

BARNETT & MAY

Moolarben Coal Mine

2021 Independent Environmental Audit

Prepared for

Moolarben Coal Operations Pty Ltd

Client representative

Trent Cini

Date

10 February 2022

Rev 0



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|-------------------------|---|-----------------------|
| Prepared by — K. Holmes |  | Date 10 February 2022 |
|-------------------------|---|-----------------------|

Revision History

| Rev No. | Description | Prepared by | Reviewed by | Authorised by | Date |
|----------|-------------------------|-------------|-------------|---------------|-----------|
| A | Draft for client Review | K. Holmes | T Wilkins | K. Holmes | 31/1/2022 |
| 0 | Final Report | K. Holmes | K. Holmes | K. Holmes | 10/2/2022 |
| | | | | | |
| | | | | | |

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1. Introduction

Barnett and May was commissioned by Yancoal Australia Ltd/ Moolarben Coal Mine, to undertake the 2021 Independent Environmental Audit (IEA) of the Moolarben Coal Mine. The IEA was required in accordance with PA05_0117 Schedule 5, Condition 9 and PA08_0135 Schedule 6 condition 9 for the mine. The audit was undertaken in accordance with the Barnett and May's proposal (dated 30 September 2021), and reviewed the environmental performance of the project to determine compliance with the obligations and conditions contained in the following regulatory approvals:

- 05_0117 Moolarben Stage 1
- 08_0135 Moolarben Stage 2
- Environmental Protection Licence (EPL) No. 12932
- EPBC Approval: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, and EPBC 2017/7974
- Mining Leases: ML1605, ML1606, ML1628, ML1691 and ML1715
- Water licences: 20BL173935, WAL39799, WAL37582, WAL 37583, WAL36340, WAL41888

The Audit was commissioned on 11 October 2021 and the audit team was subsequently approved by DPIE. The site inspection was undertaken by Ken Holmes (Accredited Lead Auditor) of Barnett & May in December 2021. The audit covered the period from 1 October 2018 to 30 September 2021 (the Audit Period).

1.1 Limitations of this Report

In preparing this Independent Environmental Audit Report, Barnett and May has assessed the activities appropriate and necessary to evaluate the compliance status against the conditions contained in the Auditee's Project Approval. Barnett and May has addressed the general technical matters which might reasonably be considered to be relevant to such an assessment.

The findings of this Independent Environmental Audit are based on observations of the site, interviews with personnel nominated by the Auditee and review of the documentation provided by the Auditee. Barnett and May has relied on the accuracy and completeness of the documentation and other information provided by the Auditee. Barnett and May can only advise based on the information provided to them and therefore cannot dismiss the possibility that compliance or environmental performance issues, other than those presented in the report existed at the time of this Audit.

The audit findings presented in this report are professional opinions based solely upon Barnett and May's visual observations of the site, and upon Barnett and May's interpretation of the documentation reviewed, interviews and conversations with personnel nominated by the Auditee, as referenced in this report. These conclusions are intended exclusively for the purposes stated herein, at the site listed, and for the project indicated. Opinions presented in this report apply to the site's conditions and features as they existed at the time of Barnett and May's site visit in December 2021, and those reasonably foreseeable. They necessarily cannot apply to conditions and features which Barnett and May is unaware of and has not had the opportunity to evaluate. This report does not, and does not purport to, give legal advice on the actual or potential environmental liabilities of any individual or organisation.

1.2 The 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) and covers Stage 1 at the Moolarben Coal Complex 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).

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 covers Stage 2 at the Moolarben Coal Complex that at full development will comprise one open cut mine (OC4), two longwall underground mines (UG1 and UG2), and mining related infrastructure.

Since the 2018 IEA the following modifications and variations have been approved:


- Project approvals
 - Modification 14 (Stage1) and Modification 3 (stage2) - The modification included an increase in run-of-mine (ROM) coal production from the Stage 1 and Stage 2 open cuts (OC1 to OC4), a minor extension to the OC2 pit limit, minor extensions and reductions of the OC3 pit limits, rehabilitation, water management (water Release) and relocated/additional surface infrastructure.
 - Modification 15 (Stage 1) - The modification involved the development of ancillary infrastructure to support the safe and efficient operation of the approved UG4 underground mining area. This included the construction and operation of a new downcast ventilation shaft and compound, a remote services infrastructure area, and augmentations to the approved dewatering borefield and associated access and infrastructure corridors.
- EPL Variations
 - Four variations to the EPL to include the above modification and updates to the MCO septic upgrades and discharge locations.
- EPBC
 - Approval of EPBC 2017/7974 – This approval is associated with the extension of mining areas in OC2 and OC3 as part of Modification 14.
 - Variation to EPBC 2007/3297 – The variation is associated with the reduction of mining areas in OC3 as part of Modification 14, the Modification removed the need to clear approximately 34.5 ha of land approved for disturbance under EPBC 2007/3279.
 - Variation to EPBC 2008/4444 – The variation revised condition 3 to recognise There are sufficient obligations in place for Avisford 1 and Avisford 2 to be protected, managed and monitored to achieve a conservation outcome without Moolarben Coal Operations Pty Ltd (MCO – the designated proponent) having control or responsibility for the land.

2. Definitions

| Acronyms | Description |
|----------|--|
| AR | Annual Review |
| AQMP | Air Quality Management Plan |
| BMP | Blast Management Plan |
| BOMP | Biodiversity Management Plan |
| CC | Construction Certificate |
| CCC | Community Consultative Committee |
| CHPP | Coal Handling Preparation Plant |
| CLD | Crown Lands Department (NSW) |
| DPE | Department of Planning and Environment (former planning department name) |
| DPI | (former) Department of Primary Industries |
| DPIE | Department of Planning, Industry and Environment. |
| EMS | Environmental Management Strategy |
| EPA | NSW Environment Protection Authority |
| EP&A Act | NSW Environmental Planning and Assessment Act |
| EPBC | Environmental Protection and Biodiversity Conservation Act |
| EPL | Environmental Protection License |
| GHGMP | Greenhouse Gas Minimisation Plan |
| GDP | Ground Disturbance Permit |
| GWMP | Groundwater Management Plan |
| HMP | Heritage Management Plan |
| IEA | Independent Environmental Audit |
| LMP | Landscape Management Plan |
| LW | Long Wall (mine) |
| MOP | Mining Operations Plan |
| MCO | Moolarben Coal Operations |
| ML | Mining Lease |
| NMP | Noise Management Plan |
| NOW | NSW Office of Water |
| NWPS | National Parks and Wildlife Service |
| NRAR | Natural Resources Access Regulator (Resource Regulator) |

| Acronyms | Description |
|----------|---|
| OC | Open Cut |
| OEH | NSW Office of Environment and Heritage |
| PA | Project Approval |
| PIRMP | Pollution Incident Response Management Plan |
| RAP | Registered Aboriginal Group |
| RFS | Rural Fire Service |
| RMP | Rehabilitation Management Plan |
| RMSS | Risk Management and Safety System |
| SWB | Site Water Balance |
| SWMP | Surface Water Management Plan |
| TEOM | Tapered Element Oscillating Microbalance (Samplers) |
| TMP | Traffic Management Plan |
| UCM | Ulan Coal Mine |
| UG | Underground (Mine) |
| VPA | Voluntary Planning Agreement |
| WMP | Water Management Plan |
| Yancoal | Yancoal Australia Pty Ltd |

3. Auditor Certification

| Independent Audit Certification Form | |
|--|--|
| Development Name | Moolarben Coal Mine |
| Application Number | 05_0177 and 08_0135 |
| Description of Development | Coal Mine and Washery |
| Development Address | 12 Ulan - Wollar Road, Ulan, NSW |
| Proponent | Moolarben Coal Operations Pty Ltd |
| Operator Address | 12 Ulan - Wollar Road, Ulan, NSW |
| Title of Audit | Moolarben Coal Mine 2021 Independent Environmental Audit |
| <p><i>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:</i></p> <ul style="list-style-type: none"> • <i>The audit has been undertaken in accordance with relevant approval condition(s) and in general accordance with the auditing standard AS/NZS ISO 19011:2011 and in general conformance with the DPE's Independent Audit Post Approval Requirements (June 2018).</i> • <i>The findings of the audit are reported truthfully, accurately and completely;</i> • <i>I have exercised due diligence and professional judgement in conducting the audit;</i> • <i>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> • <i>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> • <i>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);</i> • <i>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> • <i>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.</i> <p><i>Note.</i></p> <p><i>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.</i></p> <p><i>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).</i></p> | |
| Signature |  |
| Name of Lead/Principal Auditor | Ken Holmes |
| Address | 4 Baeckea Place, Frenchs Forest, NSW |
| Email Address | ken@baeckea.com.au |
| Auditor Certification (if relevant) | Exemplar Global 14065 |
| Date | 10 February 2022 |

3.1 Audit Details

| | |
|----------------------|---|
| Audit Title: | Moolarben Coal Mine 2021 Independent Environmental Audit |
| Site: | Moolarben Coal Mine, Ulan, New South Wales |
| Client Contact: | Trent Cini |
| Position: | Environment and Community Manager |
| Client: | Moolarben Coal Operations Pty Ltd |
| Client Address: | 12 Ulan - Wollar Road, Ulan, NSW |
| Client Phone Number | 0408 312 269 |
| Client Email: | Trent.cini@yancoal.com.au |
| Lead Auditor: | Ken Holmes (Certified Lead Auditor) |
| Auditor's Telephone: | 0438 046 261 |
| Auditor's Email: | ken@baeckea.com.au |
| Date of Site Visit | 29 November to 1 December 2021 |
| Audit Scope: | <p>The audit was undertaken as per the brief outlined in the Barnett and May proposal (dated 30 September 2021). As such, the audit provides an assessment of the compliance of the project with the conditions of the following approvals:</p> <ul style="list-style-type: none"> • Consolidated Consent on PA50_0117 and PA08_0135 • Environmental Protection Licence (EPL) No. 12932 • EPBC Approval: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, and EPBC2017/7974 • Mining Leases: ML1605, ML1606, ML1628, ML1691 and ML1715 • Water licences: 20BL173935, WAL39799, WAL37582, WAL37583, WAL36340, WAL41888 <p>The scope of this Independent Environmental Audit complies with the requirements of the New South Wales Department of Planning, Industry and Environment (DPIE) Independent Audit Post Approval Guidelines May 2020.</p> |
| Audit Team: | <p>Lead Auditor and Air quality – Mr Ken Holmes; Surface water – Mr Adam Bishop; Groundwater – Mr Brian Luinstra; Subsidence – Mr Simon Fag; Ecology – Ms Katrina Wolf; Noise – Mr Oliver Muller; Rehabilitation – Mr Andrew Hutton and Heritage – Dr Shaun Canning.</p> |

4. Audit process

4.1 Audit Guidelines

This audit report has also been prepared in accordance with the 'Independent Audit Guideline, May 2020 (Audit Guidelines) (DP&E, 2020). *Table 1* lists key requirements from the Audit Guidelines, the relevant Section of the Guidelines which references the requirement and indicates where each is addressed in this report.

Table 1 - Post Approval Audit Guidelines

| Section | Independent Audit Report Requirements | Addressed |
|---------|--|---|
| 4.1 | <p>Version Control</p> <ol style="list-style-type: none"> 1) the application number of the project; 2) each version or revision number of the report; 3) the date on which the report was prepared and issued to the Department; and 4) the title and name of the person who certified the Independent Audit Report. | <p>Section 3</p> <p>Page iii</p> <p>Page iii</p> <p>Section 3.1</p> |
| 4.2 | <p>Contents</p> | |
| 4.2.1 | <p>Introduction – a brief overview of the audit including:</p> <ol style="list-style-type: none"> 1) background of the project; 2) the audit team (including qualifications and experience); 3) the objectives of the audit; 4) the audit scope; and 5) the temporal period covered by the audit. | <p>Section 1.2</p> <p>Section 3.1</p> <p>Section 1</p> <p>Section 3.1</p> <p>Section 1</p> |
| 4.2.2 | <p>Audit Methodology</p> <ol style="list-style-type: none"> 1) documentation from the Planning Secretary agreeing to the auditor and any technical specialist(s); 2) how the audit scope was developed; 3) a summary of the audit process adopted to determine the compliance status and assess if documents are adequate; 4) site personnel interviewed including their name and position title (and including if access was not granted or possible with any required personnel and why); 5) details of site inspections undertaken (including any areas where access was not granted or possible and why); 6) a summary of the consultation undertaken; and 7) meanings of compliance status descriptors used, as set out in this document. | <p>Appendix C</p> <p>Section 5</p> <p>Section 4</p> <p>Section 4.5.3</p> <p>Section 4.5.2</p> <p>Section 5</p> <p>Section 4.6</p> |
| 4.2.3 | <p>Audit Findings</p> <ol style="list-style-type: none"> 1) a list of the approvals and documents audited; 2) a summary of the assessment of compliance i.e. comparison between the total number of compliance requirements and any non-compliances identified during the reporting period. Graphics can be used to summarise project performance in relation to compliance requirements; 3) a summary of any notices, orders, penalty notices or prosecutions issued in relation to the consent during the audit period; | <p>Appendix A</p> <p>Section 6.1</p> <p>Section 7.3</p> |

| Section | Independent Audit Report Requirements | Addressed |
|---------|---|-------------|
| | 4) exception reporting of all non-compliances identified during the audit period. Details must include the relevant consent condition, the condition reference number, a unique non-compliance identification number, details of the non-compliance and the auditor's recommended actions that are proposed to be taken or have been taken to address the non-compliance; | Section 6.2 |
| | 5) a brief discussion or table of the status of actions arising from previous audits and the progress or outcomes of each action. Details must include the source of the action, reference (condition number), action proposed, proposed completion date, the status (date completed, if relevant) and the action complete. | Section 7.6 |
| | 6) a brief discussion of whether the Environmental Management Plans, Sub-plans and compliance documents are adequate, implemented and whether there are any opportunities for improvement; | Section 7.5 |
| | 7) a discussion of other matters considered relevant by the auditor or the Department taking into account relevant regulatory requirements and legislation and knowledge of the development's past performance; | Section 7.9 |
| | 8) documentation of any feedback received as a result of consultation undertaken with the Department, and other agencies or stakeholders including the community and Community Consultative Committee for the audit and the outcomes of this consultation; | Section 5 |
| | 9) a summary of complaints, and the adequacy of the response to, and management of complaints; | Section 7.2 |
| | 10) details of any incidents (including any enforcement action by any agency) and the adequacy of the response to, and management of such incidents; | Section 7.1 |
| | 11) an assessment of the compliance between actual and predicted impacts documented in environmental impact assessment, including an assessment of the physical extent of the development in comparison with the approved boundary and any potential off-site impacts of the development required under the Environmental Planning and Assessment Act 1979; | Section 7.8 |
| | 12) evidence collected through site inspections undertaken during the audit; | Appendix A |
| | 13) evidence to support compliance assessment provided by the personnel interviewed during the audit; | Appendix A |
| | 14) a brief discussion of any continual environmental management improvement opportunities identified as part of the audit; and | Section 6.2 |
| | 15) key strengths of the development's environmental management and performance identified by the auditor. | Section 7.4 |
| 4.2.4 | Recommendations and opportunities for Improvement | Section 6.2 |
| 4.2.5 | <p>Appendices</p> <p>1) a completed Independent Audit Table with all relevant conditions of consent, identifying each requirement, compliance status</p> | Appendix A |

| Section | Independent Audit Report Requirements | Addressed |
|---------|---|------------|
| | assessed, documenting verified evidence and providing recommendations for any non-compliance that is identified; | |
| | 2) a copy of documentation from the Planning Secretary agreeing to the auditor and any technical specialist(s); | Appendix C |
| | 3) documentation detailing consultation with the Department, and other agencies or stakeholders including the community and Community Consultative Committee; | Appendix D |
| | 4) completed and signed Independent Audit Declaration Form(s); | Section 3 |
| | 5) any reports prepared by the agreed technical specialist(s), as required; and | Appendix F |
| | 6) site inspection photographs. | Appendix B |

Note 1: Compliance against the requirements of the Environment Protection Licence (EPL) has been undertaken in this Audit as the scope of the Independent Environmental Audit in the Conditions of Approval relevant to this development specifically includes the EPL.

4.2 Overview

The audit process and methodology are summarised 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.

4.3 Preliminary activities

Off-site planning for the site audit comprised:

- Initial discussions with client representative, to organise the site inspection and access to audit documentation
- Prepare the audit compliance checklist.
- Completion of a project specific Risk Assessment
- Review of online information
- Submission of a preliminary document / record request
- Consultation with relevant agencies.

4.3.1 Approval of audit teams

MCO sought the Secretary's endorsement for the audit team to undertake this Independent Environmental Audit. The Secretary approved the appointment of the Audit team led by Ken Holmes on 11 October 2021 (Appendix C).

4.3.2 Consultation with Agencies

The Auditor consulted with the following agencies during the audit planning stage:

- Department of Planning, Industry and Environment (DPIE);
- DPIE Resources Regulator (RR);
- Commonwealth Department of Agriculture, Water and the Environment (DAWE)
- NSW Environment Protection Authority (EPA);
- Community Consultative Committee (CCC)

Emails were initially sent to each of the above agencies advising them of the audit and the scope of the audit and inviting them to provide comments/requirements or specific environmental issues they required the audit to target. Where no response was provided by the nominated stakeholder organisation, a follow up email was sent to repeat the invitation to provide input into the audit. Details of the responses from each group / organisation is provided in Section 5.

4.4 Information Review and Compliance Register

Prior to the site inspection the Auditor prepared a detailed audit checklist (spreadsheet) that was used to assess and track compliance. This spreadsheet formed the basis of the compliance register presented in Appendix A of this report.

4.5 Site audit

The site inspection component of the audit was undertaken on 29 November to 1 December 2021.

4.5.1 Opening Meeting

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

- Trent Cini (Environment and Community Manager)
- Steve Archinal – General Manager
- Tim Oliphant – OC mine Manager
- Cris Shadbolt – OC operations Manager
- Steve Robertson – HST Manager
- Mark Pratt – Commercial Manager
- Andy Davison – OC Maintenance Manager
- Jon Chapman – CHPP Manager
- Rebecca Shanks – E&C Superintendent
- Ashly Tones – Senior E&C Advisor
- Mathew Croake – E&C Advisor
- Morgan Yeatman – E&C Advisor
- Ken Holmes (Lead Auditor) – Barnett and May.

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.

4.5.2 Site Inspections

An initial tour of the site was undertaken by the Auditor. Subsequent detailed inspections of specific areas of the operation were subsequently undertaken. The site inspection included observation of:

- Site access and security;
- Coal Stockpiles and conveyer system;
- Waste storage areas;
- Fuel and dangerous goods storage areas;
- Surface refuelling areas;
- Equipment maintenance area;
- Equipment Laydown areas;
- Rehabilitation areas;

- Weather Station;
- Dust control infrastructure; and
- Surface water management infrastructure.

Note that the Auditor did not inspect any underground facilities. The Auditor was provided access to all other areas of the site.

4.5.3 Site Interviews

Due to the Covid 19 pandemic, face to face interviews were minimised. The site inspection and key interviewee was undertaken with Trent Cini (Environment and Community Manager). Where issue specific information was required from other key MCO management personnel, Mr Cini collected and collated that information for the Auditor.

4.5.4 Document review

Compliance related documents that were not available prior to, and during site discussions, were requested to be provided following the audit. The Auditee's personnel 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.

4.6 Reporting

The compliance register was completed using notes and observations recorded during the site inspection / interviews and review of appropriate documentation. The completed compliance register is presented in **Appendix B**. A summary of the non-compliances identified during this audit are provided in Table 5. The audit criteria used to determine compliance for this audit is defined in Table 2.

Table 2 - Compliance Assessment Matrix

| Assessment | Criteria |
|-----------------------|---|
| Compliance | <p>Compliance</p> <p>The site complies with the requirements of applicable pre-operational Consent Conditions.</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-Compliance | <p>Non-Compliance</p> <p>Clear evidence has been collected to demonstrate the 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 enough 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 enough 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. As the condition cannot be verified it is treated as a non-compliance.</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 each non-compliance identified have been assessed in accordance with Table 2.

Table 3 - Risk Assessment Matrix

| 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). |

5. Stakeholder Consultation

Table 4 provides a summary of the Stakeholder Consultation undertaken by the Auditor.

Table 4 - Summary of Stakeholder Inputs

| Department | Contact | Stakeholder Comments | Auditor Response |
|--|--|--|---|
| NSW Department of Planning, Industry and Environment | Katrina O'Reilly Team Leader Compliance | No comments were provided by DPIE | Noted |
| NSW EPA | Andrew Helms Regional Operations Officer | <p>I can make the following observations regarding Moolarben Coal's operations for the period December 2018 to December 2021:-</p> <ul style="list-style-type: none"> Complaints – The EPA received 29 complaints in 2019 (26 noise, 3 air/odour), 6 complaints in 2020 (4 noise, 2 air/odour) and 1 complaint in 2021 to date (air quality – received this week); Self-reports – The EPA received a self-report from Moolarben in both 2020 and 2021, both were related to uncontrolled discharges from the dirty water system. One of these was during the March 2021 storm events. Inspections – the EPA has carried out 5 inspections in 2019 – with 4 of these comprising attended noise monitoring across the year following the large number of complaints from 4 neighbours. Annual Return – Moolarben has reported non-compliances in each of the 3 Annual Returns during the audit period. The non-compliances involved incomplete continuous air monitoring data (on account of power failures, maintenance periods, etc) and missed sampling or analytes associated with surface water monitoring. | Noted, the status of all complaints and incidents have been reviewed in this IEA. |

| Department | Contact | Stakeholder Comments | Auditor Response |
|---|--|---|---|
| | | <p>Generally, Moolarben's environmental management has been good during this period. Noise monitoring in 2019 did not indicate any exceedances of licence limits nor verify the noise complaints received. Numbers of complaints have dropped over the period and certainly have dropped significantly over the past 10 years.</p> <p>The EPA currently has no outstanding issues with Moolarben's operation of the site – Moolarben of course, need to maintain the standard they have created over recent years – especially in regard to dirty water management during these wet times.</p> | |
| DPIE Resources Regulator (DRE) | Stephen Clipperton Senior Inspector Environment | No comments were provided by DRE | Noted |
| Commonwealth Dept of Agriculture, Water and the Environment | Nicolas Scholar Assistant Director Environment Compliance Branch | In terms of the Moolarben Coal project (EPBC 2007/3297) and related other EPBC Act approvals (2013/6926, 2008/4444 and 2017/7974), the department's main area of interest lies in the progress of securing the offset property and implementing the rehabilitation and offset management strategy (condition 1 to 3 of EPBC 2007/3297). I understand the offset requirements are still a work in progress. | Compliance against the requirement of the EPBC approvals have been reviewed as part of this IEA. |
| Community Consultative Committee | Lisa Andrews Independent Chairperson | <p>I confirm that the MCO CCC meets on a regular basis (quarterly) in accordance with the project's conditions of consent. Members on the CCC receive a comprehensive presentation from the proponent in relation to its environmental monitoring program. As you will see from the minutes of these meetings, the main concerns relate to water, given the mines' close proximity to the Goulburn River and environs.</p> <p>A community representative on the Moolarben Coal Operations Community Consultative Committee provided a list of questions for consideration during the Independent Environmental Audit.</p> | The Auditor noted the general issues raised by the Chairperson. The specific questions raised by the committee member have been reviewed against the conditions of the approval by this audit team's groundwater specialist. Conditions that did not warrant specialist review have been captured in Compliance Register presented in Appendix A. The specialist's report is provided in Appendix E. Recommendations from the groundwater review are summarised in Table 7. |

6. Statutory Compliance and Recommendations

Compliance with the Conditions of Consent and the Environment Protection Licence has been reviewed by assessing compliance against the various documentation related to project approval, as listed in section 2.2 of this report. The Compliance Register presented in Appendix A provides a detailed review of the compliance status of the site, including recommendations to address non-conformances.

6.1 Summary of Compliance Status

A summary of compliance with pre-operations statutory requirements is provided in Table 5 - Summary of Statutory Compliance. The number of conditions include sub-clauses within each approval document.

Table 5 - Summary of Statutory Compliance

| Approval/ Licence | No. of Conditions | Compliant | Non-Compliant | Noted | Not Triggered |
|---|-------------------|-----------|---------------|-------|---------------|
| PA 05_0117 | 257 | 178 | 1 | 10 | 68 |
| PA 08_0135 | 123 | 95 | 1 | 7 | 20 |
| EPL 12932 | 92 | 64 | 4 | 19 | 5 |
| EPBC 2007/3297 | 19 | 16 | 0 | 0 | 3 |
| EPBC 2008/4444 | 26 | 20 | 0 | 1 | 5 |
| EPBC 2013/6926 | 22 | 18 | 0 | 1 | 3 |
| EPBC 2017/7974 | 27 | 19 | 1 | 3 | 4 |
| ML 1605 | 30 | 20 | 0 | 7 | 3 |
| ML1606 | 34 | 20 | 0 | 7 | 7 |
| ML 1628 | 37 | 22 | 0 | 7 | 8 |
| ML 1691 | 27 | 16 | 0 | 7 | 4 |
| ML 1715 | 24 | 17 | 0 | 3 | 4 |
| 20BL173935 (Bore Licence) | 7 | 3 | 1 | 0 | 3 |
| WAL39799 – 20BL172002 | 16 | 10 | 1 | 2 | 3 |
| WAL39799 – 20BL173923 | 19 | 13 | 0 | 3 | 3 |
| WAL37582 (Upper Goulburn River) | 9 | 5 | 0 | 2 | 2 |
| WAL37583 (Wollar Creek) | 9 | 4 | 0 | 2 | 3 |
| WAL41888 (Upper Goulburn River Aquifer) | 10 | 4 | 0 | 2 | 4 |
| WAL41888 (Wollar Creek Aquifer) | 10 | 4 | 0 | 2 | 4 |
| Totals | 798 | 8 | 9 | 85 | 156 |

6.2 Non-Compliances and recommendations for improvement

Non-compliances identified during the site inspection, interviews and document reviews are recorded in detail in the Compliance Registers in **Appendix A** and are summarised in Table 6 and recommendations for improvement are summarised in Table 7.

Table 6 - Statutory Non-Compliances

| No. | Condition | Observation | Recommendation | Risk Level |
|---------------------------------|---|---|---|---------------|
| PROJECT APPROVAL 05_0177 | | | | |
| S3 C31 | Unless an EPL authorises otherwise, the Proponent shall comply with section 120 of the POEO Act. Section 120 - Prohibition of pollution of waters | <p>During the construction of the Moolarben Creek crossing, a storm event (19/2/2020) resulted from Moolarben Creek entering the downstream culvert construction works then flowing back into Moolarben Creek. The PIRMP was activated including notification of EPA and other agencies and provision of report. Water quality sampling was undertaken with downstream water quality results comparable to the upstream water quality results.</p> <p>On 21 December 2020 a sediment water release occurred from a sediment drain associated with Sediment Dam 304 (EPL Identification Point 51) in the vicinity of the Open Cut 3 pre-strip area (this being an area where topsoil had been removed in preparation for mining operations). The PIRMP was activated including notification of EPA and other agencies and provision of report. Water quality sampling was undertaken, with results showing higher suspended solids than the Moolarben Creek monitoring but lower Electrical Conductivity.</p> <p>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> | MCO have investigated the water discharge non-compliance and implemented corrective and preventative actions. There are no further recommendations. | Medium |

| No. | Condition | Observation | Recommendation | Risk Level |
|---|---|--|---|---------------|
| PROJECT APPROVAL 08_0135 | | | | |
| S3 C27 | Unless an EPL authorises otherwise, the Proponent shall comply with section 120 of the POEO Act. Section 120 - Prohibition of pollution of waters | <p>One water pollution incident was recorded in 2021:</p> <ul style="list-style-type: none"> On 22 March 2021 a sediment water release, occurred as a result of heavy rainfall, downstream from Dam 413. <p>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> | MCO have investigated the water discharge non-compliance and implemented corrective and preventative actions. There are no further recommendations. | Medium |
| ENVIRONMENTAL PROTECTION LICENCE 12932 | | | | |
| L1.1 | Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997. | <p>Two water pollution incidents were recorded in 2020:</p> <ul style="list-style-type: none"> During the construction of the Moolarben Creek crossing, a storm event (19/2/2020) resulted from Moolarben Creek entering the downstream culvert construction works then flowing back into Moolarben Creek. The PIRMP was activated including notification of EPA and other agencies and provision of report. Water quality sampling was undertaken with downstream water quality results comparable to the upstream water quality results. On 21 December 2020 a sediment water release occurred from a sediment drain associated with Sediment Dam 304 (EPL Identification Point 51) in the vicinity of the Open Cut 3 pre-strip area (this being an area where topsoil had been removed in preparation for mining operations). The PIRMP was activated including notification of EPA and other agencies and provision of report. Water quality sampling was undertaken, with results showing higher suspended solids than the Moolarben Creek monitoring but lower Electrical Conductivity. <p>One water pollution incident was recorded in 2021:</p> <ul style="list-style-type: none"> On 22 March 2021 a sediment water release, occurred as a result of heavy rainfall, downstream from Dam 413. <p>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> | MCO has investigated the incidents and implemented corrective and preventative actions. No additional actions are required. | Medium |

| No. | Condition | Observation | Recommendation | Risk Level |
|------|--|--|--|--------------------------------------|
| 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: | <p>The following non-compliances were noted in the MCO Annual Returns to the EPA:</p> <ul style="list-style-type: none"> • 2019: Failure to monitor continuously for PM10 and PM2.5 at EPA identification number 15, 17 and 27 (TEOM07), due to equipment breakdown. power outage and scheduled maintenance. • 2019: Non continuous monitoring at EPL point 50, due to equipment breakdown. power outage and scheduled maintenance. <p>A variation to the EPL was issued on 4 October 2019 removing the potential for non-compliances for equipment breakdown and maintenance.</p> | The October variation to the EPL has resolved the potential for non-compliances due to continuous monitoring equipment outages. No further action is required. | Administrative non-compliance |
| M2.4 | Water and/or Land Monitoring Requirements | <p>The following non-compliances were noted in the MCO Annual Returns to the EPA:</p> <ul style="list-style-type: none"> • 2020 Licence point 1 was not sampled on 28 September 2020 for oil and grease analysis. • Licence point 22 was not sampled on 11 February 2020 due to unscheduled maintenance. | Ensure that all water samples required are collected and analysed. | Administrative non-compliance |
| M4.2 | 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. | During the audit period (June 2019) there were two occasions where non-continuous monitoring occurred, however an investigation found this to be the result of equipment breakdown. In accordance with the note associated with condition M4.1 and M4.2 data capture rates do not apply under these situations. | The October variation to the EPL has resolved the potential for non-compliances due to continuous monitoring equipment outages. No further action is required. | Administrative non-compliance |

| No. | Condition | Observation | Recommendation | Risk Level |
|----------------------------------|---|---|---|--------------------------------------|
| EPBC Approval 2017/7974 | | | | |
| Part A C04 | The approval holder must provide for the long-term security of the Area 2 (extract) offset area as identified at Attachment B, by 30 June 2020. The approval holder must submit details of the security mechanism to the Minister within ten business days of the mechanism being made. | <p>Area 2 (Extract) offset was secured on 25 August 2020, post the required due date. MCO advised the DAWE on 24 June 2020 that the offsets security mechanism was in the final stages of execution and requested an Extension of time to 31 August 2020 to align with the offset security timing as approved by the NSW DPIE for the same offset area.</p> <p>On 2 July 2020 MCO advised the DAWE of a technical noncompliance as the offset security mechanism for Area 2 (Extract) had been executed by MCO but not the NSW DPIE on 30 June 2020.</p> <p>On 25 August 2020, a 'Positive Covenant' and a 'Restriction on the Use of Land by a Prescribed Authority' under Section 88E(3) of the NSW Conveyancing Act 1919 was executed by MCO and the NSW Department of Planning, Industry and Environment (DPIE) to secure the Area 2 (Extract).</p> <p>On 18 September 2020, MCO provided the DAWE with a copy of the Positive and Restrictive Covenants executed by MCO and the NSW Department of Planning, Industry and Environment (DPIE) to secure the Area 2 (Extract) offset.</p> | This non-compliance has been resolved. There are no further actions required. | Administrative non-compliance |
| 20BL173935 (Bore Licence) | | | | |
| 1 | <p>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: -</p> <p>(A) Details of the work set out in the attached form "A" (must be completed by a driller).</p> <p>(B) A plan showing accurately the location of the work, in relation to portion and property boundaries.</p> <p>(C) A one litre water sample for all</p> | <p>During the audit documentation from construction of bores was viewed. This included Form A (Particulars of completed works) Examples dated 07/11/2020 (PZ227) and 14/11/2020 (PZ228). The Form A for PZ227 was submitted late (7 days) the form A for PZ228 was submitted within the two-month time frame.</p> <ul style="list-style-type: none"> • The form showed the drillers licence (licence number 1632) and showed that the driller (Manion Drilling) holds a Class 4 licence. • Accompanying the form shows the location of the work on a cadastral map. this is included as part of the forms submitted to MCO. • Piezometers constructed in accordance with 20BL173935 | Provide instructions to drilling supervisors to ensure that all notifications are completed within the required timeframes. | Administrative non-compliance |

| No. | Condition | Observation | Recommendation | Risk Level |
|------------------------------|---|--|--|--------------------------------------|
| | <p>licences others than those for stock, domestic, test bores and farming purposes.</p> <p>(D) Details of any water analysis and/or pumping tests</p> | <p>are only constructed as test bores. As a result, no sample of the water is required.</p> <ul style="list-style-type: none"> Water analysis and pump testing are part of Form A | | |
| WAL39799 – 20BL172002 | | | | |
| 9 | <p>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:</p> <p>(I) Details of the bore on the prescribed form (new bores)</p> <p>(II) Details of existing bores</p> <p>(III) A plan showing accurately the location of the bore(s) in relation to portion and property boundaries; and</p> <p>(IV) Details of water analyses and/or bore construction pump tests.</p> | <p>M1 was completed in 2018 but notice was not issued to Department of Primary Industries - Water until 31/01/2019</p> <p>(i) The details were submitted on a Form A (the prescribed form). The form showed the drillers licence (licence number 1632) and showed that the driller (Gricks Drilling) holds a Class 4 licence.</p> <p>(ii) Accompanying the form shows the location of the work on a cadastral map. this is included as part of the forms submitted to MCO. The existing bores were previously provided (2014-2015 Water Licence Report outside of the scope of this Audit)</p> <p>(iii) Plan showing the location of the bore is included as part of the Form A Submission</p> <p>(D) Water analysis and pump testing are part of Form A</p> | <p>Provide instructions to drilling supervisors to ensure that all notifications are completed within the required timeframes.</p> | Administrative non-compliance |

Table 7 - Recommendations for Improvement

| No. | Condition | Observation | Recommendation |
|---------------------------------|---|---|---|
| PROJECT APPROVAL 05_0177 | | | |
| Schedule 3 Condition 33 | <p>The Water Management Plan must include a:</p> <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; - brine emplacement in underground workings and potential changes to groundwater and surface water quality; • 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. | MCO have complied with the requirements of the Groundwater Management Plan. | <p>Some additional investigation be completed in order to assess the potential impact of a potential reversal in gradient:</p> <ol style="list-style-type: none"> 1. Review potential impacts from a reversal of the gradient in this area on hydrologic and ecologic systems including at a conceptual basis prior to the commencement of LW409. 2. Trigger levels should be reviewed, and were necessary revised, based on developments in understanding of potential impacts so triggers are fit for purpose. <p>Installation of the proposed additional monitoring bore between the Goulburn River and UG4 LW408/LW409 should proceed as planned.</p> |

| No. | Condition | Observation | Recommendation |
|-------------------------------|---|-------------|--|
| Schedule 3 Condition 33 | <p>The Water Management Plan must include a:</p> <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; - brine emplacement in underground workings and potential changes to groundwater and surface water quality; • a program to validate the groundwater model for the project, and compare the monitoring results with modelled predictions; and <p>a plan to respond to any exceedances of the groundwater assessment criteria.</p> | | <p>Groundwater levels for the paleo-channel /upper Permian groundwater system should be compiled, and trend analyses completed once sufficient data is available (typically 2 full seasonal cycles).</p> |

| No. | Condition | Observation | Recommendation |
|---------------------------------|---|---|---|
| PROJECT APPROVAL 08_0135 | | | |
| Schedule 3 Condition 29. | <p>The Water Management Plan must include a:</p> <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; - brine emplacement in underground workings and potential changes to groundwater and surface water quality; • a program to validate the groundwater model for the project, and compare the monitoring results with modelled predictions; and <p>a plan to respond to any exceedances of the groundwater assessment criteria.</p> | MCO have complied with the requirements of the Groundwater Management Plan. | <p>Some additional investigation be completed in order to assess the potential impact of a potential reversal in gradient:</p> <ol style="list-style-type: none"> 1. Review potential impacts from a reversal of the gradient in this area on hydrologic and ecologic systems including at a conceptual basis prior to the commencement of LW409. 2. Trigger levels should be reviewed, and were necessary revised, based on developments in understanding of potential impacts so triggers are fit for purpose. <p>Installation of the proposed additional monitoring bore between the Goulburn River and UG4 LW408/LW409 should proceed as planned.</p> |

| No. | Condition | Observation | Recommendation |
|--------------------------------|---|-------------|--|
| Schedule 3 Condition 29. | <p>The Water Management Plan must include a:</p> <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; - brine emplacement in underground workings and potential changes to groundwater and surface water quality; • a program to validate the groundwater model for the project, and compare the monitoring results with modelled predictions; and <p>a plan to respond to any exceedances of the groundwater assessment criteria.</p> | | <p>Groundwater levels for the paleo-channel /upper Permian groundwater system should be compiled, and trend analyses completed once sufficient data is available (typically 2 full seasonal cycles).</p> |

7. Independent Audit Post Approval Requirements

This audit focused on the compliance requirements established by the Conditions of Approval. While the scope of the audit, as specified in the Conditions of Consent do not refer specifically to the DPIE Independent Audit Post Approval Requirements (DPIE, May 2020), for completeness the Audit has, where possible, assessed the environmental performance of the project. This section of the report covers the specific requirements contained in the DPIE Guidelines.

7.1 Summary of Environmental Incidents

Incidents are recorded in an Integrated Management System that records and maintains incident data. Incident Management is described in section 6.3 of MCO's Environmental Management Strategy (EMS). In the event that an incident associated with the Moolarben Coal Complex occurs, which causes or threatens to cause material harm to the environment, the incident will be managed in accordance with relevant regulatory approvals and statutory obligations. The reporting of incidents will be conducted in accordance with Condition 7, Schedule 5 and Condition 7, Schedule 6 of the NSW Project Approvals (05_0117 and 08_0135, respectively). MCO will notify the Secretary of the DPIE, and any other relevant agencies immediately after MCO becomes aware of the incident which causes or threatens to cause material harm to the environment.

A printout from the register of recorded incidents was provided to the Auditor and cross checked with the incidents reported in each of the Annual Reviews. Table 8 provides a summary of the environmental incidents recorded by MCO. Note that "Minor Incidents" are not required to be reported and are incidents that resulted in no off-site impact and no material on-site impact.

Table 8 - Summary of Incidents

| Date | Type | Location | Description |
|------------|------------------------------|-------------------------|---|
| 30/01/2019 | Minor Environmental Incident | Open Cut 4 | Small oil leak from hydraulic hose failure |
| 04/02/2019 | Minor Environmental Incident | Underground Maintenance | Blocked sewerage pipe |
| 21/02/2019 | Minor Environmental Incident | CHPP | Water from LOM Dewatering Pipe to ground |
| 28/02/2019 | Minor Environmental Incident | Off-site | Unauthorised access to MCO owned property. |
| 7/03/2019 | Minor Environmental Incident | Underground 1 | Clearance of rehab on old borehole site |
| 21/03/2019 | Minor Environmental Incident | CHPP | Sediment Fence erected outside GDP Boundary |
| 21/03/2019 | Minor Environmental Incident | CHPP | Pacific National Train MR358 fuel/oil spill |
| 28/03/2019 | Minor Environmental Incident | Open Cut 4 | EX104 oil leak |
| 30/04/2019 | Minor Environmental Incident | Offsite | Unsuitable material spilled on road |
| 02/05/2019 | Minor Environmental Incident | Open Cut 2 | Spontaneous combustion identified in rehabilitation |
| 01/07/2019 | Minor Environmental | Open Cut 4 | Blast dust event |

| Date | Type | Location | Description |
|------------|------------------------------|----------------------|---|
| | Incident | | |
| 17/08/2019 | Minor Environmental Incident | Offset Area | Trespasser on Biodiversity Offset Area. |
| 21/09/2019 | Minor Environmental Incident | Open Cut 2 | Spontaneous combustion of spoil in an inactive dump |
| 21/10/2019 | Reportable Incident | Open Cut 2 | Odour complaint resulting in EPA R3.1 report request |
| 17/11/2019 | Minor Environmental Incident | CHPP | Chemical Spillage at the Temporary Water Treatment Plant (TWTP) |
| 26/11/2019 | Minor Environmental Incident | Offset Area | Ulan 18 BOA Cluster affected by bushfire |
| 26/12/2019 | Minor Environmental Incident | CHPP | Uncontrolled Overflowed of Product tank at Temp WTP |
| 19/02/2020 | Reportable Incident | Open Cut 3 | Creek flow entered culvert construction area. |
| 21/02/2020 | Minor Environmental Incident | Offset Area | Vehicle bogged on Biodiversity Offset Area. |
| 21/02/2020 | Minor Environmental Incident | CHPP | LOM Pipe Leak into WP13 |
| 28/02/2020 | Minor Environmental Incident | Open Cut Maintenance | Oil leak from tank 2 at OC1 fuel farm |
| 18/03/2020 | Minor Environmental Incident | Open Cut 4 | Level 3 fume event when firing PST 307 |
| 25/03/2020 | Minor Environmental Incident | Offset Area | Trespassing on Offset property. |
| 29/04/2020 | Minor Environmental Incident | CHPP | Filling the lime storage tank. |
| 30/04/2020 | Minor Environmental Incident | Open Cut 2 | Topsoil strip in rehab area |
| 01/05/2020 | Minor Environmental Incident | CHPP | Water leak from sediment water pipe |
| 21/05/2020 | Minor Environmental Incident | Open Cut 4 | 3B fume event on firing OC4 PST 329 |
| 12/06/2020 | Minor Environmental Incident | Open Cut Maintenance | POD oil leak |
| 30/06/2020 | Minor Environmental Incident | Open Cut 4 | 3A Fume event |
| 17/07/2020 | Minor Environmental Incident | CHPP | Brine water line leak on mine lease |
| 29/07/2020 | Minor Environmental Incident | CHPP | CR6113 gear box input shaft bearing failed |

| Date | Type | Location | Description |
|-------------|------------------------------|-----------------|---|
| 04/08/2020 | Minor Environmental Incident | Open Cut 2 | Ground disturbance outside of approved GDP area in OC2 rehab. |
| 29/09/2020 | Minor Environmental Incident | CHPP | Slow Leak from Underground Pipeline |
| 02/10/2020 | Reportable Incident | CHPP | Preliminary lab results exceeded Water release criteria |
| 30/10/2020 | Minor Environmental Incident | CHPP | Minor hydrocarbon spill from magnetite delivery truck. |
| 29/11/2020 | Minor Environmental Incident | Open Cut 1 | Lightning strike caused small fire. |
| 22/12/2020 | Reportable Incident | Open Cut 3 | Sediment water overtopped a drain. |
| 22/3/2021 | Reportable Incident | Open Cut 4 | Discharge from Dam 413 |
| 05/06/2021 | Compliance Incident | Open Cut 4 | Breach of Ground disturbance condition. |
| 27/09/2021 | Minor Environmental Incident | Offset Area | Unauthorised access to Biodiversity Offset Properties 24/25 to cut firewood |
| 14/10/2021 | Minor Environmental Incident | Open Cut 4 | 3A fume event |
| 29/10/2021 | Compliance Incident | Exploration | Non-Compliance with issued GDP |

7.2 Summary of Complaints

MCO maintains a Community Response (Complaints) Line (Phone Number 1800 556 484) that is dedicated to the receipt of community complaints. The Community Response Line is publicly advertised and operates 24 hours per day, seven days a week, to receive any complaints from neighbouring residents or other stakeholders. The Community Response Line is advertised in the local media and is also available on the Moolarben Coal Website.

MCO follows a complaints management process when receiving, responding to and recording community complaints. A complaints management database has been developed to allow for the capture and management of complaints. Initial contact regarding the complaint is generally undertaken within 48hrs of receiving a complaint where requested. Investigations will commence within 24 hours of the receipt of a complaint to determine the likely cause of the complaint (i.e. meteorological conditions and nature of mining activities). The Community Complaints Procedure requires the recording of relevant information including:

- the nature of the complaint;
- method of the complaint;
- relevant monitoring results and meteorological data at the time of the complaint;
- site investigation outcomes;
- any necessary site activity and activity changes;
- any necessary actions assigned; and
- communication of the investigation outcome(s) to the complainant.

Table 9 provides a summary of complaints recorded by the mine over the Audit Period.

