: 'Any private landholder within 2 km of open cut operations at the Moolarben Coal Complex (or any other private landowner) that registers an interest in being informed of the blasting schedule is notified via telephone, e-mail or as otherwise agreed between the parties'. A pre-blast notification register is maintained with contact numbers for those residents that have registered an interest in receiving the blast schedule. Registered parties receive a text message to notify them of blasts. Less than 20 external parties are on the register. In order to keep the general local community informed of the blasting activities at the Moolarben Coal Complex, MCO operates and maintains a 24 hour free-call Community Response Hotline (1800 556 484) and a public website (www.moolarbencoal.com.au) where up-to-date information on the blasting schedule is available'.	BMP Community Response Hotline MCO website	There are no recommendations.
Water Resources						
PA08_0135	SoC 17	MCM will implement the water management and mitigation measures described in the PPR and subsequent supporting documents.	C	This requirement has been covered in section 3 of the WMP, section 8 of the Surface Water Management Plan (Appendix 2 of the WMP) and section 8 of the Ground Water Management Plan (Appendix 3 of the WMP) Additionally MCO have entered into a water sharing agreement with Ulan Coal Mine (UCM) as UCM are a water surplus site. MCO takes water from UCM through the water sharing plan. The Ulan Water sharing agreement was sighted during the audit period (Water Sharing Agreement dated 10/08/2009). The term will expire in 2030.	WMP - Appendix 2: Surface Water Management Plan - Appendix 3: Groundwater Management Plan Ulan coal Mine and Moolarben Coal Mine - Water Sharing Agreement (dated 10/08/2009)	There are no recommendations
PA08_0135	SoC 18	MCM will continue to monitor groundwater impacts on surrounding privately owned bores. In the event that it is demonstrated that water levels in existing landholder bores decline as a consequence of the MCC, leading to an adverse impact on groundwater supply, MCM will: • engage an appropriately qualified and experienced hydrogeologist to investigate the cause of the impact and recommend an appropriate action response plan; and • provide an alternate interim water supply or commensurate compensation as agreed to with the landholder.	Not triggered	No impacts to privately owned bores have been identified as yet	N/A	N/A
PA08_0135	SoC 19	MCM will develop a surface water monitoring program to quantify the streamflow and water quality characteristics within Murrumbidgee and Eastern Creeks for existing conditions prior to mining of the creek lines.	C	Section 7 of the Surface Water Management Plan describes surface water monitoring and section 3 describes baseline data on streamflow and stream health quality. Evidence of monitoring was provided in the 2016 and 2017 Annual Reports as well as from a sample of Environmental Monitoring Reports (January 2018 to August 2018)	WMP - Surface Water Management Plan (Appendix 2 of the WMP) Monthly Environmental Monitoring Report (January to August 2018)	There are no recommendations
PA08_0135	SoC 20	MCM will manage rainfall run-off from MCC mine disturbed areas to prevent contamination of downstream water sources from sediment laden water, unless otherwise approved under a relevant Environment Protection Licence.	C	No discharges have been recorded during the audit period.	N/A	There are no recommendations
PA08_0135	SoC 21	MCM will develop a six monthly water balance for MCC operations to assist in site water management and monitoring protocols. This will be reviewed on a regular basis to account for changing mine water inflows and water management infrastructure as mining progresses. The frequency of this review will be revised after Year 3 of Stage 2 operations to the approval of relevant regulators.	C	A site water balance (SWB) has been prepared as part of the WMP (Appendix 1 of the WMP). MCO conducts an annual review of operations prior to 31 March each year which includes water management. In accordance with Condition 5, Schedule 5 and Condition 5, Schedule 6 of the Project Approvals (05_0117 and 08_0135, respectively) the SWB will be reviewed, and if necessary revised to the satisfaction of the Secretary, within 3 months of the submission of: (a) an Annual Review in accordance with Condition 4, Schedule 5 and Condition 4, Schedule 6 of the Project Approvals (05_0117 and 08_0135, respectively); (b) an incident report in accordance with Condition 7, Schedule 5 and Condition 7, Schedule 6 of the Project Approvals (05_0117 and 08_0135, respectively); (c) an audit in accordance with Condition 9, Schedule 5 and Condition 9, Schedule 6 of the Project Approvals (05_0117 and 08_0135, respectively); (d) any modification to the conditions of the Project Approvals. The NSW Department of Primary Industries - Water (DPI Water) requirements are for water take to be reported as part of the annual review with a break-down in six monthly periods to coincide with the water year. Water take was not reported in six-monthly periods in the 2016 Annual Review but has been reported in six-monthly periods in the 2017 Annual Review.	WMP - SWB (Appendix 1 of the WMP) Annual Review 2016 and 2017	There are no recommendations

Project Approval	Statement of Commitments	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	SoC 22	Collated groundwater monitoring data will be reviewed annually to assess the impacts of the MCC on the groundwater environment and to compare observed impacts with those predicted from groundwater modelling.	C	Section 7 of the WMP 'Water Management' details the surface and groundwater monitoring including water take from Ulan Coal Mine, Groundwater levels/pressure and Groundwater take. Section 6.1.1 of the Ground water Management Plan (GWMP) states that 'Groundwater extraction from all pumping bores is monitored by means of a flow-meter'. 'Operational water balance reviews will be performed monthly, collating all groundwater extractions, in-pit rainfall accumulation and runoff, as well as imported water to inform on-site water management'. Groundwater monitoring data is reviewed annually in the Annual Review. This is covered in section 7.4 of the 2017 and 2016 Annual Reviews.	WMP - GWMP (Appendix 3 of the WMP) - SWB (Appendix 1 of the WMP) - SWMP (Appendix 2 of the WMP) Ulan coal Mine and Moolarben Coal Mine - Water Sharing Agreement (dated 10/08/2009)	There are no recommendations
PA08_0135	SoC 23	The groundwater monitoring program will be revised to include additional piezometers in alluvial areas, including palaeochannel areas, potentially affected by the MCC.	C	These components have been included in section 6.4 of the GWMP	GWMP (Appendix 3 of the WMP)	There are no recommendations
PA08_0135	SoC 24	A groundwater modelling post-audit and model re-calibration (where required) will be carried out 2 years (and 5 yearly thereafter) after commencing Stage 2 coal extraction. Should any groundwater review or post-audit indicate a significant variance from the model predictions, an appropriate response will be implemented in consultation with DPI Water and DP&I.	C	These components are covered in section 5.3 of the GWMP. The groundwater model was rebuilt in 2017 and the model type changed. The modelling document (NPM Technical Pty Ltd HydroSimulations October 2017) was viewed during the audit	GWMP (Appendix 3 of the WMP) NPM Technical Pty Ltd HydroSimulations October 2017	There are no recommendations
PA08_0135	SoC 25	MCM will acquire relevant licences under the Water Act 1912 and Water Management Act 2000 as required (or implement other such ameliorative measures as agreed with relevant regulators, such as return flows or other such reasonable and feasible mitigation measures to reduce the total direct and indirect water take of the MCC from alluvial and connected surface water sources).	C	Water Licences held by MCO are detailed in section 2.3 and Table 5 of the WMP - EPL 12932 issued under Part 3 of the NSW Protection of the Environment Operations Act, 1997 by the EPA in May 2016 (as amended from time to time). - Mining Operations Plan approved by the Division of Resources and Geosciences - WAL36430 -WAL37582 -WAL39799 - 20BL173935	WMP	There are no recommendations
PA08_0135	SoC 26	MCM will endeavour to implement an integrated monitoring program for the MCC, with UCML and Wilpinjong Coal Mine for data-sharing.	C	A communications protocol has been developed with Ulan Coal Mine and Wilpinjong Coal Mine so that cumulative impacts from simultaneous blasting are avoided. This protocol outlines that blast times are rescheduled where there is potential for blasts to occur concurrently. The protocol requires positive email, fax or telephone communication to be made prior to each blast with both Ulan Coal Mine and Wilpinjong Coal Mine'. Evidence of a Blast Communication Notification email from Wilpinjong to MCO and Ulan (dated 17/10/2018) was sighted during the audit . Discussions between coordinators regarding blasting schedules was also sighted. Air quality monitoring data is available to MCO under a data sharing agreement from both the neighbouring Ulan and Wilpinjong mines, with data made accessible upon request from MCO'. The air management system (predictive meteorological forecasting, predictive air quality forecasting and real-time quality monitoring data) is used to manage air emissions and mitigate potential cumulative impacts in cooperation with adjacent mines. MCO has an agreement to share the real-time temperature lapse rate data from the AWS at Wilpinjong Coal Mine. A summary of meteorological conditions at Moolarben Coal mine are included in the Annual Reviews.	BMP Blast Communication Notification (17/10/2018) Coordinator discussions AQMP AQMP and NMP Annuals Reviews 2016 and 2017	There are no recommendations
PA08_0135	SoC 27	MCM commits to realign and reconstruct the mined sections of Murragamba and Eastern creeks to meet geomorphological, hydraulically and ecological performance and completion criteria developed in consultation with relevant regulators.	Noted	This is covered in section 8.8 of the SWMP. A concept design for the diversion of these two creeks was developed for the Stage 2 PPR (Concept Design for Proposed Diversions of Murragamba and Eastern Creeks [M&ECD CD report] [Worley Parsons, 2011]).	SWB (Appendix 1 of the WMP) Worley Parsons M&ECD CD 2011	There are no recommendations

Project Approval	Statement of Commitments	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	SoC 28	MCM will develop operational criteria for the realigned sections of Murrumbidgee and Eastern creeks in consultation with relevant regulators and install diversions around the realigned sections of creek until such time as they become operational.	C	This is covered in section 8.8 of the SWMP. The performance measures for the creek diversions are summarised as follows: - Increase the overall length of the creek diversions and reduce the overall average bed slope compared to the existing creek alignments; - Mimic the existing meandering plan form of the low flow channel; - Include creek corridors which are designed to contain flood flows up to the 1 in 100 year ARI; - Include low flow channels which are designed to contain a rainfall event of a 1 in 1 year ARI; - Include riffle/drop structures that are designed for a 1 in 20 year ARI peak flow; - Incorporate erosion control measures based on vegetation and engineering revetments; - Incorporate persistent/permanent pools for aquatic habitat; - Incorporate seepage control/flow loss measures through sections of the creek lines to be constructed over mine waste backfill; and - Revegetate with suitable native species.	SWB (Appendix 1 of the WMP)	There are no recommendations
PA08_0135	SoC 29	As a part of its revised Water Management Plan, MCM will prioritise UCML surplus water for use within the MCC, to minimise the need for extraction from the Northern Bore field.	C	MCO have entered into a water sharing agreement with Ulan Coal Mine (UCM) as UCM are a water surplus site. MCO takes water from UCM through the water sharing plan. The Ulan Water sharing agreement was sighted during the audit period (Water Sharing Agreement dated 10/08/2009). The term will expire in 2030.	Ulan coal Mine and Moolarben Coal Mine - Water Sharing Agreement (dated 10/08/2009)	There are no recommendations
Ecology						
PA08_0135	SoC 30	MCM will implement the ecological management and mitigation measures described in the PPR and subsequent supporting documents.	C	This is covered in sections 4 (Vegetation clearance protocol), 5 (Collection and use of locally sourced native seeds and supplementary tube stock planting), 6 (Strategies to manage vegetation onsite and improve vegetation connectivity), 7 (Additional Biodiversity Management Measures), 8 (Biodiversity Monitoring program) and 9 (Biodiversity Offset Strategy) of the BioMP. Additionally Management Actions and Performance Targets for are covered in Section 10 (Table 4).	BioMP	There are no recommendations
PA08_0135	SoC 31	MCM will establish the Biodiversity Offset Strategy as described in the PPR and subsequent supporting documents to initially maintain and ultimately improve ecological values. Where ownership or the controlling interest of any proposed offset property is not able to be held by MCM it will either provide an alternate property of equal biodiversity value as a replacement, or make other such alternate arrangements as agreed to with relevant regulators. Management of offset properties for conservation purposes will be described in a Rehabilitation Offset Management Plan (or equivalent).	C	The Biodiversity Offset Strategy is shown in Appendix 8 of the Project Approval (05_0117).	Project Approval 08_0135 (Appendix 8 - Biodiversity Offset Strategy)	There are no recommendations
PA08_0135	SoC 32	MCM will implement appropriate security mechanisms to ensure that offset areas and rehabilitated areas (at the completion on mining) are protected in the long-term.	C	Biodiversity offset areas are protected by: Conservation Agreements, through integration into National Parks estate; and Titles. DP&E approved a staged approach to the Biodiversity Offset Security (letter dated 02/03/16). Letter viewed during the audit DP&E approved an extension for obtaining the biodiversity offset security mechanism. The letter stated that the Secretary approves an extension to March 2019. Letter dated 16/07/2018. Letter viewed during the audit. The Biodiversity Offset Strategy is shown in Appendix 8 of the Project Approval (05_0117).	Letter to DP&E RE: Biodiversity Offset Security. The Department endorses a staged approach (dated 02/03/16) Letter from DP&E RE: extension for Biodiversity offset security arrangements (dated 16/07/2018). Project Approval 05_0117 (Appendix 8 - Biodiversity Offset Strategy) Environmental Impact Assessment Mod 14 (Appendix C)	There are no recommendations
PA08_0135	SoC 33	MCM will continue to consult with OEHL on the inclusion of relevant Moolarben owned properties into the existing Avisford Nature Reserve.	C	Two offset areas were gifted to the National Parks Estate; and offset security mechanisms for 17 of the 19 offset areas were prepared and issued to the DP&E for approval. Avisford 1 offset area was gifted to the National Parks estate.	2016 and 2017 Annual Reviews	There are no recommendations

Project Approval	Statement of Commitments	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
Aboriginal Archaeology and Cultural Heritage						
PA08_0135	SoC 34	<p>The salvage and the protection of all known Aboriginal objects within the Project Boundary will be managed in accordance with the measures described in the PPR, subsequent supporting documents and an approved Aboriginal Cultural Heritage Management Plan for the MCC which has been prepared in consultation with local Aboriginal community stakeholders and the OEH.</p> <p>Prior to finalisation and approval of the Aboriginal Cultural Heritage Management Plan, the description of significance, development area, potential impacts, management strategies and current management status for all sites in the Stage 2 area will be reviewed by a suitably experienced and qualified archaeologist.</p>	C	<p>Rock shelter site S2MC229 underwent a salvage program in 2015 in accordance with the Heritage Management Plan (HMP). The salvage report "Moolarben Coal Project Stage 2, Open Cut 4, Additional Aboriginal Survey and Salvage" (dated December, 2017) was sighted by auditors.</p> <p>Section 1.4 of the HMP states that <i>'HMP has been provided to the NSW Office of Environment and Heritage (OEH) and the Registered Aboriginal Parties (RAPs) for their review and comment. Comments received within the specific time period were considered during finalisation of the HMP and prior to lodgement with the Secretary of the DP&E for approval'</i>. A letter from DP&E approving the HMP (dated 24/10/2017) was sighted during the audit.</p> <p>A Heritage Management Plan (HMP) has been prepared for the project. Section 1.2 of the HMP states that: <i>'Heritage Management Plan (HMP) has been prepared on behalf of MCO by Dr Andrew Sneddon and Dr Matthew Whincop of the University of Queensland Culture and Heritage Unit (whose appointment has been approved by the NSW Department of Planning & Environment [DP&E] [letter dated 11/02/2015] as "suitably qualified and experienced persons", to satisfy the requirements under Project Approval (05_0117) (Moolarben Coal Project Stage 1) (as modified) and Project Approval (08_0135) (Moolarben Coal Project Stage 2) (as modified)'. The letter from DP&E endorsing Dr Andrew Sneddon and Dr Matthew Whincop (dated 11/02/2015) was sighted during the audit.</i></p>	<p>Niche (Moolarben Coal Project Stage 2, Open Cut 4, Additional Aboriginal Survey and Salvage, December 2017)</p> <p>HMP</p> <p>Letter from DP&E RE: approval of revised HMP (September 2017 revision) (dated 24/10/2017)</p> <p>Letter from DP&E RE: Endorsement of suitably qualified professionals (dated 11/02/2015)</p>	There are no recommendations
PA08_0135	SoC 35	Site S2MC229 will be described as being a directly impacted site with a management strategy of 'detailed recording and surface collection, including closer inspection of the drip line' in the approved Aboriginal Cultural Heritage Management Plan.	C	Rock shelter site S2MC229 underwent a salvage program in 2015 in accordance with the Heritage Management Plan (HMP). The salvage report "Moolarben Coal Project Stage 2, Open Cut 4, Additional Aboriginal Survey and Salvage" (dated December, 2017) was sighted by auditors.	Niche (Moolarben Coal Project Stage 2, Open Cut 4, Additional Aboriginal Survey and Salvage, December 2017)	There are no recommendations
PA08_0135	SoC 36	Unsurveyed areas such as the Powers Management Area will be assessed and managed in accordance with the procedures agreed to with local Aboriginal community stakeholders and approved in the Aboriginal Cultural Heritage Management Plan for the MCC.	C	<p>This is covered in section 5.2 of the HMP which states that the management of heritage conservation areas will include:</p> <ul style="list-style-type: none"> - Ongoing consultation with the RAPs in the conservation and management of Aboriginal cultural heritage within the heritage conservation area' - Erection of signs in the vicinity of each heritage conservation area that states that the area is sensitive and that unauthorised access is prohibited - Restricted access to heritage areas - Prohibition of all ground disturbance without consultation of this HMP <p>The auditor observed that these measures were implemented during the site inspection.</p>	<p>HMP</p> <p>Site inspection</p>	There are no recommendations
PA08_0135	SoC 37	MCM will manage the Aboriginal conservation zones as outlined in the PPR and subsequent supporting documents in consultation with local Aboriginal community stakeholders.	C	<p>This is covered in section 5.2 of the HMP which states that the management of heritage conservation areas will include:</p> <ul style="list-style-type: none"> - Ongoing consultation with the RAPs in the conservation and management of Aboriginal cultural heritage within the heritage conservation area' - Erection of signs in the vicinity of each heritage conservation area that states that the area is sensitive and that unauthorised access is prohibited - Restricted access to heritage areas - Prohibition of all ground disturbance without consultation of this HMP <p>The auditor observed that these measures were implemented during the site inspection.</p>	<p>HMP</p> <p>Site inspection</p>	There are no recommendations
Rehabilitation						
PA08_0135	SoC 38	MCM will rehabilitate the Stage 2 project area to restore forest and woodland across the valley landscape, including rehabilitating 631 ha of currently degraded secondary grasslands. Areas of derived native grassland, secondary grassland and exotic grassland will be rehabilitated to treed landscapes.	C	Management advised that the aim is to rehabilitate the Stage 2 area (Open Cut 4) to a forest/woodland landscape as described in section 4.2 of the Mining Operations Plan	<p>MOP</p> <p>Management assertion</p>	There are no recommendations

Project Approval	Statement of Commitments	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	SoC 39	MCM will implement best practice environmental management to progressively rehabilitate mined and degraded non-mined areas with a focus on the re-establishment of C/EEC Box Gum Woodland and threatened species habitat.	C	Section 2.3.9 and section 7.2 of the MOP provides details on the proposed rehabilitation to be completed progressively each year. Table 19 of the MOP addresses the status of rehabilitation at the commencement of the MOP and Table 21 gives a summary of rehabilitation proposed during the MOP Term. Section 8 'Rehabilitation' of the 2016 Annual Review and section 9 of the 2017 Annual Review outlines the rehabilitation activities undertaken during the reporting period, as well as objectives for the next reporting period. During the site inspection the auditor observed progressive rehabilitation at open cut 2 which includes seeding to stabilise and plantings. Management advised that they have 2-3 contractors for weed control which uses a combination of manual weed removal and spraying. The aim is to rehabilitate the areas to woodland / forest or return them to agricultural land used for grazing.	MOP RMP Annual Review 2016; 2017 Site Inspections	There are no recommendations
PA08_0135	SoC 40	The gradients of final landform slopes will be generally designed to be no more than 10 to 14 degrees. However, where the out-of-pit (OOP) emplacement area is spatially constrained the final gradients of these slopes will be limited to a maximum of 20 degrees, provided it is agreed to by the relevant regulators.	C	The rehabilitated areas viewed during the audit generally meet these criteria. Section 5.2 of the MOP (Table 11) includes the rehabilitation objective that "Final Landforms will be shaped to be appropriate for the final landuse, having slopes with gradients generally 10 degrees to 18 degrees (and no more than 20 degrees where spatial constraints apply), and integrate with the surrounding landscape."	Site Inspection MOP	Ensure that the gradients of all planned rehabilitation works meet these gradient requirements.
Traffic and Transport						
PA08_0135	SoC 41	Early morning and evening shift changes will be outside school bus service times, and where feasible will be offset from existing Ulan and Wilpinjong mine shift changes over time to minimise peak traffic loads on the road network.	C	Shift changes are schedules according to the shift changes timetable. The timetable was sighted during the audit inspection and upon review it was determined that the shift changes were scheduled outside of school bus hours within minimal overlap between the adjoining mines.	Shift change timetable (Excel file)	There are no recommendations
PA08_0135	SoC 42	MCM will work with MRWC and Ulan and Wilpinjong coal mines to generally improve road safety and traffic management on the local road network.	C	Moolarben Coal, Mid-Western Regional Council and the owners of the Ulan and Wilpinjong mines agreed to develop a detailed plan for the implementation of the Ulan Road Strategy. The agreement 'Deed of Agreement - Funding and delivery of Ulan Road upgrade and maintenance' (dated July 2014) was viewed during the audit. Shift changes are schedules according to the shift changes timetable. The timetable was sighted during the audit inspection and upon review it was determined that the shift changes were scheduled outside of school bus hours within minimal overlap between the adjoining mines.	Deed of Agreement - Funding and delivery of Ulan Road upgrade and maintenance (July 2014) Shift change timetable (Excel file)	There are no recommendations
Visual						
PA08_0135	SoC 43	Rehabilitation will be carried out on disturbed areas as soon as practical after disturbance with emphasis on bunding and the OOP emplacement area.	C	Progressive rehabilitation works were underway and inspected by the Auditor	Site Inspection	There are no recommendations
PA08_0135	SoC 44	Infrastructure lighting will be designed to control light spill with directional lighting in elevated and exposed areas and will utilise low intensity lights to the level necessary for operational and safety requirements to minimise adverse night lighting impacts.	C	The EMS states the following as mitigation measures: As far as practically possible, and where mine safety allows, management protocols will be established and implemented to: - Locate mobile lighting plant to be directed away from private residences. - Direct stationary lighting sources below the horizontal to minimise potential light spill. - Design lighting systems that minimise light spillage. - Avoid lighting of light coloured surfaces that have greater reflectivity. Visual and lighting measures including visual screening along Ulan Road was observed during the site inspection. The Community Complaints Register Summary for 2016,2017 and 2018 did not list any complaints for visual impacts or lighting impacts. MCO's Manual lighting position and set-up procedure which was sighted during the audit and observed during the site inspection.	Environmental Management Strategy Site inspection Community Complaints Register Summary 2016, 2017, 2018 Manual lighting position and set-up procedure	There are no recommendations
PA08_0135	SoC 45	MCM will provide fair and reasonable community enhancement contributions for Stage 2 of the MCC to MWRC, which will augment the existing VPA for Stage 1.	C	Management advised that current staff levels are approximately 750 full-time equivalent employees. This complies with the invoice from Council for \$230,533.57 for the "Stage 2 Community Enhancement Contribution".	Invoice (No. 18 2078) from Mid-Western Regional Council (15/02/2018)	There are no recommendations.

Project Approval	Statement of Commitments	Requirement	Compliance	Audit Finding	Condition Evidence	Recommendation
PA08_0135	SoC 46	MCM will consult with the community, neighbouring industry and government authorities in relation to the MCC.	C	<p>Information dissemination is described in section 5.3 of the EMS which provides details about the community consultative committee (CCC), information provided on the MCO website and internal communications.</p> <p>Minutes of recent CCC meetings (6December 2016 and 12 June 2018) were reviewed during the audit. Meetings have been held each three to four months. Minutes of CCC meetings are available on the Moolarben Coal website.</p> <p>Consultation with neighbouring mines Section 6.8 of the BMP which states: 'A communications protocol has been developed with Ulan Coal Mine and Wilpinjong Coal Mine'. An example of how this protocol is used is the blasting schedule. The protocol outlines that blast times are rescheduled where there is potential for blasts to occur concurrently. The protocol requires positive email, fax or telephone communication to be made prior to each blast with both Ulan Coal Mine and Wilpinjong Coal Mine'.</p> <p>Evidence of a Blast Communication Notification email from Wilpinjong to MCO and Ulan (dated 17/10/2018) was sighted during the audit . Discussions between coordinators regarding blasting schedules was also sighted.</p> <p>Evidence of agency consultation was sighted during the audit period in relation to approval of management plans and compliance with various conditions of approval. For example: - Correspondence with the EPA (letter dated 20/12/2017) was sighted stating that the EPA does not review or endorse environmental management plans. - A letter from DP&E approving the HMP (dated 24/10/2017) was sighted during the audit.</p>	<p>EMS MCO website CCC meeting minutes - 6 December 2016 - 12 June 2018</p> <p>Blast Communication Notification (17/10/2018) Coordinator discussions</p> <p>Letter from DP&E RE: approval of revised HMP (September 2017 revision) (dated 24/10/2017)</p> <p>Letter from EPA (20/12/2017) stating that they did not review or endorse plans</p>	
PA08_0135	SoC 47	MCM will employ appropriately qualified persons residing in the MWRC area where feasible. MCM will also provide traineeships for young people residing in the MWRC area.	C	<p>Management advised that current staff levels are approximately 750 full-time equivalent employees the majority of which are locally based.</p> <p>A sample of Community meeting minutes were reviewed by auditors - 6 December 2016 - provided an Employment Update. Traineeships – 2nd intake to commence early in 2017 for the OC and UG (Cert 3) and apprenticeships were due to commence in early 2017. - 14 March 2017 - Provided an Employment Update. Traineeships - 13 trainees commenced in January (Cert 3). Next round will include 8 underground traineeships in March and 8 open cut in June. Four apprentices commenced in early 2017. 12 June 2018 - Provided an Employment Update. Traineeships - currently 4 Underground and 8 Open cut and 6 underground and 15 open cut apprenticeships. MCO also participated at the "Try a Trade" workshop at Mudgee High School - 26/27th June</p> <p>Operations recruitment is on-going</p>	<p>Management assertion</p> <p>CCC Meeting Minutes: - 6 December 2016 - 14 March 2017 - 12 June 2018</p>	There are no recommendations.
Reporting						
PA08_0135	SoC 48	MCM will prepare an Annual Review (which summarises monitoring results and reviews performance) and distribute it to the relevant regulatory authorities and the MCM CCC.	C	<p>Environmental performance is covered in section 6 of both the 2016 and 2017 Annual reviews. This section provides a comparison to results from previous years for environmental factors (such as noise, air quality etc.).</p> <p>Comparison of monitoring data to previous monitoring and predicted impacts are covered in section 6 of both the 2016 and 2017 Annual review.</p> <p>Section 2.1 of the 2016 and 2017 the Annual Reviews provides a list of key agencies that are provided a copy of the Annual Reviews this includes: DP&E; DPI-Water; DoE; DRE; OEH; EPA; MWRC and MCC.</p> <p>Evidence of consultation with DP&E is available in Section 5 of the 2017 annual reports as it contains actions requested by DP&E from the previous Annual Review.</p> <p>June 2017 CCC meeting minutes demonstrates that the 2016 Annual Review was presented to the CCC. Similarly the June 2018 CCC meeting minutes demonstrates that the 2017 Annual Review was presented to the CCC. These documents are also available on the MCO website.</p>	<p>Annual Review 2016, 2017</p> <p>CCC Meeting minutes - June 2017 - June 2018</p> <p>MCO website</p>	There are no recommendations

Moolarben Coal						
Detailed Findings and Recommendations						
Environment Protection Licence No 12932						
Clause	Condition Details	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
Administrative Conditions						
What the licence authorises and regulates						
A1.1	What the licence authorises and regulates	This licence authorises the carrying out of the Schd.d activities listed below at the premises specified in A2. The activities are listed according to their Schd.d 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. Refer Table in A1.1	Noted	A MOP has been prepared for the development. Section 2.1 'Project Description' of the MOP outlines the key construction and operations works which adequately addresses all components of Project Approval (05_0117) as modified and Project Approval (08_0135) as modified. A site inspection confirmed that these project components are completed or underway.	Site Inspection MOP	There are no recommendations.
A1.2	What the licence authorises and regulates - maximum extraction tonnes per annum	Notwithstanding A1.1, the scale of the land-based extractive activity authorised under this licence must not exceed 2,000,000 tonnes per annum, being the amount equivalent to the extraction limit approved by the development consent granted under the Environmental Planning and Assessment Act 1979 for the premises specified in A2.	C	A production summary is provided in the Annual reviews. A summary of the data shows that none of the activities have exceeded the annual scale as stipulated in this condition.	2016 and 2017 Annual Review	There are no recommendations.
A2.1	Licensed Premises	The licence applies to the following premises - as outlined in Table A2.1 THE PREMISES IS DEFINED AS THE COMBINED EXTENTS OF THE STAGE 1 PROJECT BOUNDARY AND THE STAGE 2 PREFERRED PROJECT, PROJECT BOUNDARY AS INDICATED IN THE FIGURE MOOLARBEN COAL STAGE 1 AND STAGE 2 INDICATIVE PROJECT LAYOUTS (DRAWING NO. 09845) APPENDIX 3 OF THE LICENCE VARIATION APPLICATION RECEIVED BY THE EPA ON 11 JUNE 2015.	C	The Moolarben Coal Project is being developed and operated within the boundaries defined in the Environment Assessments for Stage 1 and Stage 2	PA05_0117 PA08_0135	There are no recommendations.
A3.1	Other activities carried out at the premises	This licence applies to all other activities carried on at the premises, including: Ancillary Activity: Crushing, grinding or separating <30,000 tonnes per year	C	A production summary is provided in the Annual reviews. A summary of the data shows that none of the activities have exceeded the annual scale as stipulated in this condition.	2016 and 2017 Annual Review	There are no recommendations.
A4.1	Information supplied to the EPA	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 <i>Protection of the Environment Operations (Savings and Transitional) Regulation 1998</i> ; 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	The licence application was sighted and works and activities are generally carried out in accordance with the proposal contained in the licence application. All activities during the site inspection related to the mining and processing of coal.	EPL Application pitt&sherry IEA 2018 EPL 12932	There are no recommendations.
G 1.2	General Conditions, copy of licence to be kept at the premises or plant	The licence must be produced to any authorised officer of the EPA who asks to see it.	C	The licence was readily available at the time of the audit. A hard copy version and a soft copy on the MCO server were observed during the audit. Additionally the licence is available on the MCO website under 'Licences & Approvals'.	EPL Application MCO website EPL 12932	There are no recommendations.
G1.1	General Conditions, copy of licence to be kept at the premises or plant	A copy of this licence must be kept at the premises to which the licence applies.	C	The licence was readily available at the time of the audit. A hard copy version and a soft copy on the MCO server were observed during the audit. Additionally the licence is available on the MCO website under 'Licences & Approvals'.	EPL Application MCO website EPL 12932	There are no recommendations.
G1.2	General Conditions, signage	Each monitoring and discharge point must be clearly marked by a sign that indicates the EPA point identification number.	C	Section 5.3 (Figure 14) of the SWMP shows the EPL discharge points. Note that in some cases a single EPL discharge point can relate to multiple dams. During the site inspection monitoring and discharge points were sighted: - EPA ID No 1 - WP13 - CHPP Dam - Sediment Dam (photo evidence sighted) - EPA ID No 2 - Discharge point (sighted during the audit) - EPA ID No 3 - Surface Water Monitoring SW11 - Bora Creek Downstream (photo evidence sighted) - EPA ID No 4 - Surface Water Monitoring SW10 (Bora Creek - Upstream) (photo evidence sighted) - EPA ID No 5 - EFF01 (photo evidence sighted) - EPA ID No 7 - Operational dust (photo evidence sighted) - EPA ID No 17 - TEOM (PM10) Dust Monitor (photo evidence sighted) - EPA ID No 22 - EFF02 (photo evidence sighted) - EPA ID No 23 - EFF03 (photo evidence sighted) - EPA ID No 24 - Open Cut 101 (photo evidence sighted) - EPA ID No 24 - Open Cut 102 (photo evidence sighted) - EPA ID No 24 - Open Cut 103 (photo evidence sighted) - EPA ID No 24 - Open Cut 104 (photo evidence sighted) - EPA ID No 24 - Open Cut 105 (photo evidence sighted) - EPA ID No 26 - WP06 - CHPP Dam 6 - Sediment Dam (photo evidence sighted) - EPA ID No 26 - WP07 - CHPP Dam 7 - Sediment Dam (photo evidence sighted) - EPA ID No 26 - WP08 - CHPP Dam 8 - Sediment Dam (photo evidence sighted) - EPA ID No 26 - WP09 - CHPP Dam 9 - Sediment Dam (photo evidence sighted) - EPA ID No 26 - WP14 - CHPP Dam - Fill and Spill Dam (photo evidence sighted)	SWMP (Appendix 2 of the WMP) Site inspection Photographic evidence of monitoring and discharge points provided by MCO.	There are no recommendations