Table 9 - Summary of Complaints

| Date | Category | Detail | MCO Response |
|-------------------------|------------|---|---|
| 25/06/19 08:15 AM | Noise | Calling with a noise complaint at Moolarben Coal Mines. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. Operational changes were made. Complainant advised of investigation, results and actions. |
| 25/06/19 09:12 AM | Noise | Rumbling sound and machine noises. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. Operational changes were made. The Complainant was Contacted on 25/06/2019, a message was left. |
| 27/06/19 11:29 AM | Air (Dust) | Please Call Customer back in regards to dust coming into farm from the mine. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Dust levels. Operational changes were made. Complainant advised of investigation, results and actions. |
| 01/07/19 02:21 AM | Air (Dust) | Phoned to complain of a large black cloud over ridge road. She was panicked and leaving the area (she said other concerned residents were leaving too). | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 01/07/19 12:48 PM | Noise | Constantly humming noise from machinery. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Dust levels. Operational changes were made. Complainant advised of investigation, results and actions. |
| 06/07/19 09:36 PM | Noise | Humming noise from the machines. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 13/07/19 12:21 | Air (Dust) | Dust complaint - reporting a lot of dust airborne. Please call back | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Dust levels. No actions required. Complainant |

| Date | Category | Detail | MCO Response |
|-------------------------|-------------|--|---|
| PM | | when available. | advised of investigation, results and actions. |
| 16/07/19 07:45 AM | Noise | Noise complaint - very loud from quite early this morning. A roar. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. Operational changes were made. Complainant not contacted upon their request. |
| 17/07/19 07:48 AM | Noise | Machinery noise. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant was unable to be contacted. |
| 20/07/19 07:51 AM | Noise | Loud humming and machinery noise. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. Operational changes were made. Complainant was Contacted on 21/07/2019, a message was left. |
| 02/08/19 07:55 AM | Noise | Machinery noise on going. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant was advised of investigation, results and actions. |
| 25/08/19 10:11 PM | Noise | Reported a vibrating humming sound and it is occurring every Sunday evening. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant was advised of investigation, results and actions. |
| 23/09/19 06:05 AM | Noise | Complaining about noise which started around 8:30pm to 9am when his kids started to sleep. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring was not undertaken due to the timing description. No actions required. Complainant was advised of investigation, results and actions. |
| 29/09/19 10:55 PM | Noise | Decibel reading 61-62 inside the house, wanting to know what is permitted. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant was advised of investigation, results and actions. |
| 20/10/19 09:20 PM | Air (Odour) | Caller noticed a sulfur smell from a mine again. | Investigation revealed no unusual mining operations were occurring at the time. Complainant was advised of investigation, results and actions. |
| 26/12/19 10:30 PM | Noise | Noise vibration noise. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 28/12/19 08:42 AM | Noise | Excessive noise going on for the last 2-3 days now. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 05/02/20 09:13 PM | Noise | Equipment noise. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 04/03/20 10:35 PM | Noise | He hears rocks falling. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 16/03/20 06:00 AM | Noise | 70db noise and can't sleep all day. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |

| Date | Category | Detail | MCO Response |
|-------------------------|----------------|--|---|
| 22/03/20 11:45 PM | Noise | Noise and vibration occurring since 0800h this morning, still operating at this time. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 27/03/20 12:52 AM | Noise | Noise Complaint - Loud Humming from Vehicles. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 12/04/20 07:43 AM | Noise | Lots of noise coming from the trucks and scraping/ banging. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 13/04/20 08:26 AM | Noise | Can hear heavy machinery. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 10/05/20 09:30 AM | Noise | A lot of noise and Vibration inside my house. Major problem. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant advised of investigation, results and actions. |
| 18/05/20 07:30 AM | Air (Odour) | Experiencing a smell of Spontaneous Combustion of Coal. | Investigation revealed no unusual mining operations were occurring at the time. No actions required. Complainant was Contacted on 20/05/2020, a message was left. |
| 17/06/20 12:13 PM | Blasting (V/O) | Blasting; Huge blast, crack in wall. Find out where they stand, can they get a monitor. What happens next? | Investigation revealed no unusual mining operations were occurring at the time. No actions required. Complainant advised of investigation, results and actions. |
| 17/06/20 02:42 PM | Blasting (V/O) | Blasting; Customer is feeling after shock from blasting and has cracked ceiling. | Investigation revealed no unusual mining operations were occurring at the time. No actions required. Complainant advised of investigation, results and actions. |
| 09/07/20 11:20 AM | Noise | Noise complaint: noise. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. Complainant advised of investigation, results and actions. |
| 01/08/20 08:30 AM | Noise | Noise complaint from the trucks. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 02/08/20 09:30 AM | Noise | Noise Complaint: Dozer track noise. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 11/09/20 01:24 PM | Blasting (V/O) | Would like a call back in regards to the explosion that happened yesterday. Neighbours get a text she would like to be put down for texts when it happens. | Investigation revealed no unusual mining operations were occurring at the time. No actions required. Complainant was Contacted on 11/09/2020. |
| 19/10/20 07:30 PM | Noise | Caller is complaining about the very loud noise from the Moolarben Coal Mine. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 10/01/21 08:09 | Noise | Noise is complaining about the noise from the mine. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated |

| Date | Category | Detail | MCO Response |
|-------------------------|----------------|---|---|
| PM | | | acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 20/01/21 12:30 PM | Noise | Noise, called as there is an excessive amount of noise coming from the area, the noise has been going on for a while. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 16/02/21 04:13 PM | Noise | She is watching tennis and she can hear roaring and engine noises from the mine. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant advised of investigation, results and actions. |
| 15/03/21 07:30 PM | Noise | Noise Complaint - Can hear a loud whirring noise from machinery all afternoon. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 30/03/21 06:11 PM | Noise | Very loud noise coming from the mine. Louder than usual. Says it sounds like the trucks are going back and forth. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 31/03/21 11:27 PM | Noise | Hearing humming and vibrations coming from the mine. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 26/04/21 08:42 AM | Air (Odour) | We woke this morning to a pervading diesel-like smell outside at our place. Weather conditions may be pushing polluted air this way, could you register this as a complaint and investigate please. | Investigation revealed no unusual mining operations were occurring at the time. No actions required. Complainant advised of investigation, results and actions. |
| 28/04/21 01:07 AM | Noise | Loud humming noise has woken her up. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant advised of investigation, results and actions. |
| 13/05/21 12:01 AM | Noise | Machines or trucks or running of machines can be heard. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 17/05/21 11:57 PM | Noise | Can hear humming/clucking and banging sounds from the trucks at the site. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 09/06/21 05:00 PM | Blasting (V/O) | They have a blast and the house shook, there are a lot of dust in the house as well. | Investigation revealed no unusual mining operations were occurring at the time. No actions required. Complainant advised of investigation, results and actions. |
| 23/06/21 05:00 PM | Noise | Arrived home and there was unbearable noise. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant advised of investigation, results and actions. |
| 24/06/21 05:57 PM | Lighting | Lightning/ visual amenity the light they have put up and it is shining right through her windows. | Investigation revealed no unusual mining operations were occurring at the time. Operational changes were made. Complainant advised of investigation, results and actions. |
| 28/06/21 06:27 PM | Lighting | Bright light shining on their kitchen window and it is blinding. It is now bigger and brighter. | Investigation revealed no unusual mining operations were occurring at the time. Operational changes were made. Complainant advised of investigation, results and actions. |

| Date | Category | Detail | MCO Response |
|-------------------------|------------|--|---|
| 29/06/21 05:47 AM | Lighting | Complaint regarding a bright light shining straight into the kitchen. | Investigation revealed no unusual mining operations were occurring at the time. No actions required. Complainant advised of investigation, results and actions. |
| 02/07/21 10:25 PM | Lighting | Caller advised there is a large light shining into her kitchen window. Very bright. | Investigation revealed no unusual mining operations were occurring at the time. Operational changes were made. Complainant advised of investigation, results and actions. |
| 06/07/21 11:17 AM | Noise | Calling to report that there has been a constant humming and rumbling noise all morning. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 31/07/21 09:00 AM | Noise | Noise complaint- reoccurring noise issue | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant advised of investigation, results and actions. |
| 06/08/21 10:33 PM | Lighting | Lightning/visual amenity around 5th/6th call in regards to a light that is shining into the kitchen at the property. Would like to know why the light is constantly moved. | Investigation revealed no unusual mining operations were occurring at the time. No actions required. Complainant advised of investigation, results and actions. |
| 09/08/21 08:00 PM | Lighting | We have a bright light shining straight into our kitchen window from your mine. | Investigation revealed no unusual mining operations were occurring at the time. Operational changes were made. Complainant advised of investigation, results and actions. |
| 15/08/21 09:30 PM | Lighting | Big floodlight facing into their bedroom window about 2-3kms away. | Investigation revealed no unusual mining operations were occurring at the time. Operational changes were made. Complainant advised of investigation, results and actions. |
| 29/08/21 11:30 AM | Noise | Moolarben Coal is currently causing too much noise in the area, the mine itself. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 30/08/21 07:16 PM | Lighting | Light shining straight into her kitchen window, repeated issue. Second call this month. | Investigation revealed no unusual mining operations were occurring at the time. Operational changes were made. Complainant advised of investigation, results and actions. |
| 09/09/21 01:00 PM | Lighting | Strong light in their kitchen widow and it is still glaring in their window. | Investigation revealed no unusual mining operations were occurring at the time. Operational changes were made. Complainant advised of investigation, results and actions. |
| 09/09/21 09:18 PM | Air (Dust) | Large amounts of dust has blown up. | Investigation revealed no unusual mining operations were occurring at the time. No actions required. Complainant advised of investigation, results and actions. |
| 11/09/21 11:21 PM | Lighting | Two lights that's getting into the kitchen area from the site. | Investigation revealed no unusual mining operations were occurring at the time. Operational changes were made. Complainant advised of investigation, results and actions. |
| 13/09/21 08:19 PM | Lighting | Message: There lights at their window, there's a red, blue and white lights flashing all the time. | Investigation revealed no unusual mining operations were occurring at the time. No actions required. Complainant advised of investigation, results and actions. |
| 27/09/21 06:30 PM | Noise | Banging and machinery humming can be heard from her property. It is keeping her awake. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant advised of investigation, results and actions. |
| 27/09/21 09:58 PM | Noise | Noise sounds like a vehicle passing my house loudly. Dog got a fright. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |

| Date | Category | Detail | MCO Response |
|-------------------------|-----------------|---|---|
| 11/10/21 06:04 PM | Noise | Caller is reporting the noise that has been going on all afternoon constantly nonstop. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant advised of investigation, results and actions. |
| 07/11/21 09:43 AM | Noise | They are complaining about the mining noise that is occurring. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant not contacted upon their request. |
| 18/11/21 07:39 AM | Air (Odour) | Smell of fumes from the coal mine. | Investigation revealed no unusual mining operations were occurring at the time. No actions required. Complainant not contacted upon their request. |
| 30/11/21 08:38 PM | Noise | Machinery noise coming from mine. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant advised of investigation, results and actions. |
| 03/12/21 09:47 PM | Noise | Caller is wanting to make a noise complaint. | Investigation revealed no unusual mining operations were occurring at the time. Monitoring results indicated acceptable Noise levels. No actions required. Complainant advised of investigation, results and actions. |
| 08/12/21 10:37 PM | Noise | Noise rocks falling, machinery, dozer, noise complaint. | Investigation revealed no unusual mining operations were occurring at the time. No actions required. Complainant not contacted upon their request. |
| 21/12/21 08:30 PM | Lighting | A large light shining in the callers kitchen window. Could the light be changed or angled. | Investigation revealed no unusual mining operations were occurring at the time. Operational changes were made. Complainant advised of investigation, results and actions. |
| 22/12/21 07:15 PM | Noise | The noise from the mine works was unbearable this evening. | Investigation revealed no unusual mining operations were occurring at the time. No actions required. Complainant not contacted upon their request. |
| 22/12/21 07:30 PM | Noise | Machinery noise as always. | Investigation revealed no unusual mining operations were occurring at the time. No actions required. Complainant not contacted upon their request. |
| 27/12/21 09:54 PM | Lighting | Has a bright light shining into their kitchen. Says it happened last night also. Says it happens often. | Investigation revealed no unusual mining operations were occurring at the time. Operational changes were made. Complainant advised of investigation, results and actions. |

7.3 Summary of Notices

No notices, orders, penalty notices or prosecutions were issued to MCO during the audit period:

7.4 Project Environmental Management System

MCO operates in accordance with the Environmental Management Strategy. The Environmental Management Strategy that was prepared as a requirement of the Planning Approval describes the environmental management approach implemented at the Mine. The level of compliance identified in this audit indicates the system is being implemented.

7.5 Implementation of the Operational Environmental Management Plan and Sub-plans

The Conditions of Approval required the preparation and implementation of the management plans and program listed in Table 10. During the document review phase of the project the contents of each of the plans were reviewed. Table 10 summarises the findings of that review. In general, the Plans and Programs adequately identified the relevant project risks and proposed appropriate risk management controls.

Table 10 - Management Plan Compliance Summary

| Management Plan requirements under Schedule 6 Conditions 3, 5 and 11. | Environmental Management Strategy | Noise Management Plan | Blast Management Plan | Air Quality Management Plan | Water Management Plan including GWMP & SWMP | Brine Water Management Plan | Rehabilitation Management Plan | Biodiversity Management Plan | Heritage Management Plan | Greenhouse Gas Minimisation Plan | Extraction Plan |
|---|-----------------------------------|-----------------------|-----------------------|-----------------------------|---|-----------------------------|--------------------------------|------------------------------|--------------------------|----------------------------------|-----------------|
| Schedule 6 Condition 11 | | | | | | | | | | | |
| Latest version uploaded to website | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| Schedule 6 Condition 3 | | | | | | | | | | | |
| Detailed baseline data | - | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| Statutory requirements | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| Performance measures / criteria / action trigger levels | - | √ | √ | √ | √ | √ | √ | √ | √ | n.a. | √ |
| Management measures / controls | - | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| Monitoring and reporting | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| Contingency planning | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| Environmental performance improvement | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| Incident management | √ | √ | √ | √ | √ | √ | √ | √ | √ | n.a. | √ |
| Complaints management | √ | √ | √ | √ | √ | √ | √ | √ | √ | n.a. | √ |
| Non-compliance management | √ | √ | √ | √ | √ | √ | √ | √ | √ | n.a. | √ |
| Reporting exceedance of impact assessment or performance criteria. | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| Schedule 6 Condition 5 | | | | | | | | | | | |
| Review and revision following Annual Review | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| Review and revision following Incidents | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| Review and revision following IEAs | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| Review and revision following modification to the Approval | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |

Notes to Table 10 - Management Plan Compliance Summary:

√ = Complies

× = Does not comply (for details refer to compliance table in Appendix 1)

n.a.= Not applicable

NT = not triggered during this Audit Period

7.6 Status of Previous IEA Findings

The previous audit was completed in October 2018. Table 11 lists the status of implementation of the audit recommendations associated with the Approval, relevant licenses and permits identified during the 2018 Audit.

Table 11 - Status of 2018 Audit Findings

| Condition | Detail | 2018 Audit Assessment / Recommendation | MCO Response | Status |
|-------------------|--|--|---|--------|
| PA 05_0177 | | | | |
| S2 C2 | 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. | <p>Assessment: 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.</p> <p>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>Recommendation: There is no further recommendation, 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> | <p>MCO Completed the investigation into the cause of the overpressure and implemented remedial actions noted. No further action required.</p> <p>The CHPP stockpile has been included in the Stage 1 Modification 14 and Stage 2 Modification 3 application. The modification will be progressed through to approval.</p> | Closed |

| Condition | Detail | 2018 Audit Assessment / Recommendation | MCO Response | Status |
|-------------------|---|--|--|--------|
| S3 C64 (c) | 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. | Assessment: (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. The 2018 Annual Review had not been prepared at the time of the audit. Recommendation: Whilst the requirement for PA05_0117 Schedule 3 Condition 64 (c) and 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. | MCO utilises a total waste management system, including monitoring of waste volumes and effectiveness. MCO will continue to include waste management in the Annual Review. No further action required. | Closed |
| PA 08_0135 | | | | |
| S2 C2 | 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. | Assessment: 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. Recommendation: There is no further recommendation, MCO investigated the causes of the | MCO Completed the investigation into the cause of the overpressure and implemented remedial actions noted. No further action required. The CHPP stockpile has been included in the Stage 1 Modification 14 and Stage 2 Modification 3 application. The modification will be progressed through to approval. | Closed |

| Condition | Detail | 2018 Audit Assessment / Recommendation | MCO Response | Status |
|-----------|--|--|---|--------|
| | | <p>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> | | |
| S3 C7 | <p>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.</p> <p>Table 7: Blasting criteria</p> <ul style="list-style-type: none"> • Private Residences: Airblast overpressure 120 / Ground Vibration 10 / Allowable exceedance 0% <u>and</u> • Private Residences: Airblast overpressure 115 / Ground Vibration 5 / Allowable exceedance 5% total number of blasts over a period of 12 months <p>Public Infrastructure: Ground Vibration 50 / Allowable exceedance 0%</p> | <p>Assessment: MCO manages blasting in accordance with the Blast Management Plan (BMP). 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>Recommendation: There is no further recommendation. MCO investigated the causes of the overpressure exceedances and implemented remedial measures as required.</p> | <p>Completed investigation and implemented remedial actions noted. No further action required</p> | Closed |
| S3 C32 | <p>The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary.</p> | <p>Assessment: 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> <p>Recommendation: There is no recommendation</p> | <p>MCO upgraded stream-flow monitoring equipment in 2017-8 to rectify data reliability issues. Current data capture rates are close to 100%. No further action required</p> | Closed |
| | | | | |

| Condition | Detail | 2018 Audit Assessment / Recommendation | MCO Response | Status |
|-----------|---|--|--|--------|
| S3 C35 | <p>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>Assessment:</p> <p>(a) A letter to the Secretary dated 31/08/2015 was sighted during the audit regarding Regent Honeyeater 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 4/10/2015) was sighted during the audit. OEH still had concerns regarding the suitability of offset calculations and made several recommendations. 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>Recommendation: Contact OEH to confirm that they are satisfied with the calculation of species credits for the Regent Honeyeater.</p> | <p>MCO wrote to the Office of Environment and Heritage on 31 July 2015 with a report of the species credits. MCO provided a response in February 2016 to all OEHs comments (dated 14 October 2015) and confirmed that the correspondence previously provided (dated 31 July 2015 and attached the EcoLogical letter) clearly demonstrated that implementation of the Offset Strategy, inclusive of mine site rehabilitation, provides a surplus of Regent Honeyeater species credits compared to the approved project impacts, hence condition 35 of Schedule 3 of Project Approval (08_0135) has been satisfied. The OEH has not provided any response. MCO considers this Condition 35 of Schedule 3 of Project Approval (08_0135) has been satisfied.</p> | Closed |

| Condition | Detail | 2018 Audit Assessment / Recommendation | MCO Response | Status |
|------------------|--|--|---|--------|
| S3 C52 (c) | 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. | Assessment: (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. The 2018 Annual Review had not been prepared at the time of the audit. Recommendation: Whilst the requirement for PA05_0117 Schedule 3 Condition 64 (c) and 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. | MCO utilises a total waste management system, including monitoring of waste volumes and effectiveness. MCO will continue to include waste management in the Annual Review. No further action required. | Closed |
| EPL 12932 | | | | |
| 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. | Assessment: 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. Recommendation: There is no further recommendation: MCO investigated the causes of the overpressure exceedances and implemented remedial measures as required. | Completed investigation and implemented remedial actions noted. No further action required | Closed |
| 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. | Assessment: 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. Recommendation: An observation is noted due to recurring non-compliance. It is recommended that the power issues are permanently resolved | MCO installed a permanent TEOM unit on Ulan Road in the vicinity of southern Winchester Crescent on 02/08/17, resolving the previous power supply issue. All TEOMs are fed by mains power. Meteorological and air quality management measures include daily checking of air quality and meteorological monitoring equipment. SMS alerts are provided for non-responsive units (either from equipment or communications failure and/or power outages). MCO notes that all electricity supplies will be subject to electricity distribution network outages (black-outs). | Closed |

| Condition | Detail | 2018 Audit Assessment / Recommendation | MCO Response | Status |
|-----------------------|--|---|---|--------|
| | | so that the temporary sampler is not relied upon. | | |
| M2.2 | Air Monitoring Requirements, refer to Tables within M2.2 of the Licence. | <p>Assessment: The following non-compliance and action taken has been noted by EPA:</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>Recommendation: 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.</p> | MCO installed a permanent TEOM unit on Ulan Road in the vicinity of southern Winchester Crescent on 02/08/17, resolving the previous power supply issue. All TEOMs are fed by mains power. Meteorological and air quality management measures include daily checking of air quality and meteorological monitoring equipment. SMS alerts are provided for non-responsive units (either from equipment or communications failure and/or power outages). MCO notes that all electricity supplies will be subject to electricity distribution network outages (black-outs). | Closed |
| EPBC Approvals | | | | |
| 2008/4444 CO3 | <p>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.</p> | <p>Assessment: 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</p> <p>BOMP the cover all state approvals and all EPBC approvals. MCO discussed the approach of developing</p> | <p>A complex wide Biodiversity Offset Management Plan was submitted by MCO to the DotEE for consultation on the 30th of November 2018.</p> <p>MCO will continue to consult with DotEE to finalise the Biodiversity Offset Management Plan and document these efforts.</p> | Closed |

| Condition | Detail | 2018 Audit Assessment / Recommendation | MCO Response | Status |
|------------------|---|---|---|---|
| | | <p>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.</p> <p>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>Recommendation: MCO to continue to consult with DotEE to resolve this issue and document these efforts.</p> | | |
| 2008/4444 CO4 | <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.</p> | <p>Assessment: 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 is 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.</p> <p>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.</p> <p>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. As at 8</p> | <p>MCO will continue to liaise with the DPE to finalise offsets security for the remaining properties. MCO provided revised Offset.</p> | <p>Closed (all titles have been secured).</p> |

| Condition | Detail | 2018 Audit Assessment / Recommendation | MCO Response | Status |
|--|--|---|---|--------|
| | | <p>November 2018, MCO is waiting for a response from DoE</p> <p>Recommendation: MCO to continue to consult with DotEE to resolve this issue and document these efforts.</p> | | |
| Mining Leases | | | | |
| ML 1605 Condition 3 | Update the MOP following approval of the stockpile location. | <p>Assessment: Establishment of a soil stockpile not identified in the Approved Mining Operations Plan.</p> <p>Recommendation: Update the MOP following approval of the stockpile location.</p> | <p>The CHPP stockpile has been included in the Stage 1 Modification 14 and Stage 2 Modification 3 application. The modification will be progressed through to approval.</p> <p>The MOP including the stockpile will be submitted for approval within 2 months of receiving Stage 1 Modification 14.</p> | Closed |
| Water Licences | | | | |
| WL 39799 (20BL172002) | <p>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:</p> <p>(l) Details of the bore on the prescribed form (new bores).</p> | <p>Assessment: Form A was provided to DPI however this was outside the 2-month notification period for the new bores.</p> <p>Recommendation: Ensure that bore notifications are sent to DPI within the prescribed period.</p> | MCO will provide notifications to the DPI within the 2 months of construction of new production bores. | Closed |
| Observations | | | | |
| Project Approval 05_0117 S3 C36 (d) and (f) | <p>The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary.</p> <p>This plan must:</p> <p>(d) include a detailed description of the measures...</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.</p> | <p>Assessment: 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 in compliance with this condition.</p> <p>Recommendation: Ensure that the updated plan covers all requirements of this Condition and seek approval of DP&E of the updated plan.</p> | <p>MCO has staged the development of the Biodiversity Management Plan in accordance with Project Approval Condition 13A, Schedule 2, and as approved by DPE.</p> <p>MCO will submit an updated Biodiversity Management Plan including all aspects of Condition 36 (d) and (f) within 3 months of finalising of long-term security of offsets.</p> | Closed |

7.7 Specialist Auditor Reports

Following consultation with the Community Consultative Committee prior to the commencement of this Audit, the committee provided a list of questions relating to water management. The Audit Team's groundwater specialist, Mr Brian Luinstra, has reviewed and assessed the questions against the conditions of the site. The specialist groundwater auditor's assessment has been included in the relevant sections of the Audit Tables (for details refer to Section **Error! Reference source not found.**) in Appendix A and the report is provided in Appendix E.

7.8 Operational Environmental Impacts

The assessment of actual impacts against those predicted in the EAs is provided in Table 12.

Table 12 - Predicted vs Actual Impacts

| Category | Predicted Impact | Actual Impacts to Date |
|--------------|---|---|
| Noise | Predicted Noise levels are provided in Section 6.2.5, Table 12 of the Annual Reviews. Refer also to Appendix 1, PA 05_117 Condition S3 C1. | The monitoring data reviewed, indicates noise emissions from MCO were generally lower than the predicted levels. |
| Blasting | Predicted blasting impacts are provided in Section 6.3.2 of the Annual Reviews. Refer also to Appendix 1, PA 05_117 Condition S3 C8. | The monitoring data reviewed, indicates that blast over pressure and ground vibration levels have been generally in compliance with the limits established by the project approvals and below the levels predicted in the Environmental Assessments. No damage to private property or public infrastructure has been reported. |
| Air Quality | Predicted air quality impacts are covered in Section 6.4.4 of the Annual Reviews. Refer also to Appendix 1, PA 05_117 Condition S3 C17. | During the audit (2019/ Early 2020) major bushfires had a major impact on regional air quality and generally the most significant air quality impact during the audit period. The review of monitoring data showed that the impact of the mine on local air quality was in line with predications made in the environmental assessments. |
| Biodiversity | Vegetation clearing areas as per the Environmental Assessments. Refer also to the vegetation clearing limits established under the four EPBC approvals (Appendix 1). | Clearing of vegetation for the purposes of the mining operations was in accordance with the disturbance areas predicted in the Environmental Assessments. No evidence of unapproved clearing has been recorded. Impacts on fauna is in line with predictions contained in the Environmental Assessments. |
| Heritage | No significant impact on heritage artifacts / values in areas not approved for disturbance. | There have been no recorded unapproved impacts to heritage artifacts or areas. |
| Groundwater | Groundwater levels in the Ulan coal seam and Permian coal measures are extensively affected by past mining and are predicted to undergo further impact from mining at Moolarben and neighbouring operations. Refer also to Table 25 in the Annual Reviews. | No water was extracted from production bores during the audit period. MCO had negligible impact on private groundwater users during the reporting period. Groundwater monitoring during the audit period have been influenced by a combination of climatic conditions, continued approved mining |

| Category | Predicted Impact | Actual Impacts to Date |
|-----------------|--|--|
| | | impacts for MCO open cut and underground operations and regional depressurisation due to neighbouring operations. Groundwater impacts are generally in line with predictions. |
| Surface Water | No impact of regional surface water quality. | The audit period was characterized by lower-than-average rainfall followed by above average rainfall. The climatic conditions have influenced regional water quality. Monitoring undertaken by MCO indicates that MCO has had minimal impact on surface systems. |
| Mine Subsidence | Mine subsidence predictions are provided in Section 8, Table 27 of the Annual Reviews. | <p>Mine subsidence was monitored throughout the audit period for UG1 operations. All mining undertaken during the audit period was within the project boundaries. No impacts were recorded on either public or private properties adjacent to the mine.</p> <p>Subsidence monitoring indicated that to date, subsidence is within predictions.</p> |

Compliance Table

Appendix A

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| Cond. | Short Title | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation | |
|---|--|--|--|--|----------------------------|---|--|----------------|--|
| Schedule 2 Administrative Conditions | | | | | | | | | |
| S 2 C1 | Obligation to Minimise Harm to The Environment | 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 | | |
| S2 C2 | Terms of Approval | 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. | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Incident Register | Environment and Community Manager - No penalty notices have been issued during the reporting period. | | No significant compliance incidents were reported in 2018. Two reportable incidents including a spontaneous combustion incident resulted in an odour compliant were recorded in 2019. Five noncompliances were recorded in 2020, none of the incidents resulted in material harm to the environment. | Noted | | |
| S2 C3 | Terms of Approval | 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 | | |
| S2 C4 | Terms of Approval | The Proponent shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of: | | | | The Auditor did not sight any correspondence from DPIE covering this audit period that required any actions from MCO in relation to any strategies, plans, programs, reviews, audits or reports. | Not Triggered | | |
| | | 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 | | | | | The Auditor did not sight any correspondence from DPIE covering this audit period that required any actions from MCO in relation to any compliance issues. | Not Triggered | |
| | | c) the implementation of any actions or measures contained in these documents. | | | | The Auditor did not sight any correspondence from DPIE covering this audit period that required any actions from MCO in relation to any strategies, plans, programs, reviews, audits or reports. | Not Triggered | | |
| S2 C5 | Mining Operations | The Proponent may carry out mining operations on the site until 31 December 2038. | | | | | Noted | | |
| S2 C5A | 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. | | Environment and Community Manager - Longwall mining within Underground 4 panels LW9 to LW14 has not commenced during the reporting period. | | Longwall mining within Underground 4 panels LW9 to LW14 has not commenced during the reporting period. | Not Triggered | | |
| S2 C6 | Coal Extraction | The Proponent shall not extract more than: a) 10 million tonnes of ROM coal from the open-cut mining operations of the project in any calendar year except 2015 and 2016; | Moolarben Coal Complex Annual Review 2018 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2019 Table 8 Production Summary. | | | 3,933,920 tonnes of ROM coal were produced from Stage 1 open cuts during the 2018 calendar year. 3,890,579 tonnes of ROM coal were produced | Complies | | |

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| Cond. | Short Title | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
|--------|----------------------------|---|---|--|----------------------------|---|------------|----------------|
| | | | Moolarben Coal Complex Annual Review 2020 Table 8 Production Summary. | | | from Stage 1 open cuts during the 2019 calendar year. 3,237,139 tonnes of ROM coal were produced from Stage 1 open cuts during the 2020 calendar year. | | |
| | | b) 9 million tonnes of ROM coal from the open-cut mining operations of the project in the calendar years 2015 and 2016; and | | | | Compliance with this condition was verified in previous IEAs. | Complies | |
| | | c) 8 million tonnes of ROM coal from the underground mining operations of the project in any calendar year. | Moolarben Coal Complex Annual Review 2018 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2019 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2020 Table 8 Production Summary. | Environment and Community Manager - PA 05_0177 includes UG4, development commenced in UG4 in late 2020, no longwall mining in UG4 during the reporting period. | | Annual Reviews for 2018, 2019, 2020 report underground coal extraction consistent with these conditions | Complies | |
| S2 C7 | Coal Handling & Processing | The proponent shall not: | Moolarben Coal Complex Annual Review 2018 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2019 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2020 Table 8 Production Summary. | | | 12,570,428 tonnes of ROM coal were washed during the 2018 calendar year. 13,489,718 tonnes of ROM coal were washed during the 2019 calendar year. 13,957,845 tonnes of ROM coal were washed during the 2020 calendar year. | Complies | |
| | | b) Handle a total of more than 16 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 | Moolarben Coal Complex Annual Review 2018 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2019 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2020 Table 8 Production Summary. | | | 12,999,835 tonnes of Open Cut ROM coal were handled at the Moolarben Coal Complex during the 2018 calendar year. 14,089,294 tonnes of Open Cut ROM coal were handled at the Moolarben Coal Complex during the 2019 calendar year. 14,110,932 tonnes of Open Cut ROM coal were handled at the Moolarben Coal Complex during the 2020 calendar year. | Complies | |
| | | 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. | Moolarben Coal Complex Annual Review 2018 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2019 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2020 Table 8 Production Summary. | | | 5,588,036 tonnes of Underground ROM coal were handled at the Moolarben Coal Complex during the 2018 calendar year. 6,424,761 tonnes of Underground ROM coal were handled at the Moolarben Coal Complex during the 2019 calendar year. 7,545,551 tonnes of Underground ROM coal were handled at the Moolarben Coal Complex during the 2020 calendar year. | Complies | |
| S2 C7A | Coal Handling & Processing | In the 2017 calendar year, the proponent may wash up to 13.5 million tonnes of coal at the coal handling and preparation plant. | 2017 Annual Review Coal reporting sheet for 2017 | | | 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. | Complies | |
| | | | | | | | | |

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| Cond. | Short Title | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
|-------|---------------------|---|--|---|---|--|------------|----------------|
| S2 C8 | Coal Transport | The Proponent shall ensure that: a) all product coal is transported from the site by rail; and | | Environment and Community Manager – all product coal is transported by rail from the site to the Kooragang Island coal terminals. | | | Complies | |
| | | b) no more than 8 laden trains leave the site each day on average when calculated over any calendar year; | Email from MCO Coal Quality & Logistics Coordinator (K Purcell) to the MCO Environment Community Manager (T Cini) titled “Rail Movements during 2020”, dated 18 March 2021. The email documents the total train numbers, average and maximum daily train departures. Moolarben Coal Complex Annual Review 2018 Section 4.2.5. Moolarben Coal Complex Annual Review 2019 Section 4.2.5. Moolarben Coal Complex Annual Review 2020 Section 4.2.5. | | | During 2018 MCO reported a maximum of 8 trains departed the site on any day. An average of 5.1 daily train departures were recorded. During 2019 MCO reported a maximum of 9 trains departed the site on any day. An average of 5.5 daily train departures were recorded. During 2020 MCO reported a maximum of 9 trains departed the site on any day. An average of 5.9 daily train departures were recorded. | Complies | |
| | | c) no more than 11 laden trains leave the site each day; and | Moolarben Coal Complex Annual Review 2018 Section 4.2.5. Moolarben Coal Complex Annual Review 2019 Section 4.2.5. Moolarben Coal Complex Annual Review 2020 Section 4.2.5. | | | During 2018 MCO reported a maximum of 8 trains departed the site on any day. An average of 5.1 daily train departures were recorded. During 2019 MCO reported a maximum of 9 trains departed the site on any day. An average of 5.5 daily train departures were recorded. During 2020 MCO reported a maximum of 9 trains departed the site on any day. An average of 5.9 daily train departures were recorded. | Complies | |
| | | d) no more than 22 million tonnes are transported from the site in any calendar year. | Moolarben Coal Complex Annual Review 2018 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2019 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2020 Table 8 Production Summary. | | | In 2018 a total of 16,521,118 tonnes of product coal mined was transported from the mine. In 2019 a total of 17,851,631 tonnes of product coal mined was transported from the mine. In 2020 a total of 19,775,825 tonnes of product coal mined was transported from the mine. | Complies | |
| S2 C9 | Structural Adequacy | 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. | Fuel Farm Construction Certificate (Whitehall Building Certifiers) CC No. 1420, dated 20 March 2020. Communications Tower Construction Certificate (Whitehall Building Certifiers) CC No. 12019, dated 13 October 2019. Operator Control Room, Water Storage Tank and Igloo Storage Occupation Certificate (Whitehall Building Certifiers) dated 14 July 2020. Operator Control Room, Water Storage Tank and Igloo Storage Construction Certificate (Whitehall Building Certifiers) CC No. 6619, dated 18 October 2019. Water Treatment Plant Complying Development Certificate Construction Certificate (Whitehall Building Certifiers), dated 5 June 2019. | Environment and Community Manager - during the audit period a new fuel farm, water treatment plant, and communications tower, were constructed. | The new fuel farm and water treatment plant were inspected during this IEA. No other recently completed structures were sighted during the site inspection. | The construction works undertaken during the audit period were monitored and approved (including compliance with the relevant BCA requirements) by an independent certifier. | Complies | |

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| Cond. | Short Title | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
|---------|--|--|---|--|--|---|---------------|----------------|
| S2 C10 | Demolition | 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. | | Environment and Community Manager - No demolition works have been undertaken during the audit period. | | No demolition works have been undertaken during the audit period. | Not triggered | |
| S2 C11 | Protection of Public Infrastructure | 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 | Moolarben Coal Complex Annual Review 2018 Section 8. Moolarben Coal Complex Annual Review 2019 Section 8. Moolarben Coal Complex Annual Review 2020 Section 8. | Environment and Community Manager - No recorded impacts on roads or other infrastructure during the audit period. | | MCO environmental representative advised the auditors that there have been no recorded impacts on roads or other infrastructure during the audit period. | Not Triggered | |
| | | (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. | Moolarben Coal Complex Annual Review 2018 Section 8. Moolarben Coal Complex Annual Review 2019 Section 8. Moolarben Coal Complex Annual Review 2020 Section 8. | Environment and Community Manager - No recorded impacts on roads or other infrastructure during the audit period. | | MCO environmental representative advised the auditors that there have been no recorded impacts on roads or other infrastructure during the audit period. | Not Triggered | |
| S2 C12 | Operation of Plant and Equipment | The Proponent shall ensure that all plant and equipment used at the site, or in connection with the project, is: a) maintained in a proper and efficient condition; and is | Spreadsheets containing extracts from the SAP system detailing equipment maintenance undertaken (sampled) over the audit period. titled: <ul style="list-style-type: none"> • 2019 OC Final W10 • 2019 OC Final W30 • 2019 OC Final W50 • 2020 OC Final W08 • 2020 OC Final W26 • 2020 OC Final W43 • 2021 OC Final W15 • 2021 OC Final W34 • 2021 OC Final W43 | Environment and Community Manager – MCO operate an SAP system that schedules, tracks and reports on plant and equipment maintenance across the operation. | | MCO advised that plant and equipment is maintained using the Maintenance Schedule (SAP Records Management). The maintenance schedule was sighted during the site inspection. 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. | Complies | |
| | | b) operated in a proper and efficient manner. | | | The Auditor inspected the MCO maintenance facilities. All plant and equipment observed during the audit appeared to be appropriately maintained. | 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 | Complies | |
| S2 C13 | Staged Submission of Strategies, Plans or Programs | With the approval of the Secretary, the Proponent may: a) submit any strategy, plan or program required by this approval on a progressive basis; and 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. | | | | | Noted | |
| S2 C13A | | 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. | Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex Stage 1 (PA05_0117) and Stage 2(PA 08_0135) Revisions of Management Plans and Strategies", dated 23/09/2020. Email from the Gallangabang Aboriginal Corporation (B Bliss) to MCO (T Cini) titled "Moolarben Coal Complex – Updated HMP | Environment and Community Manager - All environmental plans were reviewed and revised during 2020. The SWMP, RMP and HMP consultation was undertaken in accordance with DPIE requirements (letter dated 23 September 2020) and all revised plans were reviewed and | | DPIE wrote to MCO on 23 September 2020 confirming that stakeholder consultation was required only on the following plans: <ul style="list-style-type: none"> • Surface Water Management Plan (SWMP) - Consult with DPI Water, Natural Resources Access Regulator and the EPA | Complies | |

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| Cond. | Short Title | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|--|-------------------|----------------------------|--|-------------------|----------------|----|----|----|----|----|----|----|----|----|--------------------------------------|----|----|----|----|---------------------|---------------------------|--|--|---|----------------------|---------------------------|--|--|---|--|----------------|--|--|---|--|--|--|--|
| | | | for Comment”, dated 21 September 2020. Letter from MCO (G Chase) to DPIE titled “Moolarben Coal Complex – Heritage Management Plan – Amendment for Approval”, dated 24 September 2020. The letter records the consultation outcomes with relevant RAPs and Heritage NSW and submits the plan for review and approval. Letter from MCO (G Chase) to DPIE titled “Moolarben Coal Complex – Surface Water Management Plan – Amendment for Approval”, dated 28 September 2020. The letter records the consultation outcomes with the NRAR and submits the plan for review and approval. Letter from the EPA (J Goodwin) to MCO (G Chase) titled “Updated Surface Water Management Plan Moolarben Coal Mine”, dated 12 October 2020. The letter communicates the EPA’s policy that it does not comment on management plans. | approved by DPIE. | | <ul style="list-style-type: none"> Rehabilitation Management Plan (RMP) - consultation with the Department’s Planning and Assessment Group, noting the plan is to be approved by Resources Regulator. Heritage Management Plan (HMP) - Consult with OEH and Registered Aboriginal Parties (RAPs). Correspondence evidencing consultation with relevant bodies was sighted. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S2 C14 | Voluntary Planning Agreement | Within 12 months of this approval, the Proponent shall enter into a planning agreement with Council in accordance with: a) Division 6 of Part 4 of the EP&A Act; b) the terms of the Proponent’s offer to the Minister on 4 September 2007, which includes the matters set out in Appendix 4. | Project Approval 05_0117 Appendix 4 Voluntary Planning Agreement | | | 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. | Complies | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S3 C1A and C1B | | Deleted | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S3 C1 | Transitional Acquisition and Mitigation Arrangements | 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. Noise generated by the Moolarben mine complex is to be measured in accordance with the relevant requirements of the NSW Noise Policy for Industry. 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. | Moolarben Coal Complex Annual Review 2018 Section 6, Table 11. Moolarben Coal Complex Annual Review 2019 Section 6, Table 11. Moolarben Coal Complex Annual Review 2020 Section 6, Table 11. Moolarben Coal Operations Monthly Environmental Noise Monitoring June 2020 prepared by Global Acoustics. Moolarben Coal Operations Environmental Noise Monitoring Quarter 2 2019, prepared by Global Acoustics. Moolarben Coal Operations Quarterly Environmental Noise Monitoring August 2021, prepared by Spectrum Acoustics. | | | Environmental noise monitoring was undertaken in accordance with the Noise Management Plan throughout the audit period by independent consultants. No environmental noise non-compliances were recorded during the audit period. | Complies | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S3 C1 | Table 1 | <table border="1"> <thead> <tr> <th>Land Number</th> <th>Day LAeq(15min)</th> <th>Evening LAeq(15min)</th> <th>Night LAeq(15min)</th> <th>Night (LA1(1min))</th> </tr> </thead> <tbody> <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>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 colspan="3">35 (internal) when in use</td> <td>-</td> </tr> <tr> <td>Ulan Anglican Church</td> <td colspan="3">35 (internal) when in use</td> <td>-</td> </tr> <tr> <td>Goulburn River National Park Munghorn Gap Nature Reserve</td> <td colspan="3">50 when in use</td> <td>-</td> </tr> </tbody> </table> | Land Number | Day LAeq(15min) | Evening LAeq(15min) | Night LAeq(15min) | Night (LA1(1min)) | 70 | 37 | 37 | 37 | 45 | 75 | 36 | 36 | 36 | 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 Munghorn Gap Nature Reserve | 50 when in use | | | - | | | | |
| Land Number | Day LAeq(15min) | Evening LAeq(15min) | Night LAeq(15min) | Night (LA1(1min)) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 70 | 37 | 37 | 37 | 45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 75 | 36 | 36 | 36 | 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 Munghorn Gap Nature Reserve | 50 when in use | | | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| S3 C2 | Noise Criteria Land Acquisition Criteria | <p>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 Schedule. 4. Table 2A: Acquisition criteria dB(A) LAeq (15min)</p> <p>All Privately Owned residences:</p> <ul style="list-style-type: none"> Day (LAeq (15min)) 40 Evening (LAeq (15min)) 40 Night (LAeq (15min)) 40 | <p>Moolarben Coal Complex Annual Review 2018 Section 6, Table 11.</p> <p>Moolarben Coal Complex Annual Review 2019 Section 6, Table 11.</p> <p>Moolarben Coal Complex Annual Review 2020 Section 6, Table 11.</p> <p>Moolarben Coal Operations Monthly Environmental Noise Monitoring June 2020 prepared by Global Acoustics.</p> <p>Moolarben Coal Operations Environmental Noise Monitoring Quarter 2 2019, prepared by Global Acoustics.</p> <p>Moolarben Coal Operations Quarterly Environmental Noise Monitoring August 2021, prepared by Spectrum Acoustics.</p> | | | <p>Environmental noise monitoring was undertaken in accordance with the Noise Management Plan throughout the audit period by independent consultants.</p> <p>No environmental noise non-compliances were recorded during the audit period and therefore, the noise acquisition criteria were not triggered.</p> | Not Triggered | |
| S3 C3 | Noise Criteria Land Acquisition Criteria | <p>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 Schedule 4.</p> <p>Table 2: Land acquisition criteria</p> <p>All Privately Owned residences:</p> <ul style="list-style-type: none"> Day (LAeq (period)) 55 Evening (LAeq (period)) 50 Night (LAeq (period)) 45 | <p>Moolarben Coal Complex Annual Review 2018 Section 6, Table 11.</p> <p>Moolarben Coal Complex Annual Review 2019 Section 6, Table 11.</p> <p>Moolarben Coal Complex Annual Review 2020 Section 6, Table 11.</p> <p>Moolarben Coal Operations Monthly Environmental Noise Monitoring June 2020 prepared by Global Acoustics.</p> <p>Moolarben Coal Operations Environmental Noise Monitoring Quarter 2 2019, prepared by Global Acoustics.</p> <p>Moolarben Coal Operations Quarterly Environmental Noise Monitoring August 2021, prepared by Spectrum Acoustics.</p> | | | <p>Environmental noise monitoring was undertaken in accordance with the Noise Management Plan throughout the audit period by independent consultants.</p> <p>No environmental noise non-compliances were recorded during the audit period and therefore, the noise acquisition criteria were not triggered.</p> | Not Triggered | |
| S3 C4 | Noise Mitigation Criteria | <p>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) LAeq (15min)</p> <p>All Privately Owned residences:</p> <ul style="list-style-type: none"> Day (LAeq (period)) 37 Evening (LAeq (15min)) 37 Night (LAeq (15min)) 37. | <p>Moolarben Coal Complex Annual Review 2018 Section 6, Table 11.</p> <p>Moolarben Coal Complex Annual Review 2019 Section 6, Table 11.</p> <p>Moolarben Coal Complex Annual Review 2020 Section 6, Table 11.</p> <p>Moolarben Coal Operations Monthly Environmental Noise Monitoring June 2020 prepared by Global Acoustics.</p> <p>Moolarben Coal Operations Environmental Noise Monitoring Quarter 2 2019, prepared by Global Acoustics.</p> <p>Moolarben Coal Operations Quarterly Environmental Noise Monitoring August 2021, prepared by Spectrum Acoustics.</p> | | | <p>Environmental noise monitoring was undertaken in accordance with the Noise Management Plan throughout the audit period by independent consultants.</p> <p>No environmental noise non-compliances were recorded during the audit period and therefore, the noise mitigation criteria were not triggered.</p> | Not Triggered | |
| S3 C5 | Deleted | | | | | | | |

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|-------|----------------------|---|--|---|---|---|------------|----------------|
| S3 C6 | Operating Conditions | <p>The Proponent shall:</p> <p>a) implement best management practice to minimise the operational, road and rail noise of the project;</p> | <p>Noise Management Plan Version 5 dated October 2020.</p> <p>MPEA Checklist: Environmental Responsibilities:</p> <ul style="list-style-type: none"> 21 October 2018 21 September 2019 <p>Environmental Forecast Report (prepared by Jacobs) dated 17 October 2020.</p> <p>Environmental Noise Alarm (internal management tool) dated 1 November 2021.</p> | | | <p>Management Practices are set out in Section 6 of the Noise Management Plan (NMP). These management practices include ways to minimise operational, road and rail noise.</p> <p>A review of randomly selected environmental checklists (MPEA Checklists) evidenced conformance with the requirements of the NMP.</p> <p>Noise monitoring undertaken during the audit period (refer to Condition S3 C1 above) detected no environmental noise exceedances during the audit period.</p> | Complies | |
| | | <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>Environmental Forecast Reports (prepared by Jacobs):</p> <ul style="list-style-type: none"> 4 September 2018 17 October 2020. <p>Environmental Noise Forecast (24 / 25 November 2021) prepared by Todoroski Air Sciences.</p> <p>Sound and Vibration Analyser Certificate of Calibration (SLM 27238 & FILT 5883) issued by ACU-VIB Electronics, dated 7 July 2020.</p> <p>Noise Monitoring Record completed by N Ott, dated 9 November 2021.</p> | <p>Environment and Community Manager – Jacobs provide daily environmental (wind / temperature) forecasts for the mine site. Todoroski Air Sciences have prepared (and operate) a predictive environmental noise model and provide daily noise impact predications. MCO use this information to assist with planning daily operations.</p> | <p>During the site inspection noise monitoring stations were sighted.</p> | <p>Predictive meteorological forecasting and continuous noise monitoring is covered in section 6 and 7 of the NMP.</p> <p>MCO operates a predictive noise model which is used in conjunction with real-time response protocols as part of the comprehensive noise management system at the Moolarben Coal Complex:</p> <ul style="list-style-type: none"> Predictive meteorological forecasting (Environmental Forecasting System) Real-time monitoring is conducted at ND2, NR3, NR4, NR5 and NR10. <p>Monitoring equipment calibration certificates were sighted.</p> | Complies | |
| S3 C6 | Operating Conditions | <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> | <p>Noise Management Plan Version 5 dated October 2020.</p> <p>MPEA Checklist: Environmental Responsibilities:</p> <ul style="list-style-type: none"> 21 October 2018 21 September 2019 | | | <p>Section 6.4 of the NMP describes the real-time noise triggers and response protocols.</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> | Complies | |
| | | <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 EL</p> | <p>Letter from Pacific National (J McIntosh) to MCO dated 16 October 2018. The letter provided confirmation that Locomotives and Rolling Stock that meet ARTC Noise Limits as specified in the ARTC Environment Protection Licence.</p> <p>Letter from Aurizon (H Egan) to MCO dated 16 October 2018. The letter provided confirmation that Locomotives and Rolling Stock that meet ARTC Noise Limits as specified in the ARTC Environment Protection Licence.</p> <p>Letter from Genessee & Wyoming P/L (A Reed) to Yancoal (A Maher) dated 16 October 2018. The letter provided confirmation that Locomotives and Rolling Stock that meet ARTC Noise Limits as specified in the ARTC Environment Protection Licence.</p> | | | <p>Pacific National, Genessee & Wyoming Australia p/l and Aurizon provided letters in 2018 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 3142.</p> | Complies | |
| | | <p>e) co-ordinate noise management with the noise management at Ulan and Wilpinjong mines to minimise cumulative noise impacts;</p> | <p>Moolarben Coal / Wilpinjong Coal Data Sharing Agreement dated 22 January 2014.</p> | | | <p>Noise data and forecasting is shared between Moolarben, Ulan and Wilpinjong mines, in accordance with the Data Sharing Deed between the organisations dated 22 January 2014.</p> | Complies | |