Clause	Condition Details	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation																																																																								
			C	- EPA ID No 28 - Dam 202 Sediment Dam (photo evidence sighted) - EPA ID No 29 - Dam 203 Sediment Dam (photo evidence sighted) - EPA ID No 29 - Open Cut Dam 206 (photo evidence sighted) - EPA ID No 29 - Dam 210 Sediment Dam (photo evidence sighted) - EPA ID No 31 - Dam 211 Sediment Dam (photo evidence sighted) - EPA ID No 31 - Dam 212 Sediment Dam (photo evidence sighted) - EPA ID No 33 - Has not been constructed yet. The points were included in the EPL as proposed discharge points in November 2017. - EPA ID No 34 - Dam 410 Sediment Dam (photo evidence sighted) - EPA ID No 34 - Dam 412 Sediment Dam (photo evidence sighted) - EPA ID No 35 - Dam 403 Sediment Dam (photo evidence sighted) - EPA ID No 35 - Dam 408 Sediment Dam (photo evidence sighted) - EPA ID No 35 - Dam 426 Sediment Dam (photo evidence sighted) - EPA ID No 48 - EFF04 (photo evidence sighted)	Site inspection Photographic evidence provided by MCO.	There are no recommendations																																																																								
G1.3	General Conditions, copy of licence to be kept at the premises or plant	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	C	The licence was readily available at the time of the audit. A hard copy version and a soft copy on the MCO server were observed during the audit. Additionally the licence is available on the MCO website under 'Licences & Approvals' all employees have access to computers and the internet.	EPL Application MCO website EPL 12932	There are no recommendations.																																																																								
L1.1	Limit Conditions, Pollution of Water	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.	Noted	N/A	N/A	N/A																																																																								
L2.1	Limit Conditions, Concentration limits	For each monitoring/discharge point or utilisation area specified in the table/s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table. Refer Table L2.4 of the licence.	C	As per the Annual Review, no parameter was exceeded during the audit period.	2016 and 2017 Annual Review	There are no recommendations.																																																																								
L2.2	Limit Conditions, Concentration limits, pH	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges. Refer Table L2.4 of the licence.	C	As per the Annual Review, the pH limit was not exceeded during the audit period.	2016 and 2017 Annual Review	There are no recommendations.																																																																								
L2.3	Limit Conditions, Concentration limits	To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table/s. Refer Table L2.4 of the licence.	Noted	N/A	N/A	N/A																																																																								
L2.4	Limit Conditions, Concentration limits, identification of points and pollutant	Water and/or Land Concentration Limits - as defined in Table L2.4 of the licence, must be adhered to, unless otherwise specified. <table border="1"> <thead> <tr> <th colspan="6">POINT 1,2,28</th> </tr> <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>Conductivity</td> <td>microsiemens per centimetre</td> <td>800</td> <td></td> <td></td> <td>900</td> </tr> <tr> <td>Oil and Grease</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>10</td> </tr> <tr> <td>pH</td> <td>pH</td> <td></td> <td></td> <td></td> <td>6.5-8.5</td> </tr> <tr> <td>Total suspended solids</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>50</td> </tr> <tr> <td>Turbidity</td> <td>nephelometric turbidity units</td> <td></td> <td></td> <td></td> <td>25</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="6">POINT 24,26,29,31,33,35</th> </tr> <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>pH</td> <td>pH</td> <td></td> <td></td> <td></td> <td>6.5-8.5</td> </tr> <tr> <td>Total suspended solids</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>50</td> </tr> <tr> <td>Turbidity</td> <td>nephelometric turbidity units</td> <td></td> <td></td> <td></td> <td>25</td> </tr> </tbody> </table>	POINT 1,2,28						Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit	Conductivity	microsiemens per centimetre	800			900	Oil and Grease	milligrams per litre				10	pH	pH				6.5-8.5	Total suspended solids	milligrams per litre				50	Turbidity	nephelometric turbidity units				25	POINT 24,26,29,31,33,35						Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit	pH	pH				6.5-8.5	Total suspended solids	milligrams per litre				50	Turbidity	nephelometric turbidity units				25	C	The EPL has specified 50 percentile concentration limit for Conductivity and 100 percentile concentration limit for Conductivity, Oil and Grease, pH, TSS and Turbidity for points 1, 2 and 28 and 100 percentile concentration limit for pH, TSS and Turbidity at points 24, 26, 29, 31, 33 and 35. As per the Annual Review, the water and land concentration limits of parameters specified in this condition were not exceeded.	2016 and 2017 Annual Review	There are no recommendations.
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L2.5	Limit Conditions, Concentration limits, excessive rainfall	The total suspended solids and turbidity limits specified under Condition L2.4 for the sediment basins identified as EPA licence discharge points 24, 26, 29, 30, 31, 33 and 35 do not apply when the discharge occurs solely as a result of rainfall measured at the premises which exceeds; - a total of 44 millimetre of rainfall over any consecutive 5 day period Note: A 44mm rainfall depth is defined by the publication Managing urban stormwater: soils and construction (Landcom 2004) as the rainfall depth in millimetres for a 95th percentile 5 day rainfall events for the Central Tablelands consistent with the storage capacity (recommended minimum design criteria) for Type D sediment retention basins for mines and quarries (Vol 2E of the Landcom 2004)	Noted	As per the reviewed EPL Annual Reviews, there was no discharge recorded.	2016 and 2017 Annual Review	There are no recommendations.																																																																								

Clause	Condition Details	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation									
L2.6	Limit Conditions, Concentration limits, TSS	The concentration limit for Total Suspended Solids (TSS) and turbidity under condition L2.4 for licence discharge points 24, 26, 29, 30, 31, 33 and 35 is deemed not to have been breached where: a. the sample complies with the turbidity limit at the time of the discharge; and b. the EPA is advised within 3 working days of completion of the TSS testing, of any TSS results above the licence limit. Note: The purpose of this condition is to expedite the assessment and subsequent discharge of the clarified water from the sediment basins.	Noted	As per the reviewed EPL Annual Reviews, there was no discharge recorded.	2016 and 2017 Annual Review	There are no recommendations.									
L3.2	Limit Conditions, Volume and Mass limits	No discharges are permitted at anytime from licence points 32, 34, 36, 37 and 38.	C	As per the reviewed EPL Annual Reviews, there were no discharges recorded.	2016 and 2017 Annual Review	There are no recommendations.									
L3.1	Limit Conditions, Volume and Mass limits	For each discharge point or utilisation area specified below (by a point number), the volume/mass of: a. liquids discharged to water; or; b. solids or liquids applied to the area; must not exceed the volume/mass limit specified for that discharge point or area. Refer Table L3.1. Note: 1. The combined discharge volume from points 1, 2 and 28 must not exceed 10 megalitres (ML) per day. <table border="1"> <thead> <tr> <th>Point</th> <th>Unit of Measure</th> <th>Volume/Mass Limit</th> </tr> </thead> <tbody> <tr> <td>1,2</td> <td>megalitres per day</td> <td>10</td> </tr> <tr> <td>28</td> <td>kilolitres per day</td> <td>1</td> </tr> </tbody> </table>	Point	Unit of Measure	Volume/Mass Limit	1,2	megalitres per day	10	28	kilolitres per day	1	C	There have been no recorded discharges from Points 1, 2 or 28 during the audit period.	2016 and 2017 Annual Reviews Site Inspection Management Assertion	There are no recommendations
Point	Unit of Measure	Volume/Mass Limit													
1,2	megalitres per day	10													
28	kilolitres per day	1													
L4.1	Limit Conditions, Waste, Waste Tyres	The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled "Waste" and meeting the definition, if any, in the column titled "Description" in the table below. Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled "Activity" in the table below. Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled "Other Limits" in the table below. This condition does not limit any other conditions in this licence. Refer to Table L4.1 of the Licence.	C	As per the Annual Reviews no waste has been received at the site. MCO does not receive tyres but does bury their own tyres onsite. A tyre burial register and procedure is used to track tyre burial.	2016 and 2017 Annual Reviews	There are no recommendations.									
L5.1	Limit Conditions, Noise limits	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. Refer to Tables in L5.1 of the Licence. Note: 1. The above noise limits do not apply at properties where the licensee has a written agreement with the landowner to exceed the noise limits. 2. The noise limit for licence points 44 and 45 identified in condition L5.1 are applicable when in use only and when measured internally.	C	Annual Environmental Noise Monitoring Assessment reports for 2016 and 2017 prepared by Global Acoustics were sighted which concluded that the noise emissions generated by MCO comply with relevant statutory noise limits specified in EPL conditions at all assessed locations. A sample of the monthly environmental monitoring reports available on the MCO website showed compliance with relevant statutory noise limits. Annual reviews for 2016 and 2017 were reviewed which show that MCO complied with the project specific criteria at all monitoring sites during attended noise monitoring.	Global Acoustics (March 2017) Environmental Noise Monitoring Annual Report Global Acoustics (Feb 2018) Environmental Noise Monitoring Annual Report Monthly Environmental Monitoring Reports 2016 and 2017 Annual Review	There are no recommendations.									
L5.2	Limit Conditions, Noise limits	For the purpose of Condition L5.1: 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; and c. Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays Refer to Tables in L5.1 of the Licence.	Noted	The Annual Environmental Noise Monitoring Assessment reports for 2016 and 2017 prepared by Global Acoustics states that monitoring is undertaken in accordance with this condition.	Global Acoustics (March 2017) Environmental Noise Monitoring Annual Report Global Acoustics (Feb 2018) Environmental Noise Monitoring Annual Report	There are no recommendations.									
L5.3	Limit Conditions, Noise limits	The noise limits set out in condition L5.1 apply under all meteorological conditions except for the following: a. Wind speeds greater than 3 metres/second at 10 metres above ground level; or b. Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or c. Stability category G temperature inversion conditions. Refer to Tables in L5.1 of the Licence.	Noted	The Annual Environmental Noise Monitoring Assessment reports for 2016 and 2017 prepared by Global Acoustics states that monitoring is undertaken in accordance with this condition.	Global Acoustics (March 2017) Environmental Noise Monitoring Annual Report Global Acoustics (Feb 2018) Environmental Noise Monitoring Annual Report	There are no recommendations.									

Clause	Condition Details	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
L5.4	Limit Conditions, Noise limits	For the purpose of condition L5.3: a. Data recorded by the meteorological station identified as EPA Licence Point 25 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. Refer to Tables in L5.1 of the Licence.	C	a) Meteorological data was obtained from the MCO weather station (WS03) located off Ulan Road b) Section 6.1 of the Noise Management Plan (NMP) Full Meteorological compliment consists of sensors and calculations that provide the following: - wind speed at 10m; - wind direction at 10m; - standard deviation of wind direction (sigma-theta) at 10m; - temperature at 2m and 10m; - relative humidity at 2m; - solar radiation at 2m; - temperature difference between 2m and 10m; and - rainfall (gauge at ground-level) Meteorological conditions at the time of monitoring is recorded for monitoring data interpretation and reported in the Noise Monitoring Reports.	Global Acoustics (March 2017) Environmental Noise Monitoring Annual Report Global Acoustics (Feb 2018) Environmental Noise Monitoring Annual Report NMP Noise Monitoring	There are no recommendations.
L5.5	Limit Conditions, Noise limits	To determine compliance: a. with the Leq(15 minute) noise limits in condition L5.1, 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 3 metres where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable III. within approximately 50 metres of the boundary of a National Park or Nature Reserve. b. with the LA1(1 minute) noise limits in condition L5.1, the noise measurement equipment must be located within 1 metre of a dwelling façade. c. with the noise limits in condition L5.1, the noise measurement equipment must be located: I. at the most affected point at a location where there is no dwelling at the location; or II. ii) at the most affected point within an area at a location prescribed by conditions L5.5(a) or L5.5(b). Refer to Tables in L5.1 of the Licence.	C	Noise Monitoring Reports reflect these requirements for equipment locations.	NMP	There are no recommendations.
L5.6	Limit Conditions, Noise limits	A non-compliance of L5.1 will still occur where noise generated from the premises in excess of the appropriate limit is measured: a. at a location other than an area prescribed by condition L5.5(a) and L5.5(b); and/or b. at a point other than the most affected point at a location. Refer to Tables in L5.1 of the Licence.	Noted	N/A	N/A	There are no recommendations.
L5.7	Limit Conditions, Noise limits	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. Refer to Tables in L5.1 of the Licence.	Noted	N/A	N/A	There are no recommendations.
L6.1	Limit Conditions, Blasting	Blasting in or on the premises must only be carried out between 9 am and 5 pm, Monday to Saturday. Blasting in or on the premises must not take place on Sundays or Public Holidays without the prior approval of the EPA.	C	Blast data from 03/01/2018 to 29/09/2018 was reviewed and confirmed that blasting did not occur outside 9am and 5pm Monday to Saturday and that the majority of blasts either occurred around midday or 4pm. Current scheduled blasting times were reviewed and found no blasts to be carried out on Sundays or outside the approved timeframes.	Blast data 2018 (03/01/2018 to 29/09/2018) Monthly Reporting data (January 2018 to August 2018)	There are no recommendations.
L6.2	Limit Conditions, Blasting	Blasting at the premises is limited to the following: a. A maximum of 2 blasts per day; and b. A maximum of 9 blasts per week averaged over a 12 month reporting period. Note: 1. 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, blast misfires or blasts required to ensure the safety of the mine or its workers. 2. For the purpose of the above condition, a blast refers to a single blast event, which may involve a number of blasts fired in quick succession in a discrete area of the mine.	C	(a) Blast monitoring summary tables from the 2016 and 2017 Annual Review were examined. Number of blasts per day was checked against the requirements under this condition and found to be compliant. Blast data from 03/01/2018 to 29/09/2018 was reviewed and found that an additional blast was conducted on 14th June 2018. Two blasts were conducted on Open Cut 4 (08_0135 consent area) at 12:07 and 12:12PM respectively. However, due to a misfire a portion of the OC4 S09 B12-14 was refired to ensure the safety of the mine and it's workers. This condition does not apply to blasts that generate ground vibration of 0.5mm/s or less at any residence on privately owned land, blasts misfires or blasts required to ensure the safety of the mine and it's workers. As none of the three blasts exceeded ground vibration of 0.5mm/s at any residence on privately owned land and as the additional blast was a re-fire of a misfire this blasting frequency condition has been complied with. (b) Blast monitoring summary tables from the 2016 and 2017 Annual Review were examined. Number of blasts per week was checked against the requirements under this condition and found to be compliant. During 2017 the annual average blasts per week was 2.6 and in 2016 the annual average blasts per week was 2.2. Blast data from 03/01/2018 to 29/09/2018 was reviewed and found that at the time of the audit 110 blasts occurred during 39 weeks with an average of approximately 2.8 blasts per week	2016 Annual Review 2017 Annual Review Monthly Reporting data (January 2018 to August 2018) Blast data 2018 (03/01/2018 to 29/09/2018)	There are no recommendations.

Clause	Condition Details	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
L6.3	Limit Conditions, Blasting	The air blast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	NC	The following non-compliance had been noted in the 2017 EPL Return: Exceedance of air blast overpressure limit on 17 Feb 2017 at noise sensitive location - EPA is monitoring future compliance	NSW EPA online records for EPL 12932	There is no further recommendation: MCO investigated the causes of the overpressure exceedances and implemented remedial measures as required.
L6.4	Limit Conditions, Blasting	The air blast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	C	Blast monitoring summary tables from the 2016 and 2017 Annual Review were examined. The overpressure levels were checked against the requirements under this condition and found to be compliant. Blast data from 03/01/2018 to 29/09/2018 was reviewed and found that the overpressure levels were compliant with this condition.	2016 Annual Review 2017 Annual Review Blast data 2018 (03/01/2018 to 29/09/2018)	There are no recommendations.
L6.5	Limit Conditions, Blasting	Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	C	No ground vibration exceedances have occurred in the audit period.	2016 Annual Review 2017 Annual Review Blast data 2018 (03/01/2018 to 29/09/2018)	There are no recommendations.
L6.6	Limit Conditions, Blasting	Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded. Note: I. The air blast overpressure and ground vibration levels in conditions L6.3 to L6.6 do not apply at noise sensitive locations that are owned by the licensee or subject to a private agreement, relating to air blast overpressure and ground vibration levels, between the licensee and land owner. II. 'Noise sensitive locations' includes buildings used as a residence, hospital, school, child care centres, places of public worship and nursing homes. A noise sensitive location includes the land within 30 metres of the building.	C	No ground vibration exceedances have occurred in the audit period.	2016 Annual Review 2017 Annual Review Blast data 2018 (03/01/2018 to 29/09/2018)	There are no recommendations.
L6.7	Limit Conditions, Blasting	Offensive blast fume must not be emitted from the premises. Definition: Offensive blast fume means post-blast gases 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: 1. Are harmful to (or likely to be harmful to) a person that is outside the premises from which it is emitted, or 2. 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.	C	This is set out in section 6.2 of the Air Quality Management Plan (AQMP), 'Odour and Fume' There was no offensive odours detected during the site inspection. There have been no complaints in response to odour generated from mine activities.	AQMP Site inspection Community Complaints Register Summary 2016, 2017 and 2018	There are no recommendations.
M1.1	Monitoring and Recording Conditions, monitoring records	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.	C	Monitoring required by the EPL includes: - Air quality - Water - Noise - Blast (Air blast overpressure and ground vibration levels) - Discharge Monitoring records were sighted.	EPL 12932 Monitoring records	There are no recommendations.
M1.2	Monitoring and Recording Conditions, monitoring records	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.	C	a) All environmental monitoring records reviewed during the audit were in a legible form. b) Monitoring records have been retained for a 4 year period. c) The monitoring records were provided in a legible form to the auditors when asked and it is assumed that an EPA officer would have the same results.	Monitoring records	There are no recommendations.
M1.3	Monitoring and Recording Conditions, monitoring records	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.	C	All samples reviewed include the records listed in this condition. Example field sheets were sighted during the audit (August 2018) Observed date, time, sample location and the name of the samplers. Monitoring data is stored using Monitor Pro. The oldest data available was dated February 2005.	Monitoring records Monitor Pro Field Sheet (August 2018)	There are no recommendations.
M2.1	Monitoring and Recording Conditions, requirements to monitor concentration of pollutants discharged	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: refer to Tables within M2.2 of the Licence	NC	The following non-compliance and action taken has been noted by EPA: 2015: Dust Gauge 12 (EPA 7) was installed following the approval of the location thus one round of measurement was missed. 2016: TEOM5 (EPA 15) and TEOM6 (EPA 27) did not monitor PM10 continuously for 17hours due to power outage and on one day due to routine maintenance. 2017: Failure to monitor continuously for PM10 at EPA identification number 27 (TEOM07), due to power outage. Yancoal has installed a temporary E-Sampler unit following outages. TEOM07 was connected to power in August 2017, replacing the temporary sampler.	2016 and 2017 Annual Reviews	An observation is noted due to recurring non-compliance. It is recommended that the power issues are permanently resolved so that the temporary sampler is not relied upon.

Clause	Condition Details	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation																																		
M2.2	Monitoring and Recording Conditions, requirements to monitor concentration of pollutants discharged	Air Monitoring Requirements, refer to Tables within M2.2 of the Licence.	NC	The following non-compliance and action taken has been noted by EPA: 2015: TEOM 6 (EPA 27) did not monitor PM10 due power failure due to a trip in wet weather. It is noted that this station is located upwind of the site and is not representative of any residences. 2016: TEOM5 (EPA 15) and TEOM6 (EPA 27) did not monitor PM10 continuously for 17hours due to power outage and on one day due to routine maintenance. 2017: Failure to monitor continuously for PM10 at EPA identification number 27 (TEOM07), due to power outage. Yancoal has installed a temporary E-Sampler unit following outages. TEOM07 was connected to power in August 2017, replacing the temporary sampler.	2016 and 2017 Annual Reviews NSW EPA online records for EPL 12932	An observation is noted due to recurring non-compliance. It is recommended that the power issues are permanently resolved so that the temporary sampler is not relied upon.																																		
M2.3	Monitoring and Recording Conditions, requirements to monitor concentration of pollutants discharged	Water and/ or Land Monitoring Requirements. Refer to Tables within M2.3 of the Licence.	C	The Auditor sighted monitoring records for all parameters required by this EPL.	2016 and 2017 Annual Review																																			
M2.4	Monitoring and Recording Conditions, requirements to monitor concentration of pollutants discharged	For the purposes of the table(s) (refer to tables M2.2 and M2.3 of the licence) Special Frequency 1 means Point 3 is required to be sampled monthly in the event of a flow, and daily during periods of discharge from licence point 1 and in the event of a flow at Point 3. For the purposes of the table(s) above Special Frequency 1 means Point 4 is required to be sampled monthly in the event of a flow.	C	As per the reviewed EPL Annual Reviews, there were no discharges recorded during the Audit Period.	2016 and 2017 Annual Review	There are no recommendations.																																		
M3.1	Monitoring and Recording Conditions, Testing methods - concentration limits	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.	C	MCO has contracts in place with three sampling and testing laboratories. All analysis is undertaken by NATA registered laboratories in accordance with the approved methods. The three sampling / testing organisations are: - ALS completes testing - off-site and external - Steel River labs complete air quality testing - Monitoring - Carbon-based Environmental	Monitoring records / Laboratory certificates	There are no recommendations																																		
M3.2	Monitoring and Recording Conditions, Testing methods - concentration limits	Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted. Note: The Protection of the Environment Operations (Clean Air) Regulation 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".	C	MCO has contracts in place with three sampling and testing laboratories. All analysis is undertaken by NATA registered laboratories in accordance with the approved methods. The three sampling / testing organisations are: - ALS completes testing - off-site and external - Steel River labs complete air quality testing - Monitoring - Carbon-based Environmental	Monitoring records / Laboratory certificates	There are no recommendations																																		
M4.1	Monitoring and Recording Conditions, Weather Monitoring	The meteorological weather station (licence point 50) must be maintained so as to be capable of continuously monitoring the parameters specified in condition M4.2.	C	This is covered in section 3.1 of the AQMP. MCO utilises two permanent meteorological monitoring stations – WS01 – (MCO Administration Office), WS03 (Ulan Road), and one mobile unit, WS04. The meteorological station on Ulan Road (WS3) is the approved meteorological station and WS01 and WS04 are used to support data from WS3 as needed.	AQMP	There are no recommendations.																																		
M4.2	Monitoring and Recording Conditions, Weather Monitoring	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 sample at the frequency, specified opposite in the columns 2,3, 4 and 5 respectively. Refer Table 4.2 of the licence. POINT 50 <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>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>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>Sigma Theta</td> <td>AM-2 & AM-4</td> <td>Degrees</td> <td>15 minutes</td> <td>Continuous</td> </tr> <tr> <td>Rainfall</td> <td>AM-4</td> <td>millimetres</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>1 hour</td> <td>Continuous</td> </tr> <tr> <td>Relative humidity</td> <td>AM-4</td> <td>percent</td> <td>1 hour</td> <td>Continuous</td> </tr> </tbody> </table>	Parameter	Sampling method	Units of measure	Averaging period	Frequency	Wind Direction at 10 metres	AM-2 & AM-4	Degrees	15 minutes	Continuous	Wind Speed at 10 metres	AM-2 & AM-4	metres per second	15 minutes	Continuous	Sigma Theta	AM-2 & AM-4	Degrees	15 minutes	Continuous	Rainfall	AM-4	millimetres	15 minutes	Continuous	Temperature at 10 metres	AM-4	degrees Celsius	1 hour	Continuous	Relative humidity	AM-4	percent	1 hour	Continuous	Section 7.1.5 of the AQMP states that 'MCO has an Automatic Weather Station (AWS) which measures a full meteorological complement Meteorological monitoring' which includes: - wind speed at 10m; - wind direction at 10m; - standard deviation of wind direction (sigma-theta) at 10m; - temperature at 2m and 10m; - relative humidity at 2m; - solar radiation at 2m; - temperature difference between 2m and 10m; and - rainfall (gauge at ground-level). Additionally a copy of the Monitoring Monthly results was viewed during the audit which contained daily measurements for the following: - Temperature at 2m and 10m - Humidity - Rain (mm) The auditor sighted the weather station during the audit site inspection.	AQMP Monitoring Monthly Results (2016-2018) Site Inspection	
Parameter	Sampling method	Units of measure	Averaging period	Frequency																																				
Wind Direction at 10 metres	AM-2 & AM-4	Degrees	15 minutes	Continuous																																				
Wind Speed at 10 metres	AM-2 & AM-4	metres per second	15 minutes	Continuous																																				
Sigma Theta	AM-2 & AM-4	Degrees	15 minutes	Continuous																																				
Rainfall	AM-4	millimetres	15 minutes	Continuous																																				
Temperature at 10 metres	AM-4	degrees Celsius	1 hour	Continuous																																				
Relative humidity	AM-4	percent	1 hour	Continuous																																				
M5.1	Monitoring and Recording Conditions, recording of pollution complaints	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.	C	During the audit a complaints register extract was provided to auditors. This register was a typed register of all complaints made to MCO. The Register Contains record the following: complaint number; name; complaint category (e.g. noise, dust); description of complaint; date and time received; status (open or closed); and action taken. A contact log is also maintained to record contact and actions taken as a result of the complaint. Community complaints register is maintained on the website and is accessible to the general public. It is noted that the register does not include any details of the complaint. It includes date, type, location and findings of internal investigation (under the complaints description column).	Complaints Register Extract (24/09/2018 to 27/11/2018) Community complaints register summaries for 2017 and 2018 MCO website	There are no recommendations.																																		

Clause	Condition Details	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation												
M5.2	Monitoring and Recording Conditions, recording of pollution complaints	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.	C	During the audit a complaints register extract was provided to auditors. This register was a typed register of all complaints made to MCO. The Register Contains record the following: a) the date and time received b) Method by which the complaint was made (i.e. community complaint line, EPA complaint Line, Email, Phone etc.) c) Name of complainant and location of complaint, preferred method of contact d) Nature of the complaint and also complaint category (e.g. noise, dust) e) Action taken f) status (open or closed)	Complaints Register Extract (24/09/2018 to 27/11/2018)	There are no recommendations.												
M5.3	Monitoring and Recording Conditions, recording of pollution complaints	The record of a complaint must be kept for at least 4 years after the complaint was made.	C	The MCO website includes a Complaints line with summaries of complaints made available per year	MCO website	There are no recommendations.												
M5.4	Monitoring and Recording Conditions, recording of pollution complaints	The record must be produced to any authorised officer of the EPA who asks to see them.	Noted	N/A	N/A	N/A												
M6.1	Monitoring and Recording Conditions, Telephone complaint line	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.	C	The MCO website includes details of the Complaints line with summaries of complaints made available per year	MCO website	There are no recommendations.												
M6.2	Monitoring and Recording Conditions, Telephone complaint line	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.	C	The MCO website includes a Complaints page with 1800 556 484 line	MCO website	There are no recommendations.												
M6.3	Monitoring and Recording Conditions, Telephone complaint line	The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.	Noted	N/A	N/A	N/A												
M7.1	Monitoring and Recording Conditions, requirements to monitor volume or mass	For each discharge point or utilisation area specified below, the licensee must monitor: a. the volume of liquids discharged to water or applied to the area; b. the mass of solids applied to the area; c. the mass of pollutants emitted to the air; at the frequency and using the method and units of measure, specified below, in Table M7.1 of the licence. POINT 1,2 <table border="1"> <thead> <tr> <th>Frequency</th> <th>Unit of Measure</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Continuous during discharge</td> <td>megalitres per day</td> <td>Flow meter and continuous logger</td> </tr> </tbody> </table> POINT 28 <table border="1"> <thead> <tr> <th>Frequency</th> <th>Unit of Measure</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Continuous during discharge</td> <td>kilolitres per day</td> <td>Flow meter and continuous logger</td> </tr> </tbody> </table>	Frequency	Unit of Measure	Sampling Method	Continuous during discharge	megalitres per day	Flow meter and continuous logger	Frequency	Unit of Measure	Sampling Method	Continuous during discharge	kilolitres per day	Flow meter and continuous logger	Not triggered	No discharges have occurred during the audit period. There are three discharge points. Point 1 is located adjacent to the rail loop, Point 2 adjacent to the Heavy Vehicle workshop and Point 28 is located to the south west of Point 2. Discharge Point 2 has permanent flow monitoring installed on the discharge pipes. Points 1 and 28 are not intended to discharge (by design) and would be pumped out if required, however there is no instrumentation installed that will permit discharge volumes to be measured. MCO has interpreted the condition to require continuously monitor water flow, pH and EC during discharge, as opposed to requiring continuous flow, pH and EC monitoring to be in place at all times, even when no discharges are occurring. It is noted that no discharges have occurred during the audit period. The release points were included in the licence to allow for the controlled release of water. MCO have not progressed with the controlled release of water to date. MCO accepts that flow and quality monitors would be required prior to any discharge from points 1 or 28	Site Inspection Audit Interview (with MCO Environmental Manager)	Discuss and agree discharge volume measurement requirements for Discharge Points 1 and 28 with the EPA and if a change is agreed seek a modification to the EPL to reflect the approved changes.
Frequency	Unit of Measure	Sampling Method																
Continuous during discharge	megalitres per day	Flow meter and continuous logger																
Frequency	Unit of Measure	Sampling Method																
Continuous during discharge	kilolitres per day	Flow meter and continuous logger																
M8.1	Monitoring and Recording Conditions, Blasting	To determine compliance with condition(s) L6.3 to L6.6: a. Air blast overpressure and ground vibration levels must be measured and electronically recorded for monitoring point 49 for the parameters specified in Column 1 of the table M8.1(b);and b. The licensee must use the units of measure, sampling method, and sample at the frequency specified opposite in the other columns. Reference table M8.1	C	The following non-compliance had been reported: 2015: the blast monitor did not record result of blast event. The EPL Annual Return confirms that appropriate action had been taken by Yancoal and the non-compliance had not repeated.	NSW EPA online records for EPL 12932	There are no recommendations.												
M9.1	Monitoring and Recording Conditions, Noise Monitoring	To determine compliance with the noise limits contained in condition L5.1 noise monitoring must be conducted in accordance with the document "Moolarben Coal Complex Noise Management Plan June 2015" (as amended from time to time).	C	Section 8 of the NMP details the Noise Monitoring Program.	NMP	There are no recommendations.												