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| | | 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. | Noise Management Plan Version 5 dated October 2020. Moolarben Coal Complex Annual Review 2018 Section 6, Table 11. Moolarben Coal Complex Annual Review 2019 Section 6, Table 11. Moolarben Coal Complex Annual Review 2020 Section 6, Table 11. | | | Noise monitoring data was sighted covering the audit period. Noise monitoring that is implemented at MCO is described in Section 7 of the NMP. | Complies | |
| S3 C7 | Noise Management Plan | 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; | Noise Management Plan Version 5 dated October 2020. Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex Stage 1 (PA05_0117) and Stage 2(PA 08_0135) Revisions of Management Plans and Strategies", dated 23/09/2020. Letter from the EPA (J Goodwin) to MCO (G Chase) titled "Updated Surface Water Management Plan Moolarben Coal Mine", dated 12 October 2020. The letter communicates the EPA's policy that it does not comment on management plans. Letter from DPIE (S Donoghue) to MCO (G Chase) titled "Moolarben Coal Mine (MP05_0117) and Moolarben Coal – Expansion (MP08_0135) Noise Management Plan", dated 22/10/2020. The letter details DPIE review and approval of the plan under both Approvals. | | | The NMP was reviewed and updated in 2020. The plan was subsequently approved by DPIE in October 2020. DPIE wrote to MCO on 23 September 2020 confirming that stakeholder consultation was not required for this revision of the plan. It is noted that the EPA advised MCO that EPA's current policy was to not provide comments on management plans. | Complies | |
| | | (b) describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions in this approval; | Noise Management Plan Version 5 dated October 2020. | | | The compliance requirements for noise are described in Section 2 of the NMP. Noise Criteria are described in Section 4 of the NMP. Noise management measures to ensure compliance with the noise criteria and operating conditions are detailed in section 6 of the NMP. Responses to exceedances at continuous noise monitoring locations are set out in section 8. | Complies | |
| | | (c) describe the proposed noise management system in detail; | Noise Management Plan Version 5 dated October 2020. | | | The noise management system is described in Section 6 of the NMP. | Complies | |
| | | (d) include a monitoring program that: <ul style="list-style-type: none"> uses attended noise monitoring to evaluate compliance of the project against the noise criteria in this approval; 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); <ul style="list-style-type: none"> evaluates and reports on: the effectiveness of the noise management system | Noise Management Plan Version 5 dated October 2020. | | | 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). The noise monitoring program is described in Section 7 of the NMP. 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 | Complies | |

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|--|--------------------------------------|---|--|--|----------------------------|--|--|----------------|----|----|--|-----|---|---|-----------------------|---|----|----|--|--|--|--|--|
| | | <ul style="list-style-type: none"> compliance against the noise operating conditions iv) defines what constitutes a noise incident and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents. | | | | 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). The noise monitoring program is described in section 7 of the NMP Effectiveness and improvement is covered in section 9. Incidents and management of incidents is detailed in section 8 of the NMP | | | | | | | | | | | | | | | | | |
| S3 C8 | Blasting Criteria | 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 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. | Moolarben Coal Complex Annual Review 2018 Section 6, Table 13. Moolarben Coal Complex Annual Review 2019 Section 6, Table 13. Moolarben Coal Complex Annual Review 2020 Section 6, Table 13. Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021. | | | No exceedances of the blast criteria were reported during the 2018, 2019 and 2020 calendar years or during the first nine months of 2021. | Complies | | | | | | | | | | | | | | | | |
| | Blasting Criteria Table 4 | <table border="1"> <thead> <tr> <th>Location</th> <th>Airblast Overpressure (dB(Lin Peak))</th> <th>Ground Vibration</th> <th>Allowable Exceedance</th> </tr> </thead> <tbody> <tr> <td>Residences on privately owned land, churches and schools</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 12 months</td> </tr> <tr> <td>Public Infrastructure</td> <td>-</td> <td>50</td> <td>0%</td> </tr> </tbody> </table> | Location | Airblast Overpressure (dB(Lin Peak)) | Ground Vibration | Allowable Exceedance | Residences on privately owned land, churches and schools | 120 | 10 | 0% | | 115 | 5 | 5% of the total number of blasts over 12 months | Public Infrastructure | - | 50 | 0% | | | | | |
| Location | Airblast Overpressure (dB(Lin Peak)) | Ground Vibration | Allowable Exceedance | | | | | | | | | | | | | | | | | | | | |
| Residences on privately owned land, churches and schools | 120 | 10 | 0% | | | | | | | | | | | | | | | | | | | | |
| | 115 | 5 | 5% of the total number of blasts over 12 months | | | | | | | | | | | | | | | | | | | | |
| Public Infrastructure | - | 50 | 0% | | | | | | | | | | | | | | | | | | | | |
| S3 C9 | Blasting Hours | 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. | Blast Management Plan Version 6 dated 29 October 2020. Spreadsheet titled "Blast Data 2021" covering the period 05/01/2021 to 30/11/2021. 2018 Annual Review Appendix 3C (Blast Monitoring Data) 2018 Annual Review Appendix 3C (Blast Monitoring Data) 2021 Annual Review Appendix 3C (Blast Monitoring Data) | | | Approved blasting hours are set out in section 3.1 of the Blasting Management Plan (BMP). Blast data from 05/07/2018 to 30/06/2021 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. | Complies | | | | | | | | | | | | | | | | |
| S3 C10 | Blasting Frequency | The Proponent may carry out a maximum of: i) 2 blasts a day; and <i>Note: For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine.</i> | Blast Management Plan Version 6 dated 29 October 2020. Spreadsheet titled "Blast Data 2021" covering the period 05/01/2021 to 30/11/2021. 2018 Annual Review Appendix 3C (Blast Monitoring Data) 2018 Annual Review Appendix 3C (Blast Monitoring Data) 2021 Annual Review Appendix 3C (Blast Monitoring Data) | Environment and Community Manager - The blast on the 14th of June 2018, as reported in the annual review on that day there were two blasts fired. A miss fire in the second blast required MCO to re-fire this blast for the safety of the mine and its workers. On the 17th of August 2020 there were only two blast fired, blast identifiers OC4-CO-103A and OC4-OB-366. Blast OC4-OB-366 were loaded in two sections including an upper section and a lower section close to coal (described as a baby deck) in order to minimise damage to coal | | Blast monitoring from 05/07/2018 to 30/06/2021 was reviewed and confirmed that the number of blasts per day did not exceed two, with the following exceptions: <ul style="list-style-type: none"> 14 June 2018; and 17 August 2020. The Auditor reviewed the blasting records that confirmed that the third daily blast on 5 July 2018 was required to manage a mis-fire and the 17 August 2020 event was not a third daily blast. | Complies | | | | | | | | | | | | | | | | |

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| | | | | there is a 9sec pause from the initiation time, this sometimes results in a third recording of results in MCO's monitoring equipment. | | | | |
| | | ii) 9 blasts a week, averaged over a calendar year, at the Moolarben mine complex. <i>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.</i> | Blast Management Plan Version 6 dated 29 October 2020. Spreadsheet titled "Blast Data 2021" covering the period 05/01/2021 to 30/11/2021. 2018 Annual Review Appendix 3C (Blast Monitoring Data) 2018 Annual Review Appendix 3C (Blast Monitoring Data) 2021 Annual Review Appendix 3C (Blast Monitoring Data) | | | Blast monitoring from 05/07/2018 to 30/06/2021 was reviewed and confirmed that no more than 9 blasts were undertaken in any week during the audit period. | Complies | |
| S3 C11 | Property Inspections | 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: a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to: <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 | Incident Register Complaints Register | Environment and Community Manager – no requests for any written reports were received during the audit period. | | No records of requests for inspections were sighted for the audit period. No written requests for property inspections were requested by any owner of privately-owned land during the audit period. | Not Triggered | |
| S3 C11 | Property Inspections | 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. | Incident Register Complaints Register | Environment and Community Manager – no requests for any written reports were received during the audit period. | | No records of requests for inspections were sighted for the audit period. No written requests for property inspections were requested by any owner of privately-owned land during the audit period. | Not Triggered | |
| S3 C12 | Property Inspections | 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: a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to investigate the claim; and | Incident Register Complaints Register | Environment and Community Manager – no claims for blasting related damage were received during the audit period. | | No claims for blast related damage were made by any owner of privately-owned land during the audit period. | Not Triggered | |

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| | | <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> | <p>Incident Register</p> <p>Complaints Register</p> | <p>Environment and Community Manager – no claims for blasting related damage were received during the audit period.</p> | | <p>No claims for blast related damage were made by any owner of privately-owned land during the audit period.</p> | <p>Not Triggered</p> | |
| S3 C13 | Operating Conditions | <p>The Proponent shall:</p> <p>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; | <p>Blast Management Plan Version 6 dated 29 October 2020.</p> <p>MCO website Complaints Register</p> | | | <p>During the audit period MCO blast monitoring results demonstrated compliance (refer conditions 8, 9 and 10 above). No complaints were received by the Mine in relation to blasting impacts on public safety, property damage or dust or fume emissions.</p> | <p>Complies</p> | |
| S3 C13 | Operating Conditions | <p>b) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule. on site; and</p> | <p>Blast Management Plan Version 6 dated 29 October 2020.</p> <p>MCO Website http://www.moolarbencoal.com.au/page/environment/blasting-information/</p> | <p>Environment and Community Manager - We currently have seventeen landowners or leaseholders within our blast notification register including the Ulan Public School'.</p> | <p>Blast information is displayed on a large notice board (Photograph 1) at the entrance to the site.</p> | <p>Blast information is displayed at the entrance to the site and is published on the MCO website. Public notice practices are set out in section 6.1 of the BMP. Private landholders can register to receive blast notifications.</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. There are seventeen external parties on the register.</p> <p>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>Complies</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> | <p>Blast Management Plan Version 6 dated 29 October 2020.</p> <p>MCO Website http://www.moolarbencoal.com.au/page/environment/blasting-information/</p> <p>Blast notification email 2/11/2021</p> <p>Blast text notifications (screen shots) 10 October 2021</p> | | | <p>Cumulative blasting impacts are covered in section 6.6 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 and 2/11/2021) was sighted during the audit.</p> | <p>Complies</p> | |

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| S3 C14 | Operating Conditions | The Proponent shall not undertake blasting on site within 500 metres of: a) any public road; | Blast Management Plan Version 6 dated 29 October 2020. | | At the time of this IEA mining operations at MCO (and therefore blasting) was not observed within 500 metres of any operational public road. | Auditor observations during the site inspection confirmed that the current blast area for the Moolarben Coal Complex is greater than 500m from Railway and Transmission lines and any other property not owned by the mine. | Complies | |
| | | b) the Gulgong to Sandy Hollow Railway Line; | Blasting Deed between ARTC and MCO dated 27 August 2010. | | | MCO has a written agreement with the Australian Rail Track Corporation (ARTC) to undertake blasting within 500 metres (m) of ARTC infrastructure, respectively. | Complies | |
| | | c) the Wollar-Wellington 330kV Transmission Line; or | Letter from Transgrid (I Davidson) to MCO (G Browning) titled "Impact of Blasting on the Transgrid Wollar-Wellington 330kV Transmission Line No.79 Due to Moolarben Coal Mine Operations", dated 29 April 2010. | | | MCO has a written agreement with TransGrid to undertake blasting within 500 metres (m) of the Wollar-Wellington 330 kV transmission line. | Complies | |
| | | d) any land outside the site not owned by the Proponent, unless the Proponent has: <ul style="list-style-type: none"> demonstrated to the satisfaction of the Secretary that the blasting can be carried out closer to the 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. | Blast Management Plan Version 6 dated 29 October 2020. | | At the time of this IEA mining operations at MCO (and therefore blasting) was not observed within 500 metres of any operational public road. | 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 other property not owned by the mine. | Complies | |
| S3 C15 | Blast Management Plan | 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: (a) be prepared in consultation with the EPA and be submitted to the Secretary for approval by 31 March 2015; | Blast Management Plan Version 6 dated 29 October 2020. Letter from DP&E (dated 25/02/2015) RE: Moolarben Coal Approval of Management Plans/Strategy (sighted during the 2018 IEA) Letter from DPIE (to MCO (G Chase) titled "Moolarben Coal Mine (MP05_0117) and Moolarben Coal – Expansion (MP08_0135) Blast Management Plan", dated 22 October 2020. Letter from the EPA (S Ledger) to MCO (G Chase) titled "Moolarben Response to EOA Comment of Management Plans Moolarben Coal Mines", dated 14 February 2020. | | | The former DP&E approved the original Blast Management Plan on 25 February 2015. The most recent revision of the plans was issued in 2020 and was reviewed by both the EPA and DPIE and approved by DPIE. | Complies | |
| | | (b) describe the measures that would be implemented to ensure compliance with the blast criteria and operating conditions of this approval; | Blast Management Plan Version 6 dated 29 October 2020 | | | (b) Blast management and control measures are covered in Section 6 of the BMP 'Blast Management and Control Measures'. | Complies | |

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| | | (c) propose and justify any alternative ground vibration limits for public infrastructure in the vicinity of the site (if relevant); and | Blast Management Plan Version 6 dated 29 October 2020 | | | Section 6 of the BMP discusses public infrastructure. Alternative ground vibration limits are as follows: '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'. | Complies | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | (d) include a monitoring program for evaluating compliance with the blasting criteria and operating conditions of this approval. | Blast Management Plan Version 6 dated 29 October 2020 | | | 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. | Complies | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S3 C16 | Odour | The Proponent shall ensure that no offensive odours, as defined under the POEO Act, are emitted from the site. | Complaint Register (2018 / 2019 / 2020 / 2021) Moolarben Coal Complex Annual Review 2019 Letter from MCO (G Chase) to the EPA, titled "Environmental Event Report Moolarben Coal Operations Pty Ltd – Odour Complaint 20 October 2019", dated 28 October 2019. The report was prepared in response to a request by the EPA on 21 October 2019 as a result of the complaint received by the EPA. | | During the IEA site inspection, no offensive odours were detected by the Auditor. | A review of the complaints received during the audit period revealed that two odour complaints were received (20 October 2019 and 18 May 2020). Internal investigations by MCO found that no unusual mining operations were being undertaken, however the 2019 complaint related an odour emission potentially related to a spontaneous combustion event. No odour was detected by MCO personnel 15minutes after the complaint was made. In accordance with the POEO Act the odour events were not harmful or likely to be harmful to a person outside of the premises or due to the low frequency of the events, unreasonably interfere with comfort or repose of persons outside to the MCO site. | Complies | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S3 C17 | Air Quality Criteria | 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. | Moolarben Coal Complex Annual Review 2018 Section 6, Table 13. Moolarben Coal Complex Annual Review 2019 Section 6, Table 13. Moolarben Coal Complex Annual Review 2020 Section 6, Table 13. Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021. | | At the time of this IEA site inspection no dust generation was observed at the mine. This was a result of heavy rainfall at that time. The Auditor however observed that all required dust suppression infrastructure (including water carts) were in place. | The review of the air quality monitoring results covering the audit period shows that with the dust emissions from the mine did not exceed the parameters in Tables 8, 9 or 10. It is noted that during late 2019 and early 2020 that the extensive bushfires across NSW impacted air quality monitoring results during those periods. | Complies | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S3 C17 | Air Quality Criteria Table 5 | <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Av Period</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td>TSP</td> <td>Annual</td> <td>90 ug/m³</td> </tr> <tr> <td>PM₁₀</td> <td>Annual</td> <td>25 ug/m³</td> </tr> <tr> <td>PM_{2.5}</td> <td>Annual</td> <td>8 ug/m³</td> </tr> </tbody> </table> | Pollutant | Av Period | Criterion | TSP | Annual | 90 ug/m ³ | PM ₁₀ | Annual | 25 ug/m ³ | PM _{2.5} | Annual | 8 ug/m ³ | Air Quality Criteria Table 6 | <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Av Period</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td>PM₁₀</td> <td>24 Hour</td> <td>50 ug/m³</td> </tr> <tr> <td>PM_{2.5}</td> <td>24 Hour</td> <td>25 ug/m³</td> </tr> </tbody> </table> | Pollutant | Av Period | Criterion | PM ₁₀ | 24 Hour | 50 ug/m ³ | PM _{2.5} | 24 Hour | 25 ug/m ³ | Air Quality Criteria Table 7 | <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Av Period</th> <th>Max increase</th> <th>Max Deposited Dust Level</th> </tr> </thead> <tbody> <tr> <td>Deposited Dust</td> <td>Annual</td> <td>2 g/m²/month</td> <td>2 g/m²/month</td> </tr> </tbody> </table> | Pollutant | Av Period | Max increase | Max Deposited Dust Level | Deposited Dust | Annual | 2 g/m ² /month | 2 g/m ² /month | Complies | |
| Pollutant | Av Period | Criterion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TSP | Annual | 90 ug/m ³ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PM ₁₀ | Annual | 25 ug/m ³ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PM _{2.5} | Annual | 8 ug/m ³ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pollutant | Av Period | Criterion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PM ₁₀ | 24 Hour | 50 ug/m ³ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PM _{2.5} | 24 Hour | 25 ug/m ³ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pollutant | Av Period | Max increase | Max Deposited Dust Level | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Deposited Dust | Annual | 2 g/m ² /month | 2 g/m ² /month | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| S3 C18 | Mine Owned Land | 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 Schedule 4 of this approval; | Moolarben Coal Complex Annual Review 2018 Section 6, Table 13. Moolarben Coal Complex Annual Review 2019 Section 6, Table 13. Moolarben Coal Complex Annual Review 2020 Section 6, Table 13. Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021. | Environment and Community Manager – no exceedances of dust levels caused by the mine operations have occurred during the audit period. | | Whilst there have been several exceedances of the air quality acquisition criteria (as a result of the 2019/2020 bush fires) 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. | Not Triggered | |
| | | (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; | | | | | | Noted |
| S3 C18 | Mine Owned Land | (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); | | Environment and Community Manager – no requests for dust mitigation measures have been received during the audit period. | | No requests for dust mitigation were received by MCO during the audit period. | Not Triggered | |
| | | (d) particulate matter air quality monitoring is regularly undertaken to inform the tenant and landowner of the actual particulate emissions; | Moolarben Coal Complex Annual Review 2018 Section 6, Table 13. Moolarben Coal Complex Annual Review 2019 Section 6, Table 13. Moolarben Coal Complex Annual Review 2020 Section 6, Table 13. Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021. | Environment and Community Manager – No air quality monitoring is undertaken 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. 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. Specific residences are provided data representative of their location. | The air quality monitoring stations (Photo 2) established by MCO were inspected during this IEA. | Air quality monitoring data relevant to the residential areas close to the mine is posted on the MCO website as part of the Monthly Environmental Monitoring Report and reported on in the CCC updates. | Complies | |
| | | (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. | Letter from MCO (T Cini) to “Hillside” tenant titled “Estimated particulate levels at Rayner residence – 1 January 2020 to 31 December 2020”, dated 29 January 2021. | | | MCO wrote to the tenant of the “Hillside” property in 2021 and reported on the outcomes of the 2020 dust monitoring program. Exceedance in air quality criteria (due to the regional bushfires) were reported to the tenant. | Not Triggered | |
| S3 C18 | Air Quality Acquisition Criteria | 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 Schedule 4. | Moolarben Coal Complex Annual Review 2018 Section 6, Table 13. Moolarben Coal Complex Annual Review 2019 Section 6, Table 13. Moolarben Coal Complex Annual Review 2020 Section 6, Table 13. Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021. | Environment and Community Manager – 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. | | Dust generated by the mining operations has not exceeded the acquisition criteria. | Not Triggered | |

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| | | Pollutant | Av Period | Criterion | Table 9 | Pollutant | Av Period | Criterion | Basis | | Table 10 | Pollutant | Av Period | Max Increase | | |
| S3 C18 | Table 8 | TSP | Annual | 90 | | PM10 | 24 hr | 50 | Increment | | | | | | | |
| | | PM10 | Annual | 25 | | | | | | | | | | | | |
| | | PM2.5 | Annual | 8 | | PM2.5 | 24 hr | 25 | Increment | | | | | | | |
| S3 C20 | Operating Conditions | The Proponent shall: | | | Air Quality Management Plan Version 6, dated 28 October 2020. | | | | | No visible off-site air pollution was observed during the site investigation. Extensive areas of the site have been rehabilitated; these were inspected during this IEA. | Four odour complaints were received during the audit period. Investigations undertaken by MCO found that no unusual operational issues were being undertaken and no odour sources were identified. Odour and fume minimisation is described in section 6.2 of the AQMP, and dust management is described in section 6.1. Dust management is covered in section 6 of the AQMP. The dust management system in operation includes the meteorological forecasting, real time dust monitoring and real time response triggers. The community complaints registers for the audit period were reviewed. Four dust complaints were received over the audit period. Investigations by MCO 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. Extensive progressive rehabilitation of disturbed areas has been undertaken and future rehabilitation works planned, which include the use of temporary cover crops to stabilise rehabilitation areas. Dust monitoring undertaken over the audit period found no elevated dust levels that were attributed to the mining operations. | | | | Complies | |
| | | a) implement best management practice to minimise the off-site odour, fume and particulate matter (including PM10 and PM2.5) emissions of the project; | | | Air Quality Monitoring Data Review 2020 (report prepared by Todoroki Air Sciences), dated 26 March 2021. | | | | | | | | | | | |
| | | | | | Complaints Register | | | | | | | | | | | |
| | | | | | Moolarben Coal Complex Annual Review 2018 Section 6, Table 13. | | | | | | | | | | | |
| | | b) implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site; | | | Air Quality Management Plan Version 6, dated 28 October 2020. | | | | | Examples of energy efficiency initiatives observed during this IEA included: use of high efficiency lighting (LED's); site vehicles are routinely replaced with new vehicles more fuel-efficient models. | | | | Complies | | |
| | | | | | Greenhouse Gas Minimisation Plan Version 3, dated 29 October 2020. | | | | | | | | | | | |
| | | c) minimise any visible off-site air pollution generated by the project; | | | Air Quality Management Plan Version 6, dated 28 October 2020. | | | | | No visible off-site air pollution was observed during the site investigation. Extensive progressive rehabilitation of disturbed areas has been undertaken and future rehabilitation works planned, which include the use of temporary cover crops to stabilise rehabilitation areas. Dust monitoring undertaken over the audit period found no elevated dust levels that were attributed to the mining operations. | | | | | | |
| | | d) minimise surface disturbance of the site; | | | Air Quality Management Plan Version 6, dated 28 October 2020. | | | | | Extensive progressive rehabilitation of disturbed areas has been undertaken and future rehabilitation works planned, which include the use of temporary cover crops to stabilise rehabilitation areas. | | | | | | |
| | | | | | Moolarben Coal Complex Annual Review 2018 | | | | | Extensive areas of the site have been rehabilitated; these were inspected during this IEA. The Auditor inspected recently cleared areas associated with | | | | Complies | | |

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| | | | Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | Open Cut 3 and noted that clearing for the expansion of the open cut appeared to be minimised and was in accordance with the progression of mining documented in the 2020 Annual Review. | Rehabilitation planning and site clearing activities planned for each year are summarised in each Annual Review. | | |
| S3 C20 | Operating Conditions | 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; | Air Quality Management Plan Version 6, dated 28 October 2020. Email from Jacobs (envforecasting) to MCO dated 28 October 2021. The email provides a five-day forecast for the mine site. MPEA Checklist dated 21 October 2019. | | Air quality and meteorological monitoring stations were inspected during this IEA. | The meteorological monitoring undertaken by MCO is detailed in Section 7.1.6 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'. 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. 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. During the audit MPEA's Checklist were reviewed. For example: Environmental Responsibilities (dated 21 October 2019). The checklist contained requirements to: "MCO 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 28/10/2021) which shows dust and noise risks at certain locations and wind speeds. | Complies | |
| | | f) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see Noted under Table 9); and | Air Quality Management Plan Version 6, dated 28 October 2020. Email from Jacobs (envforecasting) to MCO dated 28 October 2021. The email provides a five-day forecast for the mine site. MPEA Checklist dated 21 October 2019. | During this IEA the Environment and Community Manager explained in detail the predictive air quality management system implemented by MCO and demonstrated the operation of the system. The explanation of the system conformed with the | | Section 6.1.4 (Table 4) of the AQMP details adverse meteorological condition trigger conditions and corresponding management/ control actions. During the audit MPEA's Checklist were reviewed. For example: Environmental Responsibilities (dated 21 October 2019). The checklist contained | Complies | |

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| | | | | requirements of the AQMP. | | <p>requirements to: "MCO review Jacobs forecast and Met Eye at the start of each shift to understand the predicted conditions.</p> <p>An example Jacobs forecast was reviewed by auditors (dated 28/10/2021) which shows dust and noise risks at certain locations and wind speeds.</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> | | |
| S3 C20 | Operating Conditions | 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. | Data Sharing Deed (between MCO, Ulan Coal Mines Limited and Wilpinjong Coal Pty Ltd) dated 22 January 2014. | Environment and Community Manager – a formal agreement for data sharing and cooperation was agreed in 2014. Regular meetings are held with Ulan and Wilpinjong mines. | | <p>Coordination with Ulan and Wilpinjong mines is covered in section 7.0 of the AQMP.</p> <p>'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'.</p> <p>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.</p> <p>The Auditor sighted the signed data sharing agreement.</p> | Complies | |
| S3 C20A | Air Quality Management Plan | a) The Proponent shall prepare and implement an Air Quality Management Plan for the project to the satisfaction of the Secretary. | Air Quality Management Plan Version 6 dated 28 October 2020. | | | An Air Quality Management Plan has been prepared and implemented (refer to S3 21 above) | Complies | |
| | | This plan must: b) be prepared in consultation with the EPA, and submitted to and approved by the Secretary prior to the commencement of any development on site | 2018 Independent Environmental Audit Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Mine (MP05_0117) and Moolarben Coal – Expansion (MP08_0135) Air Quality Management Plan", dated 22 October 2020. Letter from the EPA (to MCO (G Chase) titled " Moolarben response to EPA comment on management plans Moolarben Coal Mines", dated 14 February 2020. | | | The evidence of Secretary approval of the AQMP was verified in the 2018 IEA. The plan was subsequently revised in 2019 / 2020 and copies provided to DPIE and the EPA for review. DPIE approved the plan in October 2020. The EPA were provided the opportunity to comment and provided comments in writing on 28 October 2019. | Complies | |
| | | c) describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this approval | Air Quality Management Plan Version 6 dated 28 October 2020. | | | Air quality management measures are described in section 6 of the AQMP. | Complies | |

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| | | d) describe the air quality management system; | Air Quality Management Plan Version 6 dated 28 October 2020. | | | <p>The air quality management system is set out in section 6.1.3 of the AQMP.</p> <p>'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).</p> <p>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.</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> | Complies | |
| S3 C20A | Air Quality Management Plan | (d) include an air quality monitoring program that: <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; | Air Quality Management Plan Version 6 dated 28 October 2020. | | | The air quality monitoring program is described in section 7 and section 5.3 (Figure 6) of the AQMP. | Complies | |
| | | (d) include an air quality monitoring program that: <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. | Air Quality Management Plan Version 6 dated 28 October 2020. | | | <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'.</p> | Complies | |
| S3 C20B | Meteorological Monitoring | <p>For the life of the project, the Proponent shall ensure that there is a meteorological station in the vicinity of the site that:</p> <p>a) Complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline; and</p> | <p>Air Quality Management Plan Version 6 dated 28 October 2020.</p> <p>Moolarben Coal Complex Annual Review 2018</p> <p>Moolarben Coal Complex Annual Review 2019</p> <p>Moolarben Coal Complex Annual Review 2020</p> <p>Ecotech Calibration Report for the Met Station dated 15 March 2021.</p> | | The meteorological monitoring station (Photograph 3) was inspected during this IEA. | <p>Meteorological Monitoring is covered in section 3.1 of the AQMP. Meteorological monitoring is undertaken at MCO, in accordance with NSW Project Approval and EPL requirements.</p> <p>MCO has an Automatic Weather Station (AWS) located on a property on Ulan Road and is referred to as WS3. WS3 is linked into the real-time monitoring system and is the main weather station for reporting purposes.</p> <p>Additional weather stations may be used to supplement weather data as required.</p> <p>The monitoring and sampling satisfy the requirements of the Approved Methods.</p> | Complies | |
| | | 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>Air Quality Management Plan Version 6 dated 28 October 2020.</p> <p>Moolarben Coal Complex Annual Review 2018</p> <p>Moolarben Coal Complex Annual Review 2019</p> | | | <p>The monitoring and sampling satisfy the requirements of the Approved Methods.</p> <p>MCO has an Automatic Weather Station (AWS) which measures a full meteorological complement and is capable of continuous real-time measurement of temperature lapse rate in</p> | Complies | |

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| | | | Moolarben Coal Complex Annual Review 2020 Ecotech Calibration Report for the Met Station dated 15 March 2021. Sentinex Weather Station Calibration Report dated 10 May 2021. | | | accordance with the Industrial Noise Policy (INP). The full meteorological complement 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). . A summary of meteorological conditions at Moolarben Coal mine are included in the Annual Reviews. | | |
| S3 C20C | Ulan Public School | The Proponent shall consult with DOE (Department of Education) and, if requested: a) implement agreed reasonable and feasible measures to ameliorate potential noise and/or dust impacts to Ulan Public School; or | 2018 Independent Environmental Audit Report | Environment and Community Manager - The Ulan Public School has been placed in recess by the Department of Education.. | | Compliance with this condition was verified during the 2018 IEA. The school was not in use at the time of this IEA. | Complies | |
| | | 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. | 2018 Independent Environmental Audit Report | Environment and Community Manager - The Ulan Public School has been placed in recess by the Department of Education.. | | Compliance with this condition was verified during the 2018 IEA. The school was not in use at the time of this IEA. | Complies | |
| Conditions 21-28 Deleted | | | | | | | | |
| S3 C29 | Water Supply | The Proponent shall ensure that: (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 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. | Water Management Plan Version 6 dated 28 October 2020. Ulan coal Mine and Moolarben Coal Mine - Water Sharing Agreement (dated 10/08/2009) | environment and Community Manager -- With the expansion of the underground workings the site now produces excess water which is treated and discharged from the site via the EPA licensed discharge point. | At the time of the site inspection mine water storages (Photograph 4) were high and treated water from the water treatment plant was discharging via the EPA licensed discharge point. | 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. MCO have entered into a water sharing agreement with Ulan Coal Mine (UCM) as UCM are a water surplus site. If required MCO can take water from UCM through the water sharing agreement. The Ulan Water sharing agreement was sighted during the audit period (Water Sharing Agreement dated 10/08/2009). The term will expire in 2030. 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 | Complies | |

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| | | | | | | <p>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:</p> <ul style="list-style-type: none"> • 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>MCO management advised that the site currently has excess water from a combination of the underground operations and current climatic conditions.</p> <p>At the time of the site inspection, water supply was observed as adequate.</p> | | |
| S3 C29 | Water Supply | <p>(b) any water supply constraints do not compromise any aspect of the environmental performance of the mine.</p> <p><i>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.</i></p> | <p>Water Management Plan Version 6 dated 28 October 2020.</p> <p>Ulan coal Mine and Moolarben Coal Mine - Water Sharing Agreement (dated 10/08/2009).</p> | | | <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 agreement. 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 the site currently has excess water from a combination of the underground operations and current climatic conditions.</p> <p>At the time of the site inspection, water supply was observed as adequate.</p> | Noted | |

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| S3 C30 | Compensatory Water Supply | <p>The Proponent shall provide a compensatory water supply to any landowner of privately owned land whose water supply is adversely and directly impacted (other than an impact that is negligible) as a result of the project, in consultation with DPI Water, and to the satisfaction of the Secretary.</p> <p>The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent to the loss attributed to the project. Equivalent water supply should be provided (at least on an interim basis) within 24 hours of the loss being identified.</p> <p>If the Proponent and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.</p> <p>If the Proponent is unable to provide an alternative long-term supply of water, then the Proponent shall provide alternative compensation to the satisfaction of the Secretary.</p> | | Environment and Community Manager – No water supply on private land has been impacted by Moolarben Coal operations. | | MCO reported that there have been no incidences of owners on privately-owned land whose water entitlements have been adversely impacted. | Not Triggered | |
| S3 C31 | Water Pollution | Unless an EPL authorises otherwise, the Proponent shall comply with section 120 of the POEO Act. Section 120 - Prohibition of pollution of waters | <p>Moolarben Coal Complex Annual Review 2018</p> <p>Moolarben Coal Complex Annual Review 2019</p> <p>Moolarben Coal Complex Annual Review 2020</p> <p>Incident Register</p> | | At the time of this audit (during a period of high rainfall) no evidence of water discharges from unlicensed discharge points at the site were found. | <p>Two water pollution incidents were recorded in 2020:</p> <ul style="list-style-type: none"> During the construction of the Moolarben Creek crossing, a storm event (19/2/2020) resulted from Moolarben Creek entering the downstream culvert construction works then flowing back into Moolarben Creek. The PIRMP was activated including notification of EPA and other agencies and provision of report. Water quality sampling was undertaken with downstream water quality results comparable to the upstream water quality results. On 21 December 2020 a sediment water release occurred from a sediment drain associated with Sediment Dam 304 (EPL Identification Point 51) in the vicinity of the Open Cut 3 pre-strip area (this being an area where topsoil had been removed in preparation for mining operations). The PIRMP was activated including notification of EPA and other agencies and provision of report. Water quality sampling was undertaken, with results showing higher suspended solids than the Moolarben Creek monitoring but lower Electrical Conductivity. <p>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> | Non-Compliance | |
| S3 C32 | Water Management Performance | The Proponent shall comply with the performance measures in Table 11 to the satisfaction of the Secretary. | <p>Water Management Plan Version 6 dated 28 October 2020.</p> <p>Ulan coal Mine and Moolarben Coal Mine - Water Sharing Agreement (dated 10/08/2009.)</p> | | | The requirements of Schedule 3 Condition 32 are included in the Water Management Plan. | Complies | |

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| | Table 11 | 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"> No impact on the water supply to the Drip | | | | | |
| | | Construction and operation of the 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? Fish Passage Requirements for Waterway Crossings (NSW Fisheries) or the latest version. | | | | | |
| | | 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 | | | | | |
| | | Clean water diversion | <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 | | | | | |
| | | Mine water storages | <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 10⁻⁹ m/s | | | | | |
| | | Tailings, acid forming and potentially acid forming materials | <ul style="list-style-type: none"> In-pit emplacement, encapsulation or capping to prevent the migration of pollutants beyond the pit shell | | | | | |
| | | Pit emplacement of tailings, acid forming and potential acid forming materials | <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 | | | | | |
| | | Chemical and hydrocarbon storage | <ul style="list-style-type: none"> Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standard | | | | | |
| | | Aquatic and riparian ecosystems, including the relevant sections of Moolarben Creek, Bora Creek and the Goulburn River. | <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 | | | | | |
| | | Treated Water Discharge Volume | <ul style="list-style-type: none"> Up to 10ML/day for the following periods (unless the Secretary agrees otherwise): o until the commencement of mining operations in UG4; and following completion of mining operations in UG4 Up to 15 ML/day during mining operations in UG4 Greater than 15 ML/day during prolonged wet periods, with the approval of EPA. | | | | | |
| | | Treated Water Discharge Quality | <ul style="list-style-type: none"> Electrical conductivity limit of 685 µS/cm (100th percentile discharge limit) for up to 10ML/day until 30 June 2022 (unless the Secretary agrees otherwise) After 30 June 2022 (unless the Secretary agrees otherwise) an alternative electrical conductivity limit for treated water discharges as determined under condition 32A | | | | | |
| | Storages constructed for the water treatment facility | <ul style="list-style-type: none"> Brine and feedwater storages designed to store a 100-year ARI 72 hour storm event Brine storages are suitably lined to comply with a permeability standard of < 1 x 10⁻⁹ m/s over 1000mm or equivalent standard | | | | | | |
| S3 C32A | Independent Water Quality Study | <p>By 1 December 2021, unless the Secretary agrees otherwise, the Proponent must complete an Independent Water Quality Study in accordance with the ANZECC Guidelines, in consultation with EPA and to the satisfaction of the Secretary. The study must:</p> <p>a) be undertaken by an independent scientific organisation with suitable water expertise whose appointment has been approved by the Secretary;</p> | <p>Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Project Stage 1 (05_0177) Independent Water Study and Brine Management Plan", dated 08/7/2019. The letter approves the appointment of the report authors.</p> <p>Letter from DPIE (S O'Donoghue) to MCO (T Cini) titled "Moolarben Coal Complex Stage 1 (05_0117) Extension of Time to Submit Independent Water Quality Study" dated 15 November 2021). The letter provides an extension of time (to Feb 2022) for the preparation of the plan.</p> | <p>Environment and Community Manager - Extension of time granted to 28 February 2022.</p> | | <p>An extension of time has been granted by DPIE for the completion of the independent water quality study.</p> <p>DPIE has endorsed the appointment of the nominated experts.</p> | Complies | |

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| | | b) collect and utilise water quality monitoring data in the Goulburn River using locations endorsed by the EPA; | Letter from the EPA (S Ledger) to MCO (C Chase) titled "MOOLARBEN COAL – INDEPENDENT WATER QUALITY STUDY EPA Endorsement of Monitoring Data Location", dated 22 May 2020. The letter endorsement of the sampling locations by the EPA. | | | The EPA were consulted and have endorsed the location of sampling points. | Complies | |
| | | c) determine appropriate background salinity and heavy metal levels for the Goulburn River upstream of the project site; | Moolarben Coal Independent Water Quality Study Scoping Report. Prepared by the University of Queensland. | | | The University of Queensland Scoping Study addresses the approach to be completed to determine background salinity and heavy metal levels for the Goulburn River upstream of the project site. | Complies | |
| | | d) recommend an electrical conductivity limit for treated water discharges to the Goulburn River from the Moolarben Coal Complex based on the process outlined in the ANZECC Guidelines. | Moolarben Coal Independent Water Quality Study Scoping Report. Prepared by the University of Queensland. | | | The University of Queensland Scoping Study addresses the approach to be completed to determine an electrical conductivity limit for treated water discharges. | Complies | |
| S3 C33 | Water Management Plan | <p>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>Water Management Plan Version 6 dated 28 October 2020.</p> <p>Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Water Management Plan", dated 11/12/2015. The letter approves the appointment of the original WMP authors.</p> <p>Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Complex (05_0117 & 08_0135) Water Management Plan", dated 27/06/2016. The letter approves the appointment of the original expert responsible for preparing the groundwater elements of the plan.</p> <p>2018 Independent Environmental Audit Report</p> <p>Letter from DPIE (J Turner) to MCO (G Chase) titled "Moolarben Coal Mine (MP05_0117) and Moolarben Coal – Expansion (MP08_0135) Water Management Plan", dated 20 October 2020. The letter approves the revised WMP.</p> <p>Email from MCO (G Chase) to NRAR (Service Desk) titled "Moolarben – updated Water Management Plan (for DPI Water Review).</p> | | | <p>DPIE approval of the original WMP was verified in the 2018 IEA. Copies of the DPIE endorsement letters for the authors of the WMP were sighted by the Auditor.</p> <p>The revised plan was prepared by the authors of the original plan (WMP section 1.4).</p> <p>The WMP was subsequently revised in 2019/2020 and the revised plan was approved by DPIE on 20 October 2020.</p> | Complies | |
| S3 C33 | Water Management Plan | (a1) include reference to the National Water Quality Management Strategy; | Water Management Plan Version 6 dated 28 October 2020. | | | The National Water Quality Management Strategy is referenced in Section 2.4.2 of the WMP. | Complies | |
| S3 C33 | Water Management Plan | (a2) include detailed performance criteria and describe measures to ensure that the Proponent complies with the Water Management Performance Measures (see Table 11); | Water Management Plan Version 6 dated 28 October 2020. | | | The performance measures are summarised in Section 2.1.1 of the WMP. Detailed performance criteria and measures to ensure conformance with those criteria are provided in Attachment A to the WMP. | Complies | |

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| | | <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"> i. sources and security of water supply, including contingency planning for future reporting periods; ii. water use and management on site, including details of water sharing between neighbouring mining operations; iii. 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"> i. minimise clean water use on site; ii. maximise water sharing with the other mines in the region; | <p>Water Management Plan Version 6 dated 28 October 2020.</p> <p>Site Water Balance Version 4 dated 28 October 2020.</p> | | | <p>Site Water Balance provides the following information:</p> <ul style="list-style-type: none"> • Water sources, including the security of supply are described in Section 7 of the SWB; • Water use and management are described in Section 5; • Water Sharing is described in Section 7.3; • Reporting requirements are described in Section 9 and • Water management measures are described in Section 4. | Complies | |
| S3 C33 | Water Management Plan | <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: <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 <p>a plan to respond to any exceedances of the performance criteria, and mitigate any adverse surface water impacts of the project;</p> | <p>Water Management Plan Version 6 dated 28 October 2020.</p> <p>Surface Water Management Plan Version 5 dated 28 October 2020.</p> | | | <p>The SWMP provides the following information:</p> <ul style="list-style-type: none"> • Baseline data is described in Section 3.4 of the SWMP; • The surface water management system is described in Section 4 of the plan; • The designs and performance criteria for the creek realignments in Section 5.8 of the SWMP and Rehabilitation Management Plan • In-pit emplacement areas are covered in section 5.5 of the SWMP. • Final voids are covered in section 5.4 of the SWMP. • Performance criteria including trigger values for investigating adverse impacts is covered in Section 8 of the SWMP; • Monitoring and Reporting is covered in Section 10 of the plan; and • Annual reporting review and improvement is discussed in Section 9 of the plan. | Complies | |

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| | | <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; ○ brine emplacement in underground workings and potential changes to groundwater and surface water quality; • 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>Water Management Plan Version 6 dated 28 October 2020.</p> <p>Groundwater Management Plan Version 4 dated 28 October 2020.</p> | | | <p>The Groundwater Management Plan provides the following information:</p> <ul style="list-style-type: none"> • Baseline data is provided in Section 4 of the GWMP; • Yield and water quality in the region and privately-owned groundwater bores are covered in section 3.1, Table 6; • The GWMP also references the relevant reports that provide a detailed description of the available baselinedata; • groundwater assessment criteria, including trigger levels are covered in section 8, table 10, and appendix 1 of the GWMP Appendix 1 gives specific values; • Monitoring and reporting are described in Sections 6 and 10 of the plan; • The program to validate the groundwater model is described in Section 5 of the plan; and • The groundwater trigger and action plan is detailed in Section 8.3. | Complies | |
| S3 C33 | Water Management Plan | <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. | <p>Water Management Plan Version 6 dated 28 October 2020.</p> | <p>Environment and Community Manager – In accordance with the conditions of the original Stage 1 Project Approval (05_0117), MCO engaged a qualified and independent expert to undertake a Regional Water Supply and Monitoring Investigation in consultation with the EPA, NSW Office of Water (NOW) (now DPIE - Water), the Department of Trade and Investment, Regional Infrastructure and Services, Ulan Coal Mines Pty Ltd (UCML) and Wilpinjong Coal Pty Ltd (WCPL). The Regional Water Study was submitted to the Department of Planning and Infrastructure (now DPIE) in November 2009.</p> | | <p>Section 2.4.3 of the Water Management Plan described the scope of the study undertaken in consultation with the neighbouring mines. The Study reviewed:</p> <ul style="list-style-type: none"> • the feasibility and potential environmental benefits of increased water sharing between the three mining operations in the region; • the potential for developing regional surface and groundwater monitoring programs to: • rationalise the surface and groundwater monitoring programs of the three mining operations in the region; and • improve the monitoring of the individual and cumulative surface and groundwater impacts of these mining operations. • measures to reduce the surface and groundwater impacts of mining in the region; and • any potential changes to existing licences and/or approvals that could facilitate the | Complies | |

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| | | | | | | <p>implementation of these measures.</p> <p>Based on the results of this study and consultation with relevant government agencies, the following actions were implemented:</p> <ul style="list-style-type: none"> Review of the monitoring network and rationalisation of monitoring points identified several areas where monitoring could be reduced and/or data shared between three mines, without compromising the regional management of the groundwater and surface water resources. The recommended regional monitoring network is consistent with the three individual mines' surface water and groundwater monitoring plans. UCML, MCO and WCPL participate in ongoing sharing of monitoring data where appropriate. Water sharing between UCML and MCO is undertaken. Details on the water sharing agreement between UCML and MCO is described in the SWB (Appendix 1). Ongoing discussion and consultation between UCML, MCO and WCPL in order to integrate monitoring rationalisation, and that any changes in water inflows and/or water demand are factored into developing optimal water sharing arrangements throughout the life of all three mines. Contemporary groundwater modelling undertaken for the Moolarben Coal Complex has considered cumulative impacts associated with the Ulan Mine Complex and Wilpinjong Coal Mine. | | |
| S3 C33A | Brine Management Plan | <p>Prior to operating the Water Treatment Facility, the Proponent shall prepare a Brine Management Plan for the project, in consultation with the EPA, and to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared by suitably qualified and experienced persons whose appointment has been approved by the Secretary;</p> | <p>Brine Management Plan Version 2 dated 29 October 2020.</p> <p>Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Mine (05_0117) and Moolarben Coal Independent Water Study and Brine Management Plan", dated 18 September 2019. The letter endorses the appointment of experts to prepare the plan.</p> <p>Letter from the EPA (S Ledger) to MCO (G Chase) titled "Water and Brine Management Plans Moolarben Coal Operations", dated 6 December 2019. The EPA declined to provide comment on this plan.</p> <p>Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Mine (05_0117) and Moolarben Coal Independent Water Study and Brine Management Plan", dated 18 July 2019.</p> <p>Monthly Environmental Monitoring Report (31 May 2021).</p> | <p>Environment and Community Manager - The water treatment plant was commissioned in May 2020.</p> | | <p>Brine Management Plan was first approved in January 2019, the water treatment facility was commissioned in May 2020 (Monthly Report May 2020 sighted).</p> <p>The EPA were consulted but elected to provide no comments.</p> <p>DPIE endorsed the appointment of experts on 18 September 2019.</p> | Complies | |

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| S3 C33A | Brine Management Plan | (b) detail the methods that would be used to manage brine, the proposed brine storage locations and the volumes of brine that would be managed at each location; | Brine Management Plan Version 2 dated 29 October 2020. | | | Brine management is described in Section 4 of the Brine Management Plan. | Complies | |
| | | (c) detail the measures that would be implemented to avoid and/or minimise impacts from the storage of brine at the surface, and the transfer and disposal of brine in underground workings; | Brine Management Plan Version 2 dated 29 October 2020. | | | Management measures to minimise the impacts of brine storage, transfer and disposal are described in Section 4.3, 6.0, & 7.0 of the Brine Management Plan. | Complies | |
| | | (d) include a program to investigate options to decrease the quantity of brine over time; and | Brine Management Plan Version 2 dated 29 October 2020. | | | The program to investigate options to decrease brine quantity is detailed in Section 4.3.7 of the Brine Management Plan | Complies | |
| | | (e) include a program to monitor potential impacts of brine storage, transfer and disposal in underground workings. | Brine Management Plan Version 2 dated 29 October 2020. | | | The brine monitoring program is described in Section 5 of the Brine Management Plan | Complies | |
| | | Following approval, the Proponent must implement the Brine Management Plan for the project. | Monthly Environmental Monitoring Report (31 May 2021). | Environment and Community Manager - Brine is managed in accordance with the Brine Management Plan, wastewater from the water treatment plant is preferentially blended with mine water and used for dust suppression in our water carts in defined mine water catchments, excess brine is stored within the Brine dams located on site. | At the time of the IEA site inspection the Water Treatment plant (Photograph 5) was operational. | The water treatment plant was operating at the time of this IEA. | Complies | |
| S3 C34 | Biodiversity Off-set Strategy | <p>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.</p> <p><i>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</i></p> | <p>Biodiversity Off-set Management Plan Version 5 dated 15 September 2020.</p> <p>Moolarben Coal Complex 2018 Annual Review</p> <p>Moolarben Coal Complex 2019 Annual Review</p> <p>Moolarben Coal Complex 2020 Annual Review</p> | Environment and Community Manager – all of the required the long-term security of offsets have been obtained, with the exception of the Gilgal property. | On-site off-set areas (Photograph 6) were inspected during this IEA. | <p>The staged Biodiversity Management Plan (BioMP) is being implemented and meets the requirements set out in Table 12.</p> <p>Section 6.5.1 of the 2019 Annual Review provides a summary of the Biodiversity offset works undertaken, including:</p> <ul style="list-style-type: none"> • On-going biodiversity monitoring; • Weed and feral animal monitoring and control works, (wild dog and feral pig baiting); • Over six Kilometres of new fencing was installed and over 21 Kilometres of redundant fencing removed; • Track maintenance and upgrades were completed on over 19 kilometres of required access and bushfire management trails; • Revegetation works were continued within the offsets with over 5000 stems planted; and • Ten offsets were secured through a 'Positive Covenant' and a 'Restriction on the Use of Land by a Prescribed Authority'. <p>Section 6.5.1 of the 2020 Annual Review provides a summary of the biodiversity offset works undertaken, including:</p> <ul style="list-style-type: none"> • On-going biodiversity monitoring; • Weed and feral animal monitoring and control works, (wild dog and feral pig baiting); • Native seed collection; • 700m of new fencing was installed and over 4 Kilometres of redundant fencing removed; • Track maintenance and upgrades were | Complies | |

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| | | | | | | completed on over 15 kilometres of required access and bushfire management trails; <ul style="list-style-type: none"> Revegetation works were continued within the offsets with over 70,000 stems planted within the Ulan 18, Bobadeen and Dexter Mountain offset clusters. A 'Positive Covenant' and a 'Restriction on the Use of Land by a Prescribed Authority' was executed to secure all offset areas listed in Table 12 (refer to Condition 35 below). 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. | | |
| S3 C34 | Table 12 | Area | Offset Type | Size (Ha) | | | | |
| | | Area 3 Property 6 | Conserve 6ha of existing EEC / enhance and conserve 2.6ha of regenerating EEC | 8.6 | | | | |
| | | Areas 1, 2 and 3 Properties 6, 10, 12, 13, 14 and 15 | Enhance 1282ha 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 existing native vegetation / 62 ha of EEC | 81 | | | | |
| | | Elward | Enhance existing vegetation 146 ha of existing native vegetation / 24 ha of EEC | 170 | | | | |
| | | Property 5 | Enhance existing vegetation 40 ha of existing native vegetation / 25 ha of EEC | 65 | | | | |
| | | Properties 24 and 25 | Enhance existing vegetation 59 ha of existing native vegetation / 4 ha of EEC | 63 | | | | |
| | | Bobadeen | Enhance existing vegetation 8 ha of existing native vegetation / 159 ha of EEC | 167 | | | | |
| Moolarmoo | Enhance existing vegetation 25 ha of existing native vegetation / 19 ha of EEC | 44 | | | | | | |
| S3 C34A | Supplementary Biodiversity Offset Strategy | The Proponent shall implement the supplementary biodiversity offset strategy for the project as summarised in Table 12A, and shown conceptually in Appendix 8A, to the satisfaction of the Secretary. | Letter from DPIE (S O'Donoghue) to MCO (T Cini) titled "Moolarben Coal Project Stage 1 (MP05_0117) Extension of Time to Secure Biodiversity Stewardship Agreement", dated 23 August 2021. | | | DPIE has granted an extension of time to 31 March 2022 to allow for the finalisation of property boundary adjustments associated with the Gilgal property. | Not Triggered | |
| S3 C34A | Table 12A | Gilgal Property Type | | Credits Required | Gilgal Credits (area) | Residual Credits | | |
| | | Ecosystem Credits | | | | | | |
| | | PCT 2811 Rough-Barked Apple - red gum - Yellow Box woodland on alluvial clay to loam soils on valley flats in the northern NSW Southwestern Slopes Bioregion and Brigalow Belt South Bioregion | | 35 | 35 (5ha) | - | | |
| | | PCT 6181 White Box - Grey Box - red gum - Rough-barked Apple grassy woodland on rich soils on hills in the upper Hunter | | 73 | 0 | 73 | | |
| | | PCT 1606 White Box - Narrow-leaved Ironbark - Blakely's Red Gum shrubby open forest of the central and upper Hunter | | 150 | 150 (14 ha) | - | | |
| | | PCT 16602 Narrow-leaved Ironbark heathy woodland on sandstone ranges of the Sydney Basin and Brigalow Belt South | | 411 | 411 (ha) | - | | |
| | | PCT 4793 Narrow-leaved Ironbark- Black Cypress Pine - stringybark +/- Grey Gum +/- Narrow-leaved Wattle shrubby open forest on sandstone hills in the southern Brigalow Belt South Bioregion and Sydney Basin Bioregion | | 204 | 204 (22.5 ha) | - | | |
| | | PCT 11764 Slaty Box - Grey Gum shrubby woodland on footslopes of the upper Hunter Valley, Sydney Basin Bioregion | | 233 | 233 (27ha) | - | | |
| | | PCT 1696 Blakely's Red Gum - Rough-barked Apple shrubby woodland of central and upper Hunter | | 331 | 0 | 331 | | |
| Total | | 1437 | 1033 (121.4 ha) | 404 | | | | |
| S3 C34A | Table 12A | Species Credits | | | | | | |
| | | Regional Honey Eater | | 1568 | 1568 (221 ha) | - | | |
| | | Koala | | 77 | 64 (9 ha) | 13 | | |
| | | Brush Tailed Rock Wallaby | | 693 | 693 (98 ha) | - | | |

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| S3 C35 | Long Term Security of Off-set | 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 BCD and to the satisfaction of the Secretary. <i>Note: The preferred mechanisms for the provision of long-term conservation security are via Biobanking Arrangements and additions to the BCD Estate.</i> | Positive Covenant (covering Area 3, Clifford, Properties 24 and 25, Property 5, Moolarmoo, Clarke, Ulan 18, Libertus, Dun Dun West, and Dun Dun East offset areas). Positive Covenant (covering Area 1, Area 2, Elward, Bobabeen West, Bobabeen East, Old Bobabeen and the on-site offset areas). Restrictive Use Covenant (covering Area 3, Clifford, Properties 24 and 25, Property 5, Moolarmoo, Clarke, Ulan 18, Libertus, Dun Dun West, and Dun Dun East offset areas). Restrictive Use Covenant (covering Area 1, Area 2, Elward, Bobabeen West, Bobabeen East, Old Bobabeen and the on-site offset areas). | | | Positive and Restrictive Use Covenants have been obtained for all offset areas listed in Table 12. | Complies | |
| S3 C35A | Long Term Security of Off-set | By 30 September 2021, the Proponent shall make an application to secure the credits associated with the areas of the Gilgal property identified in Table 12A under a Biodiversity Stewardship Agreement, unless otherwise agreed by the Secretary. | Letter from DPIE (S O'Donoghue) to MCO (T Cini) titled "Moolarben Coal Project Stage 1 (MP05_0117) Extension of Time to Secure Biodiversity Stewardship Agreement", dated 23 August 2021. | Environment and Community Manager – all of the required long-term security of offsets have been obtained, DPIE has granted an extension of time to March 2022 for Condition 35A. | | DPIE has granted an extension of time to 31 March 2022 to allow for the finalisation of property boundary adjustments associated with the Gilgal property. | Not Triggered | |
| S3 C35B | Rehabilitation Offsets | Within 12 months of the commencement of activities under MOD 14, unless otherwise agreed by the Secretary, the proponent must, in consultation with BCD, the Department and DAWE and to the satisfaction of the Secretary, develop suitable rehabilitation performance and completion criteria for the vegetation communities to be established in the rehabilitated OC2 and/or OC3 landforms to generate the residual ecosystem and species credits for Koala listed in Table 12A. The performance and completion criteria must include consideration of the effect of climatic conditions, such as drought, the NSW Biodiversity Offsets Policy for Major Projects 2014 and the associated Fact sheet: Mine Site Rehabilitation (OEH, 2014). | Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Complex Stage 1 Project Approval 05_0117 Proposed Rehabilitation Performance and Completion Criteria", dated 7 July 2020. The letter approves the proposed rehabilitation offset criteria. Email from DAWE (Z Neulinger) to MCO (G Chase) titled "Moolarben – DAWE letter – Proposed rehabilitation and completion criteria to generate offset credits [SEC=OFFICIAL]", dated 6 May 2020. The email confirms consultation regarding the proposed rehabilitation offset criteria. Letter from BCD(S Carr) to DPIE (S O'Donoghue) titled " Moolarben Coal Mine – Proposed rehabilitation and completion criteria to generate offset credits", dated 27 May 2020. The letter confirms consultation regarding the proposed rehabilitation offset criteria. | | | DPIE approved the proposed rehabilitation criteria on July 7, 2020. Both DAWE and BCD were consulted during the preparation of the criteria. | Complies | |
| S3 C35C | Rehabilitation Offsets | If at the end of 10 years after landform establishment in OC2 and/or OC3, unless otherwise agreed by the Secretary, the rehabilitation does not meet the performance and completion criteria in condition 35B to the satisfaction of the Secretary, the Proponent must retire the relevant number of residual credits listed in Table 12A under other mechanisms provided by the Biodiversity Offsets Scheme of the BC Act, to the satisfaction of the Secretary. | | | | | Not Triggered | |

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| S3 C35D | Rehabilitation Offsets | Notwithstanding the requirements in conditions 35B and 35C, the Proponent may retire the residual credits listed in Table 12A earlier than the specified timeframe in condition 35C by other mechanisms under the BC Act in place of rehabilitation, to the satisfaction of the Secretary. | | | | | Noted | |
| S3 C35E | Rehabilitation Offsets | Within two years of the determination of Modification 15, unless otherwise agreed by the Secretary, the Proponent must retire the biodiversity credits specified in Table 12B below in accordance with the Biodiversity Offsets Scheme of the BC Act. | | | | Mod 15 was approved in June 2020. | Not Triggered | |
| S3 C35F | Rehabilitation Offsets | Within two years of the determination of Modification 15, unless otherwise agreed with the Secretary, the Proponent must retire ecosystem credits equivalent to the 3.25 ha area of surface disturbance activities approved under Modification 15 located within Offset Area 2 and include at least: (a) 0.75 hectares of PCT 281 - Rough-Barked Apple - red gum - Yellow Box woodland on alluvial clay to loam soils on valley flats in the northern NSW South Western Slopes Bioregion and Brigalow Belt South Bioregion1; and | | | | Mod 15 was approved in June 2020. | Not Triggered | |
| | | (b) 2.5 hectares of PCT 479 - Narrow-leaved Ironbark-Black Cypress Pine - stringybark +/- Grey Gum +/- Narrow-leaved Wattle shrubby open forest on sandstone hills in the southern Brigalow Belt South Bioregion and Sydney Basin Bioregion. The retirement of ecosystem credits must be carried out in accordance with the Biodiversity Offsets Scheme of the BC Act. | | | | Mod 15 was approved in June 2020. | Not Triggered | |
| S3 C36 | Biodiversity Management Plan | The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with BCD and be submitted to the Secretary for approval by 31 March 2015; | Biodiversity Management Plan Version 5 dated 15 September 2020. Letter from BCD (P Christie) to MCO (G Chase) titled "Moolarben – Updated Biodiversity Management Plan", dated 13 September 2019. The letter provides BCD feedback on the most recent revision of the plan. Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Project Stage 1 (05_0117) and Stage 2 (08_0135) Biodiversity Management Plan", dated 2 September 2020. | | | Consultation and approval of the original Biodiversity Management Plan was verified in the 2018 IEA. Evidence of Secretary's approval of the original plan was provided in Appendix F of the EMS document. The letter (dated 31 July 2015) states that DP&E has approved the plan. The plan was subsequently revised in 2019 / 2020 in consultation with BCD and was approved by DPIE on 2 September 2020. | Complies | |

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| | | <p>(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 described in Table 12, including detailed performance and completion criteria; | Biodiversity Management Plan Version 5 dated 15 September 2020. | | | <p>Management of remnant vegetation 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).</p> <p>The minimisation of biodiversity impacts is discussed in Sections 6, 7, 8 and 9 of the BioMP.</p> <p>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> | Complies | |
| | | (c) include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary); | Biodiversity Management Plan Version 5 dated 15 September 2020. | | | 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. | Complies | |
| | | <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); ○ managing salinity; ○ avoid and mitigate the spread of <i>Phytophthora cinnamomi</i> (P.cinnamomi) with consideration of actions identified in the relevant threat abatement plan; | Biodiversity Management Plan Version 5 dated 15 September 2020. | | | <p>Vegetation and habitat management 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).</p> <p>Section 1.2 of the plan states that future 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.</p> <p>As limited details about mitigation measures has been provided only a reference to future revision of the BioMP the proponent has not yet fully complied with this condition. However, as a staged approach has been approved the proponent is not non-complaint.</p> <p>Maximizing the salvage of resources (topsoil management) is described in Section 7.5</p> <p>Rehabilitation of environmental bunds is covered in section 7.1.</p> <p>Collecting and propagating seed is covered in section 5.</p> <p>Pre-clearing surveys are covered in section 4.2 and fauna management is covered in section 4.3.</p> | Complies | |

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| | | <ul style="list-style-type: none"> ○ controlling weeds and feral pests; ○ controlling erosion; ○ managing grazing and agriculture on site; ○ controlling access; and ○ bushfire management; | | | | <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. Salinity is covered in section 7.2.</p> <p>Weeds and federal pest control is covered in section 7.3.</p> <p>Erosion and sediment control is covered in section 7.4 and section 7.5.</p> <p>Grazing and agriculture management is covered in section 7.6.</p> <p>Access management is covered in section 7.7.</p> <p>Bushfire management is covered in section 7.8</p> | | |
| S3 C36 | Biodiversity Management Plan | 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; | Biodiversity Management Plan Version 5 dated 15 September 2020. | | | The biodiversity monitoring program is described 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 '. | Complies | |
| | | 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 | Biodiversity Management Plan Version 5 dated 15 September 2020. | | | <p>As no details about potential risks 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>Section 11 of the BioMP provides details of the contingency plan to manage any unexpected impacts and their consequences.</p> | Complies | |
| S3 C36 | Biodiversity Management Plan | (g) include details of who would be responsible for monitoring, reviewing, and implementing the plan. | Biodiversity Management Plan Version 5 dated 15 September 2020. | | | Roles and responsibilities are outlined in section 12 of the BioMP. | Complies | |
| S3 C37 | Conservation Bond | <p>By 30 September 2021, unless otherwise agreed by the Secretary, the Proponent shall lodge a Conservation Bond with the Department to ensure that the biodiversity offset strategy described in Table 12 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 described in Table 12 (other than land acquisition costs); and</p> <p>b) employing a suitably qualified quantity surveyor to verify the calculated costs, to the satisfaction of the Secretary.</p> <p>If the offset strategy is completed generally in accordance with the completion criteria in the</p> | <p>2015 Independent Environmental Audit (Trevor Brown & Associates, 2015)</p> <p>Letter from MCO to DP&E RE: Offset Security and Conservation Bond Extension (dated 27/04/2015)</p> <p>Letter from DP&E to MCO RE: Extension of Time for Offset Security and Conservation Bond, (dated 27/04/2015)</p> <p>Letter to DP&E from MCO RE: Status of Conservation Bond (dated 26/11/2015)</p> <p>Bank Guarantee (Commonwealth Bank - G547798/799/802/803/804/805)</p> <p>Bank Guarantee (Commonwealth Bank - G547806/807/808/809/810/811)</p> <p>Bank Guarantee (Commonwealth Bank -</p> | | | <p>Compliance with this condition was verified in the 2015 IEA. During this IEA the Auditor sighted the correspondence cited in the 2015 IEA.</p> <p>The Auditor sighted bank guarantees to the value of \$3,810,982.58.</p> | Complies | |

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| | | 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. | 00547512) Bank Guarantee (Commonwealth Bank - 00547513) Bank Guarantee (ANZ – DG535443418) Bank Guarantee (ANZ – DG535453418) | | | | | |
| S3 C38 | Protection of Aboriginal Heritage Items | 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. <i>Note: Identified Aboriginal heritage items are listed in Appendix 9.</i> | Incident Register 2018 Annual Review 2019 Annual Review 2020 Annual Review | | During the site inspection no impacts on cultural heritage sites were identified. All heritage sites were located away from current areas impacted by mining. | 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. | Complies | |
| S3 C39 | Heritage Management Plan | 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; | Heritage Management Plan Version 8 dated 30 September 2020. Letter from DP&E RE: Endorsement of suitably qualified professionals (dated 11/02/2015) Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Mine (MP05_0117) and Moolarben Coal Mine – expansion (MP 08_0135) Heritage Management Plan", dated 29 September 2020. | | | A Heritage Management Plan (HMP) has been prepared for the project. Section 1.2 of the HMP states that: '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. A letter from DPIE approving the current version of the HMP (dated 29 September 2020) was sighted during the audit. | Complies | |
| S3 C39 | Heritage Management Plan | (b) be prepared in consultation with OEH and the Aboriginal stakeholders (in relation to the management of Aboriginal heritage values); | Email from the Gallangabang Aboriginal Corporation (B Bliss) to MCO (T Cini) titled "Moolarben Coal Complex – Updated HMP for Comment", dated 21 September 2020. Letter from MCO (G Chase) to DPIE titled "Moolarben Coal Complex – Heritage Management Plan – Amendment for Approval", dated 24 September 2020. The letter records the consultation outcomes with relevant RAPs and Heritage NSW. | | | Correspondence was sighted by the Auditor that verified that Heritage NSW and the RAPs were consulted during the preparation of the current version of the Heritage Management Plan. | Complies | |
| | | (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; | Heritage Management Plan Version 8 dated 30 September 2020. AECOM Report: Aboriginal Archaeological Due Diligence Assessment for Moolarben Coal Project Stage 2 Mod 9 Project Approval, 12 May 2015 | | | 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). Appendix D of the HMP provides a summary of management commitments for Aboriginal Archaeological sites | Complies | |

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| | | <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; | <p>Heritage Management Plan Version 8 dated 30 September 2020.</p> <p>AECOM Report: Aboriginal Archaeological Due Diligence Assessment for Moolarben Coal Project Stage 2 Mod 9 Project Approval, 12 May 2015</p> | | | <p>'In accordance with Stage 1 Project Approval (05_0117), sites S1MC343 and S1MC344 have been subject to detailed test excavation and salvage '.</p> <p>This is covered in Appendix A which states that:</p> <p>'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 intact and in situ deposits (AECOM, 2015). This condition is considered to be satisfied '.</p> | Complies | |
| | | <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; | <p>Heritage Management Plan Version 8 dated 30 September 2020.</p> | | | <p>A description of the measures to be implemented to manage heritage sites is described in Sections 5 and 6 of the HMP.</p> <p>Lists of heritage items considered in the HMP are provided in Section 4. 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).</p> <p>The conservation of sites outside of the disturbance areas is covered in Section 5.8.</p> <p>Managing the discovery of human remains or previously unidentified objects is covered in Section 5.10 and section 5.11.</p> <p>Maintaining reasonable access for RAPs is covered in section 5.16.</p> <p>Ongoing consultation is covered in section 5.1.3.</p> <p>Heritage related inductions and training is covered in section 7 of the HMP.</p> | Complies | |
| S3 C39 | Heritage Management Plan | <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; | <p>Heritage Management Plan Version 8 dated 30 September 2020.</p> | | | <p>The storage of heritage items is covered in section 5.13 of the HMP</p> | Complies | |
| | | <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> | <p>Heritage Management Plan Version 8 dated 30 September 2020.</p> | | | <p>A detailed plan for implementation of the mitigation and management measures is covered in section 6 of the HMP.</p> | Complies | |
| S C40 – 53 Deleted | | | | | | | | |
| S3 C54 | Road Works | <p>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> | <p>2018 Independent Environmental Audit</p> | | | <p>Works associated with this Condition were completed prior to this audit period. Compliance was verified in the 2018 IEA.</p> | Complies | |

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| S3 C55 | Road Works | Prior to the commencement of mining operations in open cut 3, the Proponent shall divert or close Moolarben Road to the satisfaction of Council. | 2018 Independent Environmental Audit | | | Works associated with this Condition were completed prior to this audit period. Compliance was verified in the 2018 IEA. | Complies | |
| S3 C55A | Road Works | Prior to the commencement of construction works associated with the northern dewatering sites (described in MOD 15), the Proponent must upgrade the intersection of Ulan Road and Saddlers Creek Road to the satisfaction of the appropriate roads authority and in consultation with DPIE Crown Lands. The intersection upgrade is to be designed and constructed in accordance with the Guide to Road Design (Austroads) and any relevant TfNSW supplements. | | | | This condition has not been triggered. | Not Triggered | |
| S3 C55B | Road Works | Prior to the commencement of the operation of the new downcast ventilation shaft compound (described in MOD 15), the Proponent must construct a new intersection on Ulan Road to the satisfaction of the appropriate roads authority. The intersection upgrade is to be designed and constructed in accordance with the Guide to Road Design (Austroads) and any relevant TfNSW supplements. | | | | This condition has not been triggered. | Not Triggered | |
| S3 C56 | Ulan Road Strategy | <p>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> | <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>Letter from MCO (S Archinal) to Mid-Western Regional Council (B Cam) titled "Moolarben Coal Letter of Offer to Mid-Western Regional Council – Part Moolarben Rd MOOLARBEN NSW 2850" dated 7 August 2018. The letter provides MCO's offer to purchase land associated with Moolarben Road from Council</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).</p> <p>The invoice was for:</p> <p>Capital works (\$330, 255.33) and Maintenance (\$110,051.83).</p> | Complies | |
| Condition 57 Deleted | | | | | | | | |
| S3 C58 | Traffic Management | <p>The Proponent shall:</p> <p>a) Schedule the shift changes on site to occur outside of school bus hours;</p> | Excel Spreadsheet titled "200522 Moolarben Shift and Travel Time interactions with other mines and Wollar Solar Farm". | | | Shift changes are scheduled 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. | Complies | |
| | | <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> | Excel Spreadsheet titled "200522 Moolarben Shift and Travel Time interactions with other mines and Wollar Solar Farm". | | | Shift changes are scheduled 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. | Complies | |

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| | | c) Take all reasonable steps to minimise traffic safety issues and disruption to local roads during road upgrades | | Environment and Community Manager – no mine related roadworks were undertaken during this audit period. | No mine related roadwork was being undertaken at the time of this IEA. | No mine related road works were under way at the time of this IEA. | Not Triggered | |
| S3 C59 | Rail Transport - West | 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: a) has been prepared in consultation with Council; | 2018 Annual Review Section 4.2.5 (Coal Processing and Transport) 2019 Annual Review Section 4.2.5 (Coal Processing and Transport) 2020 Annual Review Section 4.2.5 (Coal Processing and Transport) | Environment and Community Manager - No coal has been transported west all coal is transported via freight train to the Port of Newcastle. | | No coal has been transported west all coal is transported via freight train to the Port of Newcastle. | Not Triggered | |
| | | b) demonstrates that the railway line has been suitably upgraded to accommodate the proposed coal train traffic; | 2018 Annual Review Section 4.2.5 (Coal Processing and Transport) 2019 Annual Review Section 4.2.5 (Coal Processing and Transport) 2020 Annual Review Section 4.2.5 (Coal Processing and Transport) | Environment and Community Manager - No coal has been transported west all coal is transported via freight train to the Port of Newcastle. | | No coal has been transported west all coal is transported via freight train to the Port of Newcastle. | Not Triggered | |
| | | c) describes: <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. | 2018 Annual Review Section 4.2.5 (Coal Processing and Transport) 2019 Annual Review Section 4.2.5 (Coal Processing and Transport) 2020 Annual Review Section 4.2.5 (Coal Processing and Transport) | Environment and Community Manager - No coal has been transported west all coal is transported via freight train to the Port of Newcastle. | | No coal has been transported west all coal is transported via freight train to the Port of Newcastle. | Not Triggered | |
| S3 C60 | Monitoring of Coal Transport | The Proponent shall monitor the: a) amount of coal transported from the site each year; and | Spreadsheet titled “Railing Load Time and Weigher Tracking 2018”. Spreadsheet titled “Railing Load Time and Weigher Tracking 2021”. | | | 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 all information required by this Condition, including coal weight, loading date, train arrival times and departure times. | Complies | |
| | | b) date and time of each train movement generated by the project. | Spreadsheet titled “Railing Load Time and Weigher Tracking 2018”. Spreadsheet titled “Railing Load Time and Weigher Tracking 2021”. | | | 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 all information required by this Condition, including coal weight, loading date, train arrival times and departure times. | Complies | |
| S3 C61 | Visual Impact Mitigation | Upon receiving a written request from the owner of any residence on privately-owned land which has, or would have, significant direct views of the mining operations and infrastructure on site during the project, the Proponent shall implement additional visual impact mitigation measures (such as landscaping treatments or vegetation screens) to reduce the visibility of these mining operations and infrastructure from the residences on their properties. These mitigation measures must be reasonable and | Complaints Register | Environment and Community Manager – no complaints or requests were received during the audit period regarding visual impacts of the mine. | | No visual amenity complaints were recorded during the audit period. | Not Triggered | |

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| | | feasible, and must be implemented within a reasonable timeframe. If the Proponent and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution. | | | | | | |
| S3 C62 | Operation Conditions | The Proponent shall: a) implement best management practice to minimise the visual and off-site lighting impacts of the project; | Environmental Management Strategy Community Complaints Register | Environment and Community Manager - No visual complaints received during the audit period. Some lighting complaints received during 2020 and 2021 associated with mobile plant in OC3 | | (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.</i> <i>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 | Complies | |
| S3 C62 | Operation Conditions | b) ensure no fixed outdoor lights shine above the horizontal; | Environmental Management Strategy Community Complaints Register | | | This condition is regulated through MCO's Manual: Position and Set up Mobile Lighting (Surface) which was sighted during the audit and observed during the site inspection. | Complies | |
| | | c) ensure no in-pit mobile lighting rigs shine above the pit wall and other mobile lighting rigs do not shine above the horizontal; | Environmental Management Strategy Community Complaints Register | | | This condition is regulated through MCO's Manual: Position and Set up Mobile Lighting (Surface) which was sighted during the audit and observed during the site inspection. | Complies | |
| | | d) ensure that all external lighting associated with the project complies with Australian Standard AS4282(INT) 1997 – Control of Obtrusive Effects | Environmental Management Strategy Community Complaints Register | | | This condition is regulated through MCO's Manual: Position and Set up Mobile Lighting (Surface) which was sighted during the audit and observed during the site inspection. The Manual | Complies | |

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| | | of Outdoor Lighting or its latest version; | | | | states that 'prior to proceeding with work activities compliance with standards and safety regulations should be considered '. External lighting complies with Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting | | |
| | | 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; | Environmental Management Strategy Community Complaints Register | | The Auditor viewed the site from Ulan Road and close residential areas. | 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: - Trees and shrubs will be planted to provide a visual screen along Cope Road and Saddlers Creek Road. 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. 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 built 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. | Complies | |
| | | 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. | Environmental Management Strategy | | The Auditor viewed the site from Ulan Road and close residential areas. | 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. | Complies | |
| S3 C63 | Bushfire Management | The Proponent shall: a) ensure that the project is suitably equipped to respond to any fires on site; and | Bushfire Management Plan Version 2 dated November 2017. Routine Maintenance Order dated 25 February 2021 – maintenance of fire fighting equipment. | Environment and Community Manager – our emergency response team (ERT) is trained and undertakes routine emergency drills. | Firefighting equipment was inspected during this IEA (Photograph 7). | 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) <ul style="list-style-type: none"> • Fire reels and extinguishers • Three large graders • Six dozers In addition to equipment training is also provided to the Emergency Response Team (ERT) to ensure they are suitably equipped to respond to fires. | Complies | |

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| | | b) assist the RFS and emergency services as much as practicable if there is a fire in the vicinity of the site. | Email from NSW RFS (dated 7 August 2020) RE: MCO Assistance. | | | Correspondence from the RFS confirms that MCO assists the local RFS and Emergency services through training, drills and response to incidents. | Complies | |
| S3 C64 | Waste | The Proponent shall: a) implement all reasonable and feasible measures to minimise the waste (including coal reject) generated by the project; | Waste Management Plan Version 4 dated December 2021. 2018 Annual Review Section 6.8 2019 Annual Review Section 6.8 2020 Annual Review Section 6.8 | | The Auditor inspected waste storage areas (Photographs 8 and 9) across the site. Waste segregation was observed at waste generating areas, for example the maintenance work shops. Bins are provided to various waste types across the site. | The 2020 Annual Review states that MCO maintains Total Integrated Waste Management Service to manage waste streams generated onsite and to encourage the segregation and subsequent recycling of key waste streams. The key wastes generated on-site and an overview of the waste management strategy are documented in the Mining Operations Plan. The Auditor's observations verified that MCO are implementing reasonable waste management and minimisation measures. Dewatered coal fines (rejects) are disposed of back into the completed pit (there is no tailings dam associated with this operation). | Complies | |
| | | b) ensure that the waste generated by the project is appropriately stored, handled and disposed of; and | Waste Management Plan Version 4 dated December 2021. NSW EPA waste tracking certificate CA No. 2C00171440, 1 April 2021. The certificate was for the collection of 14 empty IBCs. NSW EPA waste tracking certificate CA No. 2C00149323, 4 June 2019. The certificate was for the collection of 4480 litres of waste oil. NSW EPA waste tracking certificate CA No. 2C00159913, 7 July 2020. The certificate was for the collection of 804 kg of waste oil filters. NSW EPA waste tracking certificate CA No. 2C00137486, 4 December 2018. The certificate was for the collection of 3500 litres of waste oil / water. | | The Auditor inspected waste storage areas across the site. Waste segregation was observed at waste generating areas, for example the maintenance work shops. Bins are provided to various waste types across the site. Waste oil and associated maintenance wastes (Photograph 9) were stored appropriately. | 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'. 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. | Complies | |
| | | c) monitor and report on effectiveness of the waste minimisation and management measures in the Annual Review. | 2018 Annual Review Section 6.8 2019 Annual Review Section 6.8 2020 Annual Review Section 6.8 | | | Section 6.8 of the Annual Reviews reports on waste management and recycling. | Complies | |
| | | | | | | | | |
| S3 C65 | Rehabilitation Objectives | The Proponent shall rehabilitate the site to the satisfaction of the Resources Regulator. 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 | Rehabilitation Management Plan Version 7 dated 30 October 2020 2018 Annual Review Section 9 2019 Annual Review Section 9 2020 Annual Review Section 9 | | | Mine site rehabilitation plans are documented in the Rehabilitation Management Plan and are generally consistent with the objectives outlined in Table 13 of the Project Approval (PA05_0117). Table B-1 (Project Approval Reconciliation) provides a guide to where each rehabilitation objective is documented within the RMP. The Annual Reviews report on the progressive rehabilitation on site over each reporting year. | Complies | |

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| | Table 13 | <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). • 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 Executive Director, Mineral Resources agrees otherwise. </td> </tr> <tr> <td>Agricultural Land</td> <td> <ul style="list-style-type: none"> • Establish agricultural land in areas indicated in the figure in Appendix 8 to a similar agricultural suitability to that existing prior to mining. </td> </tr> <tr> <td>Other Land</td> <td> <ul style="list-style-type: none"> • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of: <ul style="list-style-type: none"> • native forests and woodland, including EECs; • habitat for threatened fauna species; and • wildlife corridors (as indicated in the figure in Appendix 8). </td> </tr> <tr> <td>Community</td> <td> <ul style="list-style-type: none"> • Ensure public safety; and • Minimise the 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 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. | 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 Executive Director, Mineral Resources agrees otherwise. | Agricultural Land | <ul style="list-style-type: none"> • Establish agricultural land in areas indicated in the figure in Appendix 8 to a similar agricultural suitability to that existing prior to mining. | Other Land | <ul style="list-style-type: none"> • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of: <ul style="list-style-type: none"> • native forests and woodland, including EECs; • habitat for threatened fauna species; and • wildlife corridors (as indicated in the figure in Appendix 8). | Community | <ul style="list-style-type: none"> • Ensure public safety; and • Minimise the adverse socio-economic effects associated with mine closure. | | | | | | |
| Feature | Objective | | | | | | | | | | | | | | | | | | | | | | | |
| Mine site (as a whole) | <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. | | | | | | | | | | | | | | | | | | | | | | | |
| 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 Executive Director, Mineral Resources agrees otherwise. | | | | | | | | | | | | | | | | | | | | | | | |
| Agricultural Land | <ul style="list-style-type: none"> • Establish agricultural land in areas indicated in the figure in Appendix 8 to a similar agricultural suitability to that existing prior to mining. | | | | | | | | | | | | | | | | | | | | | | | |
| Other Land | <ul style="list-style-type: none"> • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of: <ul style="list-style-type: none"> • native forests and woodland, including EECs; • habitat for threatened fauna species; and • wildlife corridors (as indicated in the figure in Appendix 8). | | | | | | | | | | | | | | | | | | | | | | | |
| Community | <ul style="list-style-type: none"> • Ensure public safety; and • Minimise the adverse socio-economic effects associated with mine closure. | | | | | | | | | | | | | | | | | | | | | | | |
| S3 C66 | Progressive Rehabilitation | The Proponent shall rehabilitate the site progressively. That is, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim rehabilitation strategies shall be employed when areas prone to dust generation cannot yet be permanently rehabilitated. 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. | Rehabilitation Management Plan Version 7 dated 30 October 2020 Mining Operations Plan Version C dated October 2021. 2018 Annual Review Section 9 2019 Annual Review Section 9 2020 Annual Review Section 9 | | The Auditor inspected all (surface works) areas of the mine including the rehabilitated areas. Progressive rehabilitation (Photograph 10) observed was consistent with the planned works as documented in the RMP and Annual Reviews. | An overview of progressive rehabilitation is discussed in Section 4.7 of the RMP. 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 9 'Rehabilitation' and specifically Table 29 of each Annual Review outline the rehabilitation activities undertaken during the reporting period, and Section 4.3.6 provide a summary of the objectives for the next reporting period. During the site inspection the auditor observed progressive rehabilitation at open cut 1, 2 and 4 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. | Complies | | | | | | | | | | | | | | | | | |
| S3 C67 | Progressive Rehabilitation | The Proponent shall progressively landscape the environmental bunds on site | 2018 Independent Environmental Audit | Environment and Community Manager - landscaping of the bunds was completed prior to this audit period. | Landscaped environmental bunds were observed during the audit from Ulan Road | The Auditor inspected the environmental bunds. Landscaping of those bunds was completed during the previous audit period. | Complies | | | | | | | | | | | | | | | | | |

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| S3 C68 | Rehabilitation Management Plan | 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; | Rehabilitation Management Plan Version 7 dated 30 October 2020. Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex Stage 1 (PA05_0117) and Stage 2(PA 08_0135) Revisions of Management Plans and Strategies", dated 23/09/2020. Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex (MP05_0117) and Moolarben Coal Expansion (MP 08_0135) Rehabilitation Management Plan", dated 1 October 2020. | | | Version 1 of the Rehabilitation Management Plan was prepared in 2015. Consultation and approval of the plan was verified in the 2018 IEA. The plan was subsequently revised in 2020. DPIE advised in correspondence dated 23 September 2020 that the consultation on the revised plan would only be required with DPIE and the plan would be approved by the Resource Regulator. DPIE provided feedback on the draft revised plan on 1 October 2020. | Complies | |
| S3 C68 | Rehabilitation Management Plan | b) be submitted to the Executive Director, Mineral Resources for approval by 31 March 2015; | 2018 Independent Environmental Audit | | | Compliance with this condition was verified by the Auditor during the 2018 IEA. | Complies | |
| | | c) be prepared in accordance with any relevant MEG guideline; | 2018 Independent Environmental Audit | | | Compliance with this condition was verified by the Auditor during the 2018 IEA. | Complies | |
| | | (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 | Rehabilitation Management Plan Version 7 dated 30 October 2020. | | | The Rehabilitation Management Plan was reviewed, updated and approved by the Resource Regulator in 2020. | Complies | |
| | | d) describe how the rehabilitation of the site would be integrated with the implementation the biodiversity offset strategy; | Rehabilitation Management Plan Version 7 dated 30 October 2020. | | | Sections 11.3, 11.4 and 9 of the RMP describe how the site will be rehabilitated. | Complies | |
| | | e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary); | Rehabilitation Management Plan Version 7 dated 30 October 2020. | | | Section 4.9 of the RMP describes the performance and completion criteria. | Complies | |
| | | 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; | Rehabilitation Management Plan Version 7 dated 30 October 2020. | | | Sections 6 and 8 of the RMP describe the measures to be implemented to ensure compliance. | Complies | |
| | | g) include interim rehabilitation where necessary to minimise the area exposed for dust generation; | Rehabilitation Management Plan Version 7 dated 30 October 2020. | | | Sections 4 to 9 and 12 of the RMP describe interim rehabilitation measures. | Complies | |
| | | 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 | Rehabilitation Management Plan Version 7 dated 30 October 2020. | | | Section 4.7 of the RMP details the rehabilitation monitoring program to be implemented. | Complies | |
| | | i) build to the maximum extent practicable on the other management plans required under this approval. | Rehabilitation Management Plan Version 7 dated 30 October 2020. | | | Sections 7 and 11 of the RMP refer to integration with other relevant management plans. | Noted | |
| S3 C69 | The Drip | 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. | | | No mining was observed in the vicinity of The Drip. | Compliance with this Condition was verified in the 2018 IEA: <i>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.</i> No mining is being undertaken in the vicinity of the Drip. | Complies | |

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| C70 Deleted | | | | | | | | |
| S3 C71 | Gas Drainage | 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. | Greenhouse Gas Minimisation Plan Version 3 dated 29 October 2020. | | | Section 4 of the GHGMP described the potential management measures relating to greenhouse gas capture and reuse. The plan states: <i>“MCO’s gas analysis of coal seams indicates low levels of seam gas emissions and a composition that is predominantly CO2 under normal operating conditions. The beneficial capture and reuse of fugitive methane emissions can be undertaken through the adoption of management controls such as flaring, methane capture and energy production. These are not considered feasible or reasonable for the Moolarben Coal Complex due to the low methane concentration generated from the coal seam”.</i> | Complies | |
| S3 C72 | Gas Drainage | Prior to carrying out underground mining operations, the Proponent shall submit an updated Greenhouse Gas Minimisation Plan to the Secretary. This plan must: a) identify options for minimising greenhouse gas emissions from underground mining operations, with a particular focus on capturing and/or using these emissions; | Greenhouse Gas Minimisation Plan Version 3 dated 29 October 2020. Letter from DPIE (S O’Donoghue) to MCO (G Chase) titled “Moolarben Coal Expansion (MP08_0135) Greenhouse Gas Minimisation Plan”, dated 16 June 2020. | Environment and Community Manager – longwall mining has not yet commenced in UG 4 (the underground operations covered by PA 05_0117). | | The updated GHGMP was approved by DPIE on 16 June 2020. At the time of this IEA longwall mining had not commenced in the underground area associated with this Approval (05_0117). Section 4 of the GHGMP described the potential management measures relating to greenhouse gas capture and reuse. | Complies | |
| | | b) investigate the feasibility of implementing each option; | Greenhouse Gas Minimisation Plan Version 3 dated 29 October 2020. | | | Section 4 of the GHGMP described the potential management measures relating to greenhouse gas capture and reuse. | Complies | |
| | | c) propose the measures that would be implemented in the short to medium term on site; and | Greenhouse Gas Minimisation Plan Version 3 dated 29 October 2020. | | | Sections 4 and 5 of the GHGMP describe potential greenhouse gas emission controls and the greenhouse gas monitoring Program. | Complies | |
| | | d) include a research program to inform the continuous improvement of the greenhouse gas minimisation measures on site. | Greenhouse Gas Minimisation Plan Version 3 dated 29 October 2020. | | | Section 5.2 of the GHGMP describes the proposed research program. | Complies | |
| S3 C73 | Subsidence Performance Measures | 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 | | Environment and Community Manager -No Indicators or performance measures were exceeded during the reporting period. No secondary extraction activities have occurred under stage 1 during the audit period. | | No longwall mining activities have occurred under stage 1 during the audit period. | Not triggered | |
| | | Special Feature | | | | | | |
| | The Drip and Goulburn River Gorge | | Nil Impact or environmental consequences | | | | | |
| | Water Resources | | | | | | | |
| | Goulburn River and the bed of the Goulburn River | | 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, 282, 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 | | To remain long-term stable and non-subsiding. | | | | | | |

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| | | any feature where performance measures in this table require negligible impact, negligible consequence or negligible loss | | | | | | |
| | | Second workings | To be carried out only within the longwall mining domains, in accordance with an approved Extraction Plan. | | | | | |
| S3 C74 | Offsets | <p>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> | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | No longwall mining activities have occurred under stage 1 during the audit period. | Not triggered | |
| S3 C75 | Subsidence Performance Measures - Built Features | 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. | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | No longwall mining activities have occurred under stage 1 during the audit period. | Not triggered | |
| | | Key Public Infrastructure | | | | | | |
| | | Gulgong-Sandy Hollow Railway Line Wollar-Wellington 330kV Transmission Line | Always safe and serviceable. Damage that does not affect safety or serviceability must be fully repairable, and must be fully repaired. | | | | | |
| | | 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 | | | | | |
| S3 C76 | Subsidence Performance Measures - Built Features | 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 Resources Regulator. Any decision by the Secretary shall be final and not subject to further dispute resolution under this approval. | | Environment and Community Manager -No Indicators or performance measures were exceeded during the reporting period. No secondary extraction activities have occurred under stage 1 during the audit period. | | No longwall mining activities have occurred under stage 1 during the audit period. | Not triggered | |
| S3 C77 | Extraction Plan | <p>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> | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | No longwall mining activities have occurred under stage 1 during the audit period. | Not triggered | |

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| | | (b) be approved by the Secretary before the Proponent carries out any of the second workings covered by the plan; | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | No longwall mining activities have occurred under stage 1 during the audit period. | Not triggered | |
| | | (c) include detailed plans of existing and proposed first and second workings and any associated surface development; | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | No longwall mining activities have occurred under stage 1 during the audit period. | Not triggered | |
| S3 C77 | Extraction Plan | (d) include detailed performance indicators for each of the performance measures in Tables 14 and 15; | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | No longwall mining activities have occurred under stage 1 during the audit period. | Not triggered | |
| | | (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; | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | No longwall mining activities have occurred under stage 1 during the audit period. | Not triggered | |
| | | (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; | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | No longwall mining activities have occurred under stage 1 during the audit period. | Not triggered | |
| | | (g) include a Built Features Management Plan, which has been prepared in consultation with the Resources Regulator and the owners of affected public infrastructure, to manage the potential subsidence impacts and/or environmental consequences of the proposed second workings, and which: I. addresses in appropriate detail all items of key public infrastructure and other public infrastructure and all classes of other built features; II. has been prepared following appropriate consultation with the owner/s of potentially affected feature/s; 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 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; | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | No longwall mining activities have occurred under stage 1 during the audit period. | Not triggered | |
| | | (h) include a Water Management Plan, which has been prepared in consultation with EPA and DPIE Water, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | No longwall mining activities have occurred under stage 1 during the audit period. | Not triggered | |

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| | | watercourses and aquifers, including: I. surface and groundwater impact assessment criteria, including trigger levels for investigating any potentially adverse impacts on water resources or water quality; II. a program to monitor and report stream flows, assess any changes resulting from subsidence impacts and remediate and improve stream stability; III. a program to monitor and report groundwater inflows to underground workings; IV. a program to predict, manage and monitor impacts on groundwater bores on privately-owned land 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 VI. validate, and if necessary revise, the groundwater model for the palaeochannel 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 | | | | | | |
| S3 C77 | Extraction Plan | (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; | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | No longwall mining activities have occurred under stage 1 during the audit period. | Not triggered | |
| | | (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; | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | No longwall mining activities have occurred under stage 1 during the audit period. | Not triggered | |
| | | (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; | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | No longwall mining activities have occurred under stage 1 during the audit period. | Not triggered | |
| | | (l) include a Public Safety Management Plan, which has been prepared in consultation with DRE, to ensure public safety in the mining area; | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | No longwall mining activities have occurred under stage 1 during the audit period. | Not triggered | |