Clause	Condition Details	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
O1.1	Operating Conditions, Activities must be carried out in a competent manner	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.	C	a) Operations during the site inspection were generally observed to be carried out in a competent manner. The operational areas on the mine were well maintained, tidy and well organised. All environmental controls observed appeared to be well maintained and operational. b) Waste streams were observed to be separated and there were sufficient facilities for waste segregation. Signage and colour coding to reduce waste contamination was observed. Spill kits were available for use as required. Waste receipts were viewed during the audit as well as several NSW EPA Online Waste Tracking System - Transport Certificate.	Site inspection Site inspection Waste receipts - Renewable Oil Services Pty Ltd, Service Docket 25470 - dated 27/09/2018 - J.R.Richards & Sons Waste Services, Service Docket 0064749 - dated 03/08/2018 - J.R.Richards & Sons Waste Services, Service Docket 0064775 - dated 04/09/2018 NSW EPA - Online Tracking System - Transport Certificate (9 January 2018 - No 2T00883672) (25 April 2018 - No 2T00879932) (5 August 2018 - No 2T00925453)	There are no recommendations.
O2.1	Operating Conditions, Maintenance of plant and equipment	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.	C	(a) MCO advised that plant and equipment is maintained using the Maintenance Schedule (SAP Records Management). The maintenance schedule was sighted during the site inspection. (b) During the site inspection, the plant and equipment was observed to be operated in proper and efficient manner. Based on the observation of plant and equipment being used on site at the time of the audit, this condition is assessed as compliant.	(a) Maintenance Schedule (SAP Records Management) (b) Auditor observations during the site inspection	There are no recommendations.
O3.1	Operating Conditions, Dust	All areas in or on the premises must be maintained in a condition that prevents or minimises the emission into the air of air pollutants (which includes dust).	C	This is covered in section 6 of the AQMP. Specifically, odour and fume is covered in section 6.2, and dust is covered in section 6.1. The system involves proactive dust management such as predictive meteorological forecasting and reactive approaches such as real time response triggers. To minimise surface disturbance and emissions into the air MCO is completing their operations progressively and completing progressive rehabilitation activities including temporary cover crops to stabilise rehabilitation areas. No visible off-site air pollution was observed during the site investigation.	AQMP Site inspection	There are no recommendations.
O3.2	Operating Conditions, Dust	Any activity in or on the premises must be carried out by such practicable means as to prevent or minimise the emission into the air of air pollutants (which includes dust).	C	This is covered in section 6 of the AQMP (Management Measures). No visible off-site air pollution was observed during the site investigation.	AQMP Site inspection	There are no recommendations.
O3.3	Operating Conditions, Dust	Any plant in or on the premises must be operated by such practicable means as to prevent or minimise the emission into the air or air pollutants (which includes dust).	C	This is covered in section 6 of the AQMP and includes measures such as: - Use of water carts as necessary and practicable on all trafficked areas to minimise excessive visible dust. - Enforcement of speed limits - Use of dust aprons and water injection systems during drilling - Fitting, inspection and maintenance of dust suppression systems to stationary plant (such as dump hopper and transfer stations) - Partial enclosure of raw coal transfer and rejects conveyors where possible No visible off-site air pollution was observed during the site investigation.	AQMP Site inspection	There are no recommendations.
O4.1	Operating Conditions, Effluent Application to land	Effluent application must not occur in a manner that causes surface runoff.	C	Mid-Western Regional Council approved water supply, sewage and stormwater drainage works at MCO. Wastewater from the open cut offices, workshop and bath houses is collected and treated on site in an effluent disposal system located near the open cut offices, CHPP Offices, Project Offices and underground Administration Offices. Flow metres are used to measure effluent application.	Mid-Western Regional Council - Notice of Determination - approval to install sewage management facility (dated 14 August 2015) - Notice of Determination, onsite sewage management facility (dated 16 October 2015) - Notice of Determination - approval to operate sewage management facility (dated 29 June 2016) SWMP (Appendix 2 of the WMP)	

Clause	Condition Details	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
O4.2	Operating Conditions, Effluent Application to land	Spray from effluent application must not drift beyond the boundary of the premises.	C	The Auditors inspected the effluent application areas. The UG effluent application was via drip lines (as opposed to spray heads) and therefore do not generate airborne droplets. Other irrigation areas utilise surface irrigation within the premises boundary. Excess effluent that cannot be processed on-site is collected and transported offsite by J.R.Richards a licenced contractor. Waste receipts of effluent pick-up were sighted during the audit.	SWMP (Appendix 2 of the WMP) Management assertion Waste receipts - J.R.Richards & Sons Waste Services, Service Docket 0064749 - dated 03/08/2018 (pump out of greywater tanks) - J.R.Richards & Sons Waste Services, Service Docket 0064757 - dated 10/08/2018 (600Ltrs from septic tank) - J.R.Richards & Sons Waste Services, Service Docket 0064760 - dated 17/08/2018 (CHPP 4,000 Litres from septic tank)	
O4.3	Operating Conditions, Effluent Application to land	The quantity of effluent applied to the utilisation area(s) must not exceed the capacity of the utilisation area(s) to effectively utilise the effluent. For the purpose of this condition, "effectively utilise" includes the ability of the soil to absorb the nutrient, salt and hydraulic loads and the applied organic material without causing harm to the environment.	C	The quantity of effluent applied to the utilisation areas will not exceed the capacity of the utilisation areas to effectively utilise the effluent. Excess effluent that cannot be processed onsite is collected and transported offsite by J.R.Richards a licenced contractor. Waste receipts of effluent pick-up were sighted during the audit.	Waste receipts - J.R.Richards & Sons Waste Services, Service Docket 0064749 - dated 03/08/2018 (pump out of greywater tanks) - J.R.Richards & Sons Waste Services, Service Docket 0064757 - dated 10/08/2018 (600Ltrs from septic tank) - J.R.Richards & Sons Waste Services, Service Docket 0064760 - dated 17/08/2018 (CHPP 4,000 Litres from septic tank)	There are no recommendations
O5.1	Operating Conditions, Processes and management	All chemicals, fuels and explosives must be handled and stored in a bunded area which complies with the specifications of the relevant Australian Standard and legislative requirements.	C	All chemicals, fuels and explosives stored at the Moolarben Coal Complex site are within bunded areas that comply with the specifications of the relevant Australian Standard.	Site inspection	There are no recommendations
O5.2	Operating Conditions, Processes and management	Contingency and emergency management plans must be developed and implemented for the spill of any chemical and fuel.	C	The Pollution Incident Response Management Plan prepared to satisfy EPL 12932 is immediately implemented in the event of a spill of chemical or fuel resulting in a pollution incident. Spill kits were observed onsite.	Pollution incident Response Management Plan Site inspection	There are no recommendations
O6.1	Operating Conditions, Other operating conditions	The sediment basins identified as EPA identification no. (licence discharge points) 24, 26, 29, 30, 31, 33 and 35 under condition P1.3 must be drained or pumped out as necessary to maintain each basins design storage capacity, within 5 days following rainfall.	C	Maintenance of sediment basins was observed during the site audit inspections with de-silting observed at sediment dam to the east of the maintenance workshop. Sediment dams have currently been constructed larger than design storage capacity requirement calculated in accordance with the 'Blue Book'. Necessary pumping facilities were observed at each sediment basin.	Site inspection	There are no recommendations
O6.2	Operating Conditions, Other operating conditions	Water discharged to comply with condition O6.1 may only be discharge to waters from sediment basins identified under licence discharge points 24, 26, 29, 30, 31, 33 and 35 where the water complies with the discharge limit specified under condition L2.4 for licence discharge points 24, 26, 29, 30, 31, 33 and 35.	Not triggered	No discharges occurred during the audit period	Management assertion	There are no recommendations
O6.3	Operating Conditions, Other operating conditions	The licensee must also undertake maintenance as necessary to desilt basins identified as under licence discharge points 24, 26, 29, 30, 31, 33 and 35 in order to retain each basins design storage capacity.	C	Maintenance of sediment basins was observed during the site audit inspections with de-silting observed at sediment dam to the east of the maintenance workshop. Section 4.3.3 of the SWMP states that ' <i>de-silting of erosion and sediment control structures will be carried out as necessary</i> '.	Site inspection SWMP (Appendix 2 of the WMP)	
P1.1	Discharge to Air and Water Applications to Land - Location of monitoring/discharge points and areas, air	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. Refer Table P1.1 of the licence for Air monitoring locations.	Noted	N/A	N/A	N/A
P1.2	Discharge to Air and Water Applications to Land - Location of monitoring/discharge points and areas, water and land	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. Refer Table P1.3 of the licence for water and land monitoring locations.	Noted	N/A	N/A	N/A
P1.3	Discharge to Air and Water Applications to Land - Location of monitoring/discharge points and areas, water and land	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. Refer Table P1.3 of the licence for water and land monitoring locations.	Noted	N/A	N/A	N/A
P1.4	Discharge to Air and Water Applications to Land - Location of monitoring/discharge points and areas, noise	The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or setting of limits for the emission of noise from the point. Refer Table P1.4 of the licence for noise monitoring locations.	Noted	N/A	N/A	N/A

Clause	Condition Details	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
R1.1	Reporting Conditions, Annual return documents	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; 7. a Statement of Compliance - Environmental Management Systems and Practices; and 8. a Statement of Compliance - Environmental Improvement Works 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.	Noted	MCO have completed and supplied an Annual Review on the approved form to the EPA each year. Note: The 2018 Annual Review was not available at the time of the audit.	2016 and 2017 Annual Reviews	There are no recommendations
R 1.2	Reporting Conditions, Annual return documents	An Annual Return must be prepared in respect of each reporting period, except as provided below (refer R1.3-R1.7 of the licence).	C	Annual Reviews have been filed with NSW EPA. Auditors have reviewed the Annual Reviews for years 2016, 2017. The 2018 Annual Review was not available at the time of the audit. The reporting is undertaken using the standard EPA form and contains all the required sections.	2016 and 2017 Annual Reviews	There are no recommendations
R 1.3	Reporting Conditions, Annual return documents	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	C	Annual Reviews have been filed with NSW EPA. Auditors have reviewed the Annual Reviews for years 2016, 2017. The 2018 Annual Review was not available at the time of the audit.	2016 and 2017 Annual Reviews	There are no recommendations
R 1.4	Reporting Conditions, Annual return documents	Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on: a. in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or b. in relation to the revocation of the licence - the date from which notice revoking the licence operates.	Noted	N/A	N/A	N/A
R 1.5	Reporting Conditions, Annual return documents	The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	C	The Annual Return for the 2016 and 2017 reporting periods were supplied to the EPA within the required timeframe. Section 6.1 (Table 5) of the EMS details MCO reporting requirements which includes the requirement to annually submit the Annual Review by email and post.	Management assertion EMS	There are no recommendations
R 1.6	Reporting Conditions, Annual return documents	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.	C	Submission date of the Annual Reviews as per the EPA website receipt date confirms compliance to this requirement. All reports during the audit period have been submitted in the second half of February, within 60 days of the end of each reporting period.	2016 and 2017 Annual Review NSW EPA online records for EPL 12932	There are no recommendations
R1.7	Reporting Conditions, Annual return documents	Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by: a. the licence holder; or b. by a person approved in writing by the EPA to sign on behalf of the licence holder. 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. Note: An application to transfer a licence must be made in the approved form for this purpose.	C	Within the Annual Reviews a Statement of Compliance has been signed by Graham Chase who is authorised to make this statement on Behalf of MCO.	2016 and 2017 Annual Review	There are no recommendations
R2.1	Reporting Conditions, notification of environmental harm	Notifications must be made by telephoning the Environment Line service on 131 555.	C	the EMS states that <i>'Reporting of incidents will be conducted in accordance with the protocol for industry notification of pollution incidents under Part 5.7 of the Protection of the Environment Operations Act, 1997'.</i> Evidence of a notification made by telephoning the Environmental Line NSW EPA (131 555) was sighted during the audit.	EMS Email from Environment Line Officer (dated 19/07/2018) RE: Call C09961-2018.	There are no recommendations

Clause	Condition Details	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
R 2.2	Reporting Conditions, notification of environmental harm	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred. 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.	C	The MOP provides the following summary of incident reporting: MCO will notify the Secretary of the DP&E, the EPA and any other relevant agencies immediately after MCO becomes aware of the incident. <i>Within seven days of the date of the incident, MCO will provide the Secretary of the DP&E and any relevant agencies with a detailed report on the incident. The report will:</i> - Describe the date, time and nature of the exceedance/incident; - Identifies the cause (or likely cause) of the exceedance/incident; - Describes what action has been taken to date; and - Describes the proposed measures to address the exceedance/incident. Additionally most management plans state that either the MCO protocol for managing and reporting incidents will be followed or specifies that DP&E will be notified of the incident and that a report will be provided within 7 days. Evidence of notification was sighted during the audit for the blast overpressure incident and a hydrocarbon spill at open cut 1 fuel farm.	MOP Management Plans Penalty Notices (Blast overpressure 26/05/2017) Letter from NSW EPA (dated 10/08/2018) RE: Hydrocarbon spill at open cut 1 fuel farm	There are no recommendations
R3.1	Reporting Conditions, written report	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.	C	The EPA has requested written reports of events that have occurred as a result of MCO operations. For example: MCO has provided an incident notification to the NSW EPA on the Hydrocarbon Spill at the open cut 1 fuel farm. This notification (dated 26/07/2018) was viewed during the audit. MCO has provided a report to the NSW EPA on the Hydrocarbon Spill at the open cut 1 fuel farm. This report (dated 21/08/2018) was viewed during the audit.	Letter to NSW EPA (dated 26/07/2018) RE: Notification of Hydrocarbon Spill at the Open Cut 1 Fuel Farm. Letter to NSW EPA (dated 26/07/2018) RE: Report on Hydrocarbon Spill at the Open Cut 1 Fuel Farm.	There are no recommendations
R 3.2	Reporting Conditions, written report	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.	C	Refer to R3.1 above	Refer to R3.1 above	There are no recommendations
R3.3	Reporting Conditions, written report	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.	Noted	MCO has provided an incident notification to the NSW EPA on the Hydrocarbon Spill at the open cut 1 fuel farm. This notification (dated 26/07/2018) was viewed during the audit and included all the requirements of this condition.	Letter to NSW EPA (dated 26/07/2018) RE: Notification of Hydrocarbon Spill at the Open Cut 1 Fuel Farm.	There are no recommendations
R3.4	Reporting Conditions, written report	The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.	Noted	N/A	N/A	N/A

Clause	Condition Details	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
R4.1	Reporting Conditions, Other Reporting Conditions	<p>Every six (6) months, the licensee must complete and submit to the EPA a report comprising:</p> <p>a. Data, reported graphically where practicable, for monitoring conducted in accordance with licence requirements;</p> <p>b. Statement of compliance; and</p> <p>c. A complaints summary.</p> <p>The report must be received by the EPA no later than 4 weeks after the end of the period being reported.</p>	C	<p>The auditor sighted letter evidence of submission of the Biannual Report to the EPA every six months.</p> <p>These reports included:</p> <ul style="list-style-type: none"> - data some of which was graphically represented - a statement of compliance - Complaints summary 	<p>Letter from MCO to NSW EPA (dated 27/07/2016) RE: EPL12932 Biannual Monitoring Report (1 January to 30 June 2016)</p> <p>Letter from MCO to NSW EPA (dated 27/01/2017) RE: EPL12932 Biannual Monitoring Report (1 July to 31 December 2016)</p> <p>Letter from MCO to NSW EPA (dated 28/07/2017) RE: EPL12932 Biannual Monitoring Report (1 January to 30 June 2017)</p> <p>Letter from MCO to NSW EPA (dated 19/01/2018) RE: EPL12932 Biannual Monitoring Report (1 July to 31 December 2017)</p> <p>Letter from MCO to NSW EPA (dated 26/07/2018) RE: EPL12932 Biannual Monitoring Report (1 January to 30 June 2018)</p>	There are no recommendations
R4.2	Reporting Conditions, Other Reporting Conditions	<p>A noise compliance assessment report must be submitted to the EPA by 31 January each year. The assessment must be prepared by a suitably qualified and experienced acoustical consultant and include:</p> <p>a. an assessment of compliance with noise limits presented in Condition L5.1; and</p> <p>b. an outline of any management actions taken within the monitoring period to address any exceedances of the limits contained in Condition L5.1.</p>	C	<p>The auditor sighted letter evidence of submission of the Noise Compliance Assessment Report to the EPA annually.</p> <p>The requirements of this condition was met by the Noise Compliance Assessment Reports.</p>	<p>Letter from MCO to NSW EPA (dated 30/01/2018) RE: Annual Noise Compliance Assessment Report (1 January 2016 to 31 December 2016)</p> <p>Letter from MCO to NSW EPA (dated 30/01/2018) RE: Annual Noise Compliance Assessment Report (1 January 2017 to 31 December 2017)</p>	There are no recommendations.

Moolarben Coal						
Detailed Findings and Recommendations						
Approval Decisions (EPBC 2007/3297),(EPBC 2013/6926) and (EPBC 2008/4444)						
EPBC	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
1. Schedule 2, Administrative Conditions						
Obligation to Minimise Harm to the Environment						
2007/3297	C01 pg. 1	In order to protect the White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland listed ecological community, the person taking the action shall make suitable arrangements within 12 months of this approval to: (a) Transfer at least 130 hectares of the White Box-Yellow Box-Blakely's Red Gum Woodland and Derived Native Grassland listed ecological community to the NSW Minister for Climate Change Environment and Water offset, on a "like for like" basis, the 65 hectares that would be cleared by the project at an offset ratio of 2:1; and (b) Provide the NSW Department of Environment and Climate Change (DECC) with funds (which at the discretion of DECC may include an in-kind contribution) to cover any reasonable costs associated with the transfer and ongoing management of this land.	C	This requirement was completed prior to the audit period.	Letter from the Crown Solicitors Office (16/09/2010)	There are no recommendations
2007/3297	C02 pg. 2	In order to protect the White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland listed ecological community, the person taking the action shall in accordance with the Rehabilitation and Offset Management Plan (See Condition 3 below): (a) Revegetate at least 38 hectares of disturbed land on the "Red Hills" property with Yellow Box-White Box-Blakely's Red Gum vegetation; (b) Revegetate at least 143 hectares of cleared land on the "Red Hills" property with suitable native vegetation to improve wildlife corridor linkages; (c) Conserve and enhance at least 1262 hectares of existing native vegetation onsite; and (d) Make suitable arrangements to protect these offset areas from development in the long term, to the satisfaction of the Minister for the Environment and Water Resources (the Minister).	C	MCO currently has an approved Landscape Management Plan which includes the Rehabilitation and Offset Management Plan (Section 3 of the Landscape Management Plan), along with the Final Void management plan (Section 4 of the Landscape Management Plan) and the Mine Closure management plan (Section 5 of the Landscape Management Plan) associated with Stage 1 of the Moolarben Coal Complex. a) Section 3.5.3 of the landscape management plan provides updates on the progress of the revegetation within Red Hills including revegetation of disturbed land. Plantings are also summarised in in the Planting Plans V2 (dated 31/05/2011). b) Section 3.5.3 of the landscape management plan provides updates on the progress of the revegetation within Red Hills including revegetation of cleared land. Plantings are also summarised in in the Planting Plans V2 (dated 31/05/2011). c and d) Arrangements to protect these areas area currently underway with parts of Area 1 and 2 already transferred to the National Parks Estate. MCO continues to progress the making of suitable arrangements for the security of these areas from development in the long-term. It should be noted that this condition is not timebound	Landscape Management Plan MCO Offset Areas Revegetation: Planting Plans V2 (dated 31/05/2011)	There are no recommendations
2007/3297	C03 pg. 2	In order to protect the White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland listed ecological community, the person taking action shall prepare and implement a detailed Rehabilitation and Offsets Management Plan for the project to the satisfaction of the Minister for the Environment and Water Resources. The proponent shall progressively rehabilitate the site to the satisfaction of Minister for the Environment and Water Resources and the NSW Department of Primary Industries, in general accordance with the proposed Rehabilitation and Offset Management Plan. The rehabilitation and Offset Management Plan must include: (a) The rehabilitation objectives for the site, vegetation offsets and landscaping; (b) A description of the short, medium and long term measures that would be implemented to: • Rehabilitate the site • Implement the vegetation offsets; and • Landscape the environmental bunds; (c) Performance and completion criteria for the rehabilitation of the site, implementation of the vegetation offsets, and landscaping of the environmental bunds; (d) A detailed description of the measures that would be implemented over the next 3 years including the progressive rehabilitation of mining areas and progressive implementation of the vegetation offset areas referred to in Condition 2. (e) A program to monitor the effectiveness of these measures, and progress against the performance and completion criteria (see (c) above); (f) A description of the potential risks to successful rehabilitation and/or revegetation, and a description of the contingency measures that would be implemented to mitigate these risks; (g) Details of who would be responsible for monitoring, reviewing, and implementing the plan. Coal mining operations must not commence until the plan has been approved. The approved plan must be implemented.	C	MCO currently has an approved Landscape Management Plan (LMP) which includes the Rehabilitation and Offset Management Plan (Section 3 of the LMP), along with the Final Void management plan (Section 4 of the LMP) and the Mine Closure management plan (Section 5 of the LMP) associated with Stage 1 of the Moolarben Coal Complex. a) Rehabilitation objectives are detailed in Section 3.4, 3.7 (Table 14), 3.8 and 3.9 of the LMP. b) - Measures to rehabilitate the site are detailed in section 3.6, 3.7 and 3.8 of the LMP. - Measures to implement vegetation offsets are detailed in section 3.3, 3.5 and 3.7. - Measures relating to environmental bunds are detailed in section 3.9. c) Performance and completion criteria for the rehabilitation of the site is detailed in Section 3.26 of the LMP. d) This is covered in section 3.4 and 3.6 of the LMP. e) A monitoring program is described in Section 3.25 of the LMP. f) Potential risks and risk management is described in Section 3.3 of the LMP. g) Roles and responsibilities are detailed in section 8 of the LMP.	LMP which includes the Rehabilitation and Offset Management Plan aspects.	There are no recommendations
2007/3297	C04 pg2 Varied 20/7/16	The person taking the action must publish a report on their website addressing compliance with each of the conditions of this approval, by 31 March for the preceding calendar year. Annual reports must published until the Minister is satisfied that the person taking the action has complied with all conditions for the approval. Documentary evidence providing proof of the date of publication must be provided to the Department at the same time as the compliance report is published.	C	The 2016 and 2017 Annual Reviews both contained an EPBC Compliance table as Appendix 4 of the review document. The 2018 Annual Review was not available at the time of the audit.	2016 and 2017 Annual Reviews	There are no recommendations

EPBC	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
2007/3297	C05 pg. 3	Upon the direction of the Minister, the person taking the action must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the Minister'. The independent auditor must be approved by the Minister prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister	Not triggered	N/A	N/A	N/A
2007/3297	C06 pg. 3	If the Minister believes that it is necessary or desirable for the better protection of the listed threatened species and ecological communities to do so, the Minister may request that the person taking the action make specified revisions to the plans, reports or management strategies approved pursuant to paragraphs 1, 2 and 3, and submit the revised plan, report or strategy for the Minister's approval. The person taking the action must comply with any such request. The revised approve plan, report or strategy must be implemented.	Not triggered	N/A	N/A	N/A
2007/3297	C07 pg. 3	If at any time after 5 years from the date of this approval, the Minister notifies the person taking the action in writing that the Minister is not satisfied that there has been substantial commencement of coal mining operations, the action must not thereafter be commenced without the written agreement of the Minister.	Not triggered	There has been no notification from the Minister. Regarding the EPBC 2007/3297 approval.	N/A	N/A
2008/4444	C01 pg. 2	The approval holder must not clear more than 1, 534 hectares of native vegetation within the defined footprint at Schedule 1.	C	The 2017 annual review (Table 30) states that in 2017 the mine footprint was 1,351 ha and its predicted to be 1,474 ha in 2018. Both these numbers are below the 1, 534 ha limit. Figure 4 of the 2017 Annual review shows the areas of cleared land. The location of clearance can be found in the current approved MOP, which is consistent with the EPBC 2008-4444 approval.	2017 Annual review MOP	There are no recommendations
2008/4444	C02 pg. 2	To mitigate the impacts of the proposal on the Large-eared Pied Bat, Southern Long-eared Bat, Regent Honeyeater, Swift Parrot and the Spotted-tail Quoll, the approval holder must prepare and submit, prior to the proposed date of commencement of the action, a mine site Vegetation Clearance Protocol and Landscape Management plan (VCPLMP) for the Minister's written approval. The VCPLMP must; a. Delineate areas to be cleared, describe pre-clearance survey methods, specify actions to minimise fauna impacts and detail vegetation clearance procedures. b. Require collection and stockpiling of habitat features important to threatened fauna species for reinstatement in rehabilitation areas. c. Require use of native, locally sourced seed for propagation for rehabilitation activates. d. Specify a two stage clearing protocol where non-habitat trees are cleared 24 hours prior to any habitat trees are cleared, to encourage fauna to move out of an area. The approval holder must not commence until the VCPLMP is approved by the Minister. The approved VCPLMP must be implemented.	C	The VCPLMP was prepared and submitted to the Department of Environment. VCPLMP approval was granted on 29/05/2015.	Letter from DP&E (dated 29/05/2015) RE: EPBC 2008/4444 Vegetation Clearance Protocol and landscape Management Plan (LMP).	N/A

EPBC	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
2008/4444	C03 pg. 2	<p>To compensate for the loss of 123.3 hectares of the White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (WBGW) ecological community and 902 hectares of habitat for EPBC listed threatened species, the approval holder must prepare and submit (within 3 months after the approval), a Biodiversity Offset Management Plan (BOMP) for the proposed EPBC Offset Areas, for the Minister's written approval.</p> <p>The BOMP must;</p> <p>a. Identify those lands described as the Offset Areas at Schedule 2 (Figures 1-7) of this notice that are necessary to achieve the outcomes required by the Environmental Offsets Policy 2012. This must include offset attributes, shapefiles, textile descriptions and maps to clearly define the location and boundaries of the offset area (s).</p> <p>b. Provide a survey and description of the current condition (prior to any management activities) of the offset areas identified in Condition 3a.</p> <p>c. Detail management actions and regeneration and revegetation strategies to be undertaken on the offset areas to improve the ecological quality of these areas, including:</p> <p>I. a description and timeframe of measures that would be implemented to improve the condition of the ecological communities on the site;</p> <p>II. Performance and completion criteria for evaluating the management of the offset area, and criteria for triggering remedial action;</p> <p>III. a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria;</p> <p>IV. a description of potential risks to the successful implementation of the plan, a description of the measures that will be implemented to mitigate against these risks and a description of the contingency measures that will be implemented if defines triggers arise; and</p> <p>V. details of who would be responsible for monitoring, reviewing, and implementing the plan. The approved BOMP must be published on the approval holder's internet website, within 1 month of being approved and for a period of 5 years thereafter. The approved BOMP must be implemented.</p>	NC	<p>EPBC 2008-4444 was approved on 18 May 2015. Following approval MCO submitted the Biodiversity Offset Management Plan (BOMP) for EPBC 2008-4444 on 19 August 2015. The BOMP was based on the BOMP for EPBC 2013-3296 approved on 17 December 2014.</p> <p>The DotEE provided their review in September 2015, and in response MCO issued an updated BOMP and reconciliation of comments in March 2016. DotEE provided additional comments in November 2016 which included details of DotEEs change in expectations for the BOMP. This included a change in BOMP structure and content.</p> <p>At this point MCO reconsidered its approach. As MCO has a number of management plans that cover the various Biodiversity offsets and their associated approval requirements, MCO had previously sought to develop the specific BOMPs with the view to then compile a single Complex Wide management plan. Given DotEEs feedback, MCO decided to progress with a complex wide BOMP the cover all state approvals and all EPBC approvals. MCO discussed the approach of developing a single Biodiversity Offset Management Plan (Complex Wide BOMP). The intention has been to develop the BOMP following the confirmation of the relevant Covenant Terms for the offset. This is consistent with the agreed approach with the NDW DPE.</p> <p>MCO wrote to DoE (18/12/2017) requesting extension time due to continued delay finalising the covenant terms, however no specific response was received. The extended time taken to finalise the Covenants Terms has resulted in an associated impact on the timing of the Complex Wide BOMP.</p> <p>A complex wide BOMP was submitted by MCO to the DotEE for consultation on the 30th of November 2018.</p>	<p>Letter from MCO to DotEE (dated 22/05/2017) RE: Extension to security deadline.</p> <p>Letter from DotEE (dated 22/06/2017) RE: On-going non-compliance with conditions attached to EPBC 2008/4444</p> <p>Letter from MCO to DotEE (dated 18/12/2017) RE: Extension to security deadline as DPE has not finalised or approved the offset covenants</p> <p>Letter from DotEE (dated 17/08/2018) RE: On-going non-compliance with conditions attached to EPBC 2008/4444</p> <p>Letter from MCO to DotEE (dated 31/09/2018) RE: additional advice and request for meeting to discuss and agree the timeframe for the securing of the remaining 5 offset properties.</p> <p>Letter from DotEE (dated 21/09/2018) RE: Formal Caution - On-going non-compliance with conditions attached to EPBC 2008/4444</p>	MCO to continue to consult with DotEE to resolve this issue and document these efforts.
2008/4444	C04 pg2	<p>To compensate for the loss of 123.3 hectares of the White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (WBGW) ecological community and 902 hectares of habitat for EPBC listed threatened species, within 24 months of the date of this approval, the approval holder must secure the lands identified as the Offset Areas at Schedule 2 (Figures 1-7) of this notice as a biodiversity offset by a legal instrument under relevant nature conservation legislation on the title of the land. This instrument must:</p> <p>a. Provide for the protection of the land in perpetuity;</p> <p>b. Prevent any future development activities, including mining and mineral extraction;</p> <p>c. Ensure the active management of the land; and d. Be provided to the Department within 3 months of it being issued, as evidence of compliance with this condition.</p>	NC	<p>MCO is currently committed to secure the 8 EPBC2008/4444 Offset properties. Of the 8 offsets 1 has been transferred to the National Parks Estate (Complete) and 1 secured through a Conservation Agreement. 6 are to be secured through covenants on title, The process in currently in progress.</p> <p>The Offset security mechanisms have been approved by the NSW DPE on 2 March 2016, with the Commonwealth DotEE approving Covenants in December 2014. MCO submitted draft Covenant Terms to the NSW DPE on 23 November 2015, based on covenant terms approved by the same department in 18 December 2014. The NSW DPE provided their initial response to the terms approximately 16 months later. Since the original submission of the Draft Covenants, the covenants have been with DPE for over 32 months and with MCO for approximately 7 months.</p> <p>As at 8 November 2018, MCO is waiting for a response from DPE.</p>	<p>Letter from DP&E (dated 02/03/2016) RE: Approval of offset security mechanism)</p> <p>Management assertion</p>	MCO to continue to consult with DPE to resolve this issue and document these efforts.
2008/4444	C05 pg. 3	<p>The approval holder must undertake management and monitoring of water resources in accordance with this project approval for Application Number 08-0135 issued by the NSW Planning Assessment Commission under the <i>Environmental Planning and Assessment Act 1979</i> (NSW) on 30 January 2015.</p>	C	<p>MCO has created a Water Management Plan (WMP) to manage and monitor water resources.</p> <p>Section 7 of the WMP 'Water Management' details the surface and groundwater monitoring including water take from Ulan Coal Mine, Groundwater levels/pressure and Groundwater take.</p> <p>Section 4 of the WMP 'Review and improvement of environmental performance' states that 'MCO conducts an annual review of MCO Operations' this review includes a comparison of:</p> <ul style="list-style-type: none"> - monitoring results against the relevant statutory requirements, limits or performance measures/ criteria - monitoring results of the previous year - relevant predictions in the EA - identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance. <p>Monthly Environmental Monitoring Reports were reviewed to determine the water monitoring activities conducted by MCO.</p>	<p>WMP</p> <p>Sample of Monthly Environmental Reports (January 2018 - August 2018)</p>	There are no recommendations

EPBC	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
2008/4444	C06 pg. 3	Upon request, the approval holder shall supply the groundwater monitoring data for the Moolarben Coal Project to the Department, NSW Government agencies, Operators of the Ulan and/or Wilpinjong mines or other adjacent mine operators. A protocol for the supply of the data will be included in the project's Water Management Plan.	Not triggered	No request has been made.	N/A	N/A
2008/4444	C07 pg. 3	The approval holder must make available for the Minister on request, all plans or programs and any review of plans or programs produced pursuant to Condition 5.	Noted	N/A	N/A	N/A
2008/4444	C08 pg. 3	Within 30 days after the commencement of the action, the approval holder must advise the Department in writing of the actual date of commencement.	C	This was completed during the previous audit period. Operations started 02/08/2015 and DP&E was notified 13/08/2015.	Letter to DP&E (dated 13/08/2015) RE: commencement of operations.	There are no recommendations
2008/4444	C09 pg. 3	The approval holder must maintain accurate records substantiating all activities associated with or relevant to these conditions of approval, including measures taken to implement the BOMP and VCPLMP, and make them available upon request to the Department. Such records may be subject to audit by the Department or an independent auditor in accordance with section 458 of EPBC Act, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the Department's website. The results of audits may also be publicised through the general media.	C	MCO completes an Annual Review each year to satisfy the reporting requirements of NSW Project Approval (05_0117) (as modified), NSW Project Approval (08_0135) (as modified), mining leases ML 1605, ML 1606, ML1628, ML1691 and ML1715, EPBC approvals (2007/3297, 2008/4444 and 2013/6926) and water licences. The report presents a summary of the regulatory compliance, environmental performance, and community engagement activities for MCO. The Annual Review is submitted to the Department each year and published on the MCO website.	2016 and 2017 Annual Review MCO website	There are no recommendations
2008/4444	C10 pg. 3 Varied 20/7/16	The approval holder must publish a report on their website addressing compliance with each of the conditions of this approval, including implementation of the BOMP and VCPLMP as specified in the conditions, by 31 March for the preceding calendar year. Documentary evidence providing proof of the date of publication must be provided to the Department at the same time as the compliance report is published.	C	MCO completes an Annual Review each year to satisfy the reporting requirements of NSW Project Approval (05_0117) (as modified), NSW Project Approval (08_0135) (as modified), mining leases ML 1605, ML 1606, ML1628, ML1691 and ML1715, EPBC approvals (2007/3297, 2008/4444 and 2013/6926) and water licences. The report presents a summary of the regulatory compliance, environmental performance, and community engagement activities for MCO. The Annual Review is submitted to the Department each year and published on the MCO website.	2016 and 2017 Annual Review MCO website	There are no recommendations
2008/4444	C11 pg3	Non-compliance with any of the conditions of this approval must be reported to the Department within 2 business days of becoming aware of the non-compliance.	C	Offsets are not compliant as they have not been approved within 2 years and are still pending DPE response. MCO notified the DotEE within 2 business days of becoming aware of the non-compliance with offset security timing (condition 4 above).	Management assertion 2017 Annual Review	There are no recommendations
2008/4444	C12 pg. 3	Upon the direction of the Minister, the approval holder must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the Minister. The independent auditor must be approved by the Minister prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister.	C	This Independent Environmental Audit (IEA) of the Moolarben Coal Complex was commissioned by Moolarben Coal in October 2018. The last IEA was completed three years previously by Trevor Brown & Associates (2015) and is available on the MCO website. The audit has been conducted by a suitably qualified, experienced and independent team of experts endorsed by DP&E on 16/07/2018: - Ken Holmes - Lead Auditor - Dr. Avnish Panikkar - Air Quality/ Environmental Auditor - Dr Doug Ford - Environmental Noise - Adam Bishop - Surface Water Management - Dr Yohannes Woldeyohannes - Groundwater Management - Isaac Mamott - Ecology/ Mine Rehabilitation - Sandra Wallace - Aboriginal Heritage The auditors assessed environmental performance of the project and compliance with the requirements in this approval, and any other relevant approvals, relevant EPL 12932 and Mining Lease environmental conditions (including assessments, plans and/or programs required under these approvals) The auditors reviewed the adequacy of approved strategy, plans or programs required under the relevant approvals The auditors identified and where relevant recommended measures or actions to improve the environmental performance of the Moolarben Coal Complex, and/or the strategy, plans or programs under the relevant approvals.	pitt&sherry IEA 2018 Trevor Brown & Associates IEA 2015. Letter from DP&E RE: Endorsement of the Auditor and Experts for the Independent Environmental Audit (16/07/2018)	There are no recommendations

EPBC	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
2008/4444	C13 pg. 4	If the approval holder wishes to carry out any activity otherwise than in accordance with the Plans as specified in the conditions, the approval holder must submit to the Department for the Minister's written approval a revised version of that Plan. The approval holder must not commence the varied activity until the Minister has approved the varied Plan in writing. The Minister will not approve a varied plan unless the revised Plan would result in an equivalent or improved environmental outcome over time. If the Minister approves the revised Plan, that Plan must be implemented in place of the Plan originally approved.	Noted	N/A	N/A	N/A
2008/4444	C14 pg. 4	If the Minister believes that it is necessary or convenient for the better protection of listed threatened species and ecological communities to do so, the Minister may request that the approval holder make specified revisions to the Plan specified in the conditions and submit the revised Plan for the Minister's written approval. The approval holder must comply with any such request. The revised approved Plan must be implemented. Unless the Minister has approved the revised Plan then the approval holder must continue to implement the plan originally approved.	Not triggered	N/A	N/A	N/A
2008/4444	C15 pg4	If, at any time after 5 years from the date of this approval, the approval holder has not substantially commenced the action, then the approval holder must not substantially commence the action without the written agreement of the Minister.	Not triggered	N/A	N/A	N/A
2013/6926	C01 pg. 2	The approval holder must not clear more than 171.4 hectares of native vegetation within the defined footprint at Schedule 1, Figures 1 and 2.	C	The auditor sighted a map showing the areas of disturbance as of 24/11/2018. This map showed that the EPBC disturbance area for Stage 1 Modification 9 was 115.9 ha. This is lower than the 171.4 ha approved.	Disturbance area map (dated 24/11/2018)	There are no recommendations
2013/6926	C02 pg. 2	To assist in mitigating the impacts of the proposal on the Large-eared Pied Bat, Southern Long-eared Bat, Regent Honeyeater, Swift Parrot, Potted-tail Quoll and the Koala, the approval holder must prepare and submit a mine site Vegetation Clearance Protocol and Landscape Management Plan (VCPLMP) for the Minister's written approval. The VCPLMP must: a. Delineate areas to be cleared, describe pre-clearance survey methods, specify actions to minimise fauna impacts and details vegetation clearance procedures. b. Require collection and stockpiling of habitat features important to threatened fauna species for reinstatement in rehabilitation areas. c. Require use of native, locally sourced seed for propagation for rehabilitation activities. d. Specify a two stage clearing protocol where non-habitat trees are cleared 24 hours prior to any habitat trees in their proximity being cleared, to encourage fauna to move out of an area. e. Include a revegetation strategy to improve connectivity between isolated vegetation patches (including between Munghorn Gap Nature Reserve, Goulburn River National Park and Dexter Mountain).	C	VCPLMP prepared and submitted to the Department of Environment with VCPLMP approval granted on 17/12/2014. The revised VCPLMP was prepared and submitted to the Department of Environment with VCPLMP approval granted on 29/05/2015.	Letter from DP&E (dated 29/05/2015) RE: EPBC 2008/4444 Vegetation Clearance Protocol and landscape Management Plan (LMP).	There are no recommendations
2013/6926	C03 pg. 2	The approval holder must not commence until the VCPLMP is approved by the Minister. The approved VCPLMP must be implemented.	C	VCPLMP was approved on 17 December 2014, prior to commencement on 23 December 2014. The revised VCPLMP was prepared and submitted to the Department of Environment with VCPLMP approval granted on 29/05/2015.	Letter from DP&E (dated 29/05/2015) RE: EPBC 2008/4444 Vegetation Clearance Protocol and landscape Management Plan (LMP).	There are no recommendations

EPBC	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
2013/6926	C04 pg2	To compensate for the loss of 16.5 hectares of the White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (WBGW) ecological community and 171.4 hectares of habitat for EPBC listed threatened species, the approval holder must prepare and submit a Biodiversity Offset Management Plan (BOMP) for the proposed EPBC offset sites, for the Minister's written approval. The BOMP must: a. Identify those lands described as the Offset Areas at Schedule 2 (Figures 1-5) of this notice that are necessary to achieve the outcomes required by the Environmental Offsets Policy 2012 (or subsequent published revisions). This must include offset attributes, shapefiles, textual descriptions and maps clearly define the location and boundaries of the offset area(s). b. Provide a survey and description of the current condition (prior to any management activities) of the offset areas identified in Condition 4a. c. Details management actions and regeneration and revegetation strategies to be undertaken on the offset areas to improve the ecological quality of these areas, including: (i) A description and timeframe of measures that would be implemented to improve the condition of the ecological communities on the site; (ii) Performance and completion criteria for evaluating the management of the offset area, and criteria triggering remedial action; (iii) A program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria; (iv) A description of potential risks to the successful implementation of the plan, a description of the measures that will be implemented to mitigate against these risks and a description of the contingency measures that will be implemented if defined triggers arise; and (v) Details of who would be responsible for monitoring, reviewing, and implementing the plan.	C	During the audit a letter from DoE (dated 17/12/2014) was viewed. The letter approved the stage 1 Modification (EPBC 2013/6926) BOMP. A) Maps of lands identified as Offset Areas are included in Appendix A of the BOMP (EPBC 2013/6926). B) Section 3.3 of the BOMP (EPBC 2013/6926) provides a survey and description of the current condition of offset areas. C) Section 4 of the BOMP (EPBC 2013/6926) details the management approach. i) Section 4.3.1 (table 6) describes management action and implementation timeframe. ii) Section 4.3.1 (table 6) describes management action and performance targets. iii) Section 6 of the BOMP (EPBC 2013/6926) describes the monitoring undertaken as part of the plan. iv) Section 5 of the BOMP (EPBC 2013/6926) describes potential risks and the contingency plan. v) Section 7 of the BOMP (EPBC 2013/6926) states that "the Environment and Community Manager of MCO (ECM) (or delegate) will be responsible for the implementation of the BOMP as well as the implementation of any revisions of the BOMP resulting from consultation".	DP&E Letter (dated 17/12/2014) RE: Approval of EPBC 2013/6926 BOMP BOMP: Moolarben Coal Project Stage 1 Modification (EPBC 2013/6926)	There are no recommendations
2013/6926	C05 pg. 3	The approval holder must not commence the action until the BOMP is approved by the Minister. The approval BOMP must be published on an internet web site approved by the Department, within 1 month of being approved and for a period of 5 years thereafter. The approved BOMP must be implemented.	C	During the audit a letter from DotEE (dated 17/12/2014) was sighted which states that DP&E approves the BOMP.	Letter from DotEE (dated 17/12/2014) RE: Approval of BOMP	There are no recommendations
2013/6926	C06 pg. 3	To compensate for the loss of 16.5 hectares of the White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (WBGW) ecological community and 171.4 hectares of habitat for EPBC listed threatened species, the approval holder must secure the lands identified as the Offset Areas at Schedule 2 (Figures 1-5) of this notice as a biodiversity offset by a legal instrument under relevant nature conservation legislation on the title of the land. This instrument must: a. Provide for the protection of the land in perpetuity; b. Prevent any future development activities, including mining and mineral extraction; and c. ensure the active management of the land. The approval holder must not commence the action until the Department has approved the proposed instrument in writing.	C	Offsets listed in the EPBC 2013-6926 approval are all under the control of Moolarben. Moolarben continues to progress the security of these offsets in perpetuity. It is noted that the security of offsets is not timebound. The lands are actively managed and monitored, including fencing, weed and pest animal control and planting has been undertaken. Fencing was observed during the site inspection. Active management including monitoring is undertaken by EcoLogical during autumn and spring. The Department approved the protection mechanism for offsets under EPBC 2013-6926 (letter dated 17/12/2014).	Management assertion Letter from the Department (dated 17/12/2014) RE: Moolarben Coal Project Stage 1 Modification (EPBC 2013/6926) — Biodiversity Offset Management Plan. Vegetation Clearance Protocol and Landscape Management Plan and Proposed Instrument to Secure the Offset Areas Site inspection Ecological Repot: Moolarben Coal Operations Modification 9 Biodiversity Offset Area Flora & Fauna Monitoring – Spring 2017 (dated 2/03/2018)	Follow up with DP&E for finalisation of the Draft Covenants.
2013/6926	C07 pg. 3	The approval holder must provide evidence to the Department of their compliance with Condition 6, along with offset attributes, shapefiles and textual descriptions and maps to clearly define the location and boundaries of the offset sites, prior to the commencement of the action.	C	Correspondence and shape files provided 1 December 2014.	2017 Annual review	There are no recommendations
2013/6926	C08 pg. 3	Within 30 days after the commencement of the action, the approval holder must advise the Department in writing of the actual date of commencement.	C	This was completed during the previous audit period. Operations started 02/08/2015 and DP&E was notified 13/08/2015.	Letter to DP&E (dated 13/08/2015) RE: commencement of operations.	There are no recommendations
2013/6926	C09 pg. 3	The approval holder must maintain accurate records substantiating all activities associated with or relevant to these conditions of approval, including measures take to implement the BOMP and VCPLMP, and make them available upon request to the Department. Such records may be subject to audit by the Department or an independent auditor in accordance with Section 458 of the EPBC Act, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the Department's website. The results of audits may be publicised through the general media.	C	MCO completes an Annual Review each year to satisfy the reporting requirements of NSW Project Approval (05_0117) (as modified), NSW Project Approval (08_0135) (as modified), mining leases ML 1605, ML 1606, ML1628, ML1691 and ML1715, EPBC approvals (2007/3297, 2008/4444 and 2013/6926) and water licences. The report presents a summary of the regulatory compliance, environmental performance, and community engagement activities for MCO. The Annual Review is submitted to the Department each year and published on the MCO website.	2016 and 2017 Annual Review MCO website	There are no recommendations

EPBC	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
2013/6926	C10 pg. 3 Varied 20/7/16	The approval holder must publish a report on their website addressing compliance with each of the conditions of this approval, including implementation of the BOMP and VCPLMP as specified in the conditions, by 31 March for the preceding calendar year. Documentary evidence providing proof of the date of publication must be provided to the Department at the same time as the compliance report is published.	C	MCO completes an Annual Review each year to satisfy the reporting requirements of NSW Project Approval (05_0117) (as modified), NSW Project Approval (08_0135) (as modified), mining leases ML 1605, ML 1606, ML1628, ML1691 and ML1715, EPBC approvals (2007/3297, 2008/4444 and 2013/6926) and water licences. The report presents a summary of the regulatory compliance, environmental performance, and community engagement activities for MCO. The Annual Review is submitted to the Department each year and published on the MCO website.	2016 and 2017 Annual Review MCO website	There are no recommendations
2013/6926	C11 pg3	Non-compliance with any of the conditions of this approval must be reported to the Department within 2 business days of becoming aware of the non-compliance.	C	Offsets are not compliant as they have not been approved within 2 years and are still pending DPE response. MCO notified the DotEE within 2 business days of becoming aware of the non-compliance with offset security timing (condition 4 above).	Management assertion 2017 Annual Review	There are no recommendations
2013/6926	C12 pg. 3	Upon the direction of the Minister, the approval holder must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the Minister. The independent auditor must be approved by the Minister prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must be address the criteria to the satisfaction of the Minister.	C	This Independent Environmental Audit (IEA) of the Moolarben Coal Complex was commissioned by Moolarben Coal in October 2018. The last IEA was completed three years previously by Trevor Brown & Associates (2015) and is available on the MCO website. The audit has been conducted by a suitably qualified, experienced and independent team of experts endorsed by DP&E on 16/07/2018: - Ken Holmes - Lead Auditor - Dr. Avansh Panikkar - Air Quality/ Environmental Auditor - Dr Doug Ford - Environmental Noise - Adam Bishop - Surface Water Management - Dr Yohannes Woldeyohannes - Groundwater Management - Isaac Mamott - Ecology/ Mine Rehabilitation - Sandra Wallace - Aboriginal Heritage The auditors assessed environmental performance of the project and compliance with the requirements in this approval, and any other relevant approvals, relevant EPL 12932 and Mining Lease environmental conditions (including assessments, plans and/or programs required under these approvals) The auditors reviewed the adequacy of approved strategy, plans or programs required under the relevant approvals The auditors identified and where relevant recommended measures or actions to improve the environmental performance of the Moolarben Coal Complex, and/or the strategy, plans or programs under the relevant approvals.	pitt&sherry IEA 2018 Trevor Brown & Associates IEA 2015. Letter from DP&E RE: Endorsement of the Auditor and Experts for the Independent Environmental Audit (16/07/2018)	There are no recommendations
2013/6926	C13 pg. 4	If the approval holder wishes to carry out any activity otherwise than in accordance with the Plan as specified in the conditions, the approval holder must submit to the Department for the Minister's written approval a revised version of the Plan. The approval holder must not commence the varied activity until the Minister has approved the varied Plan in writing. The Minister will not approve a varied Plan unless the revised Plan would result in an equivalent or improved environmental outcome over time. If the Minister approves the revised Plan, that Plan must be implemented in place of the Plan originally approved.	Noted	N/A	N/A	N/A
2013/6926	C14 pg. 4	If the Minister believes that it is necessary or convenient for the better protection of listed threatened species and ecological communities to do so, the Minister may request that the approval holder make specified revisions to the Plan specified in the conditions and submit the revised Plan for the Ministers written approval. The approval holder must comply with any such request. The revised approved Plan must be implemented. Unless the Minister has approved the revised Plan then the approval holder must continue to implement the Plan originally approved.	Not triggered	N/A	N/A	N/A
2013/6926	C15 pg4	If, at any time after 5 years from the date of this approval, the approval holder has not substantially commenced the action, then the approval holder must not substantially commence the action without the written agreement of the Minister.	Not triggered	Progress of project is evident through reports and plans as prepared to comply with the modified project consent requirements. The operations of the approvals are well underway as identified during the site inspection.	Management Plans Site Inspection	There are no recommendations.

Moolarben Coal						
Detailed Findings and Recommendations						
Mining Lease (ML) 1605, ML 1606, ML 1628, ML 1691 and ML 1715						
ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
ML1605	C01 pg. 1	Within a period of three months from the date of grant of this lease or within such further time as the Minister may allow, the lease holder must serve on each landholder of the landholder a notice in writing indicating that this lease has been granted and whether the lease includes the surface. An adequate plan and description of the lease area must accompany the notice. 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.	Not assessed	ML1605 was granted 20 December 2007. Compliance with this condition was not assessed as this condition was completed prior to the audit period.	N/A	N/A
ML1605	C02 pg. 1	The proponent shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or rehabilitation of the development.	C	Key environmental issues are managed in accordance with the MCO Environmental Management Plans (EMPs) prepared in accordance with the requirements of the Project approval.	MOP Management Plans	There are no recommendations.
ML1605	C03 pg. 1	(a) Mining operations must not be carried out otherwise than in accordance with a Mining Operations Plan (MOP) which has been approved by the Director-General of the Department of Primary Industries. Operations, mining purposes and prospecting.	NC	(a) Mining operations at Moolarben Coal Mine are carried out in accordance with the approved Mining Operations Plan (MOP). DP&E (DRG) approved the MOP (letter dated 04/06/2018). Letter viewed during the audit. DP&E issued a Penalty notice dated 26/10/2017 regarding stockpile placement. The penalty notice included an Order from DP&E (dated 24 November 2017) to remedy the breach of condition 2 of Schedule 2 of the Approvals. This was reported in the 2017 Annual Review. Refer to to PA 08_0135 Schedule 2 Condition 2 for details.	MOP Letter from DP&E (DRG) (dated 04/06/2018) RE:Approval of MOP 2017 Annual Review	Update the MOP following approval of the stockpile location.
ML1605	C03 pg. 1	MOP (b) The MOP must: I. identify areas that will be disturbed by mining operations; II. details the staging of specific mining operations; III. identify how the mine will be managed to allow mine closure; IV. identifies how mining operations, mining purposes and prospecting will be carried out on site in order to prevent and or minimise harm to the environment; V. reflect the conditions of approval under: - the <i>Environmental Planning and Assessment Act 1979</i> ; - the <i>Protection of the Environment Operations Act 1997</i> ; and - any other approvals relevant to the development including the conditions of this mining lease and; VI. have regard to any relevant guidelines adopted by the Director-General	C	(b) I. Section 2.1 and 2.3 identifies areas that will be disturbed by Moolarben Coal mining operations II. Staging of specific mining operations are covered in section 1 of the MOP. Stage 1 of the Moolarben Coal Complex has commenced and at full development will comprise three open cut mines (OC1, OC2, and OC3), a longwall underground mine (UG4), and mining related infrastructure (including coal processing and transport facilities). Initial establishment and construction/development activities for Moolarben Coal Project Stage 2 commenced in 2015. At full development there will be one open-cut (OC4), two longwall underground mines (UG1 and UG2) and mining related infrastructure. III. Sections 4 and 5 identify how the mine will be managed to allow mine closure. IV. Section 3 identifies how mining operations will be carried out on site in order to prevent and or minimise harm to the environment. V. Section 1.2 reflect the conditions of approval under: the EP&A Act 1979, POEO Act 1997 and other approvals relevant to the development including the conditions of this lease VI. Section 1.2 also covers the relevant guidelines adopted by the Director-General.	MOP Letter from DP&E (DRG) (dated 04/06/2018) RE:Approval of MOP	There are no recommendations.
ML1605	C03 pg. 1	MOP (c) The titleholder may apply to the Director-General to amend the approved MOP at any time (d) It is not a breach of this condition if: I. The operations constituting the breach were necessary to comply with a lawful order or direction given under the Mining Act 1992, the Environmental Planning and Assessment Act 1979, Protection of the Environmental Operations Act 1997 or the Occupational Health and Safety Act 2000 and II. The Director- General has been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out. e) The MOP ceases to have affect 7 years after date of approval or other such period as identified by the Director-General. An approved amendment to the MOP under condition 5 does not constitute an approval for the purposes of this paragraph unless otherwise identified by the Director-General.	C	(c) Noted (d) Noted (e) The current MOP commenced 1/12/2016 and ceases to have effect 1/01/2019.	MOP	There are no recommendations.

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
ML1605	C04 pg. 2	The lease holder must lodge Environmental Management Reports (EMR) with The Director-General annually or at dates otherwise directed by the Director-General.	C	The 2016 and 2017 Annual Review for MCO have been submitted. Similarly Annual Reviews each year from 2012 to 2017 and are available on the MCO website. Section 5 of the Annual Reviews contains actions required from the previous audit period. DP&E have made several recommendations from the 2016 Annual Review which are addressed in Table 9 of the 2017 Annual Review. A letter from DP&E regarding the Annual Review 2016 requesting points to be addressed in future audits (dated 2/05/2017) was sighted during the audit. These points were checked and found to be address in the 2017 Annual Review. A letter from DP&E regarding the Annual Review 2017 requesting points to be addressed in future audits (dated 31/05/2018) was sighted during the audit. The 2017 Annual Review was amended to address these comments.	Annual Review 2016 and 2017 DP&E Letters (dated 02/05/2017 and 31/05/2018) RE:Review of Annual reports	There are no recommendations.
ML1605	C05 pg. 2	The EMR must: - report against compliance with the MOP; - report on progress in respect of rehabilitation completion criteria; - report on the extent of compliance with regulatory requirements; and - have regard to any relevant guidelines adopted by the Director-General;	C	- Rehabilitation activities against the MOP are described in the Annual Reviews - The 2016 Annual Review covers rehabilitation progress in section 8 and the 2017 Annual Review covers rehabilitation progress in section 9. - Statement of compliance with approvals is detailed in section 1. - Guidelines used in producing the Annual Reviews are detailed throughout the document such as the <i>Florabank Guidelines (2000)</i> .	2016 and 2017 Annual Review	There are no recommendations.
ML1605	C06 pg. 2	Additional environmental reports may be required on specific surface disturbing operations or environmental incidents from time to time as directed in writing by the Director-General and must be lodged as instructed.	Not triggered	N/A. No studies have been required during the audit period.	N/A	N/A
ML1605	C07 pg. 2	Disturbed land must be rehabilitated to a sustainable/agreed end land use to the satisfaction of the Director/General.	C	This is covered in the following sections of the RMP: Section 4 (Rehabilitation Planning), Section 5 (Rehabilitation implementation), Section 6 (Performance indicators and completion criteria), Section 7 (Rehabilitation monitoring program), Section 8 (Rehabilitation risks and contingency measures), Section 9 (Intervention, adaptive management and continual improvement) and Section 12 (Mine Closure Planning). Final landform is addressed in section 4.3 and post-mining land use is addressed in section 4.4 which includes a figure of the final rehabilitation and Post Mining Land Use Domains (Figure 6). Additionally sections 4 and 5 of the MOP identify how the mine will be managed to allow mine closure	RMP MOP	There are no recommendations.
ML1605	C08 pg. 2	Subsidence Management Plan a) The lease holder shall prepare a Subsidence Management Plan prior to commencing any underground mining operations which will potentially lead to subsidence of the land surface. (b) Underground mining operations which will potentially lead to subsidence include secondary extraction panels such as longwalls or mini walls, associated first workings (gate roads, installation roads and associated main headings etc.), and pillar extractions, and are otherwise defined by the Applications for Subsidence Management Approvals guidelines (EDG17) (c) The lease holder must not commence or undertake underground mining operations that will potentially lead to subsidence other than in accordance with a Subsidence Management Plan approved by the Director-General, and approval under the Coal Mine Health and Safety Act 2002, or the document New Subsidence Management Plan Approval Process – Transitional Provisions (EDP09). (d) Subsidence Management Plans are to be prepared in accordance with the Guideline for Applications for Subsidence Management Approvals. (e) Subsidence Management Plans as approved shall form part of the Mining Operations Plan required under Condition 2 and will be subject to the Annual Environmental Management Report process as set out under Condition 3. The SMP is also subject to the requirements for subsidence monitoring and reporting set out in the document New Approval Process for Management of Coal Mining Subsidence – Policy.	Not triggered	ML1605 covers underground operations which are not yet active. An Instrument of Amendment was viewed during the audit. The amendment states that condition 8 was deleted the replaced with conditions relating to an extraction plan. The amendment was effective as of 1/07/2014.	Site inspection Management Assertion Instrument of amendment (01/07/2014)	There are no recommendations.

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
		<p>Extraction Plan Condition</p> <p>(a) In this condition:</p> <p>(i) approved Extraction Plan means a plan, being:</p> <p>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</p> <p>B. a subsidence management plan relating to the mining operations subject to this lease:</p> <p>I.- submitted to the Secretary on or before 31 December 2014; and</p> <p>II. approved by the Secretary.</p> <p>(ii) relevant development consent means a development consent or project approval issued under the Environmental Planning 8: Assessment Act 1979 relating to the mining operations subject to this lease.</p> <p>(b) The lease holder must not undertake any underground mining operations that may cause subsidence except in accordance with an approved Extraction Plan.</p> <p>(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.</p> <p>(d) The lease holder must notify the Secretary within 48 hours of any:</p> <p>(i) incident caused by subsidence which has a potential to expose any person to health and safety risks;</p> <p>(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</p> <p>(iii) significant failure or malfunction of a monitoring device or risk control measure set out in the approved Extraction Plan addressing:</p> <p>A. built features;</p> <p>B. public safety; or</p> <p>C. subsidence monitoring.</p>	Not triggered	ML1605 covers underground 4 which is not yet active.	Management assertion Site inspection	There are no recommendations.
ML1605	C09 pg. 3	<p>The lease holder must:</p> <p>(a) ensure that at least 44 competent people are efficiently employed on the lease area on each week day except Sunday or any week say that is a public holiday. OR</p> <p>(b) expend on operations carried out in the course of prospecting or mining the lease area, an amount of not less than \$770,000 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.</p>	C	During the audit a letter from DRG (dated 10/09/2018) was sighted which stated that condition 9 is omitted from ML1605 conditions effective 8/10/2018.	Site inspection Letter from DP&E (dated 10/09/2018) RE: omission of condition 9.	There are no recommendations.
ML1605	C10 pg. 3	<p>(a) If an Environmental Officer of the Department believes that the lease holder is not complying with any provision of the Act or any condition of this lease relating to the working of the lease, he may direct the lease holder to:</p> <p>(i) cease working the lease; or</p> <p>(ii) cease that part of the operation not complying until in the opinion of the Environmental Officer the situation is rectified.</p> <p>(b) The lease holder must comply with any direction given. The Director-General may confirm, vary or revoke any such direction.</p> <p>(c) A direction referred to in this condition may be served on the Mine Manager.</p>	C	<p>(a) Noted.</p> <p>(b) DP&E issued a Penalty notice dated 26/10/2017 regarding stockpile placement. The penalty notice included an Order from DP&E (dated 24 November 2017) to remedy the breach of condition 2 of Schedule 2 of the Approvals. In response MCO have included this stockpile in Modification 14 currently undergoing assessment by DP&E.</p> <p>(c) Noted</p>	Penalty Notices (Stockpile Placement 26/10/2017)	<p>There is no further recommendation</p> <p>MCO have issued a Modification currently undergoing assessment to remedy the stockpile breach.</p>
ML1605	C11 pg. 3	<p>The lease holder must provide an exploration report, within a period of twenty-eight days after each anniversary of the date this lease has effect or at such other date as the Director-General may stipulate, of each year. The report must be to the satisfaction of the Director-General and contain the following:</p> <p>(a) Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period;</p> <p>(b) Details of expenditure incurred in conducting the exploration;</p> <p>(c) A summary of all geological findings acquired through mining or development evaluation activities;</p> <p>(d) Particulars of exploration propose to be conducted in the next twelve months period;</p> <p>(e) All plans, maps, sections and other data necessary to satisfactorily interpret the report.</p>	C	<p>The Annual Exploration Report (for the reporting period 21/12/2016 to 20/12/2017) was viewed during the audit.</p> <p>The Annual Exploration Report (for the reporting period 21/12/2015 to 20/12/2016) was viewed during the audit.</p> <p>The requirements of this condition have been met by the Annual Exploration reports.</p>	Annual Exploration Report (December 2017) Annual Exploration Report (December 2016)	There are no recommendations.
ML1605	C12 pg. 4	<p>a) The lease holder grants to the Minister, by the way of a non-exclusive licence, the right in copyright to publish, print, adapt and reproduce all exploration reports lodged in any form and for the full duration of copyright.</p> <p>(b) The non-exclusive licence will operate as a consent for the purposes of section 365 of the Mining Act 1992.</p>	Noted	N/A	N/A	N/A