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| S3 C77 | Extraction Plan | (m) include a Subsidence Monitoring Program, which has been prepared in consultation with the Resource Regulator, to: I. describe the on-going subsidence monitoring program; II. provide data to assist with the management of the risks associated with subsidence; III. validate the subsidence predictions; IV. analyse the relationship between the predicted and resulting subsidence effects and predicted and resulting impacts under the plan and any ensuing environmental consequences; V. inform the contingency plan and adaptive management process. | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | No longwall mining activities have occurred under stage 1 during the audit period. | Not triggered | |
| | | (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; | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | No longwall mining activities have occurred under stage 1 during the audit period. | Not triggered | |
| | | (o) proposes appropriate revisions to the Rehabilitation Management Plan required under condition 68 of Schd. 3; | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | No longwall mining activities have occurred under stage 1 during the audit period. | Not triggered | |
| | | (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. | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | No longwall mining activities have occurred under stage 1 during the audit period. | Not triggered | |
| S3 C78A | Extraction Plan | Prior to the commencement of second workings in each of the longwall panels LW9-LW14, the Proponent shall: 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); | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | | Not triggered | |
| | | 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; | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | | Not triggered | |
| | | c) submit a copy of the report and expert review to the Department, Resources Regulator, BCD and DPIE Water, including a response to any recommendations contained in the expert review; to the satisfaction of the Secretary. | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | | Not triggered | |

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| S3 C78 | Extraction Plan | The Proponent shall ensure that the management plans required under conditions 77(g)-(l) above include: a) an assessment of the potential environmental consequences of the Extraction Plan, incorporating any relevant information that has been obtained since this approval | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | | Not triggered | |
| | | b) a detailed description of the measures that would be implemented to remediate predicted impacts. | | Environment and Community Manager -No secondary extraction activities have occurred under stage 1 during the audit period. | | | Not triggered | |
| S3 C79 | First Workings | The Proponent may carry out first workings on site other than in accordance with an approved Extraction Plan, provided that Resources Regulator 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. | Letter from DPIE (S Anson) to MCO (A Moodie) titled "Moolarben Coal operation – Underground 4 Mine Layout - First Workings Satisfaction", dated 8 July 2019. | | | DPIE wrote to MCO on 8 July 2019 stating : "DRG is satisfied that that the Leaseholder can achieve the outcomes of the first workings condition of Project Approval 05_0117 (MOD 14) granted by the Minister for Planning on 6 September 2007 subject to...". | Noted | |
| S3 C80 | Payment of Reasonable Costs | 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. | | Environment and Community Manager – DPIE has not sought any costs from MCO in relation to the review of the extraction plan. | | | Not triggered | |
| S4 C1 | Notification of Landowners | By the end of March 2015, the Proponent shall: (a) notify in writing the owners of: 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; 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 • 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; | 2015 Independent Environmental Audit | Environment and Community Manager - All notifications were completed in February 2015. | | Compliance with this condition was verified in the 2015 IEA. Notifications completed in February 2015 prior to the audit period. | Complies | |
| S4 C1 | Notification of Landowners | b) notify the tenants of any mine-owned land of their rights under this approval; and | 2015 Independent Environmental Audit | Environment and Community Manager - All notifications were completed in February 2015. | | Compliance with this condition was verified in the 2015 IEA. Notifications completed in February 2015 prior to the audit period. | Complies | |
| | | (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. | 2015 Independent Environmental Audit | Environment and Community Manager - All notifications were completed in February 2015. | | Compliance with this condition was verified in the 2015 IEA. Notifications completed in February 2015 prior to the audit period. | Complies | |

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| S4 C2 | Notification of Landowners | <p>Prior to entering into any tenancy agreement for any land owned by the Proponent that is predicted to experience exceedances of the recommended dust and/or noise criteria, or for any of the land listed in Table 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> | Residential Tenancy Agreement (596 Moolarben Road, Moolarben) dated 1 January 2019. | Environment and Community Manager – The 2019 residential agreement is a renewal of an existing lease (entered into prior to this audit period), for context the tenant was the original owner of the land purchased as part of the stage 1 open cut three footprint, the updated residential agreement was required as mining in OC3 progressed into the previous rural lease area. | | No new tenancy agreements were entered into during the audit period. | Not Triggered | |
| | | <p>b) advise the prospective tenants of the rights they would have under this approval, to the satisfaction of the Secretary</p> | Residential Tenancy Agreement (596 Moolarben Road, Moolarben) dated 1 January 2019. | Environment and Community Manager – The 2019 residential agreement is a renewal of an existing lease (entered into prior to this audit period), for context the tenant was the original owner of the land purchased as part of the stage 1 open cut three footprint, the updated residential agreement was required as mining in OC3 progressed into the previous rural lease area. | | No new tenancy agreements were entered into during the audit period. | Not Triggered | |
| S4 C3 | Notification of Landowners | <p>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>Moolarben Coal Complex Annual Review 2018</p> <p>Moolarben Coal Complex Annual Review 2019</p> <p>Moolarben Coal Complex Annual Review 2020</p> <p>Incident Register</p> | Environment and Community Manager – no exceedances occurred during the audit period that required notification to any landowner. | | No exceedances occurred during the audit period that required notification to any landowner. | Not Triggered | |
| | | <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> | <p>Moolarben Coal Complex Annual Review 2018</p> <p>Moolarben Coal Complex Annual Review 2019</p> <p>Moolarben Coal Complex Annual Review 2020</p> <p>Incident Register</p> | Environment and Community Manager – no exceedances occurred during the audit period that required notification to any landowner. | | No exceedances occurred during the audit period that required notification to any landowner. | Not Triggered | |

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| S4 C4 | Independent Review | <p>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 | Complaints Register | Environment and Community Manager – no requests for an independent review were received during the audit period. | | No requests for an independent review were received during the audit period. | Not Triggered | |
| | | <p>(b) give the Secretary and landowner a copy of the independent review.</p> | Complaints Register | Environment and Community Manager – no requests for an independent review were received during the audit period. | | No requests for an independent review were received during the audit period. | Not Triggered | |
| C5-C9 deleted | | | | | | | | |

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| S4 C10 | Land Acquisition | <p>Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent shall make a binding written offer to the landowner based on:</p> <p>(a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the project, having regard to the:</p> <ul style="list-style-type: none"> existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and presence of improvements on the land and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the additional noise and/or air quality mitigation measures in conditions 4 and 5 of Schd. 3; | | Environment and Community Manager – no requests for property acquisitions were received during the audit period. | | No requests for property acquisitions were received during the audit period. | Not Triggered | |
| | | <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 | | Environment and Community Manager – no requests for property acquisitions were received during the audit period. | | No requests for property acquisitions were received during the audit period. | Not Triggered | |
| | | <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</p> | | Environment and Community Manager – no requests for property acquisitions were received during the audit period. | | No requests for property acquisitions were received during the audit period. | Not Triggered | |

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| | | <p>not less than the independent valuer's determination. 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> | | | | | | |
| S4 C11 | Land Acquisition | 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. | | Environment and Community Manager – no requests for property acquisitions were received during the audit period. | | No requests for property acquisitions were received during the audit period. | Not Triggered | |
| S5 C1 | Environment Management Strategy | <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>Environmental Management Strategy Version 6 dated 29 October 2020.</p> <p>Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Complex – Stage 1 (PA05_0117) and Stage 2 (PA09_0135) Environmental Management Strategy", dated 12 August 2020.</p> | | | <p>An Environmental Management Strategy (EMS) (EMS Version 1) was prepared in December 2008 to satisfy Project Approval 05_0117 Schedule 5 condition 1.</p> <p>Compliance with this condition was verified during the 2018 IEA.</p> <p>The EMS was subsequently revised in 2020 and the revision was reviewed and proved by DPIE.</p> | Complies | |
| S5 C1 | Environment Management Strategy | b) provide the strategic framework for environmental management of the project; | Environmental Management Strategy Version 6 dated 29 October 2020. | | | The EMS provides an appropriate strategic framework for environmental management of the project. | Complies | |
| | | c) identify the statutory approvals that apply to the project; | Environmental Management Strategy Version 6 dated 29 October 2020. | | | Statutory approvals that apply to the project are covered in section 4 of the EMS. | Complies | |
| S5 C1 | Environment Management Strategy | d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project; | Environmental Management Strategy Version 6 dated 29 October 2020. | | | 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. | Complies | |
| | | e) describe the procedures that would be implemented to: <ul style="list-style-type: none"> keep the local community and relevant agencies informed about the operation and | Environmental Management Strategy Version 6 dated 29 October 2020. | | | 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. | Complies | |

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| | | environmental <ul style="list-style-type: none"> 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 | | | | 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. | | |
| | | (f) include: <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. | Environmental Management Strategy Version 6 dated 29 October 2020. | | | Section 6 (Table 4) provides a summary of Required Environmental Management Strategies, Plans and Programs. These documents can be found on the MCO website. Section 6 of the Environmental Management Plans | Complies | |
| S5 C2 | Adaptive Management | 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. Where any exceedance of these criteria and/or performance measures has occurred, the Proponent must, at the earliest opportunity: <ol style="list-style-type: none"> take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur; | Moolarben Coal Complex Annual Review 2018 Section 12 (Incidents and Non-compliances) Moolarben Coal Complex Annual Review 2019 Section 12 (Incidents and Non-compliances) Moolarben Coal Complex Annual Review 2020 Section 12 (Incidents and Non-compliances) | | | One non-compliance was reported in 2018 (second half): Interruption to continuous dust monitoring due to equipment outages. Two non-compliances were reported in 2019: <ul style="list-style-type: none"> generation of visible blast plume (no dust generated). Odour emission from site (spon-con event) Five non-compliances were reported in 2020: <ul style="list-style-type: none"> Interruption to continuous dust monitoring due to equipment outages. Failure to collect sample at an EPL sampling site. Two pollution of waters incidents (no associated with the operations for PA 05_0117, therefore not a non-compliance against this approval) One water pollution incident was recorded in 2021: <ul style="list-style-type: none"> On 22 March 2021 a sediment water release, occurred as a result of heavy rainfall, down stream from Dam 413. All incidents have been investigated by MCO and where required corrective and preventative actions were taken. | Complies | |
| | | <ol style="list-style-type: none"> 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 | Incident Register | | | A review of the incident register indicated that all incidents were investigated and where required remedial measures implemented and / or procedural changes made. | Complies | |
| | | <ol style="list-style-type: none"> implement remediation measures as directed by the Secretary, to the satisfaction of the Secretary. | | | | DPIE did not require any specific remediation measures to be implemented for the reported incident. | Not Triggered | |

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| S5 C3 | Management Plan Requirements | Management Plan Requirements 3. The Proponent shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include: a) detailed baseline data; | Refer to Section 7.5 of this report. | | | Detailed baseline data is included in various sections of relevant management plan and Environmental Assessments. | Complies | |
| | | b) a description of: <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; | Refer to Section 7.5 of this report. | | | 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. | Complies | |
| | | c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria; | Refer to Section 7.5 of this report. | | | 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. | Complies | |
| | | d) a program to monitor and report on the: <ul style="list-style-type: none"> impacts and environmental performance of the project; effectiveness of any management measures (see c above); | Refer to Section 7.5 of this report. | | | 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. | Complies | |
| | | e) a contingency plan to manage any unpredicted impacts and their consequences; | Refer to Section 7.5 of this report. | | | Contingency plans are usually covered in section 9 or 11. | Complies | |
| | | f) a program to investigate and implement ways to improve the environmental performance of the project over time; | Refer to Section 7.5 of this report. | | | The 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. | Complies | |
| | | g) a protocol for managing and reporting any: <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 | Refer to Section 7.5 of this report. | | | 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; | Complies | |
| | | h) a protocol for periodic review of the plan. | Refer to Section 7.5 of this report. | | | Periodic review of the plans is usually addressed in section 10 of the environmental management plans and in section 7 of the EMS. | Complies | |

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| S5 C4 | Annual Review | 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: 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; | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | | Section 2 of the Annual Reviews describes the scope of the annual review and section 4 provides the operations summary, section 13 describes the activities to be completed in the next reporting period. | Complies | |
| | | 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 <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; | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | | Section 6 of the Annual Reviews cover environmental performance. Section 10.2 of the Annual Reviews cover community complaints. | Complies | |
| | | c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance; | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | | Incidents and non-compliances are reported in Section 12 of each Annual Review. | Complies | |
| | | d) identify any trends in the monitoring data over the life of the project; | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | | Environmental performance is covered in section 6 of each Annual review. This section provides a comparison to results from previous years for environmental factors (such as noise, air quality etc.). | Complies | |
| | | e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | | Comparison of monitoring data to previous monitoring and predicted impacts are covered in section 6 of each Annual review. | Complies | |
| | | f) describe what measures will be implemented over the next year to improve the environmental performance of the project. | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | | Section 13 of each Annual Review reports on measures to be taken in the subsequent reporting period. | Complies | |
| | | S5 C5 | Revision of Strategies, Plans and Programs | Within 3 months of the submission of: a) the submission for annual review under condition 4 above; | All Management Plans required by this Approval were reviewed (refer Section 7.5 of this report). | | | 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 meet by MCO. |

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| | | b) the submission for incident report under condition 7 below; | All Management Plans required by this Approval were reviewed (refer Section 7.5 of this report). | | | The Revision Control Chart at the start of every Management Plan includes details of revisions. Section 6 of the EMS (V4) as approved by October 2018 states: | Complies | |
| | | c) the submission for audit under condition 9 below; or | All Management Plans required by this Approval were reviewed (refer Section 7.5 of this report). | | | <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> | Complies | |
| S5 C5 | Revision of Strategies, Plans and Programs | 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. | All Management Plans required by this Approval were reviewed (refer Section 7.5 of this report). | | | All management plans were reviewed, revised and approved by DPIE in 2020. File note provided for 2021 review of Management plans (MCO_FN_210526 Management Plan Review). | Complies | |
| S5 C6 | Community Consultative Committee | 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). | MCO website | | | 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> Minutes of CCC meetings are available on the Moolarben Coal website. | Complies | |
| S5 C7 | Incident Reporting | 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. | Environmental Management Strategy Version 6 dated 29 October 2020. Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Letter from MCO (G Chase) to the EPA, titled "Environmental Event Report Moolarben Coal Operations Pty Ltd – Blast Event 1 July 2019", dated 8 July 2019. The report was prepared in response to a request by the EPA on 4 July 2019 for further information. Letter from MCO (G Chase) to the EPA, titled "Environmental Event Report Moolarben Coal Operations Pty Ltd – Odour Complaint 20 October 2019", dated 28 October 2019. The report was prepared in response to a request by the EPA on 21 October 2019 as a result of the complaint received by the EPA. Report by MCO (G Chase), titled "Environmental Event Report Moolarben Coal Operations Pty Ltd – Moolarben Creek Rain Event 19 February 2020", dated 26 February 2020. The report was prepared in | | | Reportable incidences are summarised in the Annual Reviews. 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. 2018 Incidents reported in the Annual Review: <ul style="list-style-type: none"> • Interruption to continuous dust monitoring due to equipment outages (not reportable as an incident). • Minor hydrocarbon spill by contractor – no environmental harm (not reportable as an incident) 2019 Incidents reported in the Annual Review: <ul style="list-style-type: none"> • Interruption to continuous dust monitoring due to equipment outages (not reportable as an incident). • 1 July: generation of visible blast plume (reportable incident). • 20 October: Odour emission from site (reportable incident) 2020 Incidents reported in the Annual Review: <ul style="list-style-type: none"> • Interruption to continuous dust monitoring due to equipment outages (not reportable as an incident). | Complies | |

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| | | | <p>response to the incident by MCO.</p> <p>Report by MCO (G Chase), titled "Environmental Event Report Moolarben Coal Operations Pty Ltd – Sediment Drain Overtopping 21 December 2020", dated 21 January 2021. The report was prepared in response to the incident by MCO.</p> <p>Email from MCO (T Cini) to the EPA (K Willows) titled "R3 report for incident at 12 Ulan-Wollar Road", dated 21 January 2021. The email is a record of transmission of the Environmental Event Report dated 21 January 2021.</p> <p>Letter from DPIE (K O'Reilly) to MCO (G Chase) titled "Moolarben Coal - Expansion - MP08_0135 Sediment Dam Release 22 March 2021", dated 7 April 2021.</p> <p>Report by MCO (G Chase) titled "Environmental Event Report Moolarben Coal Operations Pty Ltd – Sediment Dam 413 (EPL22) Release Report", dated 29 March 2021. The report was prepared in response to the incident by MCO.</p> | | | <ul style="list-style-type: none"> Failure to collect sample at an EPL sampling site (not a reportable incident). Water sample not collected, for oil and grease analysis (not a reportable incident) 19 February: release of sediment laden water into Moolarben Creek (Reportable Incident) 21 December: release of sediment laden water drain (Reportable Incident). <p>2021 Incidents reported in the Annual Review:</p> <ul style="list-style-type: none"> 29 March: release of sediment laden water from Dam 413. <p>Evidence of notification of all reportable incidents was sighted during the audit.</p> | | |
| S5 C8 | Regular Reporting | 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>MCO website</p> <p>Moolarben Coal Complex Annual Review 2018</p> <p>Moolarben Coal Complex Annual Review 2019</p> <p>Moolarben Coal Complex Annual Review 2020</p> | | | <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.</p> <p>Additionally, the Annual Reviews are published online which includes an analysis of environmental performance over the year.</p> | Complies | |
| S5 C9 | Auditing | 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: | 2018 Independent Environmental Audit (pitt&sherry). | | | The 2018 IEA was undertaken by an independent auditor approved by DPIE. | Complies | |
| | | a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary; | | | | | | |
| | | b) include consultation with the relevant agencies; | 2018 Independent Environmental Audit (pitt&sherry). | | | The 2018 IEA included consultation with the relevant agencies. | Complies | |
| | | 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); | 2018 Independent Environmental Audit (pitt&sherry). | | | The 2018 IEA report included an assessment of environmental performance against the relevant approvals, including the EPL. | Complies | |
| | | d) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals; and | 2018 Independent Environmental Audit (pitt&sherry). | | | The 2018 IEA report included a review of all relevant plans, strategies and programs. | Complies | |
| e) recommend measures or actions to improve the environmental performance of the Moolarben mine complex, and/or any strategy, | 2018 Independent Environmental Audit (pitt&sherry). | | | The 2018 IEA report included recommendations for improvements for all non-compliances | Complies | | | |

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| | | plan or program required under these approvals. | | | | identified. | | |
| S5 C10 | Auditing | 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. | 2018 Independent Environmental Audit (pitt&sherry). Letter from DPIE (K O'Reilly) to MCO (G Chase) titled "Moolarben Coal Complex: Project Approval 05_0117 and 08_0135 Independent Environmental Audit 1 Jan 2016 to 16 October 2018. The letter confirms DPIE acceptance of the 2018 audit report and the IEA Response Action Plan. | | | The Audit Response Action Plan was submitted to and accepted by DPIE. | Complies | |
| S5 C11 | Access to Information | The Proponent shall: a) make the following information publicly available on its website: <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 | MCO website | | | All of the documents listed in PA 05_0117 and PA08_0135 Schedule 6 Condition 11 are on the website. | Complies | |
| | | b) keep this information up to date, | MCO website | | | At the time of this IEA, all required documentation on the website was up to date. | Complies | |
| | | 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. | MCO website | Environment and Community Manager - In accordance with this condition, MCO added predictive meteorological data and air quality data from the previous 24hrs to the MCO website | | Meteorological Data is provided on the MCO website. | Complies | |

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| S2 C1 | Obligation to Minimise Harm to The Environment | 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 | |
| S2 C2 | Terms of Approval | 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. | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Incident Register | Environment and Community Manager - No penalty notices have been issued during the reporting period. | | No significant compliance incidents were reported in 2018. Two reportable incidents including a spontaneous combustion incident resulted in an odour compliant were recorded in 2019. Five noncompliances were recorded in 2020, none of the incidents resulted in material harm to the environment. | Noted | |
| S2 C3 | Terms of Approval | 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 | |
| S2 C4 | Terms of Approval | The Proponent shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of: | | | | The Auditor did not sight any correspondence from DPIE covering this audit period that required any actions from MCO in relation to any strategies, plans, programs, reviews, audits or reports. | Not Triggered | |
| | | a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this approval; | | | | The Auditor did not sight any correspondence from DPIE covering this audit period that required any actions from MCO in relation to any compliance issues. | Not Triggered | |
| | | b) any reports, reviews or audits commissioned by the Department regarding compliance with this approval; and | | | | The Auditor did not sight any correspondence from DPIE covering this audit period that required any actions from MCO in relation to any strategies, plans, programs, reviews, audits or reports. | Not Triggered | |
| | | c) the implementation of any actions or measures contained in these documents. | | | | | Not Triggered | |
| S2 C5 | Lapsing of Approval | If the project has not been physically commenced within 5 years of the date of this approval, then this project approval shall lapse. | | | The mine was operating at the time of this IEA. | 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. | Complies | |
| S2 C6 | Mining Operations | The Proponent may carry out mining operations on the site until 31 December 2038. | | | | | Noted | |
| S2 C7 | Coal Extraction | The Proponent shall not extract more than: (a) 16 million tonnes of ROM coal from the open cut mining operations of the project in any calendar year; and | Moolarben Coal Complex Annual Review 2018 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2019 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2020 Table 8 Production Summary. | | | 9,065,915 tonnes of ROM coal were produced from open cut 4 during the 2018 calendar year. 10,198,715 tonnes of ROM coal were produced from open cut 4 during the 2019 calendar year. 10,873,793 tonnes of ROM coal were produced from open cut 4 during the 2020 calendar year. | Complies | |

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| | | (b) 8 million tonnes of ROM coal from the underground mining operations of the project in any calendar year. | Moolarben Coal Complex Annual Review 2018 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2019 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2020 Table 8 Production Summary. | Environment and Community Manager - PA 08_0135 includes UG1 and UG2, Longwall mining was occurring in UG1 during 2018, 2019, 2020, and 2021. | | 5,588,036 tonnes of ROM coal were produced from underground operations during the 2018 calendar year. 6,424,761 tonnes of ROM coal were produced from underground operations during the 2019 calendar year. 7,545,551 tonnes of ROM coal were from underground operations during the 2020 calendar year. | Complies | |
| S2 C7 | Coal Extraction | <i>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);</i> • The total ROM coal extracted from the Moolarben mine complex (open-cut and underground mining) is no more than 24 million tonnes in any calendar year. | Moolarben Coal Complex Annual Review 2018 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2019 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2020 Table 8 Production Summary. | | | In 2018 a total of 18,587,871 tonnes of coal mined was mined. In 2019 a total of 20,514,055 tonnes of coal mined was mined. In 2020 a total of 21,656,483 tonnes of coal mined was mined. | Complies | |
| | | • No more than 16 million tonnes of coal from the Moolarben mine complex can be processed (washed) in any calendar year. | Moolarben Coal Complex Annual Review 2018 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2019 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2020 Table 8 Production Summary. | | | In 2018 a total of 12,570,428 tonnes of coal mined was washed. In 2019 a total of 13,489,718 tonnes of coal mined was washed In 2020 a total of 13,957,845 tonnes of coal mined was washed | Complies | |
| | | • No more than 22 million tonnes can be transported from the Moolarben mine complex in any calendar year. | Moolarben Coal Complex Annual Review 2018 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2019 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2020 Table 8 Production Summary. | | | In 2018 a total of 16,521,118 tonnes of product coal mined was transported from the mine. In 2019 a total of 17,851,631 tonnes of product coal mined was transported from the mine. In 2020 a total of 19,775,825 tonnes of product coal mined was transported from the mine. | Complies | |
| S2 C8 | Coal Processing and Transport | 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. | Indicative General Arrangement (Figure 2.2 of Stage 1 Project Approval 05_0117) | | During the site inspection, the Auditor observed coal transport within the site. All ROM coal was conveyed to the on-site coal stockpile area and processed on-site. | 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. During the site inspection this process was observed, and this condition assessed as complaint. | Complies | |
| S2 C9 | Structural Adequacy | The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA. <i>Notes: • 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.</i> | Fuel Farm Construction Certificate (Whitehall Building Certifiers) CC No. 1420, dated 20 March 2020. Communications Tower Construction Certificate (Whitehall Building Certifiers) CC No. 12019, dated 13 October 2019. Operator Control Room, Water Storage Tank and Igloo Storage Occupation Certificate (Whitehall Building Certifiers) dated 14 July 2020.. Operator Control Room, Water Storage Tank and Igloo Storage Construction Certificate (Whitehall Building Certifiers) CC No. 6619, dated 18 October 2019. Water Treatment Plant Complying Development Certificate Construction Certificate (Whitehall | Environment and Community Manager - during the audit period a new fuel farm, Water treatment plant, and communications tower were constructed. | The new fuel farm and water treatment plant were inspected during this IEA. No other recently completed structures were sighted during the site inspection. | The construction works undertaken during the audit period were monitored and approved (including compliance with the relevant BCA requirements) by an independent certifier. | Complies | |

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| | | | Building Certifiers), dated 5 June 2019. | | | | | |
| S2 C10 | Demolition | The Proponent shall ensure that all demolition work is carried out in accordance with Australian Standard AS 2601-2001.. | | Environment and Community Manager - No demolition works have been undertaken during the audit period. | | No demolition works have been undertaken during the audit period. | Not triggered | |
| S2 C11 | Protection of Public Infrastructure | 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 | Moolarben Coal Complex Annual Review 2018 Section 8 and Table 27. Moolarben Coal Complex Annual Review 2019 Section 8 and Table 27. Moolarben Coal Complex Annual Review 2020 Section 8 and Table 27. Incident Register | Environment and Community Manager - No recorded impacts on roads or other infrastructure during the audit period. | | MCO environmental representative advised the auditors that there have been no recorded impacts on roads or other infrastructure during the audit period. | Not triggered | |
| | | (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the project. <i>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.</i> | Moolarben Coal Complex Annual Review 2018 Section 8 and Table 27. Moolarben Coal Complex Annual Review 2019 Section 8 and Table 27. Moolarben Coal Complex Annual Review 2020 Section 8 and Table 27. Incident Register | Environment and Community Manager - No recorded impacts on roads or other infrastructure during the audit period. | | MCO environmental representative advised the auditors that there have been no recorded impacts on roads or other infrastructure during the audit period. | Not triggered | |
| S2 C12 | Operation of Plant and Equipment | The Proponent shall ensure that all plant and equipment used at the site, or in connection with the project, is: a) maintained in a proper and efficient condition; and is | Spreadsheets containing extracts from the SAP system detailing equipment maintenance undertaken (sampled) over the audit period. titled: <ul style="list-style-type: none"> • 2019 OC Final W10 • 2019 OC Final W30 • 2019 OC Final W50 • 2020 OC Final W08 • 2020 OC Final W26 • 2020 OC Final W43 • 2021 OC Final W15 • 2021 OC Final W34 • 2021 OC Final W43 | Environment and Community Manager – MCO operate an SAP system that schedules, tracks and reports on plant and equipment maintenance across the operation. | | MCO advised that plant and equipment is maintained using the Maintenance Schedule (SAP Records Management). The maintenance schedule was sighted during the site inspection. 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. | Complies | |
| | | b) operated in a proper and efficient manner | | | The Auditor inspected the MCO maintenance facilities. All plant and equipment observed during the audit appeared to be appropriately maintained. | 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 | Complies | |

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| S2 C13 | Staged Submission of Strategies, Plans or Programs | <p>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> | | | | | Noted | |
| S2 C13A | Staged Submission of Strategies, Plans or Programs | <p>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> | <p>Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex Stage 1 (PA05_0117) and Stage 2(PA 08_0135) Revisions of Management Plans and Strategies", dated 23/09/2020.</p> <p>Email from the Gallangabang Aboriginal Corporation (B Bliss) to MCO (T Cini) titled "Moolarben Coal Complex – Updated HMP for Comment", dated 21 September 2020.</p> <p>Letter from MCO (G Chase) to DPIE titled "Moolarben Coal Complex – Heritage Management Plan – Amendment for Approval", dated 24 September 2020. The letter records the consultation outcomes with relevant RAPs and Heritage NSW and submits the plan for review and approval.</p> <p>Letter from MCO (G Chase) to DPIE titled "Moolarben Coal Complex – Surface Water Management Plan – Amendment for Approval", dated 28 September 2020. The letter records the consultation outcomes with the NRAR and submits the plan for review and approval</p> <p>Letter from the EPA (J Goodwin) to MCO (G Chase) titled "Updated Surface Water Management Plan Moolarben Coal Mine", dated 12 October 2020. The letter communicates the EPA's policy that it does not comment on management plans.</p> | <p>Environment and Community Manager - All environmental plans were reviewed and revised during 2020. The SWMP, RMP and HMP consultation was undertaken in accordance with DPIE requirements (letter dated 23 September 2020) and all revised plans were reviewed and approved by DPIE.</p> | | <p>DPIE wrote to MCO on 23 September 2020 confirming that stakeholder consultation was required only on the following plans:</p> <ul style="list-style-type: none"> • Surface Water Management Plan (SWMP) - Consult with DPI Water, Natural Resources Access Regulator and the EPA • Rehabilitation Management Plan (RMP) - consultation with the Department's Planning and Assessment Group, noting the plan is to be approved by Resources Regulator. • Heritage Management Plan (HMP) - Consult with OEH and Registered Aboriginal Parties (RAPs). <p>Correspondence evidencing consultation with relevant bodies was sighted.</p> | Complies | |
| S2 C14 | Community Enhancement | <p>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> | <p>Invoice (No. 21 0439) from Mid- Western Regional Council (10 August 2020)</p> <p>Invoice (No. 21 0900) from Mid- Western Regional Council (13 October 2020)</p> <p>Invoice (No. 21 1211) from Mid- Western Regional Council (18 November 2021)</p> | <p>Environment and Community Manager – there are approximately 750 full time equivalent personnel employed at the mine.</p> | | <p>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, for example the invoice from Council for \$320,989.32 for the "Stage 2 Community Enhancement Contribution".</p> | Complies | |
| S3 C1 | Acquisition Upon Request | <p>Deleted</p> <p><i>Note: The Proponent has acquired all properties provided acquisition rights under this approval.</i></p> | | | | | | |

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| S3 C2 | Mitigation Upon Request | Deleted <i>Note: The Proponent has acquired all properties provided acquisition rights under this approval.</i> | | | | | | |
| S3 C3 | Noise Criteria | 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 (below). 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. | Moolarben Coal Complex Annual Review 2018 Section 6, Table 11. Moolarben Coal Complex Annual Review 2019 Section 6, Table 11. Moolarben Coal Complex Annual Review 2020 Section 6, Table 11. Moolarben Coal Operations Monthly Environmental Noise Monitoring June 2020 prepared by Global Acoustics. Moolarben Coal Operations Environmental Noise Monitoring Quarter 2 2019, prepared by Global Acoustics. Moolarben Coal Operations Quarterly Environmental Noise Monitoring August 2021, prepared by Spectrum Acoustics. | | | Environmental noise monitoring was undertaken in accordance with the Noise Management Plan throughout the audit period by independent consultants. No environmental noise non-compliances were recorded during the audit period. | Complies | |
| S3 C3 | Table 3 | | | | | | | |
| | | Land Number | Day LAeq(15min) | Evening LAeq(15min) | Night LAeq(15min) | Night (LA1(1min)) | | |
| | | 30,36 | 39 | 39 | 39 | 45 | | |
| | | 63 | 39 | 39 | 39 | 45 | | |
| | | 70 | 37 | 37 | 37 | 45 | | |
| | | 75 | 36 | 36 | 36 | 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 Munghorn Gap Nature Reserve | 50 when in use | | | - | | |
| S3 C2 | Land Acquisition Criteria | 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. Table 4 <ul style="list-style-type: none"> Property 63: Day 43 / Evening 43 / Night 42 All Other Private Residences: Day 40 / Evening 40 / Night 40 | Moolarben Coal Complex Annual Review 2018 Section 6, Table 11. Moolarben Coal Complex Annual Review 2019 Section 6, Table 11. Moolarben Coal Complex Annual Review 2020 Section 6, Table 11. Moolarben Coal Operations Monthly Environmental Noise Monitoring June 2020 prepared by Global Acoustics. Moolarben Coal Operations Environmental Noise Monitoring Quarter 2 2019, prepared by Global Acoustics. Moolarben Coal Operations Quarterly Environmental Noise Monitoring August 2021, prepared by Spectrum Acoustics. | Environment and Community Manager - Property number 63 has been acquired during the audit period however this property was voluntarily acquired and was not purchased through an acquisition request. | | Environmental noise monitoring was undertaken in accordance with the Noise Management Plan throughout the audit period by independent consultants. No environmental noise non-compliances were recorded during the audit period and therefore, the noise acquisition criteria were not triggered. | Not Triggered | |
| S3 C3 | Land Acquisition Criteria | 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 | Moolarben Coal Complex Annual Review 2018 Section 6, Table 11. Moolarben Coal Complex Annual Review 2019 | | | Environmental noise monitoring was undertaken in accordance with the Noise Management Plan throughout the audit period by independent consultants. | Not Triggered | |

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| | | 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>Section 6, Table 11.</p> <p>Moolarben Coal Complex Annual Review 2020 Section 6, Table 11.</p> <p>Moolarben Coal Operations Monthly Environmental Noise Monitoring June 2020 prepared by Global Acoustics.</p> <p>Moolarben Coal Operations Environmental Noise Monitoring Quarter 2 2019, prepared by Global Acoustics.</p> <p>Moolarben Coal Operations Quarterly Environmental Noise Monitoring August 2021, prepared by Spectrum Acoustics.</p> | | | No environmental noise non-compliances were recorded during the audit period and therefore, the noise acquisition criteria were not triggered. | | |
| S3 C4 | Noise Mitigation Criteria | <p>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.</p> <p>Table 6: Mitigation criteria dB(A) LAEq(15min)</p> <ul style="list-style-type: none"> Property 63: Day 40 / Evening 40 / Night 39 All Other Private Residences: Day 37/ Evening 37 / Night 37 | <p>Moolarben Coal Complex Annual Review 2018 Section 6, Table 11.</p> <p>Moolarben Coal Complex Annual Review 2019 Section 6, Table 11.</p> <p>Moolarben Coal Complex Annual Review 2020 Section 6, Table 11.</p> <p>Moolarben Coal Operations Monthly Environmental Noise Monitoring June 2020 prepared by Global Acoustics.</p> <p>Moolarben Coal Operations Environmental Noise Monitoring Quarter 2 2019, prepared by Global Acoustics.</p> <p>Moolarben Coal Operations Quarterly Environmental Noise Monitoring August 2021, prepared by Spectrum Acoustics.</p> | | | <p>Environmental noise monitoring was undertaken in accordance with the Noise Management Plan throughout the audit period by independent consultants.</p> <p>No environmental noise non-compliances were recorded during the audit period and therefore, the noise mitigation criteria were not triggered.</p> | Not Triggered | |
| S3 C5 | Operating Conditions | <p>The Proponent shall:</p> <p>(a) implement best management practice to minimise the operational and road noise of the project;</p> | <p>Noise Management Plan Version 5 dated October 2020.</p> <p>MPEA Checklist: Environmental Responsibilities:</p> <ul style="list-style-type: none"> 21 October 2018 21 September 2019 <p>Environmental Forecast Report (prepared by Jacobs) dated 17 October 2020.</p> <p>Environmental Noise Alarm (internal management tool) dated 1 November 2021.</p> | | | <p>Management Practices are set out in Section 6 of the Noise Management Plan (NMP). These management practices include ways to minimise operational, road and rail noise.</p> <p>A review of randomly selected environmental checklists (MPEA Checklists) evidenced conformance with the requirements of the NMP.</p> <p>Noise monitoring undertaken during the audit period (refer to Condition S3 C3 above) detected no environmental noise exceedances during the audit period.</p> | Complies | |
| | | <p>(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</p> | <p>Environmental Forecast Reports (prepared by Jacobs):</p> <ul style="list-style-type: none"> 4 September 2018 17 October 2020. <p>Environmental Noise Forecast (24 / 25 November</p> | <p>Environment and Community Manager – Jacobs provide daily environmental (wind / temperature) forecasts for the mine site. Todoroski Air Sciences have prepared (and operate) a predictive environmental</p> | <p>During the site inspection noise monitoring stations were sighted.</p> | <p>Predictive meteorological forecasting and continuous noise monitoring is covered in section 6 and 7 of the NMP.</p> <p>MCO operates a predictive noise model which is used in conjunction with real-time response protocols as part of the comprehensive noise</p> | Complies | |

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| | | 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. | 2021) prepared by Todoroski Air Sciences. Sound and Vibration Analyser Certificate of Calibration (SLM 27238 & FILT 5883) issued by ACU-VIB Electronics, dated 7 July 2020. Noise Monitoring Record completed by N Ott, dated 9 November 2021. | noise model and provide daily noise impact predications. MCO use this information to assist with planning daily operations. | | management system at the Moolarben Coal Complex: <ul style="list-style-type: none"> Predictive meteorological forecasting (Environmental Forecasting System) Real-time monitoring is conducted at ND2, NR3, NR4, NR5 and NR10. Monitoring equipment calibration certificates were sighted. | | |
| S3 C5 | Operating Conditions | (c) minimise the noise impacts of the project during meteorological conditions when the noise limits in this approval do not apply (see Appendix 6); | Noise Management Plan Version 5 dated October 2020. | | | Section 6.4 of the NMP describes the real-time noise triggers and response protocols. 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. | Complies | |
| | | (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; | Letter from Pacific National (J McIntosh) to MCO dated 16 October 2018. The letter provided confirmation that Locomotives and Rolling Stock that meet ARTC Noise Limits as specified in the ARTC Environment Protection Licence. Letter from Aurizon (H Egan) to MCO dated 16 October 2018. The letter provided confirmation that Locomotives and Rolling Stock that meet ARTC Noise Limits as specified in the ARTC Environment Protection Licence. Letter from Genessee & Wyoming P/L (A Reed) to Yancoal (A Maher) dated 16 October 2018. The letter provided confirmation that Locomotives and Rolling Stock that meet ARTC Noise Limits as specified in the ARTC Environment Protection Licence. | | | Pacific National, Genessee & Wuoming Australia p/l and Aurizon provided letters in 2018 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 3142. | Complies | |
| | | (e) co-ordinate noise management at the Moolarben mine complex with the noise management at Ulan and Wilpinjong mines to minimise cumulative noise impacts; | Moolarben Coal / Wilpinjong Coal Data Sharing Agreement dated 22 January 2014. | | | Noise data and forecasting is shared between Moolarben, Ulan and Wilpinjong mines, in accordance with the Data Sharing Deed between the organisations dated 22 January 2014. | Complies | |
| | | (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. | Noise Management Plan Version 5 dated October 2020. Moolarben Coal Complex Annual Review 2018 Section 6, Table 11. Moolarben Coal Complex Annual Review 2019 Section 6, Table 11. Moolarben Coal Complex Annual Review 2020 Section 6, Table 11. | | | Noise monitoring data was sighted covering the audit period. Noise monitoring that is implemented at MCO is described in Section 7 of the NMP. | Complies | |
| S3 C6 | Noise Management Plan | The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with the EPA, and submitted to and approved by the Secretary prior to the commencement of any development on site under this approval; | Noise Management Plan Version 5 dated October 2020. Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex Stage 1 (PA05_0117) and Stage 2(PA 08_0135) Revisions of Management Plans and Strategies", dated 23/09/2020. Letter from the EPA (J Goodwin) to MCO (G Chase) titled "Updated Surface Water Management Plan Moolarben Coal Mine", dated 12 October 2020. The letter communicates the EPA's policy that it does not comment on management plans. Letter from DPIE (S Donoghue) to MCO (G Chase) | | | The NMP was reviewed and updated in 2020. The plan was subsequently approved by DPIE in October 2020. DPIE wrote to MCO on 23 September 2020 confirming that stakeholder consultation was not required for this revision of the plan. It is noted that the EPA advised MCO that EPA's current policy was to not provide comments on management plans. | Complies | |

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| | | | titled "Moolarben Coal Mine (MP05_0117) and Moolarben Coal – Expansion (MP08_0135) Noise Management Plan", dated 22/10/2020. The letter details DPIE review and approval of the plan under both PA 05_0117 and PA 08_0135. | | | | | |
| S3 C6 | Noise Management Plan | (b) describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions in this approval; | Noise Management Plan Version 5 dated October 2020. | | | The compliance requirements for noise are described in Section 2 of the NMP. Noise Criteria are described in Section 4 of the NMP. Noise management measures to ensure compliance with the noise criteria and operating conditions are detailed in section 6 of the NMP. Responses to exceedances at continuous noise monitoring locations are set out in section 8. | Complies | |
| | | (c) describe the proposed noise management system in detail; and | Noise Management Plan Version 5 dated October 2020. | | | The noise management system is described in section 6 of the NMP. | Complies | |
| | | (d) include a monitoring program that: <ul style="list-style-type: none"> • uses attended noise monitoring to evaluate compliance of the project against the noise criteria in this approval; • 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); <ul style="list-style-type: none"> ○ evaluates and reports on: ○ the effectiveness of the noise management system • compliance against the noise operating conditions - iv) defines what constitutes a noise incident and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents. | Noise Management Plan Version 5 dated October 2020. | | | 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). The noise monitoring program is described in Section 7 of the NMP. 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). The noise monitoring program is described in section 7 of the NMP Effectiveness and improvement is covered in section 9. Incidents and management of incidents is detailed in section 8 of the NMP | Complies | |

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| S3 C7 | Blasting Criteria | <p>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.</p> <p>Table 7: Blasting criteria</p> <ul style="list-style-type: none"> Private Residences: Airblast overpressure 120 / Ground Vibration 10 / Allowable exceedance 0% <u>and</u> Private Residences: Airblast overpressure 115 / Ground Vibration 5 / Allowable exceedance 5% total number of blasts over a period of 12 months Public Infrastructure: Ground Vibration 50 / Allowable exceedance 0% | <p>Moolarben Coal Complex Annual Review 2018 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2019 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2020 Section 6, Table 13.</p> <p>Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021.</p> | | | No exceedances of the blast criteria were reported during the 2018, 2019 and 2020 calendar years or during the first six months of 2021. | Complies | |
| S3 C8 | Blasting Hours | <p>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> | <p>Blast Management Plan Version 6 dated 29 October 2020.</p> <p>Spreadsheet titled "Blast Data 2021" covering the period 05/01/2021 to 30/11/2021.</p> <p>2018 Annual Review Appendix 3C (Blast Monitoring Data)</p> <p>2018 Annual Review Appendix 3C (Blast Monitoring Data)</p> <p>2021 Annual Review Appendix 3C (Blast Monitoring Data)</p> | | | <p>Approved blasting hours are set out in section 3.1 of the Blasting Management Plan (BMP).</p> <p>Blast data from 05/07/2018 to 30/06/2021 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> | Complies | |
| S3 C9 | Blasting Frequency | <p>The Proponent may carry out a maximum of:</p> <p>(a) 2 blasts a day; and</p> | <p>Blast Management Plan Version 6 dated 29 October 2020.</p> <p>Spreadsheet titled "Blast Data 2021" covering the period 05/01/2021 to 30/11/2021.</p> <p>2018 Annual Review Appendix 3C (Blast Monitoring Data)</p> <p>2018 Annual Review Appendix 3C (Blast Monitoring Data)</p> <p>2021 Annual Review Appendix 3C (Blast Monitoring Data)</p> | <p>Environment and Community Manager - The blast on the 14th of June 2018, as reported in the annual review on that day there were two blasts fired. A miss fire in the second blast required MCO to re-fire this blast for the safety of the mine and its workers.</p> <p>On the 17th of August 2020 there were only two blast fired, blast identifiers OC4-CO-103A and OC4-OB-366. Blast OC4-OB-366 were loaded in two sections including an upper section and a lower section close to coal (described as a baby deck) in order to minimise damage to coal there is a 9sec pause from the initiation time, this sometimes results in a third recording of results in MCO's monitoring equipment.</p> | | <p>Blast monitoring from 05/07/2018 to 30/06/2021 was reviewed and confirmed that the number of blasts per day did not exceed two, with the following exceptions:</p> <ul style="list-style-type: none"> 14 June 2018; and 17 August 2020. The Auditor reviewed the blasting records that confirmed that the third daily blast on 5 July 2018 was required to manage a mis-fire and the 17 August 2020 event was not a third daily blast. | Complies | |
| | | <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><i>Note: For the purposes of this condition, a blast refers to a single blast event, which</i></p> | <p>Blast Management Plan Version 6 dated 29 October 2020.</p> <p>Spreadsheet titled "Blast Data 2021" covering the period 05/01/2021 to 30/11/2021.</p> <p>2018 Annual Review Appendix 3C (Blast Monitoring Data)</p> <p>2018 Annual Review Appendix 3C (Blast Monitoring Data)</p> <p>2021 Annual Review Appendix 3C (Blast Monitoring Data)</p> | | | <p>Blast monitoring from 05/07/2018 to 30/06/2021 was reviewed and confirmed that no more than 9 blasts were undertaken in any week during the audit period.</p> | Complies | |

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| | | <i>may involve a number of individual blasts fired in quick succession in a discrete area of the mine.</i> | Data) | | | | | |
| | Conditions S3 C10 and 11 deleted | | | | | | | |
| S3 C12 | Property Inspections | <p>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>Incident Register Complaints Register</p> | <p>Environment and Community Manager – no requests for any written reports were received during the audit period.</p> | | <p>No records of requests for inspections were sighted for the audit period.</p> <p>No written requests for property inspections were requested by any owner of privately-owned land during the audit period.</p> | Not Triggered | |
| | | <p>(b) give the landowner a copy of the new or updated property inspection report.</p> <p><i>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.</i></p> | <p>Incident Register Complaints Register</p> | <p>Environment and Community Manager – no requests for any written reports were received during the audit period.</p> | | <p>No records of requests for inspections were sighted for the audit period.</p> <p>No written requests for property inspections were requested by any owner of privately-owned land during the audit period.</p> | Not Triggered | |
| S3 C13 | Property Investigations | <p>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>Incident Register Complaints Register</p> | <p>Environment and Community Manager – no claims for blasting related damage were received during the audit period.</p> | | <p>No claims for blast related damage were made by any owner of privately-owned land during the audit period.</p> | Not Triggered | |
| | | <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>Incident Register Complaints Register</p> | <p>Environment and Community Manager – no claims for blasting related damage were received during the audit period.</p> | | <p>No claims for blast related damage were made by any owner of privately-owned land during the audit period.</p> | Not Triggered | |

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| Cond. | Short Title | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | | <i>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.</i> | | | | | | |
| S3 C14 | Operating Conditions | The Proponent shall: a) implement best management practice to: <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; | Blast Management Plan Version 6 dated 29 October 2020. MCO website Complaints Register | | | During the audit period MCO blast monitoring results demonstrated compliance (refer conditions 8, 9 and 10 above). No complaints were received by the Mine in relation to blasting impacts on public safety, property damage or dust or fume emissions. | Complies | |
| | | b) ensure that blasting on the site does not damage Aboriginal rock shelter sites S2MC232 (AHIMS No. 36-3-1379) or S2MC233 (AHIMS No. 36-3-1380); | Incident Register 2018 Annual Review Appendix 3C (Blast Monitoring Data) 2018 Annual Review Appendix 3C (Blast Monitoring Data) 2021 Annual Review Appendix 3C (Blast Monitoring Data) | Environment and Community Manager – no damage has occurred to any heritage item as a result of blasting. | | No damage to rock shelters has occurred during the audit period. | Complies | |
| | | c) operate a suitable system to enable the public to get up-to-date information on the proposed blasting Schedule on site; and | Blast Management Plan Version 6 dated 29 October 2020. MCO Website (http://www.moolarbencoal.com.au/page/environment/blasting-information/) | Environment and Community Manager - We currently have seventeen landowners or leaseholders within our blast notification register including the Ulan Public School'. | Blast information is displayed on a large notice board (Photograph1) at the entrance to the site. | Blast information is displayed at the entrance to the site and is published on the MCO website. Public notice practices are set out in section 6.1 of the BMP. Private landholders can register to receive blast notifications. 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. There are seventeen external parties on the register. 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'. | Complies | |
| | | 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. | Blast Management Plan Version 6 dated 29 October 2020. MCO Website (http://www.moolarbencoal.com.au/page/environment/blasting-information/) Blast notification email 2/11/2021 Blast text notifications (screen shots) 10 October 2021 | | | Cumulative blasting impacts are covered in section 6.6 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 and 2/11/2021) was sighted during the audit. | Complies | |