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
ML1605	C13 pg. 4	<p>a) All exploration reports submitted in accordance with the conditions of this lease will be kept confidential which the lease is in force, except in cases where:</p> <p>(i) The lease holder has agreed that specified reports may be made non-confidential.</p> <p>(ii) Reports deal with exploration conducted exclusively on areas that have ceased to be part of the lease.</p> <p>(b) Confidentiality will be continued beyond the termination of a lease where an application for a flow-on title was lodged during the currency of the lease. The confidentiality will last until that flow-on title or any subsequent flow-on title, has terminated.</p> <p>(c) The Director-General may extend the period of confidentiality.</p>	Noted	N/A	N/A	N/A
ML1605	C14 pg. 4	<p>The terms of the non-exclusive copyright licence granted under condition 12 are:</p> <p>(a) The Minister may sub-licence others to publish, print, adapt and reproduce but not on-licence reports.</p> <p>(b) The Minister and any sub- licensee will acknowledge the lease holder's and any identifiable consultant's ownership of copyright in any reproduction of the reports, including storage of reports onto an electronic database.</p> <p>(c) The lease holder does not warrant ownership of all copyright works in any report and, the lease holder will use best endeavours to identify those parts of the report for which the lease holder owns the copyright.</p> <p>(d) There is not royalty payable by the Minister for the licence.</p> <p>(e) If the lease holder has reasonable grounds to believe that the Minister has exercised his rights under the non-exclusive copyright licence in a manner which adversely affects the operations of the lease holder that licence is revocable on the giving of a period of not less than three months' notice</p>	Noted	N/A	N/A	N/A
ML1605	C15 pg. 5	<p>(a) Ground Vibration The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting with the lease area does not exceed 10 mm/second and does not exceed 5mm/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 Climate Change and Environment.</p> <p>(b) Blast Overpressure 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 Climate Change and Environment.</p>	C	<p>MCO manages blasting in accordance with the Blast Management Plan (BMP)</p> <p>Upon review of the records, it was found that one exceedance for blast overpressure was observed during 2017. However the one blast overpressure exceedance during the audit period was located within Open Cut 4 within ML 1715 and is not relevant to this mining lease.</p> <p>No other blast exceedances were recorded.</p>	<p>Penalty Notice (Blast overpressure 26/05/2017)</p> <p>2016 Annual Review</p> <p>2017 Annual Review</p> <p>Monthly Reporting data (January 2018 to August 2018)</p>	There are no recommendations.
ML1605	C16 pg. 5	<p>Operations must be carried out in a manner that ensures that the safety of persons or stock in the vicinity of the operations.</p> <p>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.</p> <p>Abandoned shafts and excavations opened up or used by their lease holder must be filled in or otherwise rendered safe to a standard acceptable to the Director-General.</p>	C	<p>To ensure public safety mechanisms such as void perimeter bunding and safety fencing has been implemented. Additionally suitable signs, clearly stating the risk to public safety and prohibiting public access are erected at certain sections of mining operations.</p> <p>The final voids are constructed in accordance with design and are safe, stable and non-polluting.</p> <p>Additionally a Public Safety Management Plan is included as Appendix F of the Extraction Plan.</p>	<p>(a) BMP</p> <p>Blast Fume Management Strategy</p> <p>Site Inspection</p> <p>Public Safety Management Plan (Appendix F of the Extraction Plan)</p>	There are no recommendations.
ML1605	C17 pg. 5	<p>(1) At least twenty eight days prior to commencement of drilling operations the lease holder must notify the relevant Department of Climate Change and Environment regional hydrogeologist of the intention to drill exploratory drill holes together with information on the location of the proposed holes.</p> <p>(2) If the lease holder drills exploratory drill holes he must satisfy the Director-General that:-</p> <p>(a) All cored holes are accurately surveyed and permanently marked in accordance with Departmental guidelines so that their location can be easily established;</p> <p>(b) All holes cored or otherwise are sealed to prevent the collapse of the surrounding surface;</p> <p>(c) All drill holes are permanently sealed with cement plugs to prevent surface discharge or groundwater's;</p> <p>(d) If any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape;</p> <p>(e) If any drill hole meets an artesian or sub-artesian flow it is effectively sealed to prevent contamination of aquifers.</p> <p>(f) Once any drill hole ceases to be used the hole must be sealed in accordance with Department guidelines. Alternatively, the hole must be sealed as instructed by the Director-General.</p> <p>(g) Once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition.</p>	Not assessed	Compliance with this condition was not assessed as this condition was completed prior to the audit period.	N/A	N/A

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
ML1605	C18 pg. 6	Operations must be carried out in a manner that does not cause or aggravate air pollution, water pollution (including sediment) or soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan. For the purpose of this condition, water shall be taken to include any watercourse, waterbody or groundwater's. The lease holder must observe and perform any instructions given by the Director-General in this regard.	C	<p>Air Pollution Air quality management for mining operation is covered in section 6 of the AQMP. The community complaints registers for the audit period were reviewed. The 2017 complaints register contained one air quality complaint and the 2016 register contained two complaints. Investigations revealed no unusual mining operations were occurring at the time and monitoring results indicated acceptable dust levels. No visible off-site air pollution was observed during the site investigation.</p> <p>Water Pollution Water quality management for mining operations is covered in Section 3 of the WMP, section 4 of the SWMP, and section 6 of the GWMP. During the audit inspections the site was observed to be in good condition and operations appeared to be carried out in a manner that did not cause water pollution. There are 3 discharge points for excess water. Management advised that no water was discharged offsite during the audit period.</p>	<p>AQMP WMP SWMP (Appendix 2 of the WMP) Community complaints register 2016, 2017 and 2018 Site inspection Management assertion.</p>	There are no recommendations.
ML1605	C19 pg. 6	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 the may stipulate.	Noted	Site inspection did not find any issues.	Site inspection	There are no recommendations
ML1605	C20 pg. 6	<p>a) Activities on the lease must not interfere with or damage fences without the prior written approval of the owner thereof or the Minister and subject to any conditions the Minister may stipulate.</p> <p>(b) Gates within the lease area must be closed or left open in accordance with the requirement of the landholder.</p>	C	Moolarben Coal Operations own all the lands on which the Moolarben Coal Complex operates. No access to private lands has been requested.	<p>Management assertion Site inspection</p>	There are no recommendations
ML1605	C21 pg. 6	<p>a) Operations must not affect any road unless in accordance with an accepted Mining Operations Plan or with the prior written approval of the Director-General and subject to any conditions he may stipulate.</p> <p>(b) The lease holder must pay to the designated authority in control of the road (generally the local council or the Roads and Traffic Authority) the cost incurred in fixing any damage to roads caused by operations carried out under the lease, less any amount paid or payable from the Mine Subsidence Compensation Fund.</p>	C	<p>MCO environmental representative advised the auditors that there have been no recorded impacts on roads or other infrastructure during the audit period. The site inspection observed that, in general, surrounding roads were in good condition.</p> <p>Moolarben Coal, Mid-Western Regional Council and the owners of the Ulan and Wilpinjong mines agreed to develop a detailed plan for the implementation of the Ulan Road Strategy. The agreement 'Deed of Agreement - Funding and delivery of Ulan Road upgrade and maintenance' (dated July 2014) was viewed during the audit.</p> <p>A Deed of Agreement for Funding and Delivery of the Ulan Road Upgrade was signed by Moolarben Coal, Ulan Coal, Wilpinjong Coal and the Mid-Western Regional Council in July 2014. In accordance with the agreement 2 financial instalments will be made per year. Invoices were sighted for contributions to Road Upgrade as stipulated in this condition (Invoice No 18 1995, dated 22/01/2018). The invoice was for: Capital works (\$330, 255.33) and Maintenance (\$110,051.83).</p>	<p>Management assertion Site inspection Deed of Agreement - Funding and delivery of Ulan Road upgrade and maintenance (July 2014) Invoice for Ulan Road Upgrade (Invoice number: 18 1995)</p>	There are no recommendations
ML1605	C22 pg. 6	Access tracks must be kept to a minimum and be positioned so that they do not cause any unnecessary damage to the land. Temporary access tracks must be ripped, topsoiled and revegetated as soon as possible after they no longer required for mining operations. The design and construction of access tracks must be in accordance with specifications fixed by the Department of Climate Change and Environment.	C	This was observed during the site inspection.	<p>Management assertion Site inspection</p>	There are no recommendations
ML1605	C23 pg. 7	<p>a) The lease holder must not fell trees, strip bark or cut timber on the lease without the consent of the landholder who is entitled to the use of the timber, or is such a landholder refuses consent or attaches unreasonable conditions to the consent, without the approval of a warden.</p> <p>(b) The lease holder must not cut, destroy, ringbark or remove any timbers or other vegetative cover on the lease area except as directly obstructs or prevents the carrying on of operations. Any clearing not authorised under the Mining Act 1992 must comply with the provision of the <i>Native Vegetation Act 2003</i> .</p> <p>(c) The lease holder must obtain all necessary approvals or licenses before using timber from any Crown land within the lease area.</p>	Not triggered	Moolarben Coal Operations own all the lands on which the Moolarben Coal Complex operates. No private landowner consent is required.	<p>Management assertion Site inspection</p>	There are no recommendations

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
ML1605	C25 pg. 7	<p>a) Notwithstanding any description of mining methods and their sequence or of proposed resource recovery contained within the Mining Operations Plan, if at any time the Director-General is of the opinion that minerals which the lease entitles the lease holder to mine and which are economically recoverable at the time are not being recovered to the extent which should be economically possible or which for environmental reasons are necessary to be recovered, he may give notice in writing to the lease holder requiring the holder to receive such minerals.</p> <p>(b) The notice shall specify the minerals to be recovered and the extent to which they are to be recovered, or the objectives in regard to resource recovery, but shall not specify the processes the lease holder shall use to achieve the specified recovery.</p> <p>(c) The lease holder must, when requested by the Director- General, provide such information as the Director-General may specify about the recovery of the mineral resources of the lease area.</p> <p>(d) The Director-General shall issue no such notice unless the matter has firstly been thoroughly discussed with and a report to the Director-General had incorporated the views of the lease holder.</p> <p>(e) The lease holder may object to the requirements of any notice issued under this condition and on receipt of such an objection the Minister shall refer it to a Warden for inquiry and report under Section 334 of the Mining Act, 1992.</p> <p>(f) After considering the Warden's report the Minister shall decide whether to withdraw, modify or maintain the requirements specified in the original notice and shall give the lease holder written notice of the decision. The lease holder must comply with the requirements of this notice.</p>	Not triggered	MCO is currently mining coal.	Management assertion Site inspection	N/A
ML1605	C26 pg. 7	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.	Noted	N/A	N/A	N/A
ML1605	C27 pg. 8	<p>(a) A security in the sum of \$100,000 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 the lease. If the lease holder fails to fulfil any one or more of such obligations the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purpose of this clause the lease holder shall be deemed to have failed to fulfil the obligations of this lease if the lease holder fails to comply with any condition or provision hereof, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision hereof or of any provision of the Act or regulations made thereunder.</p> <p>(b) The lease holder must provide the security required by sub-clause (a) in one of the following forms: (i) cash, (ii) a security certificate in a form approved by the Minister and issued by an authorised deposit-taking institution.</p>	C	<p>During the audit the MCO Security Register (last updated 13 September 2018) was sighted which details each security deposit and bank guarantee details. The file includes conservation bonds as well as security bonds.</p> <p>During the audit two letters from DRG were sighted which confirmed the security deposits. - Letter dated (23/05/2018) for ML1605, ML1606, ML1715 security deposit \$41,597,000 - Letter dated (23/05/2018) for ML1628, ML1991 security deposit \$7,793,000</p>	MCO Security Register (last updated 13 September 2018) Excel Spreadsheet	There are no recommendations.
ML1606	C01 pg. 3	1) Within a period of three months from the date of grant of this lease or within such further time as the Minister may allow, the lease holder must serve on each landholder of the landholder a notice in writing indicating that this lease has been granted and whether the lease includes the surface. An adequate plan and description of the lease area must accompany the notice. 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.	Not assessed	ML1606 was granted 20 December 2007. Compliance with this condition was not assessed as this condition was completed prior to the audit period.	N/A	N/A
ML1606	C02 pg. 3	The proponent shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or rehabilitation of the development.	C	Key environmental issues are managed in accordance with the MCO Environmental Management Plans (EMPs) prepared in accordance with the requirements of the Project approval.	MOP Management Plans	There are no recommendations.

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
ML1606	C03 pg. 3	<p>(a) Mining operations must not be carried out otherwise than in accordance with a Mining Operations Plan (MOP) which has been approved by the Director-General of the Department of Primary Industries. Operations, mining purposes and prospecting.</p> <p>(b) The MOP must:</p> <p>I. identify areas that will be disturbed by mining operations;</p> <p>II. details the staging of specific mining operations;</p> <p>III. identify how the mine will be managed to allow mine closure;</p> <p>IV. identifies how mining operations, mining purposes and prospecting will be carried out on site in order to prevent and or minimise harm to the environment;</p> <p>V. reflect the conditions of approval under:</p> <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 mining lease and; <p>VI. have regard to any relevant guidelines adopted by the Director-General</p>	C	<p>(a) Mining operations at Moolarben Coal Mine are carried out in accordance with the approved Mining Operations Plan (MOP). DP&E (DRG) approved the MOP (letter dated 04/06/2018). Letter viewed during the audit.</p> <p>(b) I. Section 2.1 and 2.3 identifies areas that will be disturbed by Moolarben Coal mining operations</p> <p>II. Staging of specific mining operations are covered in section 1 of the MOP. Stage 1 of the Moolarben Coal Complex has commenced and at full development will comprise three open cut mines (OC1, OC2, and OC3), a longwall underground mine (UG4), and mining related infrastructure (including coal processing and transport facilities). Initial establishment and construction/development activities for Moolarben Coal Project Stage 2 commenced in 2015. At full development there will be one open-cut (OC4), two longwall underground mines (UG1 and UG2) and mining related infrastructure.</p> <p>III. Sections 4 and 5 identify how the mine will be managed to allow mine closure.</p> <p>IV. Section 3 identifies how mining operations will be carried out on site in order to prevent and or minimise harm to the environment.</p> <p>V. Section 1.2 reflect the conditions of approval under: the EP&A Act 1979, POEO Act 1997 and other approvals relevant to the development including the conditions of this lease</p> <p>VI. Section 1.2 also covers the relevant guidelines adopted by the Director-General.</p>	<p>MOP</p> <p>Letter from DP&E (DRG) (dated 04/06/2018) RE:Approval of MOP</p>	There are no recommendations.
ML1606	C03 pg. 3	<p>(c) The titleholder may apply to the Director-General to amend the approved MOP at any time</p> <p>(d) It is not a breach of this condition if:</p> <p>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 Environmental Operations Act 1997 or the Occupational Health and Safety Act 2000 and</p> <p>II. The Director- General has been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out.</p> <p>III. Mining operations must not be carried out otherwise than in accordance with a Mining Operations Plan (MOP) which has been approved by the Director-General of the Department of Primary Industries.</p> <p>e) The MOP ceases to have affect 7 years after date of approval or other such period as identified by the Director-General. An approved amendment to the MOP under condition 5 does not constitute an approval for the purposes of this paragraph unless otherwise identified by the Director-General.</p>	C	<p>(c) Noted</p> <p>(d) Noted</p> <p>(e) The current MOP commenced 1/12/2016 and ceases to have effect 1/01/2019.</p>	<p>MOP</p>	There are no recommendations.
ML1606	C04 pg. 3	The lease holder must lodge Environmental Management Reports (EMR) with The Director-General annually or at dates otherwise directed by the Director-General.	C	<p>The 2016 and 2017 Annual Review for MCO have been submitted. Similarly Annual Reviews each year from 2012 to 2017 and are available on the MCO website.</p> <p>Section 5 of the Annual Reviews contains actions required from the previous audit period. DP&E have made several recommendations from the 2016 Annual Review which are addressed in Table 9 of the 2017 Annual Review.</p> <p>A letter from DP&E regarding the Annual Review 2016 requesting points to be addressed in future audits (dated 2/05/2017) was sighted during the audit. These points were checked and found to be address in the 2017 Annual Review. A letter from DP&E regarding the Annual Review 2017 requesting points to be addressed in future audits (dated 31/05/2018) was sighted during the audit.</p> <p>The 2017 Annual Review was amended to address these comments.</p>	<p>Annual Review 2016 and 2017.</p> <p>DP&E Letters (dated 02/05/2017 and 31/05/2018) RE:Review of Annual reports</p>	There are no recommendations.
ML1606	C05 pg. 3	<p>The EMR must:</p> <ul style="list-style-type: none"> - report against compliance with the MOP; - report on progress in respect of rehabilitation completion criteria; - report on the extent of compliance with regulatory requirements; and - have regard to any relevant guidelines adopted by the Director-General; 	C	<ul style="list-style-type: none"> - Rehabilitation activities against the MOP are described in the Annual Reviews - The 2016 Annual Review covers rehabilitation progress in section 8 and the 2017 Annual Review covers rehabilitation progress in section 9. - Statement of compliance with approvals is detailed in section 1. - Guidelines used in producing the Annual Reviews are detailed throughout the document such as the <i>Florabank Guidelines (2000)</i>. 	<p>2016 and 2017 Annual Review</p>	There are no recommendations.
ML1606	C06 pg. 3	Additional environmental reports may be required on specific surface disturbing operations or environmental incidents from time to time as directed in writing by the Director-General and must be lodged as instructed.	Not triggered	<p>N/A.</p> <p>No studies have been required during the audit period.</p>	<p>N/A</p>	N/A

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
ML1606	C07 pg. 3	Disturbed land must be rehabilitated to a sustainable/agreed end land use to the satisfaction of the Director-General.	C	Refer to ML1605 Clause C07 pg.2	Refer to ML1605 Clause C07 pg.2	Refer to ML1605 Clause C07 pg.2
ML1606	C08 pg. 4	<p>Subsidence Management Plan</p> <p>a) The lease holder shall prepare a Subsidence Management Plan prior to commencing any underground mining operations which will potentially lead to subsidence of the land surface.</p> <p>(b) Underground mining operations which will potentially lead to subsidence include secondary extraction panels such as longwalls or mini walls, associated first workings (gate roads, installation roads and associated main headings etc.), and pillar extractions, and are otherwise defined by the <i>Applications for Subsidence Management Approvals guidelines</i> (EDG17)</p> <p>(c) The lease holder must not commence or undertake underground mining operations that will potentially lead to subsidence other than in accordance with a Subsidence Management Plan approved by the Director-General, and approval under the <i>Coal Mine Health and Safety Act 2002</i>, or the document <i>New Subsidence Management Plan Approval Process – Transitional Provisions</i> (EDP09).</p> <p>(d) Subsidence Management Plans are to be prepared in accordance with the Guideline for Applications for Subsidence Management Approvals.</p> <p>(e) Subsidence Management Plans as approved shall form part of the Mining Operations Plan required under Condition 2 and will be subject to the Annual Environmental Management Report process as set out under Condition 3. The SMP is also subject to the requirements for subsidence monitoring and reporting set out in the document <i>New Approval Process for Management of Coal Mining Subsidence – Policy</i>.</p>	C	<p>The MOP states that the subsidence management plan is now the extraction plan. Section 3 of the Extraction plan also covers subsidence management and monitoring and Appendix G describes the subsidence monitoring program.</p> <p>Extraction Plan</p> <p>a) MCO have created an Extraction plan for Longwalls 101-103 which is available on the MCO website.</p> <p>b) Noted</p> <p>c) Attachment 2 of the Extraction Management Plan provides a table of consultation activities with government agencies and includes dates and summaries of consultation activities. During the audit a letter from DP&E (dated 21/09/2017) was sighted which approved the extraction plan for the second workings on site.</p> <p>d) The Extraction Plan and the Subsidence Monitoring Plan has been prepared using <i>Guidelines for the Preparation of Extraction Plans</i> (Department of Planning & Environment and Division of Resources and Energy, 2015)</p> <p>e) The MOP includes mine subsidence management. Mine subsidence and the extraction plan is covered in Section 8 of the 2017 Annual Review.</p> <p>Whilst there is no specific subsidence management plan the activities undertaken and the results achieved fulfil the specified requirements of this condition. It should be noted that amendments to this condition have been made for all other mining licences for the Moolarben Coal Mine.</p> <p>The auditor viewed an email from DRG (dated 10/12/2018) to query the missing amendment to this condition for ML1606. A response was received from DRG titles division (10/12/2018) stating that DRG was unable to locate an instrument of amendment for ML1606 condition 8 and that it was possible that it got missed as the title would have been among those requiring the change. DRG is currently investigating.</p>	<p>MOP</p> <p>a) Extraction Plan and MCO website</p> <p>b) Noted</p> <p>c) Extraction Plan Letter from DP&E (dated 21/09/2017) RE: approval of second workings</p> <p>d) Extraction Plan Subsidence Monitoring Plan (Appendix G of the Extraction plan)</p> <p>e) 2017 Annual Review</p> <p>Email form MCO to DRG (dated 10/12/2018) RE: ML1606 - Subsidence Management Plan Query.</p> <p>Email from DRG (dated 10/12/2018) RE: Response to ML1606 - Subsidence Management Plan Query.</p>	Follow up with DRG Titles Division to resolve.
ML1606	C09 pg. 4	<p>The lease holder must:</p> <p>(a) ensure that at least 20 competent people are efficiently employed on the lease area on each week day except Sunday or any week say that is a public holiday.</p> <p>OR</p> <p>(b) expend on operations carried out in the course of prospecting or mining the lease area, an amount of not less than \$350,000 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.</p>	C	Management advised that current staff levels are approximately 750 full-time equivalent employees the majority of which are locally based. This figure is supported by the invoice from Council for \$230,533.57 for the "Stage 2 Community Enhancement Contribution".	a) Invoice (No. 18 2078) from Mid-Western Regional Council (15/02/2018) Management assertion	There are no recommendations.
ML1606	C10 pg. 4	<p>(a) If an Environmental Officer of the Department believes that the lease holder is not complying with any provision of the Act or any condition of this lease relating to the working of the lease, he may direct the lease holder to: -</p> <p>(i) cease working the lease; or</p> <p>(ii) cease that part of the operation not complying Until in the opinion of the Environmental Officer the situation is rectified.</p> <p>(b) The lease holder must comply with any direction given. The Director-General may confirm, vary or revoke any such direction.</p> <p>(c) A direction referred to in this condition may be served on the Mine Manager.</p>	C	Refer to ML1605 Clause C10 pg.3	Refer to ML1605 Clause C10 pg.3	Refer to ML1605 Clause C10 pg.3
ML1606	C11 pg. 4	<p>The lease holder must provide an exploration report, within a period of twenty-eight days after each anniversary of the date this lease has effect or at such other date as the Director-General may stipulate, of each year. The report must be to the satisfaction of the Director-General and contain the following:</p> <p>(a) Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period;</p> <p>(b) Details of expenditure incurred in conducting the exploration;</p> <p>(c) A summary of all geological findings acquired through mining or development evaluation activities;</p> <p>(d) Particulars of exploration propose to be conducted in the next twelve months period;</p> <p>(e) All plans, maps, sections and other data necessary to satisfactorily interpret the report.</p>	C	Refer to ML1605 Clause C11 pg.3	Refer to ML1605 Clause C11 pg.3	Refer to ML1605 Clause C11 pg.3
ML1606	C12 pg. 4	<p>a) The lease holder grants to the Minister, by the way of a non-exclusive licence, the right in copyright to publish, print, adapt and reproduce all exploration reports lodged in any form and for the full duration of copyright.</p> <p>(b) The non-exclusive licence will operate as a consent for the purposes of section 365 of the Mining Act 1992.</p>	Noted	N/A	N/A	N/A

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
ML1606	C13 pg. 5	<p>a) All exploration reports submitted in accordance with the conditions of this lease will be kept confidential which the lease is in force, except in cases where:</p> <p>(i) The lease holder has agreed that specified reports may be made non-confidential.</p> <p>(ii) Reports deal with exploration conducted exclusively on areas that have ceased to be part of the lease.</p> <p>(b) Confidentiality will be continued beyond the termination of a lease where an application for a flow-on title was lodged during the currency of the lease. The confidentiality will last until that flow-on title or any subsequent flow-on title, has terminated.</p> <p>(c) The Director-General may extend the period of confidentiality.</p>	Noted	N/A	N/A	N/A
ML1606	C14 pg. 5	<p>The terms of the non-exclusive copyright licence granted under condition 12 are:</p> <p>(a) The Minister may sub-licence others to publish, print, adapt and reproduce but not on-licence reports.</p> <p>(b) The Minister and any sub- licensee will acknowledge the lease holder's and any identifiable consultant's ownership of copyright in any reproduction of the reports, including storage of reports onto an electronic database.</p> <p>(c) The lease holder does not warrant ownership of all copyright works in any report and, the lease holder will use best endeavours to identify those parts of the report for which the lease holder owns the copyright.</p> <p>(d) There is not royalty payable by the Minister for the licence.</p> <p>(e) If the lease holder has reasonable grounds to believe that the Minister has exercised his rights under the non-exclusive copyright licence in a manner which adversely affects the operations of the lease holder that licence is revocable on the giving of a period of not less than three months' notice</p>	Noted	N/A	N/A	N/A
ML1606	C15 pg. 5	<p>(a) Ground Vibration The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting with the lease area does not exceed 10 mm/second and does not exceed 5mm/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 Climate Change and Environment.</p> <p>(b) Blast Overpressure 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 Climate Change and Environment.</p>	C	<p>MCO manages blasting in accordance with the Blast Management Plan (BMP)</p> <p>Upon review of the records, it was found that one exceedance for blast overpressure was observed during 2017. However the one blast overpressure exceedance during the audit period was located within Open Cut 4 within ML 1715 and is not relevant to this mining lease.</p> <p>No other blast exceedances were recorded.</p>	<p>Penalty Notice (Blast overpressure 26/05/2017)</p> <p>2016 Annual Review</p> <p>2017 Annual Review</p> <p>Monthly Reporting data (January 2018 to August 2018)</p>	There are no recommendations.
ML1606	C16 pg. 5	<p>Operations must be carried out in a manner that ensures that 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.</p> <p>Abandoned shafts and excavations opened up or used by their lease holder must be filled in or otherwise rendered safe to a standard acceptable to the Director-General.</p>	C	Refer to ML1605 Clause C16 pg.5	Refer to ML1605 Clause C16 pg.5	Refer to ML1605 Clause C16 pg.5
ML1606	C17 pg. 6	<p>(1) At least twenty eight days prior to commencement of drilling operations the lease holder must notify the relevant Department of Climate Change and Environment regional hydrogeologist of the intention to drill exploratory drill holes together with information on the location of the proposed holes.</p> <p>(2) If the lease holder drills exploratory drill holes he must satisfy the Director-General that:-</p> <p>(a) All cored holes are accurately surveyed and permanently marked in accordance with Departmental guidelines so that their location can be easily established;</p> <p>(b) All holes cored or otherwise are sealed to prevent the collapse of the surrounding surface;</p> <p>(c) All drill holes are permanently sealed with cement plugs to prevent surface discharge or groundwater's;</p> <p>(d) If any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape;</p> <p>(e) If any drill hole meets an artesian or sub-artesian flow it is effectively sealed to prevent contamination of aquifers.</p> <p>(f) Once any drill hole ceases to be used the hole must be sealed in accordance with Department guidelines. Alternatively, the hole must be sealed as instructed by the Director-General.</p> <p>(g) Once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition.</p>	Not assessed	Refer to ML1605 Clause C17 pg.5	Refer to ML1605 Clause C17 pg.5	Refer to ML1605 Clause C17 pg.5
ML1606	C18 pg. 6	<p>Operations must be carried out in a manner that does not cause or aggravate air pollution, water pollution (including sediment) or soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan. For the purpose of this condition, water shall be taken to include any watercourse, waterbody or groundwater's. The lease holder must observe and perform any instructions given by the Director-General in this regard.</p>	C	Refer to ML1605 Clause C18 pg.6	Refer to ML1605 Clause C18 pg.6	Refer to ML1605 Clause C18 pg.6

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
ML1606	C19 pg. 6	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 the may stipulate.	Noted	Refer to ML1605 Clause C19 pg.6	Refer to ML1605 Clause C19 pg.6	Refer to ML1605 Clause C19 pg.6
ML1606	C20 pg. 6	a) Activities on the lease must not interfere with or damage fences without the prior written approval of the owner thereof or the Minister and subject to any conditions the Minister may stipulate. (b) Gates within the lease area must be closed or left open in accordance with the requirement of the landholder.	C	Refer to ML1605 Clause C20 pg.6	Refer to ML1605 Clause C20 pg.6	Refer to ML1605 Clause C20 pg.6
ML1606	C21 pg. 6	a) Operations must not affect any road unless in accordance with an accepted Mining Operations Plan or with the prior written approval of the Director-General and subject to any conditions he may stipulate. (b) The lease holder must pay to the designated authority in control of the road (generally the local council or the Roads and Traffic Authority) the cost incurred in fixing any damage to roads caused by operations carried out under the lease, less any amount paid or payable from the Mine Subsidence Compensation Fund.	C	Refer to ML1605 Clause C21 pg.6	Refer to ML1605 Clause C21 pg.6	Refer to ML1605 Clause C21 pg.6
ML1606	C22 pg. 6	Access tracks must be kept to a minimum and be positioned so that they do not cause any unnecessary damage to the land. Temporary access tracks must be ripped, topsoiled and revegetated as soon as possible after they no longer required for mining operations. The design and construction of access tracks must be in accordance with specifications fixed by the Department of Climate Change and Environment.	C	Refer to ML1605 Clause C22 pg.6	Refer to ML1605 Clause C22 pg.6	Refer to ML1605 Clause C22 pg.6
ML1606	C23 pg. 7	a) The lease holder must not fell trees, strip bark or cut timber on the lease without the consent of the landholder who is entitled to the use of the timber, or is such a landholder refuses consent or attaches unreasonable conditions to the consent, without the approval of a warden. (b) The lease holder must not cut, destroy, ringbark or remove any timbers or other vegetative cover on the lease area except as directly obstructs or prevents the carrying on of operations. Any clearing not authorised under the <i>Mining Act 1992</i> must comply with the provision of the <i>Native Vegetation Act 2003</i> . (c) The lease holder must obtain all necessary approvals or licenses before using timber from any Crown land within the lease area.	Not triggered	Refer to ML1605 Clause C23 pg.7	Refer to ML1605 Clause C23 pg.7	Refer to ML1605 Clause C23 pg.7
ML1606	C25 pg. 7	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 are not being recovered to the extent which should be economically possible or which for environmental reasons are necessary to be recovered, he may give notice in writing to the lease holder requiring the holder to receive such minerals. (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. (d) The Director-General shall issue no such notice unless the matter has firstly been thoroughly discussed with and a report to the Director-General had incorporated the views of the lease holder. (e) The lease holder may object to the requirements of any notice issued under this condition and on receipt of such an objection the Minister shall refer it to a Warden for inquiry and report under Section 334 of the Mining Act, 1992. (f) After considering the Warden's report the Minister shall decide whether to withdraw, modify or maintain the requirements specified in the original notice and shall give the lease holder written notice of the decision. The lease holder must comply with the requirements of this notice.	Not triggered	Refer to ML1605 Clause C25 pg.7	Refer to ML1605 Clause C25 pg.7	Refer to ML1605 Clause C25 pg.7
ML1606	C26 pg. 7	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.	Noted	N/A	N/A	N/A

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
ML1606	C27 pg. 8	<p>(a) A security in the sum of \$100,000 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 the lease. If the lease holder fails to fulfil any one or more of such obligations the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purpose of this clause the lease holder shall be deemed to have failed to fulfil the obligations of this lease if the lease holder fails to comply with any condition or provision hereof, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision hereof or of any provision of the Act or regulations made thereunder.</p> <p>(b) The lease holder must provide the security required by sub-clause (a) in one of the following forms: (i) cash, (ii) a security certificate in a form approved by the Minister and issued by an authorised deposit-taking institution.</p>	C	Refer to ML1605 Clause C27 pg.8	Refer to ML1605 Clause C27 pg.8	Refer to ML1605 Clause C27 pg.8
ML1606	C29 pg. 8	<p>(a) Notwithstanding any Mining Operations Plan, the lease holder must not mine within any part of the lease area which is within the notification area of the Moolarben Creek Dam without the prior written approval of the Minister and subject to any conditions he may stipulate.</p> <p>(b) Where the lease holder desires to mine within the notification area he must: I. At least twelve (12) months before mining is to commence or such lesser time as the Minister may permit, notify the Minister of the desire to do so. A plan of the mining system to be implemented must accompany the notice, and II. Provide such information as the Minister may direct.</p> <p>(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. I. This sub-paragraph is complied with if: (a) The Dams Safety Committee as constituted by Section 7 of the Dam Safety Act 1978 and the owner of the dam have been notified in writing of the desire to mine referred to in paragraph (b). (b) The notifications referred to in clause (a) are accompanied by a description or plan of the area to be mined. (c) The Director-General has complied with any reasonable request by the Dam Safety committee or the owner of the dam for further information in connection with the mining proposal. (d) The Dam 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 (e) Where the Dams Safety Committee has made recommendations the approval is in terms that are: 1. In accordance with those recommendations; or 2. Where the Minister does not accept those recommendations or any of them – in accordance with a determination under sub-paragraph (ii) of this paragraph</p>	Not triggered	<p>Not triggered as per previous IEA which states that the Moolarben Creek Dam removed from Prescribed Dam register in 2013.</p> <p>Letter to DSC RE: Prescribed Moolarben Dam, 17 May 2013 Letter to DRE RE: Cessation of Conditions for Moolarben Dam, 29 May 2013</p>	<p>Trevor Brown & Associates IEA 2015 Which sights the following as evidence - Letter to DSC RE: Prescribed Moolarben Dam, 17 May 2013 - Letter to DRE RE: Cessation of Conditions for Moolarben Dam, 29 May 2013</p>	There are no recommendations
ML1606	C29 pg. 8	<p>II. Where the Minister does not accept the recommendations of the Dam 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: (a) As determined by agreement between the Minister and the Minister administering the Dam Safety Act 1978; or (b) In the event of failure to reach such agreement – as determined by the Premier.</p> <p>(d) The Minister, on notice from the Dams Safety Committee, may at any time or times: I. Cancel any approval given where a notice pursuant to Section 18 of the Dam Safety Act 1978 is given. II. Suspend for a period of time, alter, omit from or add to any approval given or conditions imposed.</p>	Not triggered	N/A	N/A	There are no recommendations
ML1628	C01 pg. 1	1) Within a period of three months from the date of grant of this lease or within such further time as the Minister may allow, the lease holder must serve on each landholder of the landholder a notice in writing indicating that this lease has been granted and whether the lease includes the surface. An adequate plan and description of the lease area must accompany the notice. 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.	Not assessed	ML1605 was granted 24 February 2009. Compliance with this condition was not assessed as this condition was completed prior to the audit period.	N/A	N/A
ML1628	C02 pg. 1	The leaseholder shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or rehabilitation of the development.	C	Refer to ML1605 Clause C02 pg.1	Refer to ML1605 Clause C02 pg.1	Refer to ML1605 Clause C02 pg.1