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| S3 C15 | Operating Conditions | The Proponent shall not undertake blasting on site within 500 metres of: (a) any public road; | Blast Management Plan Version 6 dated 29 October 2020. | | At the time of this IEA mining was not observed within 500 metres of any operational public road. | Auditor observations during the site inspection confirmed that the current blast area for the Moolarben Coal Complex is greater than 500m from Railway and Transmission lines and any other property not owned by the mine. | Complies | |
| | | (b) the Gulgong to Sandy Hollow Railway Line; | Blasting Deed between ARTC and MCO dated 27 August 2010. | | | MCO has a written agreement with the Australian Rail Track Corporation (ARTC) to undertake blasting within 500 metres (m) of ARTC infrastructure, respectively. | Complies | |
| | | (c) the Wollar-Wellington 330kV Transmission Line; or | Letter from Transgrid (I Davidson) to MCO (G Browning) titled "Impact of Blasting on the Transgrid Wollar-Wellington 330kV Transmission Line No.79 Due to Moolarben Coal Mine Operations", dated 29 April 2010. | | | MCO has a written agreement with TransGrid to undertake blasting within 500 metres (m) of the Wollar-Wellington 330 kV transmission line . | Complies | |
| | | (d) any land outside the site not owned by the Proponent, unless the Proponent has: <ul style="list-style-type: none"> demonstrated to the satisfaction of the Secretary that the blasting can be carried out closer to the 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. | Blast Management Plan Version 6 dated 29 October 2020. | | At the time of this IEA mining was not observed within 500 metres of any operational public road. | Auditor observations during the site inspection confirmed that the current blast area for the Moolarben Coal Complex is greater than 500m from Railway and Transmission lines and any other property not owned by the mine. | Complies | |
| S3 C16 | Blast Management Plan | The Proponent shall prepare and implement a Blast Management Plan for the project to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with the EPA, and submitted to and approved by the Secretary prior to conducting any blasting on site; | <p>Blast Management Plan Version 6 dated 29 October 2020.</p> <p>Letter from DP&E (dated 25/02/2015) RE: Moolarben Coal Approval of Management Plans/Strategy (sighted during the 2018 IEA)</p> <p>Letter from DPIE (to MCO (G Chase) titled "Moolarben Coal Mine (MP05_0117) and Moolarben Coal – Expansion (MP08_0135) Blast Management Plan", dated 22 October 2020.</p> <p>Letter from the EPA (S Ledger) to MCO (G Chase) titled "Moolarben Response to EOA Comment of Management Plans Moolarben Coal Mines", dated 14 February 2020.</p> | | | <p>The former DP&E approved the original Blast Management Plan on 25 February 2015.</p> <p>The most recent revision of the plans was issued in 2020 and was reviewed by both the EPA and DPIE and approved by DPIE.</p> | Complies | |

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| S3 C16 | Blast Management Plan | (b) describe the measures that would be implemented to ensure compliance with the blast criteria and operating conditions of this approval; | Blast Management Plan Version 6 dated 29 October 2020 | | | (b) Blast management and control measures are covered in Section 6 of the BMP 'Blast Management and Control Measures'. | Complies | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | (c) propose and justify any alternative ground vibration limits for public infrastructure in the vicinity of the site (if relevant); and | Blast Management Plan Version 6 dated 29 October 2020 | | | Section 6 of the BMP discusses public infrastructure. Alternative ground vibration limits are as follows: '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'. | Complies | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | (d) include a monitoring program for evaluating and reporting on compliance with the blasting criteria | Blast Management Plan Version 6 dated 29 October 2020 | | | 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. | Complies | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S3 C17 | Odour | The Proponent shall ensure that no offensive odours, as defined under the POEO Act, are emitted from the site. | Complaint Register (2018 / 2019 / 2020 / 2021) Moolarben Coal Complex Annual Review 2019 | | During the IEA site inspection, no offensive odours were detected by the Auditor. | No odour incidents related to the Stage 2 mining areas were recorded during this audit period. | Complies | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S3 C18 | Air Quality Criteria | 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. | Moolarben Coal Complex Annual Review 2018 Section 6, Table 13. Moolarben Coal Complex Annual Review 2019 Section 6, Table 13. Moolarben Coal Complex Annual Review 2020 Section 6, Table 13. Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021. | | At the time of this IEA site inspection no dust generation was observed at the mine. This was a result of heavy rainfall at that time. The Auditor however observed that all required dust suppression infrastructure (including water carts) were in place. | The review of the air quality monitoring results covering the audit period shows that with the dust emissions from the mine did not exceed the parameters in Tables 8, 9 or 10. It is noted that during late 2019 and early 2020 that the extensive bushfires across NSW impacted air quality monitoring results during those periods. | Complies | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S3 C18 | Table 8 | <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Av Period</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td>TSP</td> <td>Annual</td> <td>90 ug/m³</td> </tr> <tr> <td>PM₁₀</td> <td>Annual</td> <td>25 ug/m³</td> </tr> <tr> <td>PM_{2.5}</td> <td>Annual</td> <td>8 ug/m³</td> </tr> </tbody> </table> | Pollutant | Av Period | Criterion | TSP | Annual | 90 ug/m ³ | PM ₁₀ | Annual | 25 ug/m ³ | PM _{2.5} | Annual | 8 ug/m ³ | Air Quality Criteria Table 9 | <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Av Period</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td>PM₁₀</td> <td>24 Hour</td> <td>50 ug/m³</td> </tr> <tr> <td>PM_{2.5}</td> <td>24 Hour</td> <td>25 ug/m³</td> </tr> </tbody> </table> | Pollutant | Av Period | Criterion | PM ₁₀ | 24 Hour | 50 ug/m ³ | PM _{2.5} | 24 Hour | 25 ug/m ³ | Air Quality Criteria Table 10 | <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Av Period</th> <th>Max increase</th> <th>Max Deposited Dust Level</th> </tr> </thead> <tbody> <tr> <td>Deposited Dust</td> <td>Annual</td> <td>2 g/m²/month</td> <td>2 g/m²/month</td> </tr> </tbody> </table> | Pollutant | Av Period | Max increase | Max Deposited Dust Level | Deposited Dust | Annual | 2 g/m ² /month | 2 g/m ² /month | | |
| Pollutant | Av Period | Criterion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TSP | Annual | 90 ug/m ³ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PM ₁₀ | Annual | 25 ug/m ³ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PM _{2.5} | Annual | 8 ug/m ³ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pollutant | Av Period | Criterion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PM ₁₀ | 24 Hour | 50 ug/m ³ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PM _{2.5} | 24 Hour | 25 ug/m ³ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pollutant | Av Period | Max increase | Max Deposited Dust Level | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Deposited Dust | Annual | 2 g/m ² /month | 2 g/m ² /month | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S3 C19 | Mine Owned Land | 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: (a) the tenant and landowner (if the | Moolarben Coal Complex Annual Review 2018 Section 6, Table 13. Moolarben Coal Complex Annual Review 2019 Section 6, Table 13. Moolarben Coal Complex Annual Review 2020 Section 6, Table 13. Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021. | Environment and Community Manager – no exceedances of dust levels caused by the mine operations have occurred during the audit period. | | Whilst there have been several exceedances of the air quality acquisition criteria (as a result of the 2019/2020 bush fires) 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. | Not Triggered | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| | | 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; | | | | | | |
| S3 C19 | Mine Owned Land | (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; | | | | | Noted | |
| | | (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); | | Environment and Community Manager – no requests for dust mitigation measures have been received during the audit period. | | No requests for dust mitigation were received by MCO during the audit period. | Not Triggered | |
| | | (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>Moolarben Coal Complex Annual Review 2018 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2019 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2020 Section 6, Table 13.</p> <p>Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021.</p> | <p>Environment and Community Manager – No air quality monitoring is undertaken at specific residences but there are monitors within close proximity to residential areas.</p> <p>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>Specific residences are provided data representative of their location.</p> | <p>The air quality monitoring station located at the Primary School (Photograph 2) was inspected during this IEA.</p> | <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> | Complies | |
| | | (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. | | | | | | Not Triggered |
| S3 C20 | Air Quality Acquisition Criteria | 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>Moolarben Coal Complex Annual Review 2018 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2019 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2020 Section 6, Table 13.</p> <p>Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021.</p> | <p>Environment and Community Manager – 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>Dust generated by the mining operations has not exceeded the acquisition criteria.</p> | Not Triggered | |

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| | | Pollutant | Av Period | Criterion | | Pollutant | Av Period | Criterion | Basis | | Pollutant | Av Period | Max Increase | Max Total | | | | |
| S3 C20 | Table 11 | TSP | Annual | 90 | Table 12 | PM10 | 24 hr | 50 | Increase | Table 13 | | | | | | | | |
| | | PM10 | Annual | 25 | | | | | | | | | | | | | | |
| | | PM2.5 | Annual | 8 | | | | | Increase | | | | Dep Dust | Annual | 2 | 4 | | |
| S3 C 21 | Operating Conditions | The Proponent shall: (a) implement best management practice to minimise the off-site odour, fume and dust emissions of the project; | | | Air Quality Management Plan Version 6, dated 28 October 2020. Air Quality Monitoring Data Review 2020 (report prepared by Todoroki Air Sciences), dated 26 March 2021. Complaints Register Moolarben Coal Complex Annual Review 2018 Section 6, Table 13. Moolarben Coal Complex Annual Review 2019 Section 6, Table 13. Moolarben Coal Complex Annual Review 2020 Section 6, Table 13. Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021 | | | | No visible off-site air pollution was observed during the site investigation. Extensive areas of the site have been rehabilitated; these were inspected during this IEA. | Four odour complaints were received during the audit period. Investigations undertaken by MCO found that no unusual operational issues were being undertaken and no odour sources were identified. Odour and fume minimisation is described in section 6.2 of the AQMP, and dust management is described in section 6.1. This is covered in section 6 of the AQMP. The dust management system in operation includes the meteorological forecasting, real time dust monitoring and real time response triggers. The community complaints registers for the audit period were reviewed. Four dust complaints were received over the audit period. Investigations by MCO 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. Extensive progressive rehabilitation of disturbed areas has been undertaken and future rehabilitation works planned, which include the use of temporary cover crops to stabilise rehabilitation areas. Dust monitoring undertaken over the audit period found no elevated dust levels that were attributed to the mining operations. | Complies | | | | | | | |
| | | (b) implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site; | | | Air Quality Management Plan Version 6, dated 28 October 2020. Greenhouse Gas Minimisation Plan Version 3, dated 29 October 2020. | | | | Examples of energy efficiency initiatives observed during this IEA included: use of high efficiency lighting (LED's); site vehicles are routinely replaced with new vehicles more fuel-efficient models. | Section 4 of the Greenhouse Gas Minimisation Plan (GGMP). Examples of energy efficiency initiatives were observed during the audit. | Complies | | | | | | | |
| S3 C 21 | Operating Conditions | (c) minimise any visible off-site air pollution generated by the project; | | | Air Quality Management Plan Version 6, dated 28 October 2020. | | | | No visible off-site air pollution was observed during the site investigation. Extensive areas of the site have been rehabilitated; these were inspected during this IEA. | No visible off-site air pollution was observed during the site investigation. Extensive progressive rehabilitation of disturbed areas has been undertaken and future rehabilitation works planned, which include the use of temporary cover crops to stabilise rehabilitation areas. Dust monitoring undertaken over the audit period found no elevated dust levels that were attributed to the mining operations. | Complies | | | | | | | |
| | | (d) minimise the surface disturbance of the site; | | | Air Quality Management Plan Version 6, dated 28 October 2020. Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | | | Extensive areas of the site have been rehabilitated; these were inspected during this IEA. The Auditor inspected recently cleared areas associated with Open Cut 3 | Extensive progressive rehabilitation of disturbed areas has been undertaken and future rehabilitation works planned, which include the use of temporary cover crops to stabilise rehabilitation areas. Rehabilitation planning and site clearing activities planned for each year are summarised in each | Complies | | | | | | | |

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| | | | | | and noted that clearing for the expansion of the open cut appeared to be minimised and was in accordance with the progression of mining documented in the 2020 Annual Review. | Annual Review. | | |
| S3 C 21 | Operating Conditions | (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>Air Quality Management Plan Version 6, dated 28 October 2020.</p> <p>Email from Jacobs (envforecasting) to MCO dated 28 October 2021. The email provides a five-day forecast for the mine site.</p> <p>MPEA Checklist dated 21 October 2019.</p> | | Air quality and meteorological monitoring stations (Photograph 3) were inspected during this IEA. | <p>The meteorological monitoring undertaken by MCO is detailed in Section 7.1.6 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'.</p> <p>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 MPEA's Checklist were reviewed. For example: Environmental Responsibilities (dated 21 October 2019). The checklist contained requirements to: "MCO review Jacobs forecast and Met Eye at the start of each shift to understand the predicted conditions.</p> <p>An example Jacobs forecast was reviewed by auditors (dated 28/10/2021) which shows dust and noise risks at certain locations and wind speeds.</p> | Complies | |
| | | (f) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see Noted above under Table 13); and | <p>Air Quality Management Plan Version 6 dated 28 October 2020.</p> <p>Email from Jacobs (envforecasting) to MCO dated 28 October 2021. The email provides a five-day forecast for the mine site.</p> <p>MPEA Checklist dated 21 October 2019.</p> | During this IEA the Environment and Community Manager explained in detail the predictive air quality management system implemented by MCO and demonstrated the operation of the system. The explanation of the system conformed with the requirements of the AQMP. | | <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 MPEA's Checklist were reviewed. For example: Environmental Responsibilities (dated 21 October 2019). The checklist contained requirements to: "MCO review Jacobs forecast and Met Eye at the start of each shift to understand the predicted conditions.</p> | Complies | |

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| | | | | | | <p>An example Jacobs forecast was reviewed by auditors (dated 28/10/2021) which shows dust and noise risks at certain locations and wind speeds.</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> | | |
| S3 C 21 | Operating Conditions | (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. | Data Sharing Deed (between MCO, Ulan Coal Mines Limited and Wilpinjong Coal Pty Ltd) dated 22 January 2014. | Environment and Community Manager – a formal agreement for data sharing and cooperation was agreed in 2014. Regular meetings are held with Ulan and Wilpinjong mines. | | <p>Coordination with Ulan and Wilpinjong mines is covered in section 7.0 of the AQMP.</p> <p>'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'.</p> <p>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.</p> <p>The Auditor sighted the signed data sharing agreement</p> | Complies | |
| S3 C 22 | Air Quality Management Plan | The Proponent shall prepare and implement an Air Quality Management Plan for the project to the satisfaction of the Secretary. | Air Quality Management Plan Version 6 dated 28 October 2020. | | | An Air Quality Management Plan has been prepared and implemented (refer to S3 21 above) | Complies | |
| | | This plan must: (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 | 2018 Independent Environmental Audit Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Mine (MP05_0117) and Moolarben Coal – Expansion (MP08_0135) Air Quality Management Plan", dated 22 October 2020. Letter from the EPA (to MCO (G Chase) titled "Moolarben response to EPA comment on management plans Moolarben Coal Mines", dated 14 February 2020. | | | The evidence of Secretary approval of the AQMP was verified in the 2018 IEA. The plan was subsequently revised in 2019 / 2020 and copies provided to DPIE and the EPA for review. DPIE approved the plan in October 2020. The EPA were provided the opportunity to comment and provided comments in writing on 28 October 2019. | Complies | |
| | | (b) describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this approval | Air Quality Management Plan Version 6 dated 28 October 2020. | | | Air quality management measures are described in section 6 of the AQMP. | Complies | |
| | | (c) describe the air quality management system; | Air Quality Management Plan Version 6 dated 28 October 2020. | | | The air quality management system is set out in section 6.1.3 of the AQMP. '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). The predictive air quality forecasting system uses predicted meteorological data and exposed | Complies | |

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| | | | | | | operational areas to predict the risk of dust dispersion as a result of operations 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' | | |
| S3 C 22 | Air Quality Management Plan | (d) include an air quality monitoring program that: • uses a combination of real-time and supplementary monitors to evaluate the performance of the project against the air quality criteria in this approval; | Air Quality Management Plan Version 6 dated 28 October 2020. | | | The air quality monitoring program is described in section 7 and section 5.3 (Figure 6) of the AQMP. | Complies | |
| | | (d) include an air quality monitoring program that: • 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. | AQMP Air Quality Management Plan Version 6 dated 28 October 2020. | | | 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). Notification is covered in section 11.2 of the AQMP 'Incident Reporting' .. | Complies | |
| S3 C23 | Ulan Public School | The Proponent shall consult with DEC and, if requested: (a) implement agreed reasonable and feasible measures to ameliorate potential noise and/or dust impacts to Ulan Public School; or | 2018 Independent Environmental Audit Report | Environment and Community Manager - The Ulan Public School has been placed in recess by the Department of Education. | | Compliance with this condition was verified during the 2018 IEA. The school was not in use at the time of this IEA. | Complies | |
| | | (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. | 2018 Independent Environmental Audit Report | Environment and Community Manager - The Ulan Public School has been placed in recess by the Department of Education | | Compliance with this condition was verified during the 2018 IEA. The school was not in use at the time of this IEA. | Complies | |
| S3 C24 | Meteorological Monitoring | For the life of the project, the Proponent shall ensure that there is a meteorological station in the vicinity of the site that: (a) complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline; and | Air Quality Management Plan Version 6 dated 28 October 2020. Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | The Meteorological Monitoring station was inspected during this IEA (Photograph 3). | Meteorological Monitoring is covered in section 3.1 of the AQMP. Meteorological monitoring is undertaken at MCO, in accordance with NSW Project Approval and EPL requirements. MCO has an Automatic Weather Station (AWS) located on a property on Ulan Road and is referred to as WS3. WS3 is linked into the real-time monitoring system and is the main weather station for reporting purposes. Additional weather stations may be used to supplement weather data as required. The monitoring and sampling satisfy the requirements of the Approved Methods. | Complies | |

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| S3 C24 | Meteorological Monitoring | (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. | Air Quality Management Plan Version 6 dated 28 October 2020. Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | | <p>The monitoring and sampling satisfy the requirements of the Approved Methods.</p> <p>MCO has an Automatic Weather Station (AWS) which measures a full meteorological complement and is capable of continuous real-time measurement of temperature lapse rate in accordance with the Industrial Noise Policy (INP).</p> <p>The full meteorological complement includes:</p> <ul style="list-style-type: none"> - 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). <p>A summary of meteorological conditions at Moolarben Coal mine are included in the Annual Reviews.</p> | Complies | |
| S3 C25 | Water Supply | <p>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 onsite to match its available water supply; and</p> <p><i>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.</i></p> | <p>Water Management Plan Version 6 dated 28 October 2020.</p> <p>Ulan coal Mine and Moolarben Coal Mine - Water Sharing Agreement (dated 10/08/2009)</p> | <p>Environment and Community Manager -- With the expansion of the underground operations combined with the current climatic conditions the site now produces excess water which is treated and discharged from the site via the EPA licensed discharge point.</p> | <p>At the time of the site inspection mine water storages (Photograph 4) were high and treated water from the water treatment plant (Photograph 5) was discharging via the EPA licensed discharge point (Photograph 11).</p> | <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. Photograph 13 shows the incoming water supply pipeline from the Ulan Mine.</p> <p>If required MCO can take water from UCM through the water sharing agreement. 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 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'.</p> <p>The site water balance (SWB) indicates that the sites water comes from the following sources:</p> <ul style="list-style-type: none"> • 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 | Complies | |

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| | | | | | | <ul style="list-style-type: none"> • Mine water imported from the Ulan Mine Complex under agreement with UCML • Groundwater extracted from production bores <p>MCO management advised that the site currently has excess water from a combination of the underground operations and current climatic conditions.</p> <p>At the time of the site inspection, water supply was observed as adequate.</p> | | |
| S3 C25 | Water Supply | (b) any water supply constraints do not compromise any aspect of the environmental performance of the mine. | <p>Water Management Plan Version 6 dated 28 October 2020.</p> <p>Ulan coal Mine and Moolarben Coal Mine - Water Sharing Agreement (dated 10/08/2009).</p> | | | <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 the site currently has excess water from a combination of the underground operations and current climatic conditions..</p> <p>At the time of the site inspection, water supply was observed as adequate.</p> | Noted | |
| S3 C26 | Compensatory Water Supply | <p>The Proponent shall provide a compensatory water supply to any landowner of privately owned land whose water supply is adversely and directly impacted (other than an impact that is negligible) as a result of the project, in consultation with DPI Water, and to the satisfaction of the Secretary.</p> <p>The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent to the loss attributed to the project. Equivalent water supply should be provided (at least on an interim basis) within 24 hours of the loss being identified.</p> <p>If the Proponent and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.</p> <p>If the Proponent is unable to provide an alternative long-term supply of water, then the Proponent shall provide alternative compensation to the satisfaction of the Secretary.</p> | | Environment and Community Manager – No water supply on private land has been impacted by Moolarben Coal Operations. | | <p>MCO reported that there have been no incidences of owners on privately-owned land whose water entitlements have been adversely impacted.</p> | Not Triggered | |

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| S3 C27 | Water Pollution | Unless an EPL authorises otherwise, the Proponent shall comply with section 120 of the POEO Act. Section 120 - Prohibition of pollution of waters | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Incident Register | | At the time of this audit (during a period of high rainfall) no evidence of water discharges from unlicensed discharge points at the site were found. | One water pollution incident was recorded in 2021: <ul style="list-style-type: none"> On 22 March 2021 a sediment water release, occurred as a result of heavy rainfall, downstream from Dam 413. 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. | Non-Compliance | The non-compliance was investigated by MCO, and the corrective and preventative actions implemented. There are no further recommendations. | | | | | | | | | | | | | | | | | | | |
| S3 C28 | Water Management Performance Measures | The Proponent shall comply with the performance measures in Table 14 to the satisfaction of the Secretary. | Water Management Plan Version 6 dated 28 October 2020. Ulan coal Mine and Moolarben Coal Mine - Water Sharing Agreement (dated 10/08/2009.) | | | The requirements of Schedule 3 Condition 28 are included in the Water Management Plan. | Complies | | | | | | | | | | | | | | | | | | | | |
| S3 C28 | Water Management Performance Measures (Table 14) | <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>Nil Impact on 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 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, install and maintain 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"> Design, install and maintain the clean water system 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 100 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 10⁻⁹ m/s </td> </tr> <tr> <td>Tailings, acid forming and potentially acid forming materials</td> <td> <ul style="list-style-type: none"> In-pit emplacement, encapsulation or capping to prevent the migration of pollutants beyond the pit shell 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 Standards </td> </tr> <tr> <td>Murrumbidgee and Eastern Creek realignments</td> <td> <ul style="list-style-type: none"> 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 </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 | Nil Impact on the Drip | 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, install and maintain 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 | 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 | Clean water diversion & storage infrastructure | <ul style="list-style-type: none"> Design, install and maintain the clean water system 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 | Mine Water Storages | <ul style="list-style-type: none"> Mine water storage infrastructure is designed to store a 100 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 10⁻⁹ m/s | Tailings, acid forming and potentially acid forming materials | <ul style="list-style-type: none"> In-pit emplacement, encapsulation or capping to prevent the migration of pollutants beyond the pit shell Adequate freeboard within the pit void to minimise the risk of discharge to surface waters | Chemical and hydrocarbon storage | <ul style="list-style-type: none"> Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standards | Murrumbidgee and Eastern Creek realignments | <ul style="list-style-type: none"> 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 | | | | | |
| 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 | Nil Impact on the Drip | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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, install and maintain 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 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clean water diversion & storage infrastructure | <ul style="list-style-type: none"> Design, install and maintain the clean water system 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 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mine Water Storages | <ul style="list-style-type: none"> Mine water storage infrastructure is designed to store a 100 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 10⁻⁹ m/s | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tailings, acid forming and potentially acid forming materials | <ul style="list-style-type: none"> In-pit emplacement, encapsulation or capping to prevent the migration of pollutants beyond the pit shell Adequate freeboard within the pit void to minimise the risk of discharge to surface waters | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chemical and hydrocarbon storage | <ul style="list-style-type: none"> Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standards | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Murrumbidgee and Eastern Creek realignments | <ul style="list-style-type: none"> 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 | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| | | to be constructed over mine waste backfill Revegetate with suitable native riparian vegetation species to restore aquatic biodiversity throughout the realignments | | | | | | |
| | | Aquatic and riparian ecosystem, including relevant sections of Murrumbidgee Creek, Eastern Creek and Wilpinjong Creek. | <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 | | | | | |
| S3 C29 | Water Management Plan | The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. The Plan must: | Water Management Plan Version 6 dated 28 October 2020. Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Water Management Plan", dated 11/12/2015. The letter approves the appointment of the original WMP authors. Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Complex (05_0117 & 08_0135) Water Management Plan", dated 27/06/2016. The letter approves the appointment of the original expert responsible for preparing the groundwater elements of the plan. 2018 Independent Environmental Audit Report Letter from DPIE (J Turner) to MCO (G Chase) titled "Moolarben Coal Mine (MP05_0117) and Moolarben Coal – Expansion (MP08_0135) Water Management Plan", dated 20 October 2020. The letter approves the revised WMP. | | | DPE approval of the original WMP was verified in the 2018 IEA. Copies of the DPE endorsement letters for the authors of the WMP were sighted by the Auditor. The WMP was subsequently revised in 2019/2020 and the revised plan was approved by DPIE on 20 October 2020. | Complies | |
| | | (a) be submitted to the Secretary for approval prior to the commencement of any development on site; | 2018 Independent Environmental Audit Report Letter from DPIE (J Turner) to MCO (G Chase) titled "Moolarben Coal Mine (MP05_0117) and Moolarben Coal – Expansion (MP08_0135) Water Management Plan", dated 20 October 2020. The letter approves the revised WMP | | | DPE approval of the original WMP was verified in the 2018 IEA. Copies of the DPE endorsement letters for the authors of the WMP were sighted by the Auditor. The WMP was subsequently revised in 2019/2020 and the revised plan was approved by DPIE on 20 October 2020. | Complies | |
| | | (c) include reference to the National Water Quality Management Strategy; | Water Management Plan Version 6 dated 28 October 2020. | | | The National Water Quality Management Strategy is referenced in Section 2.4.2 of the WMP. | Complies | |
| | | (d) include detailed performance criteria and describe measure to ensure that the Proponent complies with the Water Management Performance Measures (see Table 14); | Water Management Plan Version 6 dated 28 October 2020. | | | The performance measures are summarised in Section 2.1.1 of the WMP. Detailed performance criteria and measures to ensure conformance with those criteria are provided in Attachment A to the WMP. | Complies | |
| | | e) in addition to the standard requirements for management plans (see condition 3 of schedule 6) this plan must include a: i) Site Water Balance that: • includes details of: - 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 | Water Management Plan Version 6 dated 28 October 2020. Site Water Balance Version 4 dated 28 October 2020. | | | Site Water Balance provides the following information: <ul style="list-style-type: none"> Water sources, including the security of supply are described in Section 7 of the SWB; Water use and management are described in Section 5; Water Sharing is described in Section 7.3; Reporting requirements are described in Section 9 and Water management measures are described in Section 4. | Complies | |

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| | | operations; - reporting procedures, including the preparation of a site water balance for each calendar year; • describes the measures that would be implemented to: - minimise clean water use on site; - maximise water sharing with the other mines in the region; | | | | | | |
| S3 C29 | Water Management Plan | (ii) Surface Water Management Plan, that includes: • 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: ○ 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: ○ 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; | Water Management Plan Version 6 dated 28 October 2020. Surface Water Management Plan Version 5 dated 28 October 2020. | | | • The SWMP provides the following information: • Baseline data is described in Section 3.4 of the SWMP; • The surface water management system is described in Section 4 of the plan; • The designs and performance criteria for the creek realignments in Section 5.8 of the SWMP and Rehabilitation Management Plan • In-pit emplacement areas are covered in section 5.5 of the SWMP. • Final voids are covered in section 5.4 of the SWMP. • Performance criteria including trigger values for investigating adverse impacts is covered in Section 8 of the SWMP; • Monitoring and Reporting is covered in Section 10 of the plan; and Annual reporting review and improvement is discussed in Section 9 of the plan. | Complies | |

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| S3 C29 | Water Management Plan | <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; - brine emplacement in underground workings and potential changes to groundwater and surface water quality; • 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>Water Management Plan Version 6 dated 28 October 2020.</p> <p>Groundwater Management Plan Version 4 dated 28 October 2020.</p> | | | <p>The Groundwater Management Plan provides the following information:</p> <ul style="list-style-type: none"> • Baseline data is provided in Section 4 of the GWMP; • Yield and water quality in the region and privately-owned groundwater bores are covered in section 3.1, Table 6; • The GWMP also references the relevant reports that provide a detailed description of the available baselinedata; • groundwater assessment criteria, including trigger levels are covered in section 8, table 10, and appendix 1 of the GWMP Appendix 1 gives specific values; • Monitoring and reporting are described in Sections 6 and 10 of the plan; • The program to validate the groundwater model is described in Section 5 of the plan; and <p>- The groundwater trigger and action plan is detailed in Section 8.3.</p> | Complies | |
| | | <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 <p>co-ordinate modelling programs for validation, re-calibration and re-running</p> | <p>Water Management Plan Version 6 dated 28 October 2020.</p> | <p>Environment and Community Manager – In accordance with the conditions of the original Stage 1 Project Approval (05_0117), MCO engaged a qualified and independent expert to undertake a Regional Water Supply and Monitoring Investigation in consultation with the EPA, NSW Office of Water (NOW) (now DPIE - Water), the Department of Trade and Investment, Regional Infrastructure and Services, Ulan Coal Mines Pty Ltd (UCML) and Wilpinjong Coal Pty Ltd (WCPL). The Regional Water Study was submitted to the Department of Planning and Infrastructure (now DPIE) in November 2009.</p> | | <p>Section 2.4.3 of the Water Management Plan described the scope of the study undertaken in consultation with the neighbouring mines. The Study reviewed:</p> <ul style="list-style-type: none"> • the feasibility and potential environmental benefits of increased water sharing between the three mining operations in the region; • the potential for developing regional surface and groundwater monitoring programs to: • rationalise the surface and groundwater monitoring programs of the three mining operations in the region; and • improve the monitoring of the individual and cumulative surface and groundwater impacts of these mining operations. | Complies | |

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|--------------|--|--|--------------------|-------------|----------------------------|--|--|----------------|--------------|---|-----|--|---|---|---|-----------------|--|
| | | of groundwater models. | | | | <ul style="list-style-type: none"> measures to reduce the surface and groundwater impacts of mining in the region; and any potential changes to existing licences and/or approvals that could facilitate the implementation of these measures. <p>Based on the results of this study and consultation with relevant government agencies, the following actions were implemented:</p> <ul style="list-style-type: none"> Review of the monitoring network and rationalisation of monitoring points identified several areas where monitoring could be reduced and/or data shared between three mines, without compromising the regional management of the groundwater and surface water resources. The recommended regional monitoring network is consistent with the three individual mines' surface water and groundwater monitoring plans. UCML, MCO and WCPL participate in ongoing sharing of monitoring data where appropriate. Water sharing between UCML and MCO is undertaken. Details on the water sharing agreement between UCML and MCO is described in the SWB (Appendix 1). Ongoing discussion and consultation between UCML, MCO and WCPL in order to integrate monitoring rationalisation, and that any changes in water inflows and/or water demand are factored into developing optimal water sharing arrangements throughout the life of all three mines. <p>Contemporary groundwater modelling undertaken for the Moolarben Coal Complex has considered cumulative impacts associated with the Ulan Mine Complex and Wilpinjong Coal Mine.</p> | | | | | | | | | | | |
| S3 C30 | Biodiversity Offset Strategy | <p>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.</p> <p>Table 15: Summary of the Biodiversity Offset Strategy</p> <table border="1"> <thead> <tr> <th>Area</th> <th>Offset Type</th> <th>Min Area</th> </tr> </thead> <tbody> <tr> <td>Dun Dun East</td> <td> Enhance existing vegetation: <ul style="list-style-type: none"> 1368 ha of native vegetation 408 ha of EEC Regenerate: <ul style="list-style-type: none"> 380 ha of existing grassland to forest/woodland </td> <td>1776</td> </tr> <tr> <td>Dun Dun West</td> <td> Enhance existing vegetation: <ul style="list-style-type: none"> 837 ha of native vegetation 122 ha of EEC Regenerate: <ul style="list-style-type: none"> 307 ha of existing grassland to forest/woodland </td> <td>959</td> </tr> </tbody> </table> | Area | Offset Type | Min Area | Dun Dun East | Enhance existing vegetation: <ul style="list-style-type: none"> 1368 ha of native vegetation 408 ha of EEC Regenerate: <ul style="list-style-type: none"> 380 ha of existing grassland to forest/woodland | 1776 | Dun Dun West | Enhance existing vegetation: <ul style="list-style-type: none"> 837 ha of native vegetation 122 ha of EEC Regenerate: <ul style="list-style-type: none"> 307 ha of existing grassland to forest/woodland | 959 | <p>Biodiversity Off-set Management Plan Version 5 dated 15 September 2020.</p> <p>2018 Annual Review</p> <p>2019 Annual Review</p> <p>2020 Annual Review</p> | <p>Environment and Community Manager – all of the required the long-term security of offsets have been obtained, with the exception of the Gilgal property.</p> | <p>On-site off-set areas (Photograph 6) were inspected during this IEA.</p> | <p>The staged Biodiversity Management Plan (BioMP) is being implemented and meets the requirements set out in Table 15.</p> <p>Section 6.5.1 of the 2019 Annual Review provides a summary of the Biodiversity offset works undertaken, including:</p> <ul style="list-style-type: none"> On-going biodiversity monitoring; Weed and feral animal monitoring and control works, (wild dog and feral pig baiting); Over six Kilometres of new fencing was installed and over 21 Kilometres of redundant fencing removed; Track maintenance and upgrades were completed on over 19 kilometres of required access and bushfire management trails; Revegetation works were continued within the | Complies | |
| Area | Offset Type | Min Area | | | | | | | | | | | | | | | |
| Dun Dun East | Enhance existing vegetation: <ul style="list-style-type: none"> 1368 ha of native vegetation 408 ha of EEC Regenerate: <ul style="list-style-type: none"> 380 ha of existing grassland to forest/woodland | 1776 | | | | | | | | | | | | | | | |
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| | | <table border="1"> <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>471</td> </tr> </table> | 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 | 471 | | | | <p>offsets with over 5000 stems planted; and</p> <ul style="list-style-type: none"> Ten offsets were secured through a 'Positive Covenant' and a 'Restriction on the Use of Land by a Prescribed Authority'. <p>Section 6.5.1 of the 2020 Annual Review provides a summary of the biodiversity offset works undertaken, including:</p> <ul style="list-style-type: none"> On-going biodiversity monitoring; Weed and feral animal monitoring and control works, (wild dog and feral pig baiting); Native seed collection; 700m of new fencing was installed and over 4 Kilometres of redundant fencing removed; Track maintenance and upgrades were completed on over 15 kilometres of required access and bushfire management trails; Revegetation works were continued within the offsets with over 70,000 stems planted within the Ulan 18, Bobadeen and Dexter Mountain offset clusters. A 'Positive Covenant' and a 'Restriction on the Use of Land by a Prescribed Authority' was executed to secure seven offset areas. <p>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.</p> | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | | |
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| 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 | 471 | | | | | | | | | | | | | | | | | | | | | | | | |
| S3 C31 | Regeneration Areas | 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>Biodiversity Management Plan Version 5 dated 15 September 2020.</p> <p>2018 Annual Review</p> <p>2019 Annual Review</p> <p>2020 Annual Review</p> | | | <p>Section 6 of Biodiversity Management Plan (BioMP) states that:</p> <p>'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'.</p> <p>The Natural Regeneration/ Revegetation Monitoring reported in the 2018, 2019 and 2020 Annual Reviews.</p> | Complies | | | | | | | | | | | | | | | | | | | |
| S3 C32 | Regeneration Areas | 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. | Letter from MCO (G Chase) to NSW Department of Industry (J Jones) titled "Moolarben Coal Operation – crown land in the vicinity of Pyramul Creek and adjacent to "Dun Dun" biodiversity offset", dated 8 November 2018. | Environment and Community Manager – CLD has not responded to the MCO offer of cooperation in regard to the rehabilitation in the vicinity of Pyramul Creek. | | MCO wrote to CLD in November 2018 offering to work with CLD in relation to rehabilitation in the vicinity of Pyramul Creek. | Complies | | | | | | | | | | | | | | | | | | | |
| S3 C33 | Munghorn Gap Nature Reserve | The Proponent shall ensure that: (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 | 2018 Independent Environmental Audit Survey undertaken by Martin Alexander Burns Survey and Drafting Resources (Survey dated 25/03/2015) | | | <p>Compliance with this Condition was verified during the 2018 IEA.</p> <p>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> | Complies | | | | | | | | | | | | | | | | | | | |

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| | | (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. | Mining Operations Plan Version C dated October 2021 | | | MCO advised that the boundary was demarcated with flagging tape. MCO also use Automated Positioning Systems (APS) alarms to alert plant operators if they are near the boundary. | Complies | |
| S3 C34 | Habitat for Threatened Fauna Species | 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. <i>Note: The threatened fauna species confirmed and identified as being potentially present in the disturbance areas are listed in Appendix 7.</i> | Ecological report and Biodiversity offset plan Moolarben Coal Project Stage 2 Biodiversity Offset Strategy: Additional Fauna and Flora Surveys (Cumberland Ecology, February 2014) | | | Section 9 of the BioMP states the following: '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'. 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. | Complies | |
| S3 C35 | Regent Honeyeater Study | Within 6 months of the date of this approval, the Proponent shall calculate: (a) the impacts generated by the project on the Regent Honeyeater in species credits; and | Letter from ELA to Yancoal (dated 28/07/2015) RE: Moolarben Coal Project Stage 2 Condition 35 – Regent Honeyeater Offset Calculations. Letter from MCO to DP&E (dated 31/07/2015) RE: Stage 2 Project Approval (08_0135) – Regent Honeyeater Species Credit Calculations Letter from OEH to MCO and DP&E (dated 14/10/2015) RE: Moolarben Coal Project Stage 2 Regent Honeyeater Offset Calculations. Letter from MCO to OEH (10/02/2016) RE: Moolarben Coal Project Stage 2 – Regent Honeyeater Offset Calculations | | | 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. 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. 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. A letter from MCO to OEH (dated 10/02/2016) addressed concerns raised by OEH and provides further information. | Complies | |
| | | (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. | | | | | Complies | |
| S3 C36 | Regent Honeyeater Study | 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: (a) acquiring or retiring credits under the Bio banking Scheme in the TSC Act; (b) making payments into an offset fund that has been developed by the NSW Government; and/or (c) providing supplementary measures. | Letter to DP&E from MCO RE: Regent Honey eater species credit calculations (dated 31/07/2015) Letter from OEH RE: Recommendations on credit calculations (dated 10/02/2016) | | | No shortfall was identified during correspondence with DP&E and OEH. | Not Triggered | |

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| S3 C37 | Vegetation Information System Mapping Data | 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. | | Environment and Community Manager – no requests have been received regarding the provision of mapping data. | | OEH (BCD) did not request any mapping or survey data during the audit period. | Not Triggered | |
| S3 C38 | Long Term Security of Biodiversity Offsets | By 31 December 2015, unless the Secretary agrees otherwise, the Proponent shall make suitable arrangements to protect the offset areas in Table 15 in perpetuity, in consultation with OEH and to the satisfaction of the Secretary. <i>Note: The preferred mechanisms for the provision of long-term conservation security are via Biobanking Arrangements and additions to the OEH Estate.</i> | Positive Covenant (covering Area 3, Clifford, Properties 24 and 25, Property 5, Moolarmoo, Clarke, Ulan 18, Libertus, Dun Dun West, and Dun Dun East offset areas). Positive Covenant (covering Area 1, Area 2, Elward, Bobabeen West, Bobabeen East, Old Bobabeen and the on-site offset areas). Restrictive Use Covenant (covering Area 3, Clifford, Properties 24 and 25, Property 5, Moolarmoo, Clarke, Ulan 18, Libertus, Dun Dun West, and Dun Dun East offset areas). Restrictive Use Covenant (covering Area 1, Area 2, Elward, Bobabeen West, Bobabeen East, Old Bobabeen and the on-site offset areas). | | | Positive and Restrictive Use Covenants have been obtained for all offset areas listed in Table 15. | Complies | |
| S3 C39 | Biodiversity Management Plan | The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with OEH, and submitted to and approved by the Secretary prior to the commencement of any development on site; | Biodiversity Management Plan Version 5 dated 15 September 2020. Letter from BCD (P Christie) to MCO (G Chase) titled “Moolarben – Updated Biodiversity Management Plan”, dated 13 September 2019. The letter provides BCD feedback on the most recent revision of the plan. | | | Consultation and approval of the original Biodiversity Management Plan was verified in the 2018 IEA. Evidence of Secretary’s approval of the original plan was provided in Appendix F of the EMS document. The letter (dated 31 July 2015) states that DP&E has approved the plan. The plan was subsequently revised in 2019 / 2020 in consultation with BCD and was approved by DPIE on 2 September 2020. | Complies | |
| | | (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; | Biodiversity Management Plan Version 5 dated 15 September 2020. | | | Management of remnant vegetation 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). The minimisation of biodiversity impacts is discussed in Sections 6, 7, 8 and 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. | Complies | |
| S3 C39 | Biodiversity Management Plan | (c) include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary); | Biodiversity Management Plan Version 5 dated 15 September 2020. | | | 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. | Complies | |

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| | | <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; | Biodiversity Management Plan Version 5 dated 15 September 2020. | | | <p>Vegetation and habitat management 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).</p> <p>Section 1.2 of the plan states that future revisions 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.</p> <p>As limited details about mitigation measures has been provided only a reference to future revision of the BioMP the proponent has not yet fully complied with this condition. However, as a staged approach has been approved the proponent is not non-complaint.</p> <p>Maximizing the salvage of resources (topsoil management) is described in Section 7.5</p> <p>Rehabilitation of environmental bunds is covered in section 7.1.</p> <p>Collecting and propagating seed is covered in section 5.</p> <p>Pre-clearing surveys are covered in section 4.2 and fauna management is covered in section 4.3.</p> <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. Salinity is covered in section 7.2.</p> <p>Weeds and federal pest control is covered in section 7.3.</p> <p>Erosion and sediment control is covered in section 7.4 and section 7.5.</p> <p>Grazing and agriculture management is covered in section 7.6.</p> <p>Access management is covered in section 7.7.</p> <p>Bushfire management is covered in section 7.8</p> | Complies | |
| S3 C39 | Biodiversity Management Plan | (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; | Biodiversity Management Plan Version 5 dated 15 September 2020. | | | <p>The biodiversity monitoring program is described 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> | Complies | |

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| | | (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 | Biodiversity Management Plan Version 5 dated 15 September 2020. | | | As no details about potential risks 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. Section 11 of the BioMP provides details of the contingency plan to manage any unexpected impacts and their consequences. | Complies | |
| | | (g) include details of who would be responsible for monitoring, reviewing, and implementing the plan. | Biodiversity Management Plan Version 5 dated 15 September 2020. | | | Roles and responsibilities are outlined in section 12 of the BioMP. | Complies | |
| S3 C40 | Conservation Bond | 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: (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. (c) 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. | 2015 Independent Environmental Audit (Trevor Brown & Associates, 2015) Letter from MCO to DP&E RE: Offset Security and Conservation Bond Extension (dated 27/04/2015) Letter from DP&E to MCO RE: Extension of Time for Offset Security and Conservation Bond, (dated 27/04/2015) Letter to DP&E from MCO RE: Status of Conservation Bond (dated 26/11/2015) Bank Guarantee (Commonwealth Bank - G547798/799/802/803/804/805) Bank Guarantee (Commonwealth Bank - G547806/807/808/809/810/811) Bank Guarantee (Commonwealth Bank - 00547512) Bank Guarantee (Commonwealth Bank - 00547513) Bank Guarantee (ANZ – DG535443418) Bank Guarantee (ANZ – DG535453418) | | | Compliance with this condition was verified in the 2015 IEA. During this IEA the Auditor sighted the correspondence cited in the 2015 IEA. The Auditor sighted bank guarantees to the value of \$3,810,982.58. | Complies | |
| S3 C41 | Protection of Aboriginal Heritage Items | 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. | Incident Register 2018 Annual Review 2019 Annual Review 2020 Annual Review | | During the site inspection no impacts on cultural heritage sites were identified. All heritage sites were located away from current areas impacted by mining. | 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. | Complies | |
| S3 C42 / C43 | Condition Deleted | | | | | | | |