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
ML1628	C03 pg. 1	<p>MOP</p> <p>(a) Mining operations must not be carried out otherwise than in accordance with a Mining Operations Plan (MOP) which has been approved by the Director-General of the Department of Primary Industries. Operations, mining purposes and prospecting.</p> <p>(b) The MOP must: I. identify areas that will be disturbed by mining operations; II. details the staging of specific mining operations; III. identify how the mine will be managed to allow mine closure; IV. identifies how mining operations, mining purposes and prospecting will be carried out on site in order to prevent and or minimise harm to the environment; V. reflect the conditions of approval under: - the Environmental Planning and Assessment Act 1979; - the Protection of the Environment Operations Act 1997; and - any other approvals relevant to the development including the conditions of this mining lease and; VI. have regard to any relevant guidelines adopted by the Director-General</p> <p>(c) The leaseholder may apply to the Director-General to amend the approved MOP at any time</p> <p>(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 Environmental Operations Act 1997 or the Occupational Health and Safety Act 2000 and II. The Director- General has been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out. III. Mining operations must not be carried out otherwise than in accordance with a Mining Operations Plan (MOP) which has been approved by the Director-General of the Department of Primary Industries.</p> <p>(e) The MOP ceases to have affect 7 years after date of approval or other such period as identified by the Director-General. An approved amendment to the MOP under condition 5 does not constitute an approval for the purposes of this paragraph unless otherwise identified by the Director-General.</p>	C	Refer to ML1605 Clause C03 pg.1	Refer to ML1605 Clause C03 pg.1	Refer to ML1605 Clause C03 pg.1
ML1628	C04 pg. 2	The lease holder must lodge Environmental Management Reports (EMR) with The Director-General annually or at dates otherwise directed by the Director-General.	C	Refer to ML1605 Clause C04 pg.2	Refer to ML1605 Clause C04 pg.2	Refer to ML1605 Clause C04 pg.2
ML1628	C05 pg. 2	The EMR must: - report against compliance with the MOP; - report on progress in respect of rehabilitation completion criteria; - report on the extent of compliance with regulatory requirements; and - have regard to any relevant guidelines adopted by the Director-General;	C	Refer to ML1605 Clause C05 pg.2	Refer to ML1605 Clause C05 pg.2	Refer to ML1605 Clause C05 pg.2
ML1628	C06 pg. 2	Additional environmental reports may be required on specific surface disturbing operations or environmental incidents from time to time as directed in writing by the Director-General and must be lodged as instructed.	Not triggered	N/A. No studies have been required during the audit period.	N/A	N/A
ML1628	C07 pg. 2	Disturbed land must be rehabilitated to a sustainable/agreed end land use to the satisfaction of the Director/General.	C	Refer to ML1605 Clause C07 pg.2	Refer to ML1605 Clause C07 pg.2	Refer to ML1605 Clause C07 pg.2
ML1628	C08 pg. 2	<p>Subsidence Management Plan</p> <p>(a) The lease holder shall prepare a Subsidence Management Plan prior to commencing any underground mining operations which will potentially lead to subsidence of the land surface.</p> <p>(b) Underground mining operations which will potentially lead to subsidence include secondary extraction panels such as longwalls or mini walls, associated first workings (gate roads, installation roads and associated main headings etc.), and pillar extractions, and are otherwise defined by the Applications for Subsidence Management Approvals guidelines (EDG17)</p> <p>(c) The lease holder must not commence or undertake underground mining operations that will potentially lead to subsidence other than in accordance with a Subsidence Management Plan approved by the Director-General, and approval under the Coal Mine Health and Safety Act 2002, or the document New Subsidence Management Plan Approval Process – Transitional Provisions (EDP09).</p> <p>(d) Subsidence Management Plans are to be prepared in accordance with the Guideline for Applications for Subsidence Management Approvals.</p> <p>(e) Subsidence Management Plans as approved shall form part of the Mining Operations Plan required under Condition 2 and will be subject to the Annual Environmental Management Report process as set out under Condition 3. The SMP is also subject to the requirements for subsidence monitoring and reporting set out in the document New Approval Process for Management of Coal Mining Subsidence – Policy.</p>	Not triggered	An Instrument of Amendment was viewed during the audit. The amendment states that condition 8 was deleted for ML 1628 and replaced with conditions relating to an extraction plan (see below). The amendment was effective as of 1/07/2014.	Instrument of amendment ML 1628 (01/07/2014)	There are no recommendations.

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
		<p>Extraction Plan Condition</p> <p>(a) In this condition:</p> <p>(i) approved Extraction Plan means a plan, being:</p> <p>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</p> <p>B. a subsidence management plan relating to the mining operations subject to this lease:</p> <p>I.- submitted to the Secretary on or before 31 December 2014; and</p> <p>II. approved by the Secretary.</p> <p>(ii) relevant development consent means a development consent or project approval issued under the Environmental Planning 8: Assessment Act 1979 relating to the mining operations subject to this lease.</p> <p>(b) The lease holder must not undertake any underground mining operations that may cause subsidence except in accordance with an approved Extraction Plan.</p> <p>(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.</p> <p>(d) The lease holder must notify the Secretary within 48 hours of any:</p> <p>(i) incident caused by subsidence which has a potential to expose any person to health and safety risks;</p> <p>(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</p> <p>(iii) significant failure or malfunction of a monitoring device or risk control measure set out in the approved Extraction Plan addressing:</p> <p>A. built features;</p> <p>B. public safety; or</p> <p>C. subsidence monitoring.</p>	C	<p>(a) Noted. Attachment 2 of the Extraction Management Plan provides a table of consultation activities with government agencies and includes dates and summaries of consultation activities.</p> <p>During the audit a letter from DP&E (dated 21/09/2017) was sighted which approved the extraction plan for the second workings on site.</p> <p>(b) MCO has prepared an extraction management plan which includes a subsidence monitoring program (Appendix G of the Extraction plan). All underground mining operations are undertaken in accordance with the extraction plan.</p> <p>(c) Section 2.2 of the Extraction Plan contains a risk assessment and a subsidence monitoring program is included in Appendix G of the Extraction plan.</p> <p>(d) The MOP provides the following summary of incident reporting: MCO will notify the Secretary of the DP&E, the EPA and any other relevant agencies immediately after MCO becomes aware of the incident.</p> <p>Within seven days of the date of the incident, MCO will provide the Secretary of the DP&E and any relevant agencies with a detailed report on the incident. The report will:</p> <ul style="list-style-type: none"> Describe the date, time and nature of the exceedance/incident; Identifies the cause (or likely cause) of the exceedance/incident; Describes what action has been taken to date; and Describes the proposed measures to address the exceedance/incident. 	<p>(a) Extraction Plan Letter from DP&E (dated 21/09/2017) RE: approval of second workings</p> <p>(b) Extraction Plan</p> <p>(c) Extraction Plan</p> <p>(d) MOP</p>	There are no recommendations
ML1628	C09 pg. 3	<p>The lease holder must:</p> <p>(a) ensure that at least 11 competent people are efficiently employed on the lease area on each week day except Sunday or any week say that is a public holiday.</p> <p>OR</p> <p>(b) expend on operations carried out in the course of prospecting or mining the lease area, an amount of not less than \$192,500 per annum whilst the lease is in force. 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.</p>	C	Refer to ML1606 Clause C09 pg. 4	Refer to ML1606 Clause C09 pg. 4	Refer to ML1606 Clause C09 pg. 4
ML1628	C10 pg. 3	<p>(a) If an Environmental Officer of the Department believes that the lease holder is not complying with any provision of the Act or any condition of this lease relating to the working of the lease, he may direct the lease holder to:</p> <p>(i) cease working the lease; or</p> <p>(ii) cease that part of the operation not complying until in the opinion of the Environmental Officer the situation is rectified.</p> <p>(b) The lease holder must comply with any direction given. The Director-General may confirm, vary or revoke any such direction.</p> <p>(c) A direction referred to in this condition may be served on the Mine Manager.</p>	C	Refer to ML1605 Clause C10 pg.3	Refer to ML1605 Clause C10 pg.3	Refer to ML1605 Clause C10 pg.3
ML1628	C11 pg. 3	<p>The lease holder must provide an exploration report, within a period of twenty-eight days after each anniversary of the date this lease has effect or at such other date as the Director-General may stipulate, of each year. The report must be to the satisfaction of the Director-General and contain the following:</p> <p>(a) Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period;</p> <p>(b) Details of expenditure incurred in conducting the exploration;</p> <p>(c) A summary of all geological findings acquired through mining or development evaluation activities;</p> <p>(d) Particulars of exploration propose to be conducted in the next twelve months period;</p> <p>(e) All plans, maps, sections and other data necessary to satisfactorily interpret the report.</p>	C	Refer to ML1605 Clause C11 pg.3	Refer to ML1605 Clause C11 pg.3	Refer to ML1605 Clause C11 pg.3
ML1628	C12 pg. 3	<p>a) The lease holder grants to the Minister, by the way of a non-exclusive licence, the right in copyright to publish, print, adapt and reproduce all exploration reports lodged in any form and for the full duration of copyright.</p> <p>(b) The non-exclusive licence will operate as a consent for the purposes of section 365 of the Mining Act 1992.</p>	Noted	N/A	N/A	N/A

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
ML1628	C13 pg. 4	<p>a) All exploration reports submitted in accordance with the conditions of this lease will be kept confidential which the lease is in force, except in cases where:</p> <p>(i) The lease holder has agreed that specified reports may be made non-confidential.</p> <p>(ii) Reports deal with exploration conducted exclusively on areas that have ceased to be part of the lease.</p> <p>(b) Confidentiality will be continued beyond the termination of a lease where an application for a flow-on title was lodged during the currency of the lease. The confidentiality will last until that flow-on title or any subsequent flow-on title, has terminated.</p> <p>(c) The Director-General may extend the period of confidentiality.</p>	Noted	N/A	N/A	N/A
ML1628	C14 pg. 4	<p>The terms of the non-exclusive copyright licence granted under condition 12 are:</p> <p>(a) The Minister may sub-licence others to publish, print, adapt and reproduce but not on-licence reports.</p> <p>(b) The Minister and any sub- licensee will acknowledge the lease holder's and any identifiable consultant's ownership of copyright in any reproduction of the reports, including storage of reports onto an electronic database.</p> <p>(c) The lease holder does not warrant ownership of all copyright works in any report and, the lease holder will use best endeavours to identify those parts of the report for which the lease holder owns the copyright.</p> <p>(d) There is not royalty payable by the Minister for the licence.</p> <p>(e) If the lease holder has reasonable grounds to believe that the Minister has exercised his rights under the non-exclusive copyright licence in a manner which adversely affects the operations of the lease holder that licence is revocable on the giving of a period of not less than three months' notice</p>	Noted	N/A	N/A	N/A
ML1628	C15 pg. 4	<p>(a) Ground Vibration The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting with the lease area does not exceed 10 mm/second and does not exceed 5mm/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 Climate Change and Environment.</p> <p>(b) Blast Overpressure 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 Climate Change and Environment.</p>	C	<p>MCO manages blasting in accordance with the Blast Management Plan (BMP)</p> <p>Upon review of the records, it was found that one exceedance for blast overpressure was observed during 2017. However the one blast overpressure exceedance during the audit period was located within Open Cut 4 within ML 1715 and is not relevant to this mining lease.</p> <p>No other blast exceedances were recorded.</p>	Penalty Notice (Blast overpressure 26/05/2017) 2016 Annual Review 2017 Annual Review Monthly Reporting data (January 2018 to August 2018)	There are no recommendations.
ML1628	C16 pg. 5	<p>Operations must be carried out in a manner that ensures that 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.</p> <p>Abandoned shafts and excavations opened up or used by their lease holder must be filled in or otherwise rendered safe to a standard acceptable to the Director-General.</p>	C	Refer to ML1605 Clause C16 pg.5	Refer to ML1605 Clause C16 pg.5	Refer to ML1605 Clause C16 pg.5
ML1628	C17 pg. 5	<p>(1) At least twenty eight days prior to commencement of drilling operations the lease holder must notify the relevant Department of Climate Change and Environment regional hydrogeologist of the intention to drill exploratory drill holes together with information on the location of the proposed holes.</p> <p>(2) If the lease holder drills exploratory drill holes he must satisfy the Director-General that:-</p> <p>(a) All cored holes are accurately surveyed and permanently marked in accordance with Departmental guidelines so that their location can be easily established;</p> <p>(b) All holes cored or otherwise are sealed to prevent the collapse of the surrounding surface;</p> <p>(c) All drill holes are permanently sealed with cement plugs to prevent surface discharge or groundwater's;</p> <p>(d) If any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape;</p> <p>(e) If any drill hole meets an artesian or sub-artesian flow it is effectively sealed to prevent contamination of aquifers.</p> <p>(f) Once any drill hole ceases to be used the hole must be sealed in accordance with Department guidelines. Alternatively, the hole must be sealed as instructed by the Director-General.</p> <p>(g) Once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition.</p>	Not assessed	Refer to ML1605 Clause C17 pg.5	Refer to ML1605 Clause C17 pg.5	Refer to ML1605 Clause C17 pg.5
ML1628	C18 pg. 5	<p>Operations must be carried out in a manner that does not cause or aggravate air pollution, water pollution (including sediment) or soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan. For the purpose of this condition, water shall be taken to include any watercourse, waterbody or groundwater's. The lease holder must observe and perform any instructions given by the Director-General in this regard.</p>	C	Refer to ML1605 Clause C18 pg.6	Refer to ML1605 Clause C18 pg.6	Refer to ML1605 Clause C18 pg.6
ML1628	C19 pg. 5	<p>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 the may stipulate.</p>	C	Refer to ML1605 Clause C19 pg.6	Refer to ML1605 Clause C19 pg.6	Refer to ML1605 Clause C19 pg.6

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
ML1628	C20 pg. 6	a) Activities on the lease must not interfere with or damage fences without the prior written approval of the owner thereof or the Minister and subject to any conditions the Minister may stipulate. (b) Gates within the lease area must be closed or left open in accordance with the requirement of the landholder.	C	Refer to ML1605 Clause C20 pg.6	Refer to ML1605 Clause C20 pg.6	Refer to ML1605 Clause C20 pg.6
ML1628	C21 pg. 6	a) Operations must not affect any road unless in accordance with an accepted Mining Operations Plan or with the prior written approval of the Director-General and subject to any conditions he may stipulate. (b) The lease holder must pay to the designated authority in control of the road (generally the local council or the Roads and Traffic Authority) the cost incurred in fixing any damage to roads caused by operations carried out under the lease, less any amount paid or payable from the Mine Subsidence Compensation Fund.	C	Refer to ML1605 Clause C21 pg.6	Refer to ML1605 Clause C21 pg.6	Refer to ML1605 Clause C21 pg.6
ML1628	C22 pg. 6	Access tracks must be kept to a minimum and be positioned so that they do not cause any unnecessary damage to the land. Temporary access tracks must be ripped, topsoiled and revegetated as soon as possible after they no longer required for mining operations. The design and construction of access tracks must be in accordance with specifications fixed by the Department of Environment and Climate Change.	C	Refer to ML1605 Clause C22 pg.6	Refer to ML1605 Clause C22 pg.6	Refer to ML1605 Clause C22 pg.6
ML1628	C23 pg. 6	a) The lease holder must not fell trees, strip bark or cut timber on the lease without the consent of the landholder who is entitled to the use of the timber, or is such a landholder refuses consent or attaches unreasonable conditions to the consent, without the approval of a warden. (b) The lease holder must not cut, destroy, ringbark or remove any timbers or other vegetative cover on the lease area except as directly obstructs or prevents the carrying on of operations. Any clearing not authorised under the Mining Act 1992 must comply with the provision of the <i>Native Vegetation Act 2003</i> . (c) The lease holder must obtain all necessary approvals or licenses before using timber from any Crown land within the lease area.	Not triggered	Refer to ML1605 Clause C23 pg.7	Refer to ML1605 Clause C23 pg.7	Refer to ML1605 Clause C23 pg.7
ML1628	C25 pg. 6	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 are not being recovered to the extent which should be economically possible or which for environmental reasons are necessary to be recovered, he may give notice in writing to the lease holder requiring the holder to receive such minerals. (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. (d) The Director-General shall issue no such notice unless the matter has firstly been thoroughly discussed with and a report to the Director-General had incorporated the views of the lease holder. (e) The lease holder may object to the requirements of any notice issued under this condition and on receipt of such an objection the Minister shall refer it to a Warden for inquiry and report under Section 334 of the Mining Act, 1992. (f) After considering the Warden's report the Minister shall decide whether to withdraw, modify or maintain the requirements specified in the original notice and shall give the lease holder written notice of the decision. The lease holder must comply with the requirements of this notice.	Not triggered	Refer to ML1605 Clause C25 pg.7	Refer to ML1605 Clause C25 pg.7	Refer to ML1605 Clause C25 pg.7
ML1628	C26 pg. 7	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.	Noted	N/A	N/A	N/A

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
ML1628	C27 pg. 7	(a) A security in the sum of \$50,000 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 the lease. If the lease holder fails to fulfil any one or more of such obligations the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purpose of this clause the lease holder shall be deemed to have failed to fulfil the obligations of this lease if the lease holder fails to comply with any condition or provision hereof, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision hereof or of any provision of the Act or regulations made thereunder. (b) The lease holder must provide the security required by sub-clause (a) in one of the following forms: (i) cash, (ii) a security certificate in a form approved by the Minister and issued by an authorised deposit-taking institution.	C	Refer to ML1605 Clause C27 pg.8	Refer to ML1605 Clause C27 pg.8	Refer to ML1605 Clause C27 pg.8
ML1628	C29 pg. 8	(a) Notwithstanding any Mining Operations Plan, the lease holder must not mine within any part of the lease area which is within the notification area of the Moolarben Creek Dam without the prior written approval of the Minister and subject to any conditions he may stipulate. (b) Where the lease holder desires to mine within the notification area he must: I. At least twelve (12) months before mining is to commence or such lesser time as the Minister may permit, notify the Minister of the desire to do so. A plan of the mining system to be implemented must accompany the notice, and II. Provide such information as the Minister may direct. (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. I. This sub-paragraph is complied with if: (a) The Dams Safety Committee as constituted by Section 7 of the Dam Safety Act 1978 and the owner of the dam have been notified in writing of the desire to mine referred to in paragraph (b). (b) The notifications referred to in clause (a) are accompanied by a description or plan of the area to be mined. (c) The Director-General has complied with any reasonable request by the Dam Safety committee or the owner of the dam for further information in connection with the mining proposal. (d) The Dam 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 (e) Where the Dams Safety Committee has made recommendations the approval is in terms that are: 1. In accordance with those recommendations; or 2. Where the Minister does not accept those recommendations or any of them – in accordance with a determination under sub-paragraph (ii) of this paragraph. II. Where the Minister does not accept the recommendations of the Dam 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: (a) As determined by agreement between the Minister and the Minister administering the Dam Safety Act 1978; or (b) In the event of failure to reach such agreement – as determined by the Premier. (d) The Minister, on notice from the Dams Safety Committee, may at any time or times: I. Cancel any approval given where a notice pursuant to Section 18 of the Dam Safety Act 1978 is given. II. Suspend for a period of time, alter, omit from or add to any approval given or conditions imposed.	Not triggered	Refer to ML1606 Clause C29 pg.8	Refer to ML1606 Clause C29 pg.8	Refer to ML1606 Clause C29 pg.8
ML1628	C30 pg. 9	The holder of a consolidated mining lease may not suspend mining operations in the mining area other than in accordance with the consent of the Minister.	Noted	N/A	N/A	N/A
ML1628	C31 pg. 9	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 petroleum title(s). The cooperation agreement should address but not be limited to issues such as: • Access agreements • Operation interaction procedures • Dispute resolution • Information exchange • Well location • Timing of drilling • Potential resources extraction conflicts and • Rehabilitation issues.	C	During the audit the following correspondences from holders of overlapping titles was sighted. - Santos (dated 01/03/2018) stated that mining operations were unlikely to conflict with prospecting activities conducted by Santos. - Hunter gas (dated 5/04/2018) stated that it is unlikely that mining operations from MCO would impact PEL 456. - Bowden Silver (dated 06/03/2018) stated that Bowden Silver have no issues to the proposed offset areas but would appreciate early advice on any others proposed during the life of the mine. A cooperation agreement with Bowden Silver is currently being negotiated covering all leases.	Letter from Santos (dated 01/03/2018) RE: Overlapping titles Letter from Hunter gas (dated 05/04/2018) RE: PEL 456 Bowden Silver (dated 06/03/2018) RE: Overlapping titles and offset areas	Provide Bowden Silver with early advice of any extra planned offset areas.
ML1691	C01 pg. 3	(a) Within a period of three months from the date of grant/renewal of this lease, the lease holder must serve on each landholder of the landholder a notice in writing indicating that this 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. (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	Not assessed	ML1605 was granted 23 September 2013 Compliance with this condition was not assessed as this condition was completed prior to the audit period.	N/A	N/A

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
ML1691	C02 pg. 3	<p>(a) The lease holder must implement all practicable measures to prevent and/or minimise any harm to the environment that may result from construction, operation or rehabilitation of any activities under this lease.</p> <p>(b) For the purposes of this condition:</p> <p>I. Environment means components of the earth, including:</p> <p>(i) Land, air and water. And</p> <p>(ii) Any layer of the atmosphere, and</p> <p>(iii) Any organic or inorganic matter and any living organism and</p> <p>(iv) Human made or modified structures and areas, And includes interacting natural ecosystems that include components referred to in paragraphs A-C.</p> <p>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, object and features of significance to Aboriginal people.</p>	C	Key environmental issues are managed in accordance with the MCO Environmental Management Plans (EMPs) prepared in accordance with the requirements of the Project approval.	MOP Management Plans	There are no recommendations.
ML1691	C03 pg. 4	<p>MOP</p> <p>(a) Mining operations must not be carried out otherwise than in accordance with a Mining Operations Plan (MOP) which has been approved by the Director-General of the Department of Primary Industries.</p> <p>(b) The MOP must:</p> <p>I. identify areas that will be disturbed by mining operations;</p> <p>II. details the staging of specific mining operations;</p> <p>III. identify how the mine will be managed to allow mine closure;</p> <p>IV. identifies how mining operations, mining purposes and prospecting will be carried out on site in order to prevent and or minimise harm to the environment;</p> <p>V. reflect the conditions of approval under:</p> <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 mining lease and; <p>VI. have regard to any relevant guidelines adopted by the Director-General</p> <p>(c) The leaseholder may apply to the Director-General to amend the approved MOP at any time</p> <p>(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 Environmental Operations Act 1997 or the Occupational Health and Safety Act 2000 and II. The Director- General has been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out. III. Mining operations must not be carried out otherwise than in accordance with a Mining Operations Plan (MOP) which has been approved by the Director-General of the Department of Primary Industries.</p> <p>(e) A MOP ceases to have affect 7 years after date of approval or other such period as identified by the Director-General.</p>	C	Refer to ML1605 Clause C03 pg.1	Refer to ML1605 Clause C03 pg.1	Refer to ML1605 Clause C03 pg.1
ML1691	C04 pg. 5	<p>(a) The lease holder must lodge Environmental Management Reports (EMR) with the Director-General annually or at dates otherwise directed by the Director-General.</p> <p>(b) The EMR must:</p> <p>I. Report against compliance with the MOP;</p> <p>II. Report on progress in respect of rehabilitation completion criteria;</p> <p>III. Report on the extent of compliance with regulatory requirements; and</p> <p>IV. Have regard to any relevant guidelines adopted by the Director-General.</p>	C	Refer to ML1605 Clause C04 pg.2 and Clause C05 pg.2	Refer to ML1605 Clause C04 pg.2 and Clause C05 pg.2	Refer to ML1605 Clause C04 pg.2 and Clause C05 pg.2

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
ML1691	C05 pg. 5-6	<p>(a) The lease holder must report any environmental incident. The report must:</p> <p>I. Be prepared according to any relevant Departmental guidelines;</p> <p>II. Be submitted within 24 hours of the environmental incident occurring.</p> <p>(b) For the purposes of this condition, environmental incident includes:</p> <p>I. Any incident causing or threatening material harm to the environment;</p> <p>II. Any breach of conditions 1 to 9 and 11 to 24;</p> <p>III. Any breach of environmental protection legislation; or</p> <p>IV. A serious complaint from landholders or the public.</p> <p>(c) For the purpose of this condition, harm to the environment is material if:</p> <p>I. It involves actual or potential harm to the health, or safety of human beings or to the ecosystems that is not trivial or</p> <p>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.</p>	Observation	<p>The EMS (Version 3) states that: 'Reporting of incidents will be conducted in accordance with the protocol for industry notification of pollution incidents under Part 5.7 of the Protection of the Environment Operations Act, 1997. MCO will notify the Secretary of the DP&E, the EPA and any other relevant agencies immediately after MCO becomes aware of the incident'.</p> <p>Evidence of a notification made by telephoning the Environmental Line NSW EPA (131 555) was sighted during the audit.</p> <p>The MOP provides the following summary of incident reporting: MCO will notify the Secretary of the DP&E, the EPA and any other relevant agencies immediately after MCO becomes aware of the incident.</p> <p>Within seven days of the date of the incident, MCO will provide the Secretary of the DP&E and any relevant agencies with a detailed report on the incident. The report will:</p> <ul style="list-style-type: none"> Describe the date, time and nature of the exceedance/incident; Identifies the cause (or likely cause) of the exceedance/incident; Describes what action has been taken to date; and Describes the proposed measures to address the exceedance/incident. <p>The latest EMS (version 4 - approved by DP&E on 18/10/2018) states the following: "MCO will notify the Secretary of the DP&E, and any other relevant agencies immediately after MCO becomes aware of the incident which causes or threatens to cause material harm to the environment. For any other incident associated with the project, MCO will notify the Secretary and any other relevant agencies as soon as practicable after becoming aware of the incident. Further details regarding incidents are contained in the Management Plans".</p> <p>However this was not Approved at the time of the Audit. EMS Version 4 has been approved since the audit and meets these requirements.</p>	<p>EMS</p> <p>Email from Environment Line Officer (dated 19/07/2018) RE: Call C09961-2018</p> <p>MOP</p> <p>Latest EMS (Version 4 - September 2018)</p> <p>Letter from DPE (dated 18/10/2018) RE: Approval of EMS</p>	There are no recommendations
ML1691	C06 pg. 5	Additional environmental reports may be required on specific surface disturbing operations or environmental incidents from time to time as directed in writing by the Director-General and must be lodged as instructed.	Not triggered	N/A. No studies have been required during the audit period.	N/A	N/A
ML1691	C07 pg. 6	Any disturbance as a result of activities under this lease must be rehabilitated to the satisfaction of the Director-General.	C	Refer to ML1605 Clause C07 pg.2	Refer to ML1605 Clause C07 pg.2	Refer to ML1605 Clause C07 pg.2
ML1691	C08 pg. 6	<p>Subsidence Management Plan</p> <p>(a) The lease holder shall prepare a Subsidence Management Plan prior to commencing any underground mining operations which will potentially lead to subsidence of the land surface.</p> <p>(b) Underground mining operations which will potentially lead to subsidence include secondary extraction panels such as longwalls or mini walls, associated first workings (gate roads, installation roads and associated main headings etc.), and pillar extractions, and are otherwise defined by the Applications for Subsidence Management Approvals guidelines (EDG17)</p> <p>(c) The lease holder must not commence or undertake underground mining operations that will potentially lead to subsidence other than in accordance with a Subsidence Management Plan approved by the Director-General, and approval under the Coal Mine Health and Safety Act 2002, or the document New Subsidence Management Plan Approval Process – Transitional Provisions (EDP09).</p> <p>(d) Subsidence Management Plans are to be prepared in accordance with the Guideline for Applications for Subsidence Management Approvals.</p> <p>(e) Subsidence Management Plans as approved shall form part of the Mining Operations Plan required under Condition 2 and will be subject to the Annual Environmental Management Report process as set out under Condition 3. The SMP is also subject to the requirements for subsidence monitoring and reporting set out in the document New Approval Process for Management of Coal Mining Subsidence – Policy.</p>	Not triggered	An Instrument of Amendment was viewed during the audit. The amendment states that condition 8 was deleted for ML 1691 and replaced with conditions relating to an extraction plan (see below). The amendment was effective as of 1/07/2014.	Instrument of amendment ML 1691 (01/07/2014)	There are no recommendations.

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
		<p>Extraction Plan Condition</p> <p>(a) In this condition:</p> <p>(i) approved Extraction Plan means a plan, being:</p> <p>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</p> <p>B. a subsidence management plan relating to the mining operations subject to this lease:</p> <p>I.- submitted to the Secretary on or before 31 December 2014; and</p> <p>II. approved by the Secretary.</p> <p>(ii) relevant development consent means a development consent or project approval issued under the Environmental Planning 8: Assessment Act 1979 relating to the mining operations subject to this lease.</p> <p>(b) The lease holder must not undertake any underground mining operations that may cause subsidence except in accordance with an approved Extraction Plan.</p> <p>(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.</p> <p>(d) The lease holder must notify the Secretary within 48 hours of any:</p> <p>(i) incident caused by subsidence which has a potential to expose any person to health and safety risks;</p> <p>(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</p> <p>(iii) significant failure or malfunction of a monitoring device or risk control measure set out in the approved Extraction Plan addressing:</p> <p>A. built features;</p> <p>B. public safety; or</p> <p>C. subsidence monitoring.</p>	C	<p>(a) Noted. Attachment 2 of the Extraction Management Plan provides a table of consultation activities with government agencies and includes dates and summaries of consultation activities.</p> <p>During the audit a letter from DP&E (dated 21/09/2017) was sighted which approved the extraction plan for the second workings on site.</p> <p>(b) MCO has prepared an extraction management plan which includes a subsidence monitoring program (Appendix G of the Extraction plan). All underground mining operations are undertaken in accordance with the extraction plan.</p> <p>(c) Section 2.2 of the Extraction Plan contains a risk assessment and a subsidence monitoring program is included in Appendix G of the Extraction plan.</p> <p>(d) The MOP provides the following summary of incident reporting: MCO will notify the Secretary of the DP&E, the EPA and any other relevant agencies immediately after MCO becomes aware of the incident.</p> <p>Within seven days of the date of the incident, MCO will provide the Secretary of the DP&E and any relevant agencies with a detailed report on the incident. The report will:</p> <ul style="list-style-type: none"> Describe the date, time and nature of the exceedance/incident; Identifies the cause (or likely cause) of the exceedance/incident; Describes what action has been taken to date; and Describes the proposed measures to address the exceedance/incident. 	<p>(a) Extraction Plan Letter from DP&E (dated 21/09/2017) RE: approval of second workings</p> <p>(b) Extraction Plan</p> <p>(c) Extraction Plan</p> <p>(d) MOP</p>	There are no recommendations
ML1691	C09 pg. 7	<p>The lease holder must: (a) ensure that at least 37 competent people are efficiently employed in relation to the mining process or mining operations on the lease area</p> <p>OR</p> <p>(b) expend on operations carried out in the course of prospecting or mining the lease area, an amount of not less than \$647,500 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.</p>	C	Refer to ML1606 Clause C09 pg.4	Refer to ML1606 Clause C09 pg.4	Refer to ML1606 Clause C09 pg.4
ML1691	C10 pg. 7	<p>(a) Ground Vibration The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting with the lease area does not exceed 10 mm/second and does not exceed 5mm/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 Climate Change and Environment.</p> <p>(b) Blast Overpressure 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 Climate Change and Environment.</p>	C	<p>MCO manages blasting in accordance with the Blast Management Plan (BMP)</p> <p>Upon review of the records, it was found that one exceedance for blast overpressure was observed during 2017. However the one blast overpressure exceedance during the audit period was located within Open Cut 4 within ML 1715 and is not relevant to this mining lease.</p> <p>No other blast exceedances were recorded.</p>	<p>Penalty Notice (Blast overpressure 26/05/2017) 2016 Annual Review 2017 Annual Review Monthly Reporting data (January 2018 to August 2018)</p>	There is no further recommendation:
ML1691	C11 pg. 7	<p>Operations must be carried out in a manner that ensures that the safety of persons or stock in the vicinity of the operations.</p> <p>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.</p> <p>Abandoned shafts and excavations opened up or used by their lease holder must be filled in or otherwise rendered safe to a standard acceptable to the Director-General.</p>	C	Refer to ML1605 Clause C16 pg.5	Refer to ML1605 Clause C16 pg.5	Refer to ML1605 Clause C16 pg.5
ML1691	C12 pg. 8	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.	C	Refer to ML1605 Clause C18 pg.6	Refer to ML1605 Clause C18 pg.6	Refer to ML1605 Clause C18 pg.6
ML1691	C13 pg. 8	Operations must not interfere with or impair the stability or efficiency of any transmission line, communication line, pipeline or any other utility on the lease area without the prior written approval of the Director-General and subject to any conditions he may stipulate.	Noted	Site inspection did not find any issues.	Site inspection	There are no recommendations

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
ML1691	C14 pg. 8	<p>(a) The lease holder must pay to the relevant roads authority in control of the road or track the reasonable cost 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 Mine Subsidence Compensation Fund.</p> <p>(b) During wet weather the use of any road or track must be restricted so as to prevent damage to the road or track.</p> <p>(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.</p> <p>(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.</p>	C	<p>(a) MCO environmental representative advised the auditors that there have been no recorded impacts on roads or other infrastructure during the audit period. The site inspection observed that, in general, surrounding roads were in good condition. Moolarben Coal, Mid-Western Regional Council and the owners of the Ulan and Wilpinjong mines agreed to develop a detailed plan for the implementation of the Ulan Road Strategy. The agreement 'Deed of Agreement - Funding and delivery of Ulan Road upgrade and maintenance' (dated July 2014) was viewed during the audit. A Deed of Agreement for Funding and Delivery of the Ulan Road Upgrade was signed by Moolarben Coal, Ulan Coal, Wilpinjong Coal and the Mid-Western Regional Council in July 2014. In accordance with the agreement 2 financial instalments will be made per year. Invoices were sighted for contributions to Road Upgrade as stipulated in this condition (Invoice No 18 1995, dated 22/01/2018). The invoice was for: Capital works (\$330,255.33) and Maintenance (\$110,051.83). MCO has a Voluntary Planning Agreement (VPA) that provides for payments of road maintenance contributions and community infrastructure contributions to the Council. A sample of invoices were reviewed during the audit showing that matters set out in Project Approval 05_0117 Appendix 4 are being paid in accordance with the Voluntary Planning Agreement.</p> <p>Invoice from Mid-Western Regional Council (dated 15/02/2018) Stage 2 Community Enhancement Contribution (\$230,533.57) was sighted during the audit.</p> <p>(b) This condition relates to unsealed site access tracks or roads. The access road to the site is fully sealed and therefore is not impacted by this condition.</p> <p>(c) Existing access tracks are used for all operations where reasonably practicable</p> <p>(d) Section 6 (Table 14) of the MOP states that '<i>Internal haul roads, access tracks and</i></p>	<p>Management assertion Site inspection</p> <p>Deed of Agreement - Funding and delivery of Ulan Road upgrade and maintenance (July 2014)</p> <p>Invoice for Ulan Road Upgrade (Invoice number: 18 1995)</p> <p>Project Approval 05_0117 Appendix 4 Voluntary Planning Agreement</p> <p>Invoice (No. 18 2078) from Mid-Western Regional Council (15/02/2018)</p> <p>MOP</p>	There are no recommendations
ML1691	C15 pg. 8	<p>(a) The lease holder must not fell trees, strip bark or cut timber on the lease without the consent of the landholder who is entitled to the use of the timber</p> <p>(b) The lease holder must contact Forests NSW and obtain any required permit, licence or approval before taking timber from any Crown land within the lease area. 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.</p>	Not triggered	Moolarben Coal Operations own all the lands on which the Moolarben Coal Complex operates. No private landowner consent is required.	<p>Management assertion Site inspection</p>	There are no recommendations
ML1691	C17 pg. 9	<p>(a) Notwithstanding any description of mining methods and their sequence or of proposed resource recovery contained within the Mining Operations Plan, if at any time the Director-General is of the opinion that minerals which the lease entitles the lease holder to mine and which are economically recoverable at the time are not being recovered are not being recovered to the extent which should be economically possible or which for environmental reasons are necessary to be recovered, he may give notice in writing to the lease holder requiring the holder to receive such minerals.</p> <p>(b) The notice shall specify the minerals to be recovered and the extent to which they are to be recovered, or the objectives in regard to resource recovery, but shall not specify the processes the lease holder shall use to achieve the specified recovery.</p> <p>(c) The lease holder must, when requested by the Director- General, provide such information as the Director-General may specify about the recovery of the mineral resources of the lease area.</p>	Not triggered	MCO is currently mining coal.	<p>Management assertion Site inspection</p>	There are no recommendations
ML1691	C18 pg. 9	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.	Noted	N/A	N/A	N/A
ML1691	C19 pg. 10	A security in the sum of \$100,000 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 the lease.	C	Refer to ML1605 Clause C19 pg.10	Refer to ML1605 Clause C19 pg.10	Refer to ML1605 Clause C19 pg.10
ML1691	C23 pg. 10	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.	C	Mining operations are ongoing.	Site Inspection	There are no recommendations

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
ML1691	C24 pg. 10	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 petroleum title(s). The cooperation agreement should address but not be limited to issues such as: <ul style="list-style-type: none"> • Access agreements • Operation interaction procedures • Dispute resolution • Information exchange • Well location • Timing of drilling • Potential resources extraction conflicts and • Rehabilitation issues. 	C	Refer to ML1628 Clause C31 pg.9	Refer to ML1628 Clause C31 pg.9	Refer to ML1628 Clause C31 pg.9
ML1715	C01 pg. 3	(a) Within a period of three months from the date of grant/renewal of this lease, the lease holder must serve on each landholder of the landholder a notice in writing indicating that this 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. (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.	Not assessed	ML1605 was granted 31 August 2015. Compliance with this condition was not assessed as this condition was completed prior to the audit period.	N/A	N/A
ML1715	C02 pg. 3	Any disturbance resulting from the activities carried out under this mining lease must be rehabilitated to the satisfaction of the Minister.	C	Refer to ML1605 Clause C07 pg.2	Refer to ML1605 Clause C07 pg.2	Refer to ML1605 Clause C07 pg.2
ML1715	C03 pg. 3-4	MOP (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. (b) The MOP must identify the post mining land use and set out a detailed rehabilitation strategy which: I. identify areas that will be disturbed by mining operations; II. details the staging of specific mining operations; III. identify how the mine will be managed to allow mine closure; IV. identifies how mining operations, mining purposes and prospecting will be carried out on site in order to prevent and or minimise harm to the environment; V. reflect the conditions of approval under: - the Environmental Planning and Assessment Act 1979; - the Protection of the Environment Operations Act 1997; and - any other approvals relevant to the development including the conditions of this mining lease and; (c) The MOP must be prepared in accordance with the ESG3: Mining Operations Plan (MOP) Guidelines September 2013 published on the Departments website at www.resources.nsw.gov.au/environmental	C	(a) Mining operations at Moolarben Coal Mine are carried out in accordance with the approved Mining Operations Plan (MOP). DP&E (DRG) approved the MOP (letter dated 04/06/2018). Letter viewed during the audit. (b) I. Section 2.1 and 2.3 identifies areas that will be disturbed by Moolarben Coal mining operations II. Staging of specific mining operations are covered in section 1 of the MOP. Stage 1 of the Moolarben Coal Complex has commenced and at full development will comprise three open cut mines (OC1, OC2, and OC3), a longwall underground mine (UG4), and mining related infrastructure (including coal processing and transport facilities). Initial establishment and construction/development activities for Moolarben Coal Project Stage 2 commenced in 2015. At full development there will be one open-cut (OC4), two longwall underground mines (UG1 and UG2) and mining related infrastructure. III. Sections 4 and 5 identify how the mine will be managed to allow mine closure. IV. Section 3 identifies how mining operations will be carried out on site in order to prevent and or minimise harm to the environment. V. Section 1.2 reflect the conditions of approval under: the EP&A Act 1979, POEO Act 1997 and other approvals relevant to the development including the conditions of this lease VI. Section 1.2 also covers the relevant guidelines adopted by the Director-General. (c) The MOP has been prepared in accordance with the ESG3: Mining Operations Plan (MOP) Guidelines September 2013	MOP Letter from DP&E (DRG) (dated 04/06/2018) RE:Approval of MOP	There are no recommendations

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
ML1715	C03 pg. 3-4	<p>MOP</p> <p>(d) The leaseholder may apply to the Director-General to amend the approved MOP at any time</p> <p>(e) It is not a breach of this condition if:</p> <p>I. The operations which, but for this condition 3(e) would be a breach of condition 3 (a), were necessary to comply with a lawful order or direction given under the Environmental Planning and Assessment Act 1979, the Protection of the Environmental 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; and</p> <p>II. The Minister has been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out.</p> <p>(f) The lease holder must prepare a Rehabilitation Report to the satisfaction of the Minister. The report must:</p> <p>I. Provide a detailed review of the progress of rehabilitation against the performance measures and criteria established in the approved MOP;</p> <p>II. Be submitted annually on the grant anniversary date (or at such other times as agreed by the Minister); and</p> <p>III. Be prepared in accordance with any relevant annual reporting guidelines published on the Department’s website at www.reources.nsw.gov.au/environment</p> <p>Note: The Rehabilitation Report replaces the Annual Environmental Management Report.</p>	C	<p>(d) Noted</p> <p>(e) Noted</p> <p>(f) Moolarben Coal conducts flora and fauna inventory and mapping of the vegetation types and threatened species for properties proposed to offset the clearing impacts of the OC1 and OC2 extension areas.</p> <p>MCO prepares the Annual review which includes the Rehabilitation Report (Section 9 of the 2017 Annual review and Section 8 of the 2016 Annual Review).</p> <p>The Annual Reviews (and rehabilitation report components) have been accepted by the Division of Resources and Geosciences.</p>	<p>Eco Logical MCO Stage 1 Biodiversity Offset Area Flora Monitoring – Autumn 2017 (October 2017)</p> <p>Eco Logical MCO Stage 1 Biodiversity Offset Area Flora & Fauna Monitoring – Spring 2017 (March 2018)</p> <p>Eco Logical MCO Stage 2 Biodiversity Offset Area Flora Baseline Monitoring – Autumn 2017 (October 2017)</p> <p>Eco Logical MCO Stage 2 Biodiversity Offset Area Flora & Fauna Baseline Monitoring – Spring 2017 (February 2018)</p> <p>Eco Logical MCO Modification 9 Biodiversity Offset Area Flora Monitoring – Autumn 2017 (October 2017)</p> <p>Eco Logical MCO Modification 9 Biodiversity Offset Area Flora & Fauna Monitoring – Spring 2017 (March 2018)</p> <p>Vegetation Clearance Protocol LMP, BOMP, BioMP</p> <p>Annual Reviews</p>	There are no recommendations
ML1715	C04 pg. 4-5	<p>Compliance Report</p> <p>(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.</p> <p>(b) The Compliance Report must include:</p> <p>i) the extend 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;</p> <p>ii) particulars of any non-compliance with any such conditions or provisions;</p> <p>iii) the reasons for any such non-compliance;</p> <p>iv) any actions taken, or to be taken, to prevent any recurrence, or to mitigate the effects, of that non-compliance.</p> <p>c) The Compliance Report must be lodged with the Department annually on the grant anniversary date for the life of this mining lease.</p> <p>d) In addition to annual lodgement under condition 4(c) above, a Compliance Report:</p> <p>i) must accompany any application to renew this mining lease under the Act</p> <p>ii) must accompany any application to transfer this mining lease under the Act; and</p> <p>iii) must accompany any application to cancel, or to partially cancel, this mining lease under the Act</p> <p>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</p> <p>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.</p>	C	<p>a) The 2016 and 2017 Annual Reviews presents a summary of the regulatory compliance, environmental performance, and community engagement activities for MCO. The Annual Review states that the reports are based on the October 2015 Annual Review Guidelines – Post-approval requirements for State significant mining developments (NSW Department of Planning and Environment).</p> <p>b) The annual reviews complies with the requirements of this condition.</p> <p>c) Section 2.1 of the 2016 and 2017 the Annual Reviews provides a list of key agencies that are provided a copy of the Annual Reviews this includes: DP&E; DPI-Water; DoE; DRE; OEH; EPA; MWRC and MCC.</p> <p>Evidence of consultation with DP&E is available in Section 5 of the 2017 annual reports as it contains actions requested by DP&E from the previous Annual Review.</p> <p>d) Noted</p> <p>e) Noted</p> <p>f) Noted</p>	<p>2016 and 2017 Annual Review.</p>	There are no recommendations

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
ML1715	C05 pg. 5-6	<p>Environmental Incident Report</p> <p>(a) The lease holder must notify the Department of all:</p> <p>i) breaches of the conditions of this mining lease or breaches of the Act causing or threatening material harm to the environment; and</p> <p>ii) breaches of environment 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.</p> <p>b) The lease holder must submit a Environmental Incident Report to the Department within seven (7) days of all breaches referred to in condition 5a (i) and (ii). The Environmental Incident Report must include:</p> <p>i) the details of the mining lease;</p> <p>ii) contact details for the lease holder;</p> <p>iii) a map identifying the location of the incident and where material harm to the environment has or is likely to occur;</p> <p>iv) a description of the nature of the incident or breach, likely causes and consequences;</p> <p>v) a timetable showing actions taken or planned to address the incident and to prevent future incidents or breaches referred to in 5(a)</p> <p>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>c) In addition to the requirements set out in condition 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.</p>	C	<p>(a) Noted</p> <p>(b) The MOP provides the following summary of incident reporting: MCO will notify the Secretary of the DP&E, the EPA and any other relevant agencies immediately after MCO becomes aware of the incident.</p> <p>Within seven days of the date of the incident, MCO will provide the Secretary of the DP&E and any relevant agencies with a detailed report on the incident. The report will:</p> <ul style="list-style-type: none"> - Describe the date, time and nature of the exceedance/incident; - Identifies the cause (or likely cause) of the exceedance/incident; - Describes what action has been taken to date; and - Describes the proposed measures to address the exceedance/incident. <p>Additionally most management plans state that either the MCO protocol for managing and reporting incidents will be followed or specifies that DP&E will be notified of the incident and that a report will be provided within 7 days.</p> <p>Evidence of notification was sighted during the audit for the blast overpressure incident and a hydrocarbon spill at open cut 1 fuel farm.</p> <p>c) Noted.</p>	<p>MOP</p> <p>Management Plans</p> <p>Penalty Notices (Blast overpressure 26/05/2017)</p> <p>Letter from NSW EPA (dated 10/08/2018) RE: Hydrocarbon spill at open cut 1 fuel farm</p>	There are no recommendations.
ML1715	C06 pg. 6	<p>Extraction Plan</p> <p>(a) In this condition:</p> <p>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: 1. Submitted to the Secretary on or before 31 December 2014; and 2. Approved by the Secretary.</p> <p>II. Relevant development consent means a development consent or project approval issued under the Environmental Planning and Assessment Act, 1979 relating to the mining operations subject to this lease.</p> <p>(b) The lease holder must not undertake any underground mining operations that may cause subsidence except in accordance with an approved Extraction Plan.</p> <p>(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.</p> <p>(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 predicated 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 persons; or III. Significant failure of malfunction of a monitoring device or risk control measure set out in the approved extraction plan addressing: (a) Build features; (b) Public safety; or (c) Subsidence monitoring. Mining operations must not be carried out otherwise than in accordance with a Mining Operations Plan (MOP) which has been approved by the Director-General of the Department of Primary Industries. Operations, mining purposes and prospecting.</p>	C	<p>(a) Noted. Attachment 2 of the Extraction Management Plan provides a table of consultation activities with government agencies and includes dates and summaries of consultation activities.</p> <p>During the audit a letter from DP&E (dated 21/09/2017) was sighted which approved the extraction plan for the second workings on site.</p> <p>(b) MCO has prepared an extraction management plan which includes a subsidence monitoring program (Appendix G of the Extraction plan). All underground mining operations are undertaken in accordance with the extraction plan.</p> <p>(c) Section 2.2 of the Extraction Plan contains a risk assessment and a subsidence monitoring program is included in Appendix G of the Extraction plan.</p> <p>(d) The MOP provides the following summary of incident reporting: MCO will notify the Secretary of the DP&E, the EPA and any other relevant agencies immediately after MCO becomes aware of the incident.</p> <p>Within seven days of the date of the incident, MCO will provide the Secretary of the DP&E and any relevant agencies with a detailed report on the incident. The report will:</p> <ul style="list-style-type: none"> • Describe the date, time and nature of the exceedance/incident; • Identifies the cause (or likely cause) of the exceedance/incident; • Describes what action has been taken to date; and • Describes the proposed measures to address the exceedance/incident. 	<p>(a) Extraction Plan</p> <p>Letter from DP&E (dated 21/09/2017) RE: approval of second workings</p> <p>(b) Extraction Plan</p> <p>(c) Extraction Plan</p> <p>(d) MOP</p>	There are no recommendations
ML1715	C07 pg. 7	The lease holder must optimise recovery of the minerals that are the subject of this mining lease to the extent that is economically feasible.	Noted			There are no recommendations
ML1715	C08 pg. 7	The lease holder is requires 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 \$14,979,000. The lease covered by the group security include: Mining Lease 1605 (Act 1992) and Mining Lease 1606 (Act 1992) This group security is extended to apply to this lease.	C	Refer to ML1605 Clause C27 pg.8	Refer to ML1605 Clause C27 pg.8	Refer to ML1605 Clause C27 pg.8

ML	Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
ML1715	C09 pg. 8	<p>The lease holder must make every reasonable attempt, and be able to demonstrate their attempts, to enter into a cooperation agreement with the holder(s) of any overlapping petroleum title(s). The cooperation agreement should address but not be limited to issues such as:</p> <ul style="list-style-type: none"> • Access agreements • Operation interaction procedures • Dispute resolution • Information exchange • Well location • Timing of drilling • Potential resources extraction conflicts and • Rehabilitation issues. 	C	Refer to ML1628 Clause C31 pg.9	Refer to ML1628 Clause C31 pg.9	Refer to ML1628 Clause C31 pg.9

Moolarben Coal						
Detailed Findings and Recommendations						
Water Licence/s						
Licence	Condition	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
Administrative Conditions						
What the licence authorises and regulates						
20BL173935	Condition 01	(1) The licensee shall within two months of completion or after the issue of the license if the work is existing, furnish to NSW Office of Water:- (A) Details of the work set out in the attached form "A" (must be completed by a driller). (B) A plan showing accurately the location of the work, in relation to portion and property boundaries. (C) A one litre water sample for all licences other than those for stock, domestic, test bores and farming purposes. (D) Details of any water analysis and/or pumping tests	C	During the audit documentation from construction of bores was viewed. This included Form A (Particulars of completed works) (Examples dated 26/07/2017, 28/07/2017, 24/07/2017 and 20/09/2017). A) The form showed the drillers licence (licence number 1632) and showed that the driller (Gricks Drilling) holds a Class 4 licence. (B) The form shows the location of the work on a cadastral map. this is included as part of the forms submitted to MCO. (C) Piezometers constructed in accordance with 20BL173935 are only constructed as test bores. As a result, no sample of the water is required. (D) Water analysis and pump testing are part of Form A	Bore construction: Form A (Particulars of completed works) - dated 20/09/2017 - PZ 213 dated 26/07/2017 - PZ 214 dated 28/07/2017 - PZ 211 dated 24/07/2017	There are no recommendations
20BL173935	Condition 02	(2) The licensee shall allow NSW Office of Water or any person authorised by it, full and free access to the works, either during or after construction, for the purpose of carrying out inspection or test of the works and its fittings and shall carry out any work or alterations deemed necessary by the department for the protection and proper maintenance of the works, or the control of the water extracted and for the protection of the quality and the prevention from pollution or contamination of sub-surface water.	Not triggered	This was not requested during the audit period.	N/A	N/A
20BL173935	Condition 03	(3) If during the construction of the work, saline or polluted water is encountered above the producing aquifer, such water shall be sealed off by:- (A) Inserting the appropriate length(s) of casing to a depth sufficient to exclude the saline or polluted water from the work. (B) Cementing between the casing(s) and the walls of the bore hole from the bottom of the casing to ground level. Any departure from these procedures must be approved by the department before undertaking the work.	C	MCO commissioned EMM Consulting Pty Limited (EMM) to supervise the installation of three monitoring bores. Drilling was completed using rotary mud drilling techniques. Rotary mud allows for the installation of casing through unconsolidated sediments. Polyvinyl chloride (uPVC) casing was installed with a perforated section (screen) coincident with the lithology targeted for monitoring. The construction of each monitoring bore was designed and supervised by the onsite hydrogeologist in consultation with the licensed water bore driller.	EMM Drilling Completion Report: Groundwater monitoring installations (dated 4/10/2016)	There are no recommendations
20BL173935	Condition 04	(4) (A) The licensee shall notify NSW Office of Water if a flowing supply of water is obtained. The bore shall then be lined with casing and cemented and a suitable closing gear shall be attached to the borehead as specified by NSW office of water (B) If a flowing supply of water is obtained from the work, the licensee shall only distribute water from the bore head by a system of pipe lines and shall not distribute it in drains, natural or artificial channels or depressions.	Not triggered	Management reported that no flowing water supply was obtained during the audit period.	N/A	N/A
20BL173935	Condition 05	(5) If a work is abandoned at any time the licensee shall notify NSW Office of Water that the work has been abandoned and seal off the aquifer by:- (A) Backfilling the work to ground level with clay or cement after withdrawing the casing (lining); or (B) Such methods as agreed to or directed by NSW Office of Water.	C	MCO notified the Department that decommissioning works had been completed on three (3) Monitoring Bores (PZ58, PZ156 & PZ157) associated groundwater licence 20BL173935 (formerly 20BL171977, 20BL171963 & 20BL171975). Decommissioning works were conducted in accordance with the Minimum Construction Requirements for Water Bores in Australia, Version 3 by ADIA licensed drillers Gricks Drilling PTY LTD on the 2nd March 2017 (PZ58), 2nd May 2017 (PZ156) and 5th April 2018 (PZ157). The monitoring boreholes were backfilled with cement grout from total depth to ground level to prevent any movement of groundwater through or along the borehole.	Email to DPI (Lands and Water) (dated 24/09/2018) RE: Decommissioning of Groundwater Monitoring Bores. This email included Cementing Record Sheets and the original bore logging sheets.	There are no recommendations
20BL173935	Condition 06	(6) The licensee shall not allow any tailwater/drainage to discharge into or onto:- - Any adjoining public or crown road; - Any other persons land - Any Crown Land - Any river, creek or watercourse; - Any native vegetation as described under the Native Vegetation Conservation Act 1997; - Any wetlands of environmental significance.	Noted	N/A	N/A	N/A
20BL173935	Condition 07	(7) Water shall not be pumped from the bore authorised by this license for any purpose other than groundwater investigation.	Noted	N/A	N/A	N/A

Licence	Condition	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
WAL39799- (20BL172002)	Condition 01	(1) Bores that pass through the alluvial sediments must be constructed with sufficient casing to prevent direct entry of alluvial groundwater directly into the bore from the alluvial water source. Note: this does not apply to bores used solely for monitoring purposes.	C	MCO bores that pass through the alluvial sediments are cemented and grouted. Bore logs were viewed during the audit which confirmed compliance with this condition. MCO commissioned EMM Consulting Pty Limited (EMM) to supervise the installation of three monitoring bores. Drilling was completed using rotary mud drilling techniques. Rotary mud allows for the installation of casing through unconsolidated sediments. Polyvinyl chloride (uPVC) casing was installed with a perforated section (screen) coincident with the lithology targeted for monitoring.	Bore logs - TB105 - PZ105A - PZ105B - TB52A - PZ52 - TB52B EMM Drilling Completion Report: Groundwater monitoring installations (dated 4/10/2016)	There are no recommendations
WAL39799- (20BL172002)	Condition 02	(2) The licence holder must provide the Department of Primary Industries water with a map of the licensed site showing areas of alluvial sediments likely to be impacted by the operation of each bore. The licence holder must provide the department of primary industries water with an updated version of this map when there is a material change to the areas of alluvial sediments likely to be impacted by the operation of each bore.	C	Groundwater Management Plan Table A1 provides details of all bores, production, monitoring and standpipes, including geo-location. Figure 3 in the plan also shows the location of the bores in a map. The areas of alluvial sediment areas is not evident on that map. Figure 2 of the Water licence Report (2014-2015) is a map of alluvium and Paleochannel extends with extraction bores.	GWMP (Appendix 3 to the WMP) Water licence report (2014 - 2015) - now reports in Annual review	There are no recommendations
WAL39799- (20BL172002)	Condition 03	(3) The licence holder must develop and implement a methodology to estimate the annual volume of water that will be intercepted and / or taken from any alluvial water source as defined in the relevant water sharing plan (called a "water budget"). The methodology must be incorporated within the water management plan required under the development consent within six months of the date of issue of this licence.	C	Site Water Balance is detailed in the Water Management Plan Appendix 1 - Site Water Balance.	Annual Reviews 2015-2017 Water Management Plan Appendix 1, Feb 2018	There are no recommendations
WAL39799- (20BL172002)	Condition 04	(4) A finalised water budget must be submitted to the department of primary industries water as part of the annual review required to be prepared on an annual basis under the development consent, or in accordance with any other similar reporting requirement under the development consent should the annual environmental management report cease to be required under the development consent. Breakdown of water budget should be in six monthly periods to coincide with the water year.	C	Section 7 of the 2016 and 2017 Annual Reviews contains information of the water balance for MCO operations. The site water balance for the reporting period was prepared with input from suitably qualified and experienced consultants WRM and Peter Dundon. Water take has been reported in 6 monthly periods in the 2016 Annual Review (Table 21) and 2017 Annual Review (Table 23). Section 2.1 of the 2016 and 2017 Annual Reviews states that the review is provided to various key agencies including NSW Department of Primary Industries – Division of Water (DPI-Water).	2016 and 2017 Annual Review	There are no recommendations
WAL39799- (20BL172002)	Condition 05	(5) The licence holder must include in the annual review required to be prepared on an annual basis under the development consent. (I) The total volume of groundwater extracted from the bores during the relevant period of reporting; (II) An estimate of the total volume of groundwater taken from the alluvial water source(s). Note: Any estimate or report of water extracted can be amended by notice to the department if at any time the licence holder believes previous estimates or reports are not correct. The licence holder must hold sufficient shares of aquifer category access licence to account for any water taken from the alluvial aquifer.	C	(I) This information is included in section 7 of the 2016 Annual Review (Table 22) and 2017 Annual Reviews (Table 24) which covers groundwater extraction (bores) inflows. (II) This information is included in section 7 of the 2016 Annual Review (Table 21) and 2017 Annual Reviews (Table 23) which details the water takes from various alluvial water sources.	2016 and 2017 Annual Review	There are no recommendations
WAL39799- (20BL172002)	Condition 06	(6) The licence holder must review and, if necessary, revise the Groundwater Management Plan and the Surface and Groundwater Response Plan required under the development consent to consider the works authorised by this licence in consultation with the Department of Primary Industries Water within six months of the date of issue of this licence.	C	The GWMP, has been revised in February 2018. The revision history table notes the revision has been undertaken for General Review and Update, including UG1 Extraction Plan Approval.	GWMP (Appendix 3 to the WMP)	There are no recommendations
WAL39799- (20BL172002)	Condition 07	(7) Bores must only be constructed by a licenced driller (or drillers) who holds the appropriate class of licence and must be responsible for the supervision of the construction.	C	During the audit documentation from construction of bores was viewed. This included Form A (Particulars of completed works) (dated 20/09/2017). The form showed the drillers licence (licence number 1632) and showed that the driller (Gricks Drilling) holds a Class 4 licence.	Bore construction: Form A (Particulars of completed works) (dated 20/09/2017)	There are no recommendations
WAL39799- (20BL172002)	Condition 08	(8) All bores must be constructed in accordance with the minimum construction requirements for water cores in Australia 2012 or any alternative drilling standards as published or notified by the Department of Primary Industries Water.	C	Groundwater Management Plan refers to three new bores. As per the Groundwater Management Plan Table A1, three bores were drilled in December 2015 and three new bores in July 2017. This table provides details of all bores, existing and new, including geo-location. Figure 3 in the plan also shows the location of the bores in a map. During the audit documentation from construction of bores was viewed. This included Form A (Particulars of completed works) (dated 20/09/2017). The form showed the drillers licence and showed that the driller holds a Class 4 licence.	Annual Reviews 2015-2017 Groundwater Management Plan, Appendix 3 to the Water Management Plan, Rev 2 March 2018 Bore Construction: Form A (Particulars of completed works) (dated 20/09/2017)	There are no recommendations