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| S3 C44 | Heritage Conservation Area | <p>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.</p> <p>Table 16: Summary of Heritage Conservation Strategy</p> <table border="1"> <thead> <tr> <th>Area</th> <th>Sites</th> <th>Min Size (Ha)</th> </tr> </thead> <tbody> <tr> <td>Murrumbidgee Creek Management Area</td> <td>40 Sites – 5 of high significance, 6 Medium and 29 low.</td> <td>154</td> </tr> <tr> <td>Powers Conservation Area</td> <td>10 Sites – 1 of high significance, 2 Medium and 7 low</td> <td>63</td> </tr> <tr> <td>Red Hills Conservation Area</td> <td>42 Sites – 2 of high significance, 9 Medium and 31 low</td> <td>107</td> </tr> </tbody> </table> | Area | Sites | Min Size (Ha) | Murrumbidgee Creek Management Area | 40 Sites – 5 of high significance, 6 Medium and 29 low. | 154 | Powers Conservation Area | 10 Sites – 1 of high significance, 2 Medium and 7 low | 63 | Red Hills Conservation Area | 42 Sites – 2 of high significance, 9 Medium and 31 low | 107 | Heritage Management Plan Version 8 dated 30 September 2020. | | Heritage Conservation Areas (refer to Photograph 18). | Section 5.2 (Table 4 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 sighted. | Complies | |
| Area | Sites | Min Size (Ha) | | | | | | | | | | | | | | | | | | |
| Murrumbidgee Creek Management Area | 40 Sites – 5 of high significance, 6 Medium and 29 low. | 154 | | | | | | | | | | | | | | | | | | |
| Powers Conservation Area | 10 Sites – 1 of high significance, 2 Medium and 7 low | 63 | | | | | | | | | | | | | | | | | | |
| Red Hills Conservation Area | 42 Sites – 2 of high significance, 9 Medium and 31 low | 107 | | | | | | | | | | | | | | | | | | |
| S3 C45 | Long Term Security of Heritage Conservation Area | 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. | <p>Positive Covenant (covering Area 1, Area 2, Elward, Bobabeen West, Bobabeen East, Old Bobabeen and the on-site offset areas).</p> <p>Letter from DP&E RE: Extension of Time for Security mechanisms (dated 27/04/2015)</p> | Environment and Community Manager - The heritage conservation areas are all within existing biodiversity conservation areas. All these areas have now been secured by positive and restrictive Covenants. | | Positive and Restrictive Use Covenants have been obtained for all heritage areas listed in Table 16. | Complies | | | | | | | | | | | | | |
| S3 C46 | Heritage Management Plan | <p>The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;</p> | <p>Heritage Management Plan Version 8 dated 30 September 2020.</p> <p>Letter from DP&E RE: Endorsement of suitably qualified professionals (dated 11/02/2015)</p> <p>Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Mine (MP05_0117) and Moolarben Coal Mine – expansion (MP 08_0135) Heritage Management Plan", dated 29 September 2020.</p> | | | <p>A Heritage Management Plan (HMP) has been prepared for the project. Section 1.2 of the HMP states that:</p> <p>'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.</p> <p>A letter from DPIE approving the current version of the HMP (dated 29 September 2020) was sighted during the audit.</p> | Complies | | | | | | | | | | | | | |
| | | <p>(b) be prepared in consultation with OEH and the Aboriginal stakeholders (in relation to the management of Aboriginal heritage values);</p> | <p>Email from the Gallangabang Aboriginal Corporation (B Bliss) to MCO (T Cini) titled "Moolarben Coal Complex – Updated HMP for Comment", dated 21 September 2020.</p> <p>Letter from MCO (G Chase) to DPIE titled "Moolarben Coal Complex – Heritage Management Plan – Amendment for Approval", dated 24 September 2020. The letter records the consultation outcomes with relevant RAPs and Heritage NSW and submits the plan for review and approval.</p> | | | Correspondence was sighted by the Auditor that verified that Heritage NSW and the RAPs were consulted during the preparation of the current version of the Heritage Management Plan. | Complies | | | | | | | | | | | | | |

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| S3 C46 | Heritage Management Plan | (c) be submitted to and approved by the Secretary prior to construction, unless the Secretary agrees otherwise; | Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Mine (MP05_0117) and Moolarben Coal Mine – expansion (MP 08_0135) Heritage Management Plan", dated 29 September 2020. | | | A letter from DPIE approving the current version of the HMP (dated 29 September 2020) was sighted during the audit. | Complies | |
| | | (d) include a description of the measures that would be implemented for: <ul style="list-style-type: none"> managing the discovery of human remains or previously unidentified heritage items on site; and ensuring 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; | Heritage Management Plan Version 8 dated 30 September 2020. | | | Managing the discovery of human remains or previously unidentified objects is covered in Section 5.10 and section 5.11. Heritage related inductions and training is covered in section 7 of the HMP. | Complies | |
| | | (e) include the following for the management of Aboriginal Heritage: <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; | Heritage Management Plan Version 8 dated 30 September 2020. | | | A plan of management for the Murrumbidgee Creek, Red Hills and Powers conservation areas is covered in Section 5.2 of the HMP. A description of the measures to be implemented to manage heritage sites is described in Sections 5 and 6 of the HMP. Lists of heritage items considered in the HMP are provided in Section 4. 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). The conservation of sites outside of the disturbance areas is covered in Section 5.8. Managing the discovery of human remains or previously unidentified objects is covered in Section 5.10 and section 5.11. Maintaining reasonable access for RAPs is covered in section 5.16. Ongoing consultation is covered in section 5.1.3. Heritage related inductions and training is covered in section 7 of the HMP. | Complies | |
| | | (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. | Heritage Management Plan Version 8 dated 30 September 2020. | | | A detailed plan for implementation of the mitigation and management measures is covered in section 6 of the HMP. | Complies | |

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| S3 C47 | Transport - Ulan Road Strategy | The Proponent shall: (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 | Deed of Agreement - Funding and delivery of Ulan Road upgrade and maintenance (July 2014) Invoice for Ulan Road Upgrade (Invoice number: 18 1995) | | | 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). | Complies | |
| | | (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. 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. | Mid-Western Council Invoice – Ulan Road Strategy – Funding Installments – dated 13 Feb 2019 Mid-Western Council Invoice – Ulan Road Strategy – Funding Installments – dated 18 July 2019 Mid-Western Council Invoice – Ulan Road Strategy – Funding Installments – dated 8 January 2020 Mid-Western Council Invoice – Ulan Road Strategy – Funding Installments – dated 21 July 2020 Mid-Western Council Invoice – Ulan Road Strategy – Funding Installments – dated 14 January 2021 Mid-Western Council Invoice – Ulan Road Strategy – Funding Installments – dated 5 August 2021 | | | MCO has made financial contributions to Council for the implementation of the Ulan Road Strategy over the audit period. | Complies | |
| S3 C48 | Ulan-Wollar Road Site Access | The Proponent shall design, construct, and maintain the site access intersection off Ulan-Wollar Road to the satisfaction of Council. | 2018 Independent Environmental Audit | | Inspection of the site access roads indicate that these roads are being appropriately maintained. | Ulan-Wollar Road Site Access was designed and constructed prior to this audit period and was constructed through Council by Council approved contractors. The Council agreement was sighted during the 2018 IEA. The auditor observed that the site access intersection off Ulan Wollar Road was well maintained. | Complies | |
| S3 C49 | Cope Road Maintenance | 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; | 2018 Independent Environmental Audit Invoice for Cope Road Maintenance (Invoice number: 18 2077) | | | Compliance with the Condition was verified during the 2018 IEA: <i>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)</i> | Complies | |
| | | (b) indexed in accordance with the CPI for the previous quarter. | 2018 Independent Environmental Audit Invoice for Cope Road Maintenance (Invoice number: 18 2077) | | | Compliance with the Condition was verified during the 2018 IEA: <i>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)</i> | Complies | |

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| S3 C50 | Visual | <p>The Proponent shall:</p> <p>(a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the project;</p> | <p>Environmental Management Strategy Community Complaints Register</p> | <p>Environment and Community Manager - No visual complaints received during the audit period. Some lighting complaints received during 2020 and 2021 associated with mobile plant in OC3</p> | | <p>(a) The Environment Management Strategy states the following as mitigation measures:</p> <p>Visual</p> <p><i>'Trees and shrubs will be planted to provide a visual screen along Cope Road and Saddlers Creek Road.</i></p> <p><i>Investigating the feasibility of targeted vegetation screen planting for affected properties along Ridge Road'</i></p> <p><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></p> <p>Lighting</p> <p><i>As far as practically possible, and where mine safety allows, management protocols will be established and implemented to:</i></p> <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>Visual and lighting measures including visual screening along Ulan Road was observed during the site inspection</p> | Complies | |
| | | <p>(b) ensure no fixed outdoor lights shine above the horizontal or above the building line or any illuminated structure;</p> | <p>Environmental Management Strategy Community Complaints Register</p> | | | <p>This condition is regulated through MCO's Manual: Position and Set up Mobile Lighting (Surface) which was sighted during the audit and observed during the site inspection.</p> | Complies | |
| | | <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>Environmental Management Strategy Community Complaints Register</p> | | | <p>This condition is regulated through MCO's Manual: Position and Set up Mobile Lighting (Surface) which was sighted during the audit and observed during the site inspection.</p> | Complies | |
| | | <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>Environmental Management Strategy Community Complaints Register</p> | | | <p>This condition is regulated through MCO's Manual: Position and Set up Mobile Lighting (Surface) which was sighted during the audit and observed during the site inspection. The Manual states that 'prior to proceeding with work activities compliance with standards and safety regulations should be considered '.</p> <p>External lighting complies with Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting.</p> | Complies | |

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| | | (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; | Environmental Management Strategy Community Complaints Register | Environment and Community Manager - No visual complaints received during the audit period. Some lighting complaints received during 2020 and 2021 associated with mobile plant in OC3. | The Auditor viewed the site from Ulan Road and close residential areas. | 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: - Trees and shrubs will be planted to provide a visual screen along Cope Road and Saddlers Creek Road. 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. 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 built 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. | Complies | |
| S3 C50 | Visual | (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. | Environmental Management Strategy | | The Auditor viewed the site from Ulan Road and close residential areas. | 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. | Complies | |
| S3 C51 | Bushfire Management | The Proponent shall: (a) ensure that the project is suitably equipped to respond to any fires on site; and | Bushfire Management Plan Version 2 dated November 2017. Routine Maintenance Order dated 25 February 2021 – maintenance of fire fighting equipment. | Environment and Community Manager – Our emergency response team (ERT) is trained and undertakes routine emergency drills. | Inspection of firefighting equipment (Photograph 7). | 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) <ul style="list-style-type: none"> • Fire reels and extinguishers • Three large graders • Six dozers In addition to equipment training is also provided to the Emergency Response Team (ERT) to ensure they are suitably equipped to respond to fires. | Complies | |
| | | (b) assist the RFS and emergency services as much as practicable if there is a fire in the vicinity of the site. | Email from NSW RFS (dated 7 August 2020) RE: MCO Assistance. | | | Correspondence from the RFS confirms that MCO assists the local RFS and Emergency services through training, drills and response to incidents. | Complies | |

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| S3 C52 | Waste | The Proponent shall: (a) implement all reasonable and feasible measures to minimise the waste (including coal reject) generated by the project; | Waste Management Plan Version 4 dated December 2021. Mining Operations Plan Version C dated October 2021. 2018 Annual Review Section 6.8 2019 Annual Review Section 6.8 2020 Annual Review Section 6.8 | | The Auditor inspected waste storage areas (Photographs 8 and 9) across the site. Waste segregation was observed at waste generating areas, for example the maintenance work shops. Bins are provided to various waste types across the site. | The 2020 Annual Review states that MCO maintains Total Integrated Waste Management Service to manage waste streams generated onsite and to encourage the segregation and subsequent recycling of key waste streams. The key wastes generated on-site and an overview of the waste management strategy are documented in the Mining Operations Plan. The Auditor's observations verified that MCO are implementing reasonable waste management and minimisation measures. Dewatered coal fines (rejects) are disposed of back into the completed pit (there is no tailings dam associated with this operation). | Complies | |
| | | (b) ensure that the waste generated by the project is appropriately stored, handled and disposed of; and | Waste Management Plan Version 4 dated December 2021. NSW EPA waste tracking certificate CA No. 2C00171440, 1 April 2021. The certificate was for the collection of 14 empty IBCs. NSW EPA waste tracking certificate CA No. 2C00149323, 4 June 2019. The certificate was for the collection of 4480 litres of waste oil. NSW EPA waste tracking certificate CA No. 2C00159913, 7 July 2020. The certificate was for the collection of 804 kg of waste oil filters. NSW EPA waste tracking certificate CA No. 2C00137486, 4 December 2018. The certificate was for the collection of 3500 litres of waste oil / water. | | The Auditor inspected waste storage areas across the site. Waste segregation was observed at waste generating areas, for example the maintenance work shops. Bins are provided to various waste types across the site. Waste oil and associated maintenance wastes were stored appropriately. | 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'. 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. | Complies | |
| | | (c) monitor and report on effectiveness of the waste minimisation and management measures in the Annual Review. | 2018 Annual Review Section 6.8 2019 Annual Review Section 6.8 2020 Annual Review Section 6.8 | | | Section 6.8 of the Annual Reviews reports on waste management and recycling. | Complies | |
| S3 C53 | Rehabilitation Objectives | 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. | Rehabilitation Management Plan Version 7 dated 30 October 2020 2018 Annual Review Section 9 2019 Annual Review Section 9 2020 Annual Review Section 9 | | | Mine site rehabilitation plans are documented in the Rehabilitation Management Plan and are generally consistent with the objectives outlined in Table 13 of the Project Approval (PA05_0117). Table B-1 (Project Approval Reconciliation) provides a guide to where each rehabilitation objective is documented within the RMP. The Annual Reviews report on the progressive rehabilitation on site over each reporting year. | Complies | |

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| Cond. | Short Title | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
|--------|---|---|--|------------|--|---|---------------|----------------|
| S3 C53 | Rehabilitation Objectives Table 13 | Feature | Objectives | | | | | |
| | | 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 Munghorn 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 DRG agrees otherwise. | | | | | |
| | | Degraded Riparian areas | <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. | | | | | |
| S3 C54 | Progressive Rehabilitation | <p>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.</p> <p><i>Note: It is accepted that some parts of the site that are progressively rehabilitated may be subject to further disturbance at some later stage of the project.</i></p> | <p>Rehabilitation Management Plan Version 7 dated 30 October 2020</p> <p>Mining Operations Plan Version C dated October 2021.</p> <p>2018 Annual Review Section 9</p> <p>2019 Annual Review Section 9</p> <p>2020 Annual Review Section 9</p> | | <p>The Auditor inspected all (surface works) areas of the mine including the rehabilitated areas. Progressive rehabilitation (Photograph 10) observed was consistent with the planned works as documented in the RMP and Annual Reviews.</p> | <p>An overview of progressive rehabilitation is discussed in Section 4.7 of the RMP. 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 9 'Rehabilitation' and specifically Table 29 of each Annual Review outline the rehabilitation activities undertaken during the reporting period, and Section 4.3.6 provide a summary of the objectives for the next reporting period. During the site inspection the auditor observed progressive rehabilitation at open cut 1, 2, and 3 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> | Complies | |
| S3 C55 | Long Term Security of Rehabilitation Area | <p>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 | |

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| Cond. | Short Title | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| S3 C56 | Rehabilitation Management Plan | The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Secretary Industry. This plan must: (a) be prepared in consultation with the Department, DPI Water, OEH, Council and the CCC; | Rehabilitation Management Plan Version 7 dated 30 October 2020. Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex Stage 1 (PA05_0117) and Stage 2(PA 08_0135) Revisions of Management Plans and Strategies", dated 23/09/2020. Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex (MP05_0117) and Moolarben Coal Expansion (MP 08_0135) Rehabilitation Management Plan", dated 1 October 2020. | | | Version 1 of the Rehabilitation Management Plan was prepared in 2015. Consultation and approval of the plan was verified in the 2018 IEA. The plan was subsequently revised in 2020. DPIE advised in correspondence dated 23 September 2020 that the consultation on the revised plan would only be required with DPIE and the plan would be approved by the Resource Regulator. DPIE provided feedback on the draft revised plan on 1 October 2020. | Complies | |
| | | (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; | 2018 Independent Environmental Audit | | | Compliance with this condition was verified by the Auditor during the 2018 IEA. | Complies | |
| | | (c) be prepared in accordance with any relevant DRE guideline; | 2018 Independent Environmental Audit | | | Compliance with this condition was verified by the Auditor during the 2018 IEA. | Complies | |
| | | (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; | Rehabilitation Management Plan Version 7 dated 30 October 2020. | | | The Rehabilitation Management Plan was reviewed, updated and approved by the Resource Regulator in 2020. | Complies | |
| | | (e) describe how the rehabilitation of the site would be integrated with the implementation the biodiversity offset strategy; | Rehabilitation Management Plan Version 7 dated 30 October 2020. | | | Sections 11.3, 11.4 and 9 of the RMP describe how the site will be rehabilitated. | Complies | |
| | | (f) include detailed performance and completion criteria for evaluating the performance of therehabilitation of the site, and triggering remedial action (if necessary); | Rehabilitation Management Plan Version 7 dated 30 October 2020. | | | Section 4.9 of the RMP describes the performance and completion criteria. | Complies | |
| | | (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; | Rehabilitation Management Plan Version 7 dated 30 October 2020. | | | Sections 6 and 8 of the RMP describe the measures to be implemented to ensure compliance. | Complies | |
| | | (h) include interim rehabilitation where necessary to minimise the area exposed for dust generation; | Rehabilitation Management Plan Version 7 dated 30 October 2020. | | | Sections 4 to 9 and 12 of the RMP describe interim rehabilitation measures. | Complies | |
| | | (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; | Rehabilitation Management Plan Version 7 dated 30 October 2020. | | | Section 4.7 of the RMP details the rehabilitation monitoring program to be implemented. | Complies | |
| | | (j) build to the maximum extent practicable on the other management plans required under this approval. | Rehabilitation Management Plan Version 7 dated 30 October 2020. | | | Sections 7 and 11 of the RMP refer to integration with other relevant management plans. | Noted | |

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| Cond. | Short Title | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|------------|--|--|-----------------|----------------|-----------------------|--|--------------|---|--|--|---------------------|--|---|---|-----------------------|--|--|---|-------------------------|---|----------------------|--|--|--|-----------------|---|--|--|--|--|--|--|
| Sch 4 Cond 2 | Subsidence Performance Measures - Heritage and Natural Features | 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 (Below) | 2018 Annual Review Section 8 2019 Annual Review Section 8 2020 Annual Review Section 8 | | The Auditor observed the impacts of mine subsidence within the mining lease (Photograph 11) near OC4). | Mine subsidence monitoring, reported in the Annual Reviews during the 2018, 2019 and 2020 were consistent with the predictions | Complies | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sch 4 Cond 2 | Table 18 | <table border="1"> <tr> <td colspan="2">Water Resources</td> </tr> <tr> <td>Drainage Lines (DL1 – DL7)</td> <td>No greater subsidence impacts or environmental consequences than predicted in the EA.</td> </tr> <tr> <td colspan="2">Land</td> </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 of 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> <td colspan="2">Biodiversity</td> </tr> <tr> <td>Threatened Species, threatened populations or endangered ecological communities</td> <td>Negligible subsidence impacts or environmental consequences</td> </tr> <tr> <td colspan="2">Heritage Sites</td> </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 impacts 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 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> </table> | 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 of 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 impacts 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 | | | | | | |
| 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 of 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 impacts 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sch 4 Cond 2 | Offsets | <p>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> | 2018 Annual Review Section 8 2019 Annual Review Section 8 2020 Annual Review Section 8 | | | The Annual Reviews covering the Audit Period (Section 8 'Mine Subsidence' Table 28) detail the assessment of subsidence performance indicator measures for Natural and Heritage Features. No Indicators or performance measures were exceeded during the audit period. | Not Triggered | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sch 4 Cond 2 | Offsets | | 2018 Annual Review Section 8 2019 Annual Review Section 8 2020 Annual Review Section 8 | | | The Annual Reviews covering the Audit Period (Section 8 'Mine Subsidence' Table 28) detail the assessment of subsidence performance indicator measures for Natural and Heritage Features. No Indicators or performance measures were exceeded during the audit period. | Not Triggered | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sch 4 Cond 3 | Performance Measures - Built | 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 | 2018 Annual Review Section 8 2019 Annual Review Section 8 2020 Annual Review Section 8 | | | The Annual Reviews covering the Audit Period (Section 8 'Mine Subsidence' Table 28) detail the assessment of subsidence performance indicator measures for Built Features. No Indicators or performance measures were exceeded during the audit period. | Not Triggered | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| Sch 4 Cond 3 | Table 19 | Key Public Infrastructure Gulgong-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 Murrumbidgee 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. | | | | | | |
| Sch 4 Cond 3 | Table 19 | Telecommunication cable Fibre-optic cable Murrumbidgee 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 | | | | | | |
| Sch 4 Cond 4 | Performance Measures - Built | 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. | Complaints Register | Environment and Community Manager - there have been no complaints or disputes relating to any subsidence related damage during the audit period. | | There have been no disputes recorded during the audit period | Not Triggered | |
| Sch 4 Cond 5 | Extraction Plan | 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: | UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020. Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex Stage 1 (PA05_0117) and Stage 2 (PA 08_0135) Revisions of Management Plans and Strategies", dated 23/09/2020. Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex (08_0135) Appointment of Qualified Persons for Extraction Plan Amendment", dated 16 December 2019. | | | The Extraction Plan has been revised [by MCO with assistance from Mine Subsidence Engineering Consultants, SLR, WRM Water & Environment, Eco Logical Australia Pty Ltd, and Niche Environment and Heritage] in 2020. DPIE endorsed the appointment of experts to prepare the revised plan in December 2019. Attachment 2 of the Extraction Management Plan provides a table of consultation activities with government agencies and includes dates and summaries of consultation activities. | Complies | |
| | | (a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary; | | | | | | |
| | | (b) be approved by the Secretary before the Proponent carries out any of the second workings covered by the plan; | UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020. Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex Stage 2 (08_0135) Extraction Plan – UG1 Longwalls 101 to 105", dated 23/09/2020. The letter provides DPIE approval of the Extraction Plan and each of the plans and programs contained in the appendices to the Extraction Plan. | | | 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 23 September 2020) was sighted which approved the extraction plan for the second workings on site. | Complies | |
| | | (c) include detailed plans of existing and proposed first and second workings and any associated surface development; | UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020. | | | Plans of existing and proposed first and second workings and any associated surface development are covered in Section 1, Figures 1, 2 and 3 of the Extraction Plan. | Complies | |
| | | (d) include detailed performance indicators for each of the performance measures in Tables 18 and 19; | UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020. | | | Subsidence management and monitoring is covered in section 3 of the Extraction Plan. Performance indicators and measures are covered in: <ul style="list-style-type: none"> Appendix A (Water Management Plan) Appendix B (Land Management Plan) Appendix C (Biodiversity Management Plan) Appendix D (Heritage Management Plan) Appendix E1 (ARTC), E2 (Mid-Western Regional Council), E3 (TransGrid), E4 (Essential Energy), | Complies | |

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| | | | | | | E5 (Telstra) - section 5, section 7 and section 8. <ul style="list-style-type: none"> Appendix F (Public Safety Management Plan) Appendix G (Subsidence Management Plan) | | |
| Sch 4 Cond 5 | Extraction Plan | (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; | UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020. | | | A review of the subsidence predictions is described in Section 1.5 of the Extraction Plan including a review of prediction methodology, Comparison with Previous Predictions of Subsidence Effects and Predicted Subsidence Impacts. This information is also included in Technical Report 1 (Subsidence Report). | Complies | |
| | | (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; | UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020. | | | Subsidence management and monitoring is covered in section 3 of the Extraction Plan. Performance indicators and measures are covered in: <ul style="list-style-type: none"> Appendix A (Water Management Plan) Appendix B (Land Management Plan) Appendix C (Biodiversity Management Plan) Appendix D (Heritage Management Plan) Appendix E1 (ARTC), E2 (Mid-Western Regional Council), E3 (TransGrid), E4 (Essential Energy), E5 (Telstra) Appendix F (Public Safety Management Plan) Appendix G (Subsidence Management Plan) | Complies | |
| | | (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: <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; | UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020. (Appendix E1, E2, E3, E4 and E5 of the Extraction Plan) Email from Mid-Western Council (J Robertson) to MCO (G Chase) titled "Moolarben Coal UG 1 Extraction Plan – MWRC Built Features Management Plan Amendment (for consultation)", dated 1 April 2020. Email from MCO (G Chase) to DPIE titled "Moolarben Coal Expansion - Built Features Management Plan – Service Level Agreement", dated 21 April 2020. The email provides responses to the review comments made by the ARTC and Council. | | | A separate Built 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). <ul style="list-style-type: none"> Assets and infrastructure are described in section 4 of each Build Features Management Plan. 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]). 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. Auditing requirements are covered in section 13.1 of the Extraction plan | Complies | |

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| | | <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; | <p>UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020.</p> <p>Water Management Plan Version 3 dated 11 June 2020. (Appendix A of the Extraction Plan)</p> <p>2018 Independent Environmental Audit</p> <p>Email from DRE (Resource Regulator) to MCO (G Chase) titled "Moolarben – Extraction Plan -Water Management Plan Amendment (for consultation (for DPI Water)", dated 27 March 2020.</p> <p>Email from MCO (G Chase) to DPIE titled "Moolarben Coal Expansion - Water Management Plan – Service Level Agreement", dated 6 May 2020.</p> | <p>Environment and Community Manager – A revision of the Water Management Plan was completed in 2020 to include LW104 and LW105.</p> | | <p>A Water Management Plan is included as Appendix A of the Extraction Plan.</p> <p>The original complex-wide Water Management Plan (dated 31 July 2015) was developed in consultation with the Department of Primary Industries Water ' and the EPA. This was verified during the 2018 IEA. The Plan was revised in 2020. MCO consulted with the EPA and DPI Water as required by this condition.</p> <p>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.</p> <p>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.</p> <p>Section 8 covers continuous review and improvement of environmental performance.</p> <p>Reporting is covered in section 8 and 9.</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> | Complies | |
| Sch 4 Cond 5 | Extraction Plan | <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 | <p>UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020.</p> <p>Water Management Plan Version 3 dated 11 June 2020. (Appendix A of the Extraction Plan)</p> | | | <p>Sections 4.5.4 and 6 of the Water Management Plan 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. 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> <p>Monitoring is covered in section 6.3 and table 11 and reporting is covered in section 8.1.</p> | Complies | |
| | | <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</p> | <p>UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020.</p> <p>Biodiversity Management Plan Version 3 dated 11 June 2020. (Appendix C of the Extraction Plan)</p> <p>Letter from BCD (R Shepherd) to MCO (G Chase), titled "Moolarben Coal UG 1 Biodiversity Management Plan for Longwalls 101 to 105", dated 6 March 2020.</p> | <p>Environment and Community Manager – A revision of the Biodiversity Management Plan was completed in 2020 to include LW104 and LW105.</p> | | <p>A Biodiversity Management Plan is included as Appendix C of the Extraction Plan for UG1 Longwalls 101 to 105.</p> <p>The original Biodiversity Management Plan (July 2015) was developed in consultation with OEH. This was verified during the 2018 IEA.</p> <p>The Plan was revised in 2020. MCO consulted BCD in accordance with this Condition.</p> <p>Potential impacts are covered in Section 4</p> | Complies | |

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| | | communities; and water dependent ecosystems; | | | | (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). | | |
| Sch 4 Cond 5 | Extraction Plan | (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; | UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020. Land Management Plan Version 3 dated 11 June 2020. (Appendix B of the Extraction Plan) Email from DPIE Crown Lands (D Baber) to MCO (G Chase) titled "Moolarben Coal UG 1 Land Management Plan Amendment (for consultation)", dated 19 March 2020. Email from Mid-Western Council (J Robertson) to MCO (G Chase) titled "Moolarben Coal UG 1 Land Management Plan Amendment (for consultation)", dated 19 March 2020. | Environment and Community Manager – A revision of the Land Management Plan was completed in 2020 to include LW104 and LW105. | | A Land Management Plan (LMP) is included as Appendix B of the Extraction Plan for UG1 Longwalls 101 to 105. The original Land Management Plan (July 2015) was developed in consultation with the relevant Authorities. This was verified during the 2018 IEA. The Plan was revised in 2020. MCO Consulted the relevant stakeholders as required by this Condition. 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). | Complies | |
| | | (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; | UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020. Heritage Management Plan Version 3 dated 11 June 2020. (Appendix D of the Extraction Plan) Letter from BCD (R Shepherd) to MCO (G Chase), titled "Moolarben Coal UG 1 Heritage Management Plan for Longwalls 101 to 105", dated 12 March 2020. | Environment and Community Manager – A revision of the Heritage Management Plan was completed in 2020 to include LW104 and LW105. | | A Heritage Management Plan is included as Appendix D of the Extraction Plan for UG1 Longwalls 101 to 105. The original Heritage Management Plan (July 2015) was developed in consultation with the 'NSW Office of Environment and Heritage and the Registered Aboriginal Parties. This was verified during the 2018 IEA. The Plan was revised in 2020. MCO consulted Heritage NSW in accordance with this Condition. 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). | Complies | |
| | | (l) include a Public Safety Management Plan, which has been prepared in consultation with DRE, to ensure public safety in the mining area; | UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020. Public Safety Management Plan Version 3 dated 11 June 2020. (Appendix F of the Extraction Plan) Email from DRE (Resource Regulator) (R Ramage) to MCO (G Chase) titled "Moolarben Coal UG 1 – Subsidence Monitoring and Public Safety Management Plan Amendment (for consultation)", dated 25 March 2020. | Environment and Community Manager – A revision of the Public Safety Management Plan was completed in 2020 to include LW104 and LW105. | | A Public Safety Management Plan is included as Appendix F of the Extraction Plan for UG1 Longwalls 101 to 105. The original Public Safety Management Plan (July 2015) was developed in consultation with the RR. This was verified during the 2018 IEA. The Plan was revised in 2020. MCO consulted with RR as required by this Condition. 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). | Complies | |

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| Sch 4 Cond 5 | Extraction Plan | (m) include a Subsidence Monitoring Program, which has been prepared in consultation with DRE, to: <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; | UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020. Subsidence Monitoring Program Version 3 dated 11 June 2020. (Appendix G of the Extraction Plan) Email from DRE (Resource Regulator) (R Ramage) to MCO (G Chase) titled "Moolarben Coal UG 1 – Subsidence Monitoring and Public Safety Management Plan Amendment (for consultation)", dated 25 March 2020. | Environment and Community Manager – A revision of the Subsidence Monitoring Program was completed in 2020 to include LW104 and LW105. | | A Subsidence Monitoring Plan is included as Appendix G of the Extraction Plan for UG1 Longwalls 101 to 103. The original Subsidence Monitoring Program (July 2015) was developed in consultation with RR. This was verified during the 2018 IEA. The Plan was revised in 2020. MCO consulted with RR as required by this Condition. Section 5 of the program describes the surface features included in the monitoring program and Section 7 details the subsidence monitoring to be implemented. 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) of the Extraction Plan. | Complies | |
| | | (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; | UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020. | | | Contingency response is included in section 4.1 (Contingency Response) of the Extraction Plan and section 4.2 (Adaptive Management) of the Extraction Plan. | Complies | |
| | | (o) proposes appropriate revisions to the Rehabilitation Management Plan required under condition 56 of Schedule 3; | UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020. | | | This is covered in section 3.3. | Complies | |
| | | (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. | UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020. | | | Attachment 3 to the Extraction plan provides a Program to Collect Baseline Data for future extraction plans and appendices A to F which all have a baseline data and extraction schedule section. | Complies | |
| Sch 4 Cond 6 | Extraction Plan | The Proponent shall ensure that the management plans required under conditions 5(g)-(l) above include: <ul style="list-style-type: none"> (a) an assessment of the potential environmental consequences of the Extraction Plan, incorporating any relevant information that has been obtained since this approval; and | UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020. | | | Potential environmental consequences of the extraction plan are covered in Section 4 of the following appendices to the Extraction Plan: <ul style="list-style-type: none"> • Appendix A (Water Management Plan), • Appendix B (Land Management Plan), • Appendix C (Biodiversity Management Plan) and • Appendix D (Heritage Management Plan). | Complies | |
| | | (b) a detailed description of the measures that would be implemented to remediate predicted impacts. | UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020. | | | Remediation is covered in section 3.7 and covered in Section 8 of the following appendices to the Extraction Plan: <ul style="list-style-type: none"> • Appendix A (Water Management Plan), • Appendix B (Land Management Plan), • Appendix C (Biodiversity Management Plan) and | Complies | |

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| | | | | | | <ul style="list-style-type: none"> Appendix D (Heritage Management Plan). | | |
| Sch 4 Cond 7 | First Workings | 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. | 2018 Independent Environmental Audit Letter from DP&E (dated 04/05/2016) RE: approval of Extraction plan Letter from DP&E (dated 31/08/2018) RE: approval of revision of Extraction plan | | | Compliance with this condition was verified in the 2018 IEA. During that audit a letter from DPIE (dated 04/05/2016) was sighted which states that DPIE approves the extraction plan. Another letter from DPIE was also sighted (dated 31/08/2018) which approves a revision of the Extraction Plan for areas outside the original extraction plan. | Complies | |
| Sch 4 Cond 7A | Second Workings under Palaeochannel | 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. | Water Management Plan Version 6 dated 28 October 2020. Groundwater Management Plan Version 4 dated 28 October 2020. Groundwater Technical Report HydroSimulations UG1 Groundwater Assessment Review (dated 20 March 2017) | | | Longwalls 101-103 do not impact palaeochannels in the vicinity of Wilpinjong Creek. 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. Longwall mining has been complete in LW104 and is currently underway in LW105. MCO continues to hold sufficient water licences.. To satisfy this condition, the recommendations of the Groundwater Technical Report to install additional groundwater Monitoring bores was completed in July 2017. | Complies | |
| Sch 4 Cond 8 | Payment of Reasonable Costs | 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. | | Environment and Community Manager – DPIE has not sought any costs from MCO in relation to the review of the extraction plan. | | | Not Triggered | |
| Sch 4 Cond 9 | Gas Drainage | 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. | Greenhouse Gas Minimisation Plan Version 3 dated 29 October 2020. | | | Section 4 of the GHGMP described the potential management measures relating to greenhouse gas capture and reuse. The plan states: <i>“MCO’s gas analysis of coal seams indicates low levels of seam gas emissions and a composition that is predominantly CO2 under normal operating conditions.</i> <i>The beneficial capture and reuse of fugitive methane emissions can be undertaken through the adoption of management controls such as flaring, methane capture and energy production. These are not considered feasible or reasonable for the Moolarben Coal Complex due to the low methane concentration generated from the coal seam”.</i> | Complies | |
| Sch 4 Cond 10 | Greenhouse Gas Minimisation Plan | Prior to carrying out underground mining operations, the Proponent shall submit an updated Greenhouse Gas Minimisation Plan to the Secretary. This plan must: | Greenhouse Gas Minimisation Plan Version 3 dated 29 October 2020. Letter from DPIE (S O’Donoghue) to MCO (G Chase) titled “Moolarben Coal Expansion (MP08_0135) Greenhouse Gas Minimisation Plan”, dated 16 June 2020. | | | The updated GHGMP was approved by DPIE on 16 June 2020. Section 4 of the GHGMP described the potential management measures relating to greenhouse gas capture and reuse. | Complies | |
| | | (a) identify options for minimising greenhouse gas emissions from underground mining operations, with a particular focus on capturing and/or using these emissions; | | | | | | |
| | | (b) investigate the feasibility of implementing each option; | Greenhouse Gas Minimisation Plan Version 3 dated 29 October 2020. | | | Section 4 of the GHGMP described the potential management measures relating to greenhouse gas | Complies | |

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| | | | | | | capture and reuse. | | |
| | | (c) propose the measures that would be implemented in the short to medium term on site; and | Greenhouse Gas Minimisation Plan Version 3 dated 29 October 2020. | | | Sections 4 and 5 of the GHGMP describe potential greenhouse gas emission controls and the greenhouse gas monitoring Program. | Complies | |
| | | include a research program to inform the continuous improvement of the greenhouse gas minimisation measures on site. | Greenhouse Gas Minimisation Plan Version 3 dated 29 October 2020. | | | Section 5.2 of the GHGMP describes the proposed research program. | Complies | |
| Sch 5 Cond 1 | Notification of Landowners/ Tenants | <p>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; | 2015 Independent Environmental Audit | Environment and Community Manager - All notifications were completed in February 2015. | | <p>Compliance with this condition was verified in the 2015 IEA.</p> <p>Notifications completed in February 2015 prior to the audit period.</p> | Complies | |
| | | (b) notify the tenants of any mine-owned land of their rights under this approval; and | 2015 Independent Environmental Audit | Environment and Community Manager - All notifications were completed in February 2015. | | <p>Compliance with this condition was verified in the 2015 IEA.</p> <p>Notifications completed in February 2015 prior to the audit period.</p> | Complies | |
| | | (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. | 2015 Independent Environmental Audit | Environment and Community Manager - All notifications were completed in February 2015. | | <p>Compliance with this condition was verified in the 2015 IEA.</p> <p>Notifications completed in February 2015 prior to the audit period.</p> | Complies | |
| Sch 5 Cond 2 | Notification of Landowners/ Tenants | 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 | Residential Tenancy Agreement (596 Moolarben Road, Moolarben) dated 1 January 2019. | Environment and Community Manager – The 2019 residential agreement is a renewal of an existing lease (entered into prior to this audit period), for context the tenant was the original owner of the land purchased as part of the stage 1 open cut three footprint, the updated | | No new tenancy agreements were entered into during the audit period. | Not Triggered | |

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| | | Proponent shall: (a) advise the prospective tenants of the potential health and amenity impacts associated with living on the land, and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time); and | | residential agreement was required as mining in OC3 progressed into the previous rural lease area. | | | | |
| Sch 5 Cond 2 | Notification of Landowners/ Tenants | (b) advise the prospective tenants of the rights they would have under this approval, to the satisfaction of the Secretary. | Residential Tenancy Agreement (596 Moolarben Road, Moolarben) dated 1 January 2019. | Environment and Community Manager – The 2019 residential agreement is a renewal of an existing lease (entered into prior to this audit period), for context the tenant was the original owner of the land purchased as part of the stage 1 open cut three footprint, the updated residential agreement was required as mining in OC3 progressed into the previous rural lease area. | | No new tenancy agreements were entered into during the audit period. | Not Triggered | |
| Sch 5 Cond 3 | Notification of Landowners/ Tenants | As soon as practicable after obtaining monitoring results showing: (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 | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Incident Register | Environment and Community Manager – no exceedances occurred during the audit period that required notification to any landowner. | | No exceedances occurred during the audit period that required notification to any landowner. | Not Triggered | |
| | | (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). | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Incident Register | Environment and Community Manager – no exceedances occurred during the audit period that required notification to any landowner. | | No exceedances occurred during the audit period that required notification to any landowner. | Not Triggered | |
| Sch 5 Cond 4 | Independent Review | 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: (a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Secretary, to: • consult with the landowner to determine his/her concerns; conduct monitoring to determine whether the project is complying with the relevant impact assessment criteria in Schedule 3; and • if the project is not complying with these | Complaints Register | Environment and Community Manager – no requests for an independent review were received during the audit period. | | No requests for an independent review were received during the audit period. | Not Triggered | |

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| | | criteria then: 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 | | | | | | |
| Sch 5 Cond 4 | Independent Review | (b) give the Secretary and landowner a copy of the independent review. | Complaints Register | Environment and Community Manager – no requests for an independent review were received during the audit period. | | No requests for an independent review were received during the audit period. | Not Triggered | |
| Sch 5 Cond 5 | Land Acquisition | 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: (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: • 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; | | Environment and Community Manager – no requests for property acquisitions were received during the audit period. | | No requests for property acquisitions were received during the audit period. | Not Triggered | |
| | | • (b) the reasonable costs associated with: • 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 | | Environment and Community Manager – no requests for property acquisitions were received during the audit period. | | No requests for property acquisitions were received during the audit period. | Not Triggered | |

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| | | <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. 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. 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</p> | | <p>Environment and Community Manager – no requests for property acquisitions were received during the audit period.</p> | | <p>No requests for property acquisitions were received during the audit period.</p> | <p>Not Triggered</p> | |

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| | | Proponent's obligations to acquire the land shall cease, unless the Secretary determines otherwise. | | | | | | |
| Sch 5 Cond 6 | Land Acquisition | 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. | | Environment and Community Manager – no requests for property acquisitions were received during the audit period. | | No requests for property acquisitions were received during the audit period. | Not Triggered | |
| Sch 6 Cond 1 | Environmental Management | The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must: (a) be submitted to the Secretary for approval within 6 months of the date of this approval; | Environmental Management Strategy Version 6 dated 29 October 2020. Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Complex – Stage 1 (PA05_0117) and Stage 2 (PA09_0135) Environmental Management Strategy", dated 12 August 2020. | | | An Environmental Management Strategy (EMS) (EMS Version 1) was prepared in December 2008 to satisfy Project Approval 05_0117 Schedule 5 condition 1. Compliance with this condition was verified during the 2018 IEA. The EMS was subsequently revised in 2020 and the revision was reviewed and proved by DPIE. | Complies | |
| | | (b) provide the strategic framework for environmental management of the project; | Environmental Management Strategy Version 6 dated 29 October 2020. | | | The EMS provides an appropriate strategic framework for environmental management of the project. | Complies | |
| | | (c) identify the statutory approvals that apply to the project; | Environmental Management Strategy Version 6 dated 29 October 2020. | | | Statutory approvals that apply to the project are covered in section 4 of the EMS. | Complies | |
| | | (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project; | Environmental Management Strategy Version 6 dated 29 October 2020. | | | 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. | Complies | |
| | | (e) describe the procedures that would be implemented to: • 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; | Environmental Management Strategy Version 6 dated 29 October 2020. | | | 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. 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- | Complies | |

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| | | <ul style="list-style-type: none"> respond to any non-compliance; respond to emergencies; and | | | | <p>compliances with statutory requirements has been developed as a component of this EMS and is detailed in section 6.2.</p> <p>Response to emergencies is covered in section 5.2 and section 6.3.</p> | | |
| | | <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 <p>a clear plan depicting all the monitoring to be carried out in relation to the project.</p> | Environmental Management Strategy Version 6 dated 29 October 2020. | | | <p>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> <p>Section 6 of the Environmental Management Plans</p> | Complies | |
| SCH 6 Cond 2 | Adaptive Management | <p>The Proponent must assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in 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>Moolarben Coal Complex Annual Review 2018 Section 12 (Incidents and Non-compliances)</p> <p>Moolarben Coal Complex Annual Review 2019 Section 12 (Incidents and Non-compliances)</p> <p>Moolarben Coal Complex Annual Review 2020 Section 12 (Incidents and Non-compliances)</p> | | | <p>One non-compliance was reported in 2018 (second half): Interruption to continuous dust monitoring due to equipment outages.</p> <p>Two non-compliances were reported in 2019:</p> <ul style="list-style-type: none"> generation of visible blast plume (no dust generated). Odour emission from site (spon-con event). (PA 05_0117) <p>Five non-compliances were reported in 2020:</p> <ul style="list-style-type: none"> Interruption to continuous dust monitoring due to equipment outages. Failure to collect sample at an EPL sampling site. (PA 05_0117) Two pollution of waters incidents. (PA 05_0117) <p>One water pollution incident was recorded in 2021:</p> <ul style="list-style-type: none"> On 22 March 2021 a sediment water release, occurred as a result of heavy rainfall, down stream from Dam 413. | Complies | |
| SCH 6 Cond 2 | Adaptive Management | <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>Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal - Expansion - MP08_0135 Sediment Dam Release 22 March 2021", dated 7 April 2021.</p> <p>Incident Register</p> | | | <p>A review of the incident register indicated that all incidents were investigated and where required remedial measures implemented and / or procedural changes made.</p> | Complies | |
| | | <p>(c) implement remediation measures as directed by the Secretary, to the satisfaction of the Secretary.</p> | <p>Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal - Expansion - MP08_0135 Sediment Dam Release 22 March 2021", dated 7 April 2021.</p> | | | <p>DPIE did not require any specific remediation measures to be implemented for the reported incident.</p> | Not Triggered | |
| SCH 6 Cond 3 | Management Plan Requirements | <p>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> | Refer to Section 7.5 of this report. | | | <p>Detailed baseline data is included in various sections of relevant management plan and Environmental Assessments.</p> | Complies | |
| | | <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 | Refer to Section 7.5 of this report. | | | <p>Relevant statutory requirements (including any relevant approval, licence or lease conditions) are provided in section 2 of the majority of the plans.</p> <p>Relevant limits and specific performance and management measures/criteria are provided in sections 3 and 4 of the majority of plans.</p> <p>Performance measures and management measures</p> | Complies | |

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| | | performance of, or guide the implementation of, the project or any management measures; | | | | are provided in sections 6 and 7 of the majority of plans. | | |
| | | a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria; | Refer to Section 7.5 of this report. | | | 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. | Complies | |
| | | (d) a program to monitor and report on the: <ul style="list-style-type: none"> impacts and environmental performance of the project; effectiveness of any management measures (see c above); | Refer to Section 7.5 of this report. | | | 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. | Complies | |
| | | (e) a contingency plan to manage any unpredicted impacts and their consequences; | Refer to Section 7.5 of this report. | | | Contingency plans are usually covered in section 9 or 11. | Complies | |
| | | (f) a program to investigate and implement ways to improve the environmental performance of the project over time; | Refer to Section 7.5 of this report. | | | The 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. | Complies | |
| | | (g) a protocol for managing and reporting any: <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 | Refer to Section 7.5 of this report. | | | 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; | Complies | |
| | | (h) a protocol for periodic review of the plan. | Refer to Section 7.5 of this report. | | | Periodic review of the plans is usually addressed in section 10 of the environmental management plans and in section 7 of the EMS. | Complies | |
| Sch 6 Cond 4 | Annual Review | 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>(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> | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | | Section 2 of the Annual Reviews describes the scope of the annual review and section 4 provides the operations summary, section 13 describes the activities to be completed in the next reporting period. | Complies | |
| | | (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 | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | | Section 6 of the Annual Reviews cover environmental performance. Section 10.2 of the Annual Reviews cover community complaints. | Complies | |

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| | | <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. | | | | | | |
| | | (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance; | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | | Incidents and non-compliances are reported in Section 12 of each Annual Review. | Complies | |
| | | (d) identify any trends in the monitoring data over the life of the project; | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | | Environmental performance is covered in section 6 of each Annual review. This section provides a comparison to results from previous years for environmental factors (such as noise, air quality etc.). | Complies | |
| | | (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | | Comparison of monitoring data to previous monitoring and predicted impacts are covered in section 6 of each Annual review. | Complies | |
| | | (f) describe what measures will be implemented over the next year to improve the environmental performance of the project. | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | | Section 13 of each Annual Review reports on measures to be taken in the subsequent reporting period. | Complies | |
| Sch 6 Cond 5 | Revision of Strategies, Plans and Programs | Within 3 months of the submission of: | | | | 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. The Revision Control Chart at the start of every Management Plan includes details of revisions. 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> All management plans were reviewed, revised and approved by DPIE in 2020. | Complies | |
| | | (a) the submission for annual review under condition 4 above; | All Management Plans required by this Approval were reviewed (refer Section 7.5 of this report). | | | | Complies | |
| | | (b) the submission for incident report under condition 7 below; | All Management Plans required by this Approval were reviewed (refer Section 7.5 of this report). | | | | Complies | |
| | | (c) the submission for audit under condition 9 below; or | All Management Plans required by this Approval were reviewed (refer Section 7.5 of this report). | | | | Complies | |
| | | (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. 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. | All Management Plans required by this Approval were reviewed (refer Section 7.5 of this report). | | | | Complies | |