Licence	Condition	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
WAL39799- (20BL172002)	Condition 09	(9) The license holder must within 2 months of issue of the licence, and within 2 months of construction for new bores, provide the Department of Primary Industries Water with: (I) Details of the bore on the prescribed form (new bores)	NC	Form A was provided to DPI however this was outside the 2 month notification period for the new bores. Form A contains details of the bore.	Bore Construction: Form A (Particulars of completed works) (dated 20/09/2017)	Ensure that bore notifications are sent to DPI within the prescribed period.
		(9) The license holder must within 2 months of issue of the licence, and within 2 months of construction for new bores, provide the Department of Primary Industries Water with: (II) Details of existing bores	C	Figure 2 of the Water licence Report (2014-2015) is a map of alluvium and Paleochannel extends with extraction bores. This map provides information of the location of existing bores.	Water Licences Report (2014-2015)	There are no recommendations
		(9) The license holder must within 2 months of issue of the licence, and within 2 months of construction for new bores, provide the Department of Primary Industries Water with: (III) A plan showing accurately the location of the bore(s) in relation to portion and property boundaries; and	C	The Auditor was provided with a copy of a recent submission of a Form A to DPI. The form shows the location of the work on a cadastral map.	Bore construction: Form A (Particulars of completed works) - dated 20/09/2017 - PZ 213 dated 26/07/2017 - PZ 214 dated 28/07/2017 - PZ 211 dated 24/07/2017	There are no recommendations
		(9) The license holder must within 2 months of issue of the licence, and within 2 months of construction for new bores, provide the Department of Primary Industries Water with: (IV) Details of water analyses and/or bore construction pump tests.	C	The Auditor was provided with a copy of a recent submission of a Form A to DPI. Water analysis and pump testing are part of Form A	Bore construction: Form A (Particulars of completed works) - dated 20/09/2017 - PZ 213 dated 26/07/2017 - PZ 214 dated 28/07/2017 - PZ 211 dated 24/07/2017	There are no recommendations
WAL39799- (20BL172002)	Condition 10	(10) When a bore is abandoned, the licence holder must: (I) Within six weeks notify the Department of Primary Industries Water that the bore has been abandoned; and	Not triggered	There was no bore abandonment or decommissioning in the audit period.	N/A	N/A
		(10) When a bore is abandoned, the licence holder must: (II) Seal off the aquifer by backfilling the bore to ground level after withdrawing the casing (lining), as specified by the Department of Primary Industries Water; and	Not triggered	There was no bore abandonment or decommissioning in the audit period.	N/A	N/A
		(10) When a bore is abandoned, the licence holder must: (III) Follow decommissioning procedures that comply with minimum construction requirements for water bores in Australia or any alternative standards specified by the Department of Primary Industries Water. Any modification must be notified to the department under Section 112 of the Water Act 1912 and the relevant change/s must be made on the licence.	Not triggered	There was no bore abandonment or decommissioning in the audit period.	N/A	N/A
WAL39799- (20BL172002)	Condition 11	(11) An extraction measurement device must be installed and maintained on each bore used for extraction of water under this licence. Each extraction measurement device must meet a type and standard, and must be maintained in a manner that is consistent with any metering guidelines that have been published or notified by the Department of Primary Industries Water.	Not triggered	There was no bore abandonment or decommissioning in the audit period.	N/A	N/A
WAL39799- (20BL172002)	Condition 12	(12) As part of the annual review required under the development consent, the licence holder must: (I) Assess compliance with the Terms and Conditions of the licence;	C	This information is included in section 7 of the 2016 Annual Review (Table 21) and 2017 Annual Reviews (Table 23) which details the entitlements under various water licences and compares this to the takes every 6 months and totals for the year. The 2018 Annual Review was unavailable at the time of the audit. Table 26 in Annual Review 2017 indicates various water quality issues that are reported to be generally consistent. Noted that the groundwater quality triggered investigation at two locations, PZ184 for low pH and PZ055 for high EC. It is further noted that the pH values at PZ184 were consistent with results since 2010 and the trigger values need to be revised. PZ055 EC levels are also reported to be in agreement with 2016 values. additional monitoring was recommended	2016 and 2017 Annual Review GWMP (Appendix 3 to the WMP)	There are no recommendations

Licence	Condition	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
		(12) As part of the annual review required under the development consent, the licence holder must: (II) Provide a summary of new bores or pits constructed during that year;	C	This information is included in section 4.3.3 of the 2016 Annual Review (Table 21) and section 4.2.3 of the 2017 Annual Review and provides details of new bores and pits constructed. The 2018 Annual Review was unavailable at the time of the audit. Groundwater Management Plan refers to three new bores. As per the Groundwater Management Plan Table A1, three bores were drilled in December 2015 and three new bores in July 2017 (all are Stand Pipe Piezometers). Section 4.2.3 of AR 2017 briefly mentions installation of service bore holes - no further details are included. The installation of three bore holes as noted in the Groundwater Management Plan during December 2015 is not captured in the 2015 AR.	2016 and 2017 Annual Review GWMP (Appendix 3 to the WMP)	Provide more detail in the annual report. Such as number of bores, size, depth and location.
		(12) As part of the annual review required under the development consent, the licence holder must: (III) Provide key statistics for the monitoring data collated for each bore for the previous water year;	C	This information is included in section 7.4 of the 2016 Annual Review (Table 23, 24 and 25) which provides a comparison of groundwater levels to the previous reporting period and baseline levels and 2017 Annual Reviews (Table 25) which provides a comparison of groundwater levels to baseline levels. Extraction volumes are reported in Table 23 and 24 of the 2017 Annual review. As the Water Year is different to the reporting (calendar) year, the statistics are broken up into 6 month increments to account for the previous water year as well as the relevant calendar reporting year. Surface water and groundwater monitoring data are included in the Appendix 3 of Annual Reports. The 2018 Annual Review was unavailable at the time of the audit.	2016 and 2017 Annual Review	There are no recommendations
		(12) As part of the annual review required under the development consent, the licence holder must: (IV) Summarise events that impacted on groundwater during the previous water year, including actions taken to remedy groundwater impacts in excess of project environmental assessments predictions and relevant extra monitoring results; and	C	This information is included in section 7.4 of the 2016 Annual Review and 2017 Annual Review. Section 7.4 of the Annual Reviews detail the assessment of data for groundwater levels, impacts and triggers. This includes a comparison of groundwater levels to previous reporting period and baseline levels indicating general consistency. The 2018 Annual Review was unavailable at the time of the audit.	2016 and 2017 Annual Review	There are no recommendations
		(12) As part of the annual review required under the development consent, the licence holder must: (V) Include any recommendations or measures to be taken for improvements for the new water year.	C	This information is included in section 7.4.4 of the 2016 Annual Review and Section 7.4.5 and Table 25 of the 2017 Annual Review which provides actions for next reporting period. The 2018 Annual Review was unavailable at the time of the audit.	2016 and 2017 Annual Review	There are no recommendations
WAL39799- (20BL172002)	Condition 13	(13) As part of the independent environmental auditing required under the development consent, the licence holder must ensure that the audit: (I) Seeks input from the Department of Primary Industries Water;	C	An email enquiry had been sent to Ryan Shepherd at Department of Industry Lands and Water on 2 Oct 2018, whereupon a reply on the same date indicates registering the request for information in the department systems.	Email from pitt&sherry to NRAR, 2 Oct 2018	
		(13) As part of the independent environmental auditing required under the development consent, the licence holder must ensure that the audit: (II) Assess compliance with the Terms and Conditions of this Licence; and	Noted	This audit	pitt&sherry IEA 2018	
		(13) As part of the independent environmental auditing required under the development consent, the licence holder must ensure that the audit: (III) Provide recommendations regarding any works that should be performed or additional obligations that should be imposed in order to rectify any impacts on groundwater or any connected water dependent assets in excess of project environmental assessments predictions.	Noted	This audit	pitt&sherry IEA 2018	
WAL39799- (20BL172002)	Condition 14	(14) The volume of groundwater extracted from the works authorised by this license and by license(s) 20BL173923 shall not exceed 2950 megalitres in any 12 month period commencing 1st July.	C	Annual Reviews include Water Licences and Take in Section 7.1 - AR 2017 notes 1601 ML, AR 2016 notes 367 ML and 228ML is noted in AR 2015.	Annual Reviews 2015 - 2017	There are no recommendations
WAL39799- (20BL172002)	Condition 15	(15) The number of works authorised by this licence is limited to 25.	Noted	N/A	N/A	There are no recommendations
WAL39799- (20BL172002)	Condition 16	This licence is not transferrable and at the end of mining operations, the volume attached to this licence shall lapse	Noted	N/A	N/A	There are no recommendations

Licence	Condition	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
WAL39799- (20BL173923)	Condition 01	(1) The licence holder must provide the department of primary industries water with a map of the licensed site showing areas of alluvial sediments likely to be impacted by the operation of each bore. The licence holder must provide the department of primary industries water with an updated version of this map when there is a material change to the area of alluvial sediments likely to be impacted by the operation of each bore.	C	Refer to WAL39799 (20BL172002) Condition 02	Refer to WAL39799 (20BL172002) Condition 02	There are no recommendations
WAL39799- (20BL173923)	Condition 02	(2) The licence holder must develop and implement a methodology to estimate the annual volume of water that will be intercepted and / or taken from any alluvial water source as defined in the relevant water sharing plan (called a "Water Budget"). The methodology must be incorporated within the water management plan required under the development consent within six months of the date of issue of this licence.	C	MCO has prepared a site water balance (SWB) which was issued on February 2018. The SWB is attached as Appendix 1 to the WMP	WMP SWB (Appendix 1 to the WMP)	There are no recommendations
WAL39799- (20BL173923)	Condition 03	(3) A finalised water budget must be submitted to the department of primary industries water as part of the annual review required to be prepared on an annual basis under the development consent, or in accordance with any other similar reporting requirement under the development consent should the annual environmental management report cease to be required under the development consent. Breakdown of water budget should be in six monthly periods to coincide with the water year.	C	Section 7 of the 2016 and 2017 Annual Reviews contains information of the water balance for MCO operations. The site water balance for the reporting period was prepared with input from suitably qualified and experienced consultants WRM and Peter Dundon. Water take has been reported in 6 monthly periods in the 2016 Annual Review (Table 21) and 2017 Annual Review (Table 23). Section 2.1 of the 2016 and 2017 Annual Reviews states that the review is provided to various key agencies including NSW Department of Primary Industries – Division of Water (DPI-Water).	2016 and 2017 Annual Review	There are no recommendations
WAL39799- (20BL173923)	Condition 04	(4) The licence holder must include in the annual review required to be prepared on an annual basis under the development consent: (I) The total volume of groundwater extracted from the bores during the relevant period of reporting; (II) An estimate of the total volume of groundwater taken from the alluvial water source(s). Note: Any estimate or report of water extracted can be amended by notice to the department if at any time the licence holder believes previous estimates or reports are not correct. The licence holder must hold sufficient shares of aquifer category access licence to account for any water taken from the alluvial aquifer.	C	(I) This information is included in section 7 of the 2016 Annual Review (Table 22) and 2017 Annual Reviews (Table 24) which covers groundwater extraction (bores) inflows. (II) This information is included in section 7 of the 2016 Annual Review (Table 21) and 2017 Annual Reviews (Table 23) which details the water takes from various alluvial water sources.	2016 and 2017 Annual Review	There are no recommendations
WAL39799- (20BL173923)	Condition 05	(5) The licence holder must review and, if necessary, revise the groundwater management plan and the surface and groundwater response plan required under the development consent to consider the works authorised by this licence in consultation with the Department of Primary Industries Water within six months of the date of issue of this licence.	C	Consultation is set out in section 1.5 of the Water Management Plan (WMP) which states that consultation has occurred with DPI Water (now Department of Industry - Crown Lands and Water Division [CL&W]), NSW EPA and DP&E. Correspondence with the EPA (letter dated 20/12/2017) was sighted stating that the EPA does not review or endorse environmental management plans. Correspondence with the DPI-Water (letter dated 13/02/2018) was sighted stating that DPI-Water has approved the SWMP and GWMP. The auditor has assessed this condition as relating to the licence pre-conversion to the WAL. Water licence 20BL172002 was approved on 30/06/2016. A letter from MCO to DPI Water (dated 24/10/2016) and DP&E (dated 28/10/2016) was sighted during the audit. The letters included the revised WMP with a short summary of the revisions and a request for other comments. No response was received from DPI Water. An independent review was conducted on behalf of DP&E and a letter The Groundwater Management Plan was independently reviewed on behalf of DPE with a response provided on 22/12/2017. Following this review, MCO provided a revised version for approval in December 2017. A letter from DoI Water (dated 13/02/2018) was sighted during the audit stating that DoI Water has reviewed documentation provided (WMP) and is satisfied that the conditions of approval with respect to Surface and Groundwater Management Plans have been addressed appropriately.	WMP Letter from EPA (20/12/2017) stating that they did not review or endorse plans Letter from MCO to DPI Water (dated 24/10/2016) RE: Water Management Plan Revision. Letter from MCO to DP&E (dated 28/10/2016) RE: Water Management Plan Revision. Letter from MCO to DPI Water (dated 07/12/2017) RE: Surface Water Management Plan and Groundwater Plan for Consultation. Letter from DP&E (22/12/2017) RE: Independent Review of GWMP. Letter from DoI Water (dated 13/02/2018) RE: Review of Water Management Plan Project Approval.	There are no recommendations

Licence	Condition	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
WAL39799- (20BL173923)	Condition 06	(6) An extraction measurement device must be installed and maintained on each bore used for extraction of water under this licence. Each extraction measurement device must meet a type and standard, and must be maintained in a manner that is consistent with any metering guidelines that have been published or notified by the department of primary industries water.	Not triggered	The extraction of water under this licence is associated with mine workings. No bores and therefore no extraction management devices have been required for mine workings.	Management assertion	There are no recommendations
WAL39799- (20BL173923)	Condition 07	(7) As part of the annual review required under the development consent, the licence holder must: (I) Assess compliance with the Terms & Conditions of the licence	C	This information is included in section 7 of the 2016 Annual Review (Table 21) and 2017 Annual Reviews (Table 23) which details the entitlements under various water licences and compares this to the takes every 6 months and totals for the year. The 2018 Annual Review was unavailable at the time of the audit.	2016 and 2017 Annual Review	There are no recommendations
		(7) As part of the annual review required under the development consent, the licence holder must: (II) Provide a summary of new bores or pits constructed during that year;	Not triggered	This condition relates to mining operations. No new bores have been required for mine workings. However section 4.3.3 of the 2016 Annual Review (Table 21) and section 4.2.3 of the 2017 Annual Review and provides details of all new bores and pits constructed. The 2018 Annual Review was unavailable at the time of the audit.	2016 and 2017 Annual Review Management assertion	There are no recommendations
		(7) As part of the annual review required under the development consent, the licence holder must: (III) Provide key statistics for the monitoring data collated for each bore for the previous water year;	Not triggered	This condition relates to mining operations. As such there are no relevant bores under this condition.	2016 and 2017 Annual Review Management assertion	There are no recommendations
		(7) As part of the annual review required under the development consent, the licence holder must: (IV) Summarise events that impacted on groundwater during the previous water year, including actions taken to remedy groundwater impacts in excess of project environmental assessments predictions and relevant extra monitoring results;	C	This information is included in section 7.4 of the 2016 Annual Review and 2017 Annual Review. The 2018 Annual Review was unavailable at the time of the audit.	2016 and 2017 Annual Review	
		(7) As part of the annual review required under the development consent, the licence holder must: (V) Include any recommendations or measures to be taken from improvements for the new water year.	C	This information is included in section 7.4.4 of the 2016 Annual Review and Section 7.4.5 and Table 25 of the 2017 Annual Review which provides actions for next reporting period. The 2018 Annual Review was unavailable at the time of the audit.	2016 and 2017 Annual Review	There are no recommendations
WAL39799- (20BL173923)	Condition 08	(8) As part of the independent environmental auditing required under the development consent, the licence holder must ensure that the audit: (I) Seeks input from the department of primary industries water; (II) Assess compliance with the Terms and Conditions of this licence; and (III) Provide recommendations regarding any works that should be performed or additional obligations that should be imposed in order to rectify any impacts on groundwater or any connected water dependent assets in excess of project environmental assessments predictions.	C	Consultation with the DRG, DPI-Lands and Water, DPI - Natural Resources Access Regulator, DP&E, EPA, OEH and Mid-Western Regional Council as part of the Independent Environmental Audit (IEA) occurred on 2/10/2018. The audit assesses compliance with the Terms and Conditions of this licence; and provides recommendations regarding any works that should be performed or additional obligations that should be imposed in order to rectify any impacts on groundwater or any connected water dependent assets in excess of project environmental assessments predictions.	Pitt&sherry IEA 2018	There are no recommendations
WAL39799- (20BL173923)	Condition 09	(9) The volume of groundwater extracted from the works authorised by this licence and by license(s) 20BL172002 shall not exceed 2950 megalitres in any 12 month period commencing 1st July.	C	Section 7.2 of the 2016 Annual Review (Table 22) states that 4 megalitres of water was extracted from groundwater bores. Section 7.2 of the 2017 Annual Review (Table 24) states that 50 megalitres of water was extracted from groundwater bores. Both are below the 2950 megalitre limit.	SWB (Appendix 1 of the WMP) 2016 and 2017 Annual Review	There are no recommendations
WAL39799- (20BL173923)	Condition 10	(10) The number of works authorised by this licence is limited to 25.	Noted	N/A	N/A	N/A
WAL 37582	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.	Noted	N/A	N/A	N/A
WAL 37582	W0603-00001	The total volume of water taken under this access licence in any water year must not exceed a volume equal to: A. the sum of water in the account from the available water determination for the current year, plus B. the net amount of water assigned to or from the account under a water allocation assignment, plus C. any water re-credited by the Minister to the account.	C	Water take for each water licence is detailed in section 7.1 (Table 21) in the 2016 Annual Review and section 7.1 (Table 23) in the 2017 Annual Review. A water take register for each water licence was provided to auditors. These documents show compliance with this condition. Note: MCO's water licences are for incidental take. MCO does not actively pump from the Upper Goulburn River or Wollar Creek catchment.	2016 and 2017 Annual Review Moolarben Coal Complex Water Take Register (2015 - 2017)	There are no recommendations

Licence	Condition	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
WAL 37582	MW0913-00001	Water allocations remaining in the account for this access licence may be carried over from one water year to the next water year.	Noted	N/A	N/A	N/A
WAL 37582	MW2338-00001	The completed logbook must be retained for five (5) years from the last date recorded in the logbook.	C	GWMP covers the methodology for groundwater take. Modelling and monitoring is undertaken. MCO's SCADA system automatically emails 7 day water reports to environmental representatives. Monthly reports from modelling are kept.	SCADA Monitoring system - 7 day water report automatically emailed to Environmental representatives. Email sighted during the audit.	There are no recommendations
WAL 37582	MW2336-00001	The purpose or purposes for which water is taken, as well as details of the type of crop, area cropped, and dates of planting and harvesting, must be recorded in the logbook each time water is taken.	Not triggered	MCO doesn't grow crops	N/A	N/A
WAL 37582	MW2337-00001	The following information must be recorded in the logbook for each period of time that water is taken: A. date, volume of water, start and end time when water was taken as well as the pump capacity per unit of time, and B. the access licence number under which the water is taken, and C. the approval number under which the water is taken, and D. the volume of water taken for domestic consumption and/or stock watering.	C	A. MCO's water licences are for incidental take. MCO does not actively pump from the Upper Goulburn River or Wollar Creek catchment. MCO measures water take in accordance with the approved Water Management Plan. B and C. Water take for each water licence is detailed in section 7.1 (Table 21) in the 2016 Annual Review and section 7.1 (Table 23) in the 2017 Annual Review. These tables include the access licence number and the data is reported with a break-down in six monthly periods to coincide with the water year. D. No Stock and domestic consumption occurs.	Moolarben Coal Complex Water Take Register (2015 - 2017) WMP 2016 and 2017 Annual Review	There are no recommendations
WAL 37582	MW0606-00001	The volume of water taken in the water year must be recorded in the logbook at the end of each water year. The maximum volume of water permitted to be taken in that water year must also be recorded in the logbook.	C	Water take for each water licence is detailed in section 7.1 (Table 21) in the 2016 Annual Review and section 7.1 (Table 23) in the 2017 Annual Review. These tables include the access licence number and the data is reported with a break-down in six monthly periods to coincide with the water year.	Moolarben Coal Complex Water Take Register (2015 - 2017) WMP 2016 and 2017 Annual Review	There are no recommendations
WAL 37582	MW2339-00001	A logbook must be kept, unless the work is metered and fitted with a data logger. The logbook must be produced for inspection when requested by the relevant licensor.	C	The groundwater off-take bores are fitted with data loggers. This data is recorded in the MCO SCADA System.	Management assertion SCADA System reports	There are no recommendations
WAL 37582	MW0051-00002	Once the licence holder becomes aware of a breach of any condition on this access licence, the licence holder must notify the Minister as soon as practicable. The Minister must be notified by: A. email: water.enquiries@dpi.nsw.gov.au, or B. telephone: 1800 353 104. Any notification by telephone must also be confirmed in writing within seven (7) business days of the telephone call.	C	There are no non-compliances reported under this water licence	N/A	There are no recommendations
WAL 36340	MW0603-00001	The total volume of water taken under this access licence in any water year must not exceed a volume equal to: A. the sum of water in the account from the available water determination for the current year, plus B. the net amount of water assigned to or from the account under a water allocation assignment, plus C. any water re-credited by the Minister to the account.	C	Water take for each water licence is detailed in section 7.1 (Table 21) in the 2016 Annual Review and section 7.1 (Table 23) in the 2017 Annual Review. A water take register for each water licence was provided to auditors. These documents show compliance with this condition. Note: MCO's water licences are for incidental take. MCO does not actively pump from the Upper Goulburn River or Wollar Creek catchment.	2016 and 2017 Annual Review Moolarben Coal Complex Water Take Register (2015 - 2017)	There are no recommendations
WAL 36340	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.	Noted	N/A	N/A	N/A
WAL 36340	MW0913-00001	Water allocations remaining in the account for this access licence may be carried over from one water year to the next water year.	Noted	N/A	N/A	N/A
WAL 36340	MW4301-00001	If the water supply work nominated on this access licence takes water in the Wollar Creek Water Source from the alluvial sediments then the work must only be used to take water: A. when there is a visible flow in the water source at the location where water is to be taken, or B. if water is taken from a pool, when there is visible inflow to, and outflow from, that pool.	Not triggered	Management advised that no surface water take occurred during the audit period and that water licences are for incidental take. No active pumping from the Upper Goulburn River or Wollar Creek catchment occurs.	N/A	N/A

Licence	Condition	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
WAL 36340	MW2338-00001	The completed logbook must be retained for five (5) years from the last date recorded in the logbook.	C	GWMP covers the methodology for groundwater take. Modelling and monitoring is undertaken. MCO's SCADA system automatically emails 7 day water reports to environmental representatives. Monthly reports from modelling are kept.	SCADA Monitoring system - 7 day water report automatically emailed to Environmental representatives. Email sighted during the audit.	There are no recommendations
WAL 36340	MW2336-00001	The purpose or purposes for which water is taken, as well as details of the type of crop, area cropped, and dates of planting and harvesting, must be recorded in the logbook each time water is taken.	Not triggered	N/A	N/A	N/A
WAL 36340	MW0606-00001	The volume of water taken in the water year must be recorded in the logbook at the end of each water year. The maximum volume of water permitted to be taken in that water year must also be recorded in the logbook.	C	Water take for each water licence is detailed in section 7.1 (Table 21) in the 2016 Annual Review and section 7.1 (Table 23) in the 2017 Annual Review. These tables include the access licence number and the data is reported with a break-down in six monthly periods to coincide with the water year.	Moolarben Coal Complex Water Take Register (2015 - 2017) WMP 2016 and 2017 Annual Review	There are no recommendations
WAL 36340	MW2337-00001	The following information must be recorded in the logbook for each period of time that water is taken: A. date, volume of water, start and end time when water was taken as well as the pump capacity per unit of time, and B. the access licence number under which the water is taken, and C. the approval number under which the water is taken, and D. the volume of water taken for domestic consumption and/or stock watering.	C	A. MCO's water licences are for incidental take. MCO does not actively pump from the Upper Goulburn River or Wollar Creek catchment. MCO measures water take in accordance with the approved Water Management Plan. B and C. Water take for each water licence is detailed in section 7.1 (Table 21) in the 2016 Annual Review and section 7.1 (Table 23) in the 2017 Annual Review. These tables include the access licence number and the data is reported with a break-down in six monthly periods to coincide with the water year. D. No Stock and domestic consumption occurs.	Moolarben Coal Complex Water Take Register (2015 - 2017) WMP 2016 and 2017 Annual Review	There are no recommendations
WAL 36340	MW2339-00001	A logbook must be kept, unless the work is metered and fitted with a data logger. The logbook must be produced for inspection when requested by the relevant licensor.	C	The groundwater off-take bores are fitted with data loggers. This data is recorded in the MCO SCADA System.	Management assertion SCADA System reports	There are no recommendations
WAL 36340	MW0051-00002	Once the licence holder becomes aware of a breach of any condition on this access licence, the licence holder must notify the Minister as soon as practicable. The Minister must be notified by: A. email: water.enquiries@dpi.nsw.gov.au, or B. telephone: 1800 353 104. Any notification by telephone must also be confirmed in writing within seven (7) business days of the telephone call.	C	There are no non-compliances under this water licence	N/A	There are no recommendations

Moolarben Coal					
Detailed Findings and Recommendations					
Agency Consultation					
	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
Administrative Conditions					
NRAR	Assessment as to whether the Moolarben Coal Mine holds the required water entitlements and licences under the Water Management Act 2000 or Water Act 1912 (as applicable)	C	The 2017 Annual Review (Table 23) provides details of the licences under each act. Licences under the Water Management Act 2000 WAL 36340 WAL 37582 WAL 39799 Licences under the Water Act 1912 20BL173935	2017 Annual Review	There are no recommendations
NRAR	Compliance with the conditions of any water licences and approvals held	Refer to water licences section	Refer to water licences section	Refer to water licences section	There are no recommendations
NRAR	Identification of all water storages for the mine and identification of their licensing status being either exempt, subject to harvestable rights or regulated via a Water Access Licence	C	Location of all water storages for the mine are provided in the SWMP (appendix 2 of the WMP). Specifically in Figures 9, 10, 11, 12 and 13. Section 2 of the SWMP provides a description of relevant statutory requirements including approvals, licences and lease conditions.	SWMP (Appendix 2 of the WMP)	There are no recommendations
NRAR	Quantification of both active and passive take by the Moolarben Coal Mine from each relevant water source and a comparison against previously modelled predictions	Observation	Section 7 of the 2016 and 2017 Annual Reviews contains information of the water balance for MCO operations. The site water balance for the reporting period was prepared with input from suitably qualified and experienced consultants WRM and Peter Dundon. Water take has been reported in 6 monthly periods in the 2016 Annual Review (Table 21) and 2017 Annual Review (Table 23). The 2017 Annual review (section 7.4.1) compares groundwater level observations to model predictions. However the 2016 review only contains a comparison of the monitoring results for the period, and a comparison to the previous period and baseline (Table 26). Note: Groundwater models were revised in 2017.	2016 and 2017 Annual Review	Ensure that a comparison is made against modelled results in all future Annual Reviews.
NRAR	Monitoring bores are integrated into the monitoring programme	C	GWMP prescribes MCO's groundwater quality monitoring programme requirements. Section 6.1 of the GWMP describes Groundwater Monitoring. The 2017 Annual review states that the following GW monitoring occurs:- Groundwater levels/pressure (monthly) - Groundwater quality (6 monthly) - Groundwater take - Potential seepage from mine water storages	GWMP	There are no recommendations
NRAR	The Aquifer Interference Policy (AIP) criteria pertaining to it are applied	C	Section 3 and 8.1 of the GWMP have considered the AIP.	GWMP	There are no recommendations
NRAR	Compliance against performance measures within the consent related to water sources, including the Guidelines for Controlled Activities on Waterfront Land and design and installation of creek crossings, management of clean water diversions and sediment dams, stream diversion performance measures and aquatic and riparian ecosystem performance measures	C	Section 8.3 of the SWMP states the following: <i>MCO will design, install and maintain any infrastructure within 40m of watercourses generally in accordance with the Guidelines for Controlled Activities on Waterfront Land (DPI 2007), or its latest version .</i>	SWMP (Appendix 2 of the WMP)	There are no recommendations

	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
NRAR	Compliance with the requirements of the Water Management Plan and Extraction Management Plan	C	Compliance with management plans is included in the Annual Reviews	2016 and 2017 Annual Review	There are no recommendations
DP&E	Monitoring equipment reliability – stream flow gauges, weather station, TEOM – are the processes in place to ensure continuity of results adequate?	NC - refer to EPL Condition M2.1	<p>The following non-compliance and action taken has been noted by EPA in relation to monitoring equipment reliability:</p> <p>2015: Dust Gauge 12 (EPA 7) was installed following the approval of the location thus one round of measurement was missed.</p> <p>2016: TEOM5 (EPA 15) and TEOM6 (EPA 27) did not monitor PM10 continuously for 17hours due to power outage and on one day due to routine maintenance.</p> <p>2017: Failure to monitor continuously for PM10 at EPA identification number 27 (TEOM07), due to power outage. Yancoal has installed a temporary E-Sampler unit following outages.</p> <p>MCO reported in the 2017 Annual Review that stream flow recording (data collection) was non-compliant due to the breakdown of monitoring equipment. Data was supplemented with data from Ulan Coal and Wilpinjong Coal. MCO resolved the issue by replacing the stream flow monitoring equipment. Current data capture is close to 100%.</p>	2016 and 2017 Annual Reviews	An observation is noted due to recurring non-compliance. It is recommended that the power issues are permanently resolved so that the temporary sampler is not relied upon.
DP&E	Groundwater drawdown – is further investigation required based on monitoring results/trends or have the TARPs been used appropriately?	C	<p>Water level triggers have been developed for Triassic and alluvium monitoring bores (refer GWMP Attachment 1 Tables A3 and A4) to identify drawdown trends that could potentially lead to a private bore being impacted (i.e. experiencing greater than 2 m drawdown).</p> <p>MCO has observed groundwater levels below the applicable trigger investigation levels for two consecutive monitoring rounds at PZ105C to June 2018.</p> <p>MCO are employing the use of the trigger levels, and conducting investigations as required based on monitoring results/trends.</p> <p>In the case of PZ105C, monitoring was undertaken and an investigation triggered. MCO followed the Groundwater Investigation Response Protocol (Section 8.2 and Figure 4 of the Groundwater Management Plan). a qualified and experienced person (Dundon Consulting) was engaged to assist. The investigation included the following;</p> <ul style="list-style-type: none"> • review of monitoring data • comparing result with background trends for that location; • reviewing influences from rainfall or drought conditions; • reviewing non MCO land-use activities in the area. <p>Dundon Consulting concluded that the results were a localised effect not due to UG1 mining operations.</p> <p>Refer to email “ENV_EML_180917 DPE Moolarben Trigger Investigation - PZ105C”.</p>	GWMP Management assertion Monitoring results ENV EML 180917 DPE Moolarben Trigger Investigation - PZ105C	There are no recommendations

	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
DP&E	Hydrocarbon management in boxcut for underground operations and fuel farm – an inspection of the site by regulatory agencies in May 2018 identified significant deficiencies. It was indicated that capital funds had been allocated to implement improvements	C	<p>MCO has purchased and installed flammable liquid storage cabinets which were viewed during the site inspection, additionally photographic evidence was provided to auditors to show flammable liquid storage in other areas of the mine. Storage containers installed in the boxcut area are fully contained and AS1940 compliant.</p> <p>MCO advised that they have undertaken a review of hydrocarbons stored on site and redundant stock has been removed. (E.g. oils that are no longer used). Management also provided a summary of the hydrocarbon storages delivered and installed at the box cut and warehouse in 2018.</p> <p>Management advised that Open Cut Fuel Farm pipeline works have been undertaken to include additional thermal relief valves.</p> <p>Management advised that capital has been allocated for 2019 that includes the relocation of valving to banded areas and installation of additional secondary containment. An example picture of the proposed upgrades to the valving and secondary containment was provided the auditors. The capital works form part of a larger upgrade including improvements to traffic management to reduce vehicle interactions and increase segregation around the Open Cut 1 Fuel Farm.</p>	<p>Site inspection</p> <p>Photographic evidence of flammable liquid storage cabinets provided by MCO.</p> <p>Management assertion</p> <p>Example picture of upgrades to valving and bunding.</p>	There are no recommendations.
DP&E	Permit to disturb process, particularly for dewatering bores (liaison with RAPs) – have they been undertaken in accordance with the approved procedure?	C	<p>Ground disturbance is undertaken in accordance with the Heritage Management Plan (HMP). Section 5.8.2 of the HMP covers the ground disturbance permit (GDP) process. The GDP identifies environmental, heritage and relevant regulatory obligations and management measures to mitigate and minimise potential impacts.</p> <p>An example GDP (Permit No ENV_GDP_17-21 (dated 19/9/17)) was viewed during the audit. The GDP includes a report from Niche Environment and Heritage which describes archaeological investigations already undertaken. The Niche report identified that the proposed impact areas have been subject to cultural heritage survey sampling consistent with OEH standards at the time of the original assessment. The letter also states that the disturbance would fall under the minimal ground disturbance threshold and a desktop assessment in accordance with the NSW Minerals Industry Due Diligence Code of Practice for the Protection of Aboriginal Objects.</p> <p>Consultation with RAPs associated with Ground Disturbance Permits is required when the area to be disturbed has not previously been subject to archaeological survey sampling consistent with OEH standards. An example GDP for a dewatering site has been view by the auditor that complied with the current approved Ground Disturbance Process and did not require further consultation with the RAPs. A separate GDP including consultation with the RAPS was also viewed.”</p>	<p>HMP</p> <p>GDP - Permit No ENV_GDP_17-21 (dated 19/9/17)</p>	There are no recommendations.

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