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|-----------------|----------------------------------|---|--|------------|----------------------------|---|--------------------------|----------------|
| Sch 6 Cond 6 | Community Consultative Committee | 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). | MCO website_ | | | 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> Minutes of CCC meetings are available on the Moolarben Coal website. | Complies Complies | |
| Sch 6 Cond 7 | Incident Reporting | 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>Environmental Management Strategy Version 6 dated 29 October 2020. Moolarben Coal Complex Annual Review 2018</p> <p>Moolarben Coal Complex Annual Review 2019</p> <p>Moolarben Coal Complex Annual Review 2020</p> <p>Letter from MCO (G Chase) to the EPA, titled "Environmental Event Report Moolarben Coal Operations Pty Ltd – Blast Event 1 July 2019", dated 8 July 2019. The report was prepared in response to a request by the EPA on 4 July 2019 for further information.</p> <p>Letter from MCO (G Chase) to the EPA, titled "Environmental Event Report Moolarben Coal Operations Pty Ltd – Odour Complaint 20 October 2019", dated 28 October 2019. The report was prepared in response to a request by the EPA on 21 October 2019 as a result of the complaint received by the EPA.</p> <p>Report by MCO (G Chase), titled "Environmental Event Report Moolarben Coal Operations Pty Ltd – Moolarben Creek Rain Event 19 February 2020", dated 26 February 2020. The report was prepared in response to the incident by MCO.</p> <p>Report by MCO (G Chase), titled "Environmental Event Report Moolarben Coal Operations Pty Ltd – Sediment Drain Overtopping 21 December 2020", dated 21 January 2021. The report was prepared in response to the incident by MCO.</p> <p>Email from MCO (T Cini) to the EPA (K Willows) titled "R3 report for incident at 12 Ulan-Wollar Road", dated 21 January 2021. The email is a record of transmission of the Environmental Event Report dated 21 January 2021.</p> <p>Letter from DPIE (K O'Reilly) to MCO (G Chase) titled "Moolarben Coal - Expansion - MP08_0135 Sediment Dam Release 22 March 2021", dated 7 April 2021.</p> <p>Report by MCO (G Chase) titled "Environmental Event Report Moolarben Coal Operations Pty Ltd – Sediment Dam 413 (EPL22) Release Report", dated 29 March 2021. The report was prepared in response to the incident by MCO.</p> | | | <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>2018 Incidents reported in the Annual Review:</p> <ul style="list-style-type: none"> • Interruption to continuous dust monitoring due to equipment outages (not reportable as an incident). • Minor hydrocarbon spill by contractor – no environmental harm (not reportable as an incident) <p>2019 Incidents reported in the Annual Review:</p> <ul style="list-style-type: none"> • Interruption to continuous dust monitoring due to equipment outages (not reportable as an incident). • 1 July: generation of visible blast plume (reportable incident). • 20 October: Odour emission from site (reportable incident) <p>2020 Incidents reported in the Annual Review:</p> <ul style="list-style-type: none"> • Interruption to continuous dust monitoring due to equipment outages (not reportable as an incident). • Failure to collect sample at an EPL sampling site (not a reportable incident). • Water sample not collected, for oil and grease analysis (not a reportable incident) • 19 February: release of sediment laden water into Moolarben Creek (Reportable Incident) • 21 December: release of sediment laden water from Dam 304 (Reportable Incident) <p>2021 Incidents reported in the Annual Review:</p> <ul style="list-style-type: none"> • 29 March: release of sediment laden water from Dam 413. <p>Evidence of notification of all reportable incidents was sighted during the audit.</p> | Complies | |

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|--|---|---|--|---|----------------------------|--|------------|----------------|
| Sch 6 Cond 8 | Regular Reporting | 8. The Proponent shall provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval. | MCO website Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | | 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. | Complies | |
| Sch 6 Cond 9 | Auditing | 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: | 2018 Independent Environmental Audit (pitt&sherry). | | | The 2018 IEA was undertaken by an independent auditor approved by DPIE. | Complies | |
| | | (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary; | | | | | | |
| | | (b) include consultation with the relevant agencies; | 2018 Independent Environmental Audit (pitt&sherry). | | | The 2018 IEA included consultation with the relevant agencies. | Complies | |
| | | (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); | 2018 Independent Environmental Audit (pitt&sherry). | | | The 2018 IEA report included an assessment of environmental performance against the relevant approvals, including the EPL. | Complies | |
| | | (d) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals; and | 2018 Independent Environmental Audit (pitt&sherry). | | | The 2018 IEA report included a review of all relevant plans, strategies and programs. | Complies | |
| (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. | 2018 Independent Environmental Audit (pitt&sherry). | | | The 2018 IEA report included recommendations for improvements for all non-compliances identified. | Complies | | | |
| Sch 6 Cond 10 | Auditing | 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. | 2018 Independent Environmental Audit (pitt&sherry). Letter from DPIE (K O'Reilly) to MCO (G Chase) titled "Moolarben Coal Complex: Project Approval 05_0117 and 08_0135 Independent Environmental Audit 1 Jan 2016 to 16 October 2018. The letter confirms DPIE acceptance of the 2018 audit report and the IEA Response Action Plan. | | | The Audit Response Action Plan was submitted to and accepted by DPIE. | Complies | |

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| Sch 6 Cond 11 | Access to Information | The Proponent shall: (a) make the following information publicly available on its website: <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 | MCO website | | | All of the documents listed in PA 05_0117 and PA08_0135 Schedule 6 Condition 11 are on the website. | Complies | |
| Sch 6 Cond 11 | Access to Information | (b) keep this information up to date, | MCO website | | | At the time of this IEA, all required documentation on the website was up to date. | Complies | |
| | | (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. | MCO website | Environment and Community Manager - In accordance with this condition, MCO added predictive meteorological data and air quality data from the previous 24hrs to the MCO website. | | Meteorological Data is provided on the MCO website. | Complies | |

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| A1.1 | What the licence authorises and regulates | This licence authorises the carrying out of the Scheduled activities listed below at the premises specified in A2. The activities are listed according to their Scheduled activity classification, fee-based activity classification and the scale of the operation. Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition. Refer Table in A1.1 | Mining Operations Plan Version C dated October 2021. | | Mining Operations were in progress at the time of this IEA. | 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. | Noted | | | | | | | | | | | | | |
| | Table A1.1 | <table border="1"> <thead> <tr> <th>Scheduled Activity</th> <th>Fee Based Activity</th> <th>Scale</th> </tr> </thead> <tbody> <tr> <td>Coal Works</td> <td>Coal Works</td> <td>>5,000,000 T annual handling capacity</td> </tr> <tr> <td>Extractive Activities</td> <td>Extractive Activities</td> <td>>500,000 – 2,000,000 T annual extracted or processed</td> </tr> <tr> <td>Mining For Coal</td> <td>Mining for Coal</td> <td>>5,000,000 T annual production capacity</td> </tr> </tbody> </table> | Scheduled Activity | Fee Based Activity | Scale | Coal Works | Coal Works | >5,000,000 T annual handling capacity | Extractive Activities | Extractive Activities | >500,000 – 2,000,000 T annual extracted or processed | Mining For Coal | Mining for Coal | >5,000,000 T annual production capacity | | | | | | |
| Scheduled Activity | Fee Based Activity | Scale | | | | | | | | | | | | | | | | | | |
| Coal Works | Coal Works | >5,000,000 T annual handling capacity | | | | | | | | | | | | | | | | | | |
| Extractive Activities | Extractive Activities | >500,000 – 2,000,000 T annual extracted or processed | | | | | | | | | | | | | | | | | | |
| Mining For Coal | Mining for Coal | >5,000,000 T annual production capacity | | | | | | | | | | | | | | | | | | |
| 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. | <p>Moolarben Coal Complex Annual Review 2018 Table 8 Production Summary.</p> <p>Moolarben Coal Complex Annual Review 2019 Table 8 Production Summary.</p> <p>Moolarben Coal Complex Annual Review 2020 Table 8 Production Summary.</p> | | | 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. | Complies | | | | | | | | | | | | | |
| A2.1 | Licensed Premises | The licence applies to the following premises - as outlined in Table A2.1 <i>The premises is defined as the combined extents of the approved stage 1 project boundary and the approved stage 2 project boundary as indicated in 'appendix 2: general layout of project' in Moolarben stage 1 mod 15 consolidated approval (DPIE - planning portal - SSD application number 05_0117).</i> | Mining Operations Plan Version C dated October 2021. | | The Auditor inspected the mine site and confirmed that the operation is being undertaken within the "premises" as defined in the EPL. | The Moolarben Coal Project is being developed and operated within the boundaries defined in the Environment Assessments for Stage 1 and Stage 2 | Complies | | | | | | | | | | | | | |
| 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 | <p>Moolarben Coal Complex Annual Review 2018 Table 8 Production Summary.</p> <p>Moolarben Coal Complex Annual Review 2019 Table 8 Production Summary.</p> <p>Moolarben Coal Complex Annual Review 2020 Table 8 Production Summary.</p> | | | 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. | Complies | | | | | | | | | | | | | |
| 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 Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and b. the licence information form provided by the licensee to the EPA to assist the EPA in | Letter from Moolarben Coal Mines Pty Ltd (I Callow) to the EPA (R Whyte) titled "Moolarben Coal Project – Stage 1 Environmental Protection Licence Application", dated 27 June 2008. | | | 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. | Complies | | | | | | | | | | | | | |

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| | | connection with the issuing of this licence. | | | | | | |
| P1.1 | Location of monitoring / discharge points and areas | 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 to Condition P1.1 of the EPL for details | | | Monitoring (Photograph 12) and the licenced discharge point (Photograph 11) were inspected during this IEA. All points sighted were signposted and well maintained. | | Noted | |
| P1.2 | Location of monitoring / discharge points and areas | 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. | Environment Protection Licence 12932 (as amended) | | | No utilisation areas are identified in the licence. | Noted | |
| P1.3 | Location of monitoring / discharge points and areas | 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 to Table P1.3 in the EPL | POEO Annual Return 2019 (signed) POEO Annual Return 2020 (signed) | | | | Noted | |
| 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. | Moolarben Coal Complex Annual Review 2018 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2019 Table 8 Production Summary. Moolarben Coal Complex Annual Review 2020 Table 8 Production Summary. | | At the time of this audit (during a period of high rainfall) no evidence of water discharges from unlicensed discharge points at the site were found. | Two water pollution incidents were recorded in 2020: <ul style="list-style-type: none"> •During the construction of the Moolarben Creek crossing, a storm event (19/2/2020) resulted from Moolarben Creek entering the downstream culvert construction works then flowing back into Moolarben Creek. The PIRMP was activated including notification of EPA and other agencies and provision of report. Water quality sampling was undertaken with downstream water quality results comparable to the upstream water quality results. •On 21 December 2020 a sediment water release occurred from a sediment drain associated with Sediment Dam 304 (EPL Identification Point 51) in the vicinity of the Open Cut 3 pre-strip area (this being an area where topsoil had been removed in preparation for mining operations). The PIRMP was activated including notification of EPA and other agencies and provision of report. Water quality sampling was undertaken, with results showing higher suspended solids than the Moolarben Creek monitoring but lower Electrical Conductivity. One water pollution incident was recorded in 2021: <ul style="list-style-type: none"> •On 22 March 2021 a sediment water release, occurred as a result of heavy rainfall, downstream from Dam 413. 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. | Non-Compliance | MCO has investigated the incidents and implemented corrective and preventative actions. No additional actions are required. |

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| Cond. | Short Title | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation | | | | | | | | | | | | | | | | | | |
|------------------------|--|--|--|--|----------------------------|---|------------------------|----------------|-----|----------------|------|----|----|----|-----------|------------------------|------|----|-----------|-----|----|--|--|--|--|--|
| L2.1 | Limit Conditions, Concentration limits | For each monitoring/discharge point or utilisation area specified in the table below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table. Refer Table L2.4 of the licence. | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Environmental Monitoring Reports January 2021 to September 2021 (MCO Website) | Environment and Community Manager - no (water discharge) parameter was exceeded during the audit period. | | The review of monitoring data provided on the MCO website and reported in the Annual Reviews indicated that: <ul style="list-style-type: none"> No water discharges occurred during the 2018 calendar year. No water discharges occurred during the 2019 calendar year. During the 2020 calendar year MCO discharged 1425 ML of treated water through EPA Point 1. Monitoring undertaken found no exceedances in concentration limits. No water was discharged from any other EPA licensed point at the mine. | Complies | | | | | | | | | | | | | | | | | | | |
| 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. | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Environmental Monitoring Reports January 2021 to September 2021 (MCO Website) | Environment and Community Manager - no (water discharge) pH limit was exceeded during the audit period. | | <ul style="list-style-type: none"> During the 2021 Year (to 1 October) MCO continued to discharge treated water through EPA Point 1. Monitoring undertaken found no exceedances in concentration limits. No water was discharged from any other EPA licensed point at the mine. | Complies | | | | | | | | | | | | | | | | | | | |
| 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 below. Refer Table L2.4 of the licence. | | | | | Noted | | | | | | | | | | | | | | | | | | | |
| 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. | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Environmental Monitoring Reports January 2021 to September 2021 (MCO Website) | | | The review of monitoring data provided on the MCO website and reported in the Annual Reviews indicated that: <ul style="list-style-type: none"> No water discharges occurred during the 2018 calendar year. No water discharges occurred during the 2019 calendar year. During the 2020 calendar year MCO discharged 1425 ML of treated water through EPA Point 1. Monitoring undertaken found no exceedances in concentration limits. No water was discharged from any other EPA licensed point at the mine. During the 2021 Year (to 1 October) MCO continued to discharge treated water through EPA Point 1. Monitoring undertaken found no exceedances in concentration limits. No water was discharged from any other EPA licensed point at the mine. | Complies | | | | | | | | | | | | | | | | | | | |
| | Table L2.4 | Point 1,2,28 | <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units</th> <th>100 Percentile Limit</th> </tr> </thead> <tbody> <tr> <td>Conductivity</td> <td>uS/cm</td> <td>685</td> </tr> <tr> <td>Oil and Grease</td> <td>Mg/l</td> <td>10</td> </tr> <tr> <td>pH</td> <td>pH</td> <td>6.6 – 8.5</td> </tr> <tr> <td>Total Suspended Solids</td> <td>mg/l</td> <td>50</td> </tr> <tr> <td>Turbidity</td> <td>NTU</td> <td>25</td> </tr> </tbody> </table> | Pollutant | Units | 100 Percentile Limit | Conductivity | uS/cm | 685 | Oil and Grease | Mg/l | 10 | pH | pH | 6.6 – 8.5 | Total Suspended Solids | mg/l | 50 | Turbidity | NTU | 25 | | | | | |
| Pollutant | Units | 100 Percentile Limit | | | | | | | | | | | | | | | | | | | | | | | | |
| Conductivity | uS/cm | 685 | | | | | | | | | | | | | | | | | | | | | | | | |
| Oil and Grease | Mg/l | 10 | | | | | | | | | | | | | | | | | | | | | | | | |
| pH | pH | 6.6 – 8.5 | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Suspended Solids | mg/l | 50 | | | | | | | | | | | | | | | | | | | | | | | | |
| Turbidity | NTU | 25 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Point 24,26, 29, 31, 33, 35, 51, 52 | <table border="1"> <tbody> <tr> <td>pH</td> <td>pH</td> <td>6.6 – 8.5</td> </tr> <tr> <td>Total Suspended Solids</td> <td>mg/l</td> <td>50</td> </tr> <tr> <td>Turbidity</td> <td>NTU</td> <td>25</td> </tr> </tbody> </table> | pH | pH | 6.6 – 8.5 | Total Suspended Solids | mg/l | 50 | Turbidity | NTU | 25 | | | | | | | | | | | | | | |
| pH | pH | 6.6 – 8.5 | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Suspended Solids | mg/l | 50 | | | | | | | | | | | | | | | | | | | | | | | | |
| Turbidity | NTU | 25 | | | | | | | | | | | | | | | | | | | | | | | | |

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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, 35, 51 and 52 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) | | | Environment and Community Manager – no discharges occurred from any licenced discharge point due to high rainfall events. Surface water is collected, stored and used for process water, dust suppression, or treated and discharged through EPA Point 1. | | Noted | |
| 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, 35, 51 and 52 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. | | | | Refer to Condition L2.4 above. | Noted | |
| 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 point 1 must not exceed 10 megalitres (ML) per day. | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Environmental Monitoring Reports January 2021 to September 2021 (MCO Website) | | Environment and Community Manager – no water was discharged through EPA licenced points during 2018 or 2019. During 2020 the water treatment plant was commissioned discharges through EPA Point 1 commenced in that year. | MCO commenced discharging treated water through EPA Point 1 in 2020. Volume monitoring at EPA Point 1 indicates that the 10ML per day limit was not exceeded during 2020. No water was discharged from any other EPA licensed point at the mine during the audit period. | Noted | |
| L3.2 | | The volume discharge limit for point 1 in the table under condition L3.1 above only applies prior to and following mining operations in area 'UG4'. During mining operations in 'UG4' the daily discharge volume limit at point 1 is 15 ML/day. | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Environmental Monitoring Reports January 2021 to September 2021 (MCO Website) | | Environment and Community Manager – no water was discharged through EPA licenced points during 2018 or 2019. During 2020 the water treatment plant was commissioned and discharges through EPA Point 1 commenced in that year. Mining operations in UG 4 commenced in 2020. | MCO commenced discharging treated water through EPA Point 1 in 2020. Volume monitoring at EPA Point 1 indicates that the 10ML limit was not exceeded during 2020. Mining operations commenced in 2020 (underground mining operations in preparation for longwall extraction) and therefore Condition L3.2 has been triggered. Records of volume measurements for 2021 from EPA Point 1 indicate that the 15 ML per day limit has not been exceeded. No water was discharged from any other EPA licensed point at the mine during the audit period. | Complies | |

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| L3.3 | | The volume discharge limits under conditions L3.1 and L3.2 may be exceeded during periods of prolonged wet weather following written approval from the EPA. | | | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Environmental Monitoring Reports January 2021 to September 2021 (MCO Website) | Environment and Community Manager – MCO have not requested to exceed the current discharge limits during the Audit period. | | Treated water discharges during the audit period did not exceed 10 ML in 2020 or 15 ML/day in 2021. | Not Triggered | |
| L4.1 | Limit Conditions, Waste, Waste Tyres | <p>The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled “Waste” and meeting the definition, if any, in the column titled “Description” in the table below.</p> <p>Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled “Activity” in the table below.</p> <p>Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled “Other Limits” in the table below.</p> <p>This condition does not limit any other conditions in this licence.</p> | | | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Waste Register | Environment and Community Manager – MCO does not receive tyres but does bury their own tyres onsite. A tyre burial register and procedure is used to track tyre burial. | During the audit, no evidence of receipt or storage of wastes not associated with the mining operation were observed by the Auditor. | 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. | Complies | |
| L4.1 | Table L4.1 | Code | Waste | Description | Activity | Other Limits | | | | |
| | | T140 | Tyres | Heavy Vehicle waste tyres generated onsite | Waste Disposal (application to land) | The total volume of tyres disposed of at the premises must not exceed 650 tonnes / annum. | | | | |
| L5.1 | Limit Conditions, Noise limits | <p>Noise generated at the premises that is measured at each noise monitoring point established under this licence must not exceed the noise levels specified in Column 4 of the table below for that point during the corresponding time periods specified in Column 1 when measured using the corresponding measurement parameters listed in Column 2.</p> <p>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.</p> <p>2. The noise limit for licence points 44 identified in condition L5.1 are applicable when in use only and when measured internally.</p> <p>3. The noise limit for licence points 46 identified in condition L5.1 are applicable when in use.</p> | | | Moolarben Coal Complex Annual Review 2018 Section 6, Table 11. Moolarben Coal Complex Annual Review 2019 Section 6, Table 11. Moolarben Coal Complex Annual Review 2020 Section 6, Table 11. Moolarben Coal Operations Monthly Environmental Noise Monitoring June 2020 prepared by Global Acoustics. Moolarben Coal Operations Environmental Noise Monitoring Quarter 2 2019, prepared by Global Acoustics. Moolarben Coal Operations Quarterly Environmental Noise Monitoring August 2021, prepared by Spectrum Acoustics. | | | Environmental noise monitoring was undertaken in accordance with the Noise Management Plan throughout the audit period by noise consultants. No environmental noise non-compliances were recorded during the audit period. | Complies | |
| | | Point | Time Period | Parameter | Noise Level dB(A) | | | | | |

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| L5.1 | Table L5.1 | 41 | Day, Evening, Night | LAeq(15min) | 37 | | | |
| | | | Night | Night LA1(1 min) | 45 | | | |
| | | 42 | Day, Evening, Night | LAeq(15min) | 36 | | | |
| | | | Night | Night LA1(1 min) | 45 | | | |
| | | 43 | Day, Evening, Night | LAeq(15min) | 35 | | | |
| | | 44 | Day, Evening, Night | LAeq(15min) | 35 | | | |
| 46 | Day, Evening, Night | LAeq(15min) | 50 | | | | | |
| L5.2 | Limit Conditions, Noise limits | <p>For the purpose of Condition L5.1:</p> <p>a. Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays;</p> <p>b. Evening is defined as the period from 6pm to 10pm; and</p> <p>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.</p> | | | | | Noted | |
| L5.3 | Limit Conditions, Noise limits | <p>The noise limits set out in condition L5.1 apply under all meteorological conditions except for the following:</p> <p>a. Wind speeds greater than 3 metres/second at 10 metres above ground level; or</p> <p>b. Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or</p> <p>c. Stability category G temperature inversion conditions.</p> | | | | | Noted | |
| L5.4 | Limit Conditions, Noise limits | <p>For the purpose of condition L5.3:</p> <p>a. Data recorded by the meteorological station identified as EPA Licence Point 25 must be used to determine meteorological conditions; and</p> <p>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.</p> | Noise Management Plan Version 5 dated October 2020. | | | <p>Meteorological data is obtained from the MCO weather station (WS03) located off Ulan Road. Section 7.1 of the Noise Management Plan (NMP) Full Meteorological compliment consists of sensors and calculations that provide the following:</p> <ul style="list-style-type: none"> - 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; and - rainfall (gauge at ground-level) <p>Meteorological conditions at the time of monitoring is recorded for monitoring data interpretation and reported in the Noise Monitoring Reports.</p> | Complies | |
| L5.5 | Limit Conditions, Noise limits | <p>To determine compliance:</p> <p>a. with the Leq(15 minute) noise limits in condition L5.1, the noise measurement equipment must be located:</p> <p>i. approximately on the property boundary, where any dwelling is situated 30 metres or less from the</p> | <p>Moolarben Coal Complex Annual Review 2018 Section 6, Table 11.</p> <p>Moolarben Coal Complex Annual Review 2019 Section 6, Table 11.</p> <p>Moolarben Coal Complex Annual Review 2020 Section 6, Table 11.</p> <p>Moolarben Coal Operations Monthly</p> | | | <p>Environmental noise monitoring was undertaken in accordance with the Noise Management Plan throughout the audit period by noise consultants.</p> <p>No environmental noise non-compliances were recorded during the audit period.</p> | Complies | |

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| | | <p>property boundary closest to the premises; or</p> <p>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</p> <p>iii. within approximately 50 metres of the boundary of a National Park or Nature Reserve.</p> <p>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.</p> <p>c. with the noise limits in condition L5.1, the noise measurement equipment must be located:</p> <p>i. at the most affected point at a location where there is no dwelling at the location; or II. \</p> <p>ii. t the most affected point within an area at a location prescribed by conditions L5.5(a) or L5.5(b).</p> | <p>Environmental Noise Monitoring June 2020 prepared by Global Acoustics.</p> <p>Moolarben Coal Operations Environmental Noise Monitoring Quarter 2 2019, prepared by Global Acoustics.</p> <p>Moolarben Coal Operations Quarterly Environmental Noise Monitoring August 2021, prepared by Spectrum Acoustics.</p> | | | | | |
| L5.6 | Limit Conditions, Noise limits | <p>A non-compliance of L5.1 will still occur where noise generated from the premises in excess of the appropriate limit is measured:</p> <p>a. at a location other than an area prescribed by condition L5.5(a) and L5.5(b); and/or</p> <p>b. at a point other than the most affected point at a location.</p> | | | | | Noted | |
| L5.7 | Limit Conditions, Noise limits | <p>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.</p> | | | | | Noted | |
| L6.1 | Limit Conditions, Blasting | <p>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.</p> | <p>Blast Management Plan Version 6 dated 29 October 2020.</p> <p>Spreadsheet titled "Blast Data 2021" covering the period 05/01/2021 to 30/11/2021.</p> <p>2018 Annual Review Appendix 3C (Blast Monitoring Data)</p> <p>2018 Annual Review Appendix 3C (Blast Monitoring Data)</p> <p>2021 Annual Review Appendix 3C (Blast Monitoring Data)</p> | | | <p>Approved blasting hours are set out in section 3.1 of the Blasting Management Plan (BMP).</p> <p>Blast data from 05/07/2018 to 30/06/2021 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> | Complies | |

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| L6.2 | Limit Conditions, Blasting | <p>Blasting at the premises is limited to the following:</p> <p>a. A maximum of 2 blasts per day; and</p> <p>b. A maximum of 9 blasts per week averaged over a 12 month reporting period.</p> <p>Note:</p> <p>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.</p> <p>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.</p> | <p>Blast Management Plan Version 6 dated 29 October 2020.</p> <p>Spreadsheet titled "Blast Data 2021" covering the period 05/01/2021 to 30/11/2021.</p> <p>2018 Annual Review Appendix 3C (Blast Monitoring Data)</p> <p>2018 Annual Review Appendix 3C (Blast Monitoring Data)</p> <p>2021 Annual Review Appendix 3C (Blast Monitoring Data)</p> | <p>Environment and Community Manager - The blast on the 14th of June 2018, as reported in the annual review on that day there were two blasts fired. A miss fire in the second blast required MCO to re-fire this blast for the safety of the mine and its workers.</p> <p>On the 17th of August 2020 there were only two blast fired, blast identifiers OC4-CO-103A and OC4-OB-366. Blast OC4-OB-366 were loaded in two sections including an upper section and a lower section close to coal (described as a baby deck) in order to minimise damage to coal there is a 9sec pause from the initiation time, this sometimes results in a third recording of results in MCO's monitoring equipment.</p> | | <p>Blast monitoring from 05/07/2018 to 30/06/2021 was reviewed and confirmed that the number of blasts per day did not exceed two, with the following exceptions:</p> <ul style="list-style-type: none"> • 14 June 2018; and • 17 August 2020. <p>The Auditor reviewed the blasting records that confirmed that the third daily blast on 5 July 2018 was required to manage a mis-fire and the 17 August 2020 event was not a third daily blast.</p> | Complies | |
| L6.3 | Limit Conditions, Blasting | <p>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.</p> | <p>Moolarben Coal Complex Annual Review 2018 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2019 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2020 Section 6, Table 13.</p> <p>Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021.</p> | | | <p>No exceedances of the blast criteria were reported during the 2018. 2019 and 2020 calendar years or during the first nine months of 2021.</p> | Complies | |
| L6.4 | Limit Conditions, Blasting | <p>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.</p> | <p>Moolarben Coal Complex Annual Review 2018 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2019 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2020 Section 6, Table 13.</p> <p>Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021.</p> | | | <p>No exceedances of the blast criteria were reported during the 2018. 2019 and 2020 calendar years or during the first nine months of 2021.</p> | Complies | |
| L6.5 | Limit Conditions, Blasting | <p>Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations.</p> <p>Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.</p> | <p>Moolarben Coal Complex Annual Review 2018 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2019 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2020 Section 6, Table 13.</p> <p>Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021.</p> | | | <p>No exceedances of the blast criteria were reported during the 2018. 2019 and 2020 calendar years or during the first nine months of 2021.</p> | Complies | |

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| 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. | Moolarben Coal Complex Annual Review 2018 Section 6, Table 13. Moolarben Coal Complex Annual Review 2019 Section 6, Table 13. Moolarben Coal Complex Annual Review 2020 Section 6, Table 13. Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021. | | | No exceedances of the blast criteria were reported during the 2018, 2019 and 2020 calendar years or during the first nine months of 2021. | Complies | |
| 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 interferes unreasonable with (or is likely to interfere unreasonable with) the comfort or repose of a person who is outside the premises from which it is emitted. | Blast Management Plan Version 6 dated 29 October 2020 Air Quality Management Plan Version 6, dated 28 October 2020. Community Complaints Register Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Section MCO Website – Monthly Environmental Monitoring Reports | | During the site inspection the Auditor did not detect any offensive odours. Note that blasting occurred while the Auditor was on-site. | This is set out in section 6.2 of the Air Quality Management Plan (AQMP), "Odour and Fume" There were no offensive odours detected during the site inspection. MCO has received complaints relating to Odour since the previous Audit (not related to blasting) <ul style="list-style-type: none">• 1 Odour complaint in 2019• 1 Odour complaint in 2020• 2 Odour complaints in 2021 The 2018, 2019 and 2020 Annual Reviews summary of blast monitoring results reported no reportable blast fume events. No reportable blast fume events have been recorded during 2021 | Complies | |
| 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 | Renewable Oil Services Pty Ltd, Service Docket 25470 - dated 27/09/2018 EPA On-line Waste Tracking Certificates: <ul style="list-style-type: none">• Waste type F110, Transporter / Disposer: Renewable Oil Services, dated 28 November 2019.• Waste type J100, Transporter / Disposer: Renewable Oil Services, dated 24 September 2020.• . Waste type N100, Transporter / Disposer: Renewable Oil Services, dated 1 April 2021. | | 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. | 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. | Complies | |
| O1.1 | Operating Conditions, Activities must be carried out in a competent manner | b. the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity. | Waste Management Plan Version 4 dated December 2021. | | Waste storage areas were inspected and were signposted and appropriately maintained. Waste management activities were observed to be in accordance with the requirements of the MCO waste management plan. (Photographs 8 and 9) | Waste Management is undertaken in accordance with the Waste Management Plan. 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. | Complies | |

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|-------|--|--|--|------------|---|---|------------|----------------|
| 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. | Maintenance Schedule (SAP records management system) Maintenance Records (SAP records management system) | | The Auditor inspected surface infrastructure including: <ul style="list-style-type: none">• maintenance workshops• fuel storage (Photograph 14)• Flammable Goods Storage (Photograph 15)• equipment laydown• plant park-up areas• water treatment plant (Photograph 5) All areas were appropriately organised and maintained. | MCO advised that plant and equipment is maintained using the Maintenance Schedule (SAP Records Management). The maintenance schedule was sighted during the site inspection. 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. | Complies | |
| 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). | Air Quality Management Plan Version 6, dated 28 October 2020. Air Quality Monitoring Data Review 2020 (report prepared by Todoroki Air Sciences), dated 26 March 2021. Complaints Register Moolarben Coal Complex Annual Review 2018 Section 6, Table 13. Moolarben Coal Complex Annual Review 2019 Section 6, Table 13. Moolarben Coal Complex Annual Review 2020 Section 6, Table 13. Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021 | | No visible off-site air pollution was observed during the site investigation. Extensive areas of the site have been rehabilitated (Photographs 6 and 10), these were inspected during this IEA. | Four odour complaints were received during the audit period. Investigations undertaken by MCO found that no unusual operational issues were being undertaken and no odour sources were identified. Odour and fume minimisation is described in section 6.2 of the AQMP, and dust management is described in section 6.1. Dust management is covered in section 6 of the AQMP. The dust management system in operation includes the meteorological forecasting, real time dust monitoring and real time response triggers. The community complaints registers for the audit period were reviewed. Four dust complaints were received over the audit period. Investigations by MCO 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. Extensive progressive rehabilitation of disturbed areas has been undertaken and future rehabilitation works planned, which include the use of temporary cover crops to stabilise rehabilitation areas. Dust monitoring undertaken over the audit period found no elevated dust levels that were attributed to the mining operations. | Complies | |
| 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). | Air Quality Management Plan Version 6, dated 28 October 2020. Air Quality Monitoring Data Review 2020 (report prepared by Todoroki Air Sciences), dated 26 March 2021. Complaints Register Moolarben Coal Complex Annual Review 2018 Section 6, Table 13. Moolarben Coal Complex Annual Review | | No visible off-site air pollution was observed during the site investigation. Water carts for dust suppression were sighted by the Auditor. Extensive areas of the site have been rehabilitated; these were inspected during this IEA. | Dust management is covered in section 6 of the AQMP. For example: <ul style="list-style-type: none">- 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) | Complies | |

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| | | | <p>2019 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2020 Section 6, Table 13.</p> <p>Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021</p> | | | <p>- Partial enclosure of raw coal transfer and rejects conveyors where possible No visible off-site air pollution was observed during the site investigation.</p> <p>The dust management system in operation includes the meteorological forecasting, real time dust monitoring and real time response triggers.</p> <p>The community complaints registers for the audit period were reviewed. Four dust complaints were received over the audit period. Investigations by MCO 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>Plant and equipment maintenance is undertaken routinely. The Auditor sighted maintenance schedules and maintenance records.</p> <p>Dust monitoring undertaken over the audit period found no elevated dust levels that were attributed to the mining operations.</p> | | |
| 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). | <p>Air Quality Management Plan Version 6, dated 28 October 2020.</p> <p>Air Quality Monitoring Data Review 2020 (report prepared by Todoroki Air Sciences), dated 26 March 2021.</p> <p>Complaints Register</p> <p>Moolarben Coal Complex Annual Review 2018 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2019 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2020 Section 6, Table 13.</p> <p>Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021</p> <p>Maintenance Schedule (SAP records management system)</p> <p>Maintenance Records (SAP records management system)</p> | | <p>No visible off-site air pollution was observed during the site investigation.</p> <p>The auditor inspected plant and equipment maintenance operations.</p> | <p>Dust management is covered in section 6 of the AQMP. The dust management system in operation includes the meteorological forecasting, real time dust monitoring and real time response triggers.</p> <p>The community complaints registers for the audit period were reviewed. Four dust complaints were received over the audit period. Investigations by MCO revealed no unusual mining operations were occurring at the time and monitoring results indicated acceptable dust levels.</p> <p>Plant and equipment maintenance is undertaken routinely. The Auditor sighted maintenance schedules and maintenance records.</p> <p>No visible off-site air pollution was observed during the site investigation.</p> <p>Dust monitoring undertaken over the audit period found no elevated dust levels that were attributed to the mining operations.</p> | Complies | |
| O4.1 | Operating Conditions, Effluent Application to land | Effluent application must not occur in a manner that causes surface runoff. | <p>Mid-Western Regional Council sewage treatment approvals:</p> <p>Notice of Determination - approval to operate sewage management facility (dated 12 February 2019)</p> <p>Notice of Determination - approval to operate sewage management facility (dated 29 June 2016)</p> | | <p>Sewage treatment plants and effluent disposal areas (Photograph 16) were inspected and observed to be appropriately maintained. No evidence surface accumulation or runoff was observed.</p> <p>All effluent utilisation areas are located within the mine lease boundaries (relatively close to the</p> | <p>Mid-Western Regional Council has approved water supply, sewage and stormwater drainage works at MCO.</p> <p>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.</p> | Complies | |

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| | | | <p>Notice of Determination, onsite sewage management facility (dated 16 October 2015)</p> <p>Notice of Determination - approval to install sewage management facility (dated 14 August 2015)</p> <p>Surface Water Management Plan Version 5 dated 28 October 2020.</p> | | facilities they service). | | | |
| O4.2 | Operating Conditions, Effluent Application to land | Spray from effluent application must not drift beyond the boundary of the premises. | <p>Surface Water Management Plan Version 5 dated 28 October 2020.</p> <p>Waste receipt: J.R.Richards & Sons Waste Services, Service Docket 4369 - dated 29/10/2021 (pump out of septic tanks)</p> <p>. Mid-Western Regional Council sewage treatment approval: Notice of Determination - approval to operate sewage management facility (dated 12 February 2019).</p> | Environment and Community Manager – Wastewater that cannot be treated in the on-site WWTPs is collected for off-site disposal at licenced facilities. The UG application area has been relocated and now utilises sprays – as with other areas they are well within the project area. | <p>Sewage treatment plants and effluent disposal areas were inspected and observed to be appropriately maintained. No evidence surface accumulation or runoff was observed.</p> <p>All effluent utilisation areas are located well within the mine lease boundaries (relatively close to the facilities they service).</p> | <p>The Auditor inspected the effluent application areas. Irrigation areas utilise surface irrigation within the site boundaries. All sewage treatment facility designs have been reviewed and approved by Council.</p> <p>Excess effluent that cannot be processed on-site is collected and transported off-site by J.R.Richards a licenced contractor. Waste receipts of effluent pick-up were sighted during the audit.</p> | Complies | |
| 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. | <p>Surface Water Management Plan Version 5 dated 28 October 2020.</p> <p>Waste receipt: J.R.Richards & Sons Waste Services, Service Docket 4369 - dated 29/10/2021 (pump out of septic tanks).</p> | | <p>Sewage treatment plants and effluent disposal areas were inspected and observed to be appropriately maintained. No evidence surface accumulation or runoff was observed.</p> | <p>The SWMP stated that the quantity of effluent applied to the utilisation areas will not exceed the capacity of the utilisation areas to effectively utilise the effluent.</p> <p>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.</p> | Complies | |
| 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. | Dangerous Goods Management Plan Revision 13. | | <p>Dangerous goods storage facilities were inspected and found to conform with the requirements of the Dangerous Goods Management Plan.</p> <p>Fuel and oil storage areas are bunded and well maintained. A new bulk diesel storage facility has been constructed during this audit period. Design and construction of that facility is consistent with best practice.</p> | All chemicals, fuels and explosives stored at the Moolarben Coal Complex site are managed in accordance with the Dangerous Goods Management Plan. The storage facilities were inspected during this IEA and found to be within bunded areas that comply with the specifications of AS/NZ 1940. | Complies | |
| 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. | Pollution incident Response Management Plan Version 11 dated 23 December 2020. | | Spill kits (Photograph 17) were observed at all maintenance areas and dangerous goods storage areas. | <p>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.</p> <p>Spill kits were observed onsite.</p> <p>The Auditor sighted records (refer to audit table for PA 05_0117, Schedule 5 Condition 7) of pollution incident reports issued to DPIE, EPA, and DRE under the requirements of the PRIMP.</p> | Complies | |
| O6.1 | Operating Conditions, Other operating | The sediment basins identified as EPA identification no. (licence discharge points) 24, 26, 29, 30, 31, 33, 35, 51 and | Surface Water Management Plan Version 5 dated 28 October 2020. | | This IEA was undertaken during a period of above average rainfall. All sediment basins inspected were being | The surface water system at MCO is described in Section 4.2 of the SWMP. Sediment dam maintenance is described in | Complies | |

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| | conditions | 52 under condition P1.3 must be drained or pumped out as necessary to maintain each basins design storage capacity, within 5 days following rainfall. | | | maintained with sufficient freeboard to continue to operate as designed. | Section 4.3.2 of the SWMP. Sediment dams have been constructed larger than the design storage capacity requirement calculated in accordance with the 'Blue Book'. Pump facilities were observed at each sediment basin inspected. | | |
| O6.2 | Operating Conditions, Other operating conditions | Water discharged to comply with condition O6.1 may only be discharged to waters from sediment basins identified under licence discharge points 24, 26, 29, 30, 31, 33, 35, 51 and 52 where the water complies with the discharge limit specified under condition L2.4 for licence discharge points 24, 26, 29, 30, 31, 33, 35, 51 and 52. | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Moolarben Coal Monthly Environmental Monitoring Reports for January to September 2021 | | This IEA was undertaken during a period of above average rainfall. All sediment basins inspected were being maintained with sufficient freeboard to continue to operate as designed | No discharges occurred from licence discharge points 24, 26, 29, 30, 31, 33, 35 51 and 52 during the audit period. | Complies | |
| 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, 35, 51 and 52 in order to retain each basins design storage capacity. | Surface Water Management Plan Version 5 dated 28 October 2020. Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Moolarben Coal Monthly Environmental Monitoring Reports for January to September 2021 | | This IEA was undertaken during a period of above average rainfall. All sediment basins inspected were being maintained with sufficient freeboard to continue to operate as designed | Maintenance of sediment basins was observed during the site audit inspections. Section 4.3.3 of the SWMP states that 'de-silting of erosion and sediment control structures will be carried out as necessary '. | Complies | |
| 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. | Sampling and Testing Records: <ul style="list-style-type: none"> Nine random field sampling sheets from 2018, 2019, 2020 and 2021 were reviewed (for example SW12 dated 8 July 2019). Four random certificates of analysis from ALS Environmental (for example ME2000573 (water analysis for various sampling points) dated 21 April 2020. Two Chain of Custody forms, for example (reference ME2000573) dated 14 April 2020. | | | Monitoring required by the EPL includes: -Air quality -Water -Effluent -Noise -Blast (Air blast overpressure / ground vibration) -Discharge volumes Monitoring records maintained by MCO include the original continuous monitoring (dust) records, field sampling records, Chain of Custody forms and Laboratory testing certificates. | Complies | |
| 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 produced in a legible form to any authorised officer of the EPA who asks to see them. | Sampling and Testing Records: <ul style="list-style-type: none"> Nine random field sampling sheets from 2018, 2019, 2020 and 2021 were reviewed (for example SW12 dated 8 July 2019). Four random certificates of analysis from ALS Environmental (for example ME2000573 (water analysis for various sampling points) dated 21 April 2020. Two Chain of Custody forms, for | | | All environmental monitoring records reviewed during the audit were in a legible form. Monitoring records have been retained for a 4-year period. 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. | Complies | |

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| | | | example (reference ME2000573) dated 14 April 2020. | | | | | |
| 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. | Sampling and Testing Records: <ul style="list-style-type: none"> • Nine random field sampling sheets from 2018, 2019, 2020 and 2021 were reviewed (for example SW12 dated 8 July 2019). • Four random certificates of analysis from ALS Environmental (for example ME2000573 (water analysis for various sampling points) dated 21 April 2020. • Two Chain of Custody forms, for example (reference ME2000573) dated 14 April 2020. | | | All samples reviewed include the records listed in this condition. Example field sheets were sighted during the audit included sampling 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. | Complies | |
| 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: | EPL Variation (Notice Number 1583644) dated 4 October 2019. The variation updated EPA monitoring points and added the note to Conditions 2.2 and 2.4. 2018 POEO Annual Return 2019 POEO Annual Return 2020 POEO Annual Return | Environment and Community Manager - During the Audit period there were several occasions were non-continuous monitoring occurred, however all occasions were investigated and found to be a result of equipment failure or maintenance. In accordance with the Note associated with condition M2.2 and M2.4 data capture rates do not apply under these situations. | | The following non-compliances were noted in the MCO Annual Returns to the EPA: 2019: Failure to monitor continuously for PM10 and PM2.5 at EPA identification number 15, 17 and 27 (TEOM07), due to equipment breakdown. power outage and scheduled maintenance. 2019: Non continuous monitoring at EPL point 50, due to equipment breakdown. power outage and scheduled maintenance. A variation to the EPL was issued on 4 October 2019 removing the potential for non-compliances for equipment breakdown and maintenance. | Non-Compliance | The October variation to the EPL has resolved the potential for non-compliances due to continuous monitoring equipment outages. No further action is recommended. |
| M2.2 | Table M2.2 | | | | | | | |
| | | Point | Pollutant | Units | Frequency | Sampling Method | | |
| | | 15 | PM10 | ug/m ³ | Continuous | AM-22 | | |
| | | 16 | PM10 | ug/m ³ | Every 6 days | AM-18 | | |
| | | 17 | PM10 | ug/m ³ | Continuous | AM-22 | | |
| | | 27 | PM10 | ug/m ³ | Continuous | AM-22 | | |
| | | | PM2.5 | ug/m ³ | Continuous | Special Method 1 | | |
| M2.3 | Dust Monitoring | For the purposes of the table(s) above Special Method 1 means AS/NZS 3580.9.13:2013 - Methods for sampling and analysis of ambient air determination of suspended particulate matter - PM 2.5 continuous direct mass method using a tapered element oscillating microbalance monitor. | | | | | Noted | |
| M2.4 | Table M2.4 | | | | | | | |
| | | Points | Pollutant | Units | Frequency | Sampling Method | | |
| | | 1 | Conductivity | uS/cm | Continuous during discharge | Probe | | |
| | | | Oil and Grease | mg/l | Weekly during discharge | Grab Sample | | |
| | | | pH | pH | Continuous during discharge | Probe | | |
| | | | Total Suspended Solids | Mg/l | Weekly during discharge | Grab Sample | | |
| | | | Turbidity | NTU | Continuous during discharge | Probe | | |
| | | Points | Pollutant | Units | Frequency | Sampling Method | | |
| | | 2, 28 | Conductivity | uS/cm | Continuous during discharge | Probe | | |
| | | | Oil and Grease | mg/l | Daily during discharge | Grab Sample | | |
| | | | pH | pH | Continuous during discharge | Probe | | |
| | | | Total Suspended Solids | Mg/l | Daily during discharge | Grab Sample | | |
| | | | Turbidity | NTU | Continuous during discharge | Probe | | |
| | | | | | | The following non-compliances were noted in the MCO Annual Returns to the EPA: 2020 Licence point 1 was not sampled on 28 September 2020 for oil and grease analysis. Licence point 22 was not sampled on 11 February 2020 due to unscheduled maintenance. | Non-Compliance | Ensure that all water samples required are collected and analysed. |

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| M2.4 | Table M2.4 | Points | Pollutant | Units | Frequency | Sampling Method | | |
| | | 5, 22, 23, 48 | BOD | mg/l | Quarterly | Grab Sample | | |
| | | | Nitrogen (total) | mg/l | Quarterly | Grab Sample | | |
| | | | Oil and Grease | mg/l | Quarterly | Grab Sample | | |
| | | | pH | pH | Quarterly | Probe | | |
| | | | Phosphorus | mg/l | Quarterly | Grab Sample | | |
| | | | Total Suspended Solids | mg/l | Quarterly | Grab Sample | | |
| | | Points | Pollutant | Units | Frequency | Sampling Method | | |
| | | 24, 26, 29, 31, 33, 35, 51, 52 | Oil and Grease | mg/l | Daily during discharge | Grab Sample | | |
| | | | pH | pH | Daily during discharge | Grab Sample | | |
| Total Suspended Solids | Mg/l | | Daily during discharge | Grab Sample | | | | |
| Turbidity | NTU | | Daily during discharge | Grab Sample | | | | |
| | Note | For the purposes of conditions M2.2 and M2.4, 'continuous' refers to the capture of relevant pollutant data for the duration of the frequency reporting period. Data capture rates across the frequency reporting period do not apply under the following situations: a) equipment breakdown; b) power loss; c) scheduled maintenance; d) performance specification testing; e) vandalism. | | | | | Noted | |
| M2.5 | Monitoring and Recording Conditions, requirements to monitor concentration of pollutants discharged | When continuous monitoring equipment is unavailable for a period of time greater than 48 hours, the licensee must notify the EPA to determine whether equivalent manual sampling, testing or estimation needs to be undertaken on a daily basis at the monitoring point(s) prior to the return to service of the monitoring equipment. | Moolarben Coal Complex Annual Review 2020 Email from MCO (G Chase) to EPA (A Helms) titled "Moolarben – Non-continuous monitoring at TEOM 04", dated 16 June 2020. | | | TEOM 04 failed to operate between 12 and 15 June 2020. MCO emailed the EPA (copied to DPIE) advising of the loss of monitoring data on 16 June 2020. | Complies | |
| M3.1 | 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. | Sampling and Testing Records: <ul style="list-style-type: none">Nine random field sampling sheets from 2018, 2019, 2020 and 2021 were reviewed (for example SW12 dated 8 July 2019).Four random certificates of analysis from ALS Environmental (for example ME2000573 (water analysis for various sampling points) dated 21 April 2020. Two Chain of Custody forms, for example (reference ME2000573) dated 14 April 2020. | | | All analysis is undertaken by NATA registered laboratories in accordance with the approved methods. The two sampling / testing organisations are: -ALS completes testing - off-site and external - Monitoring - Carbon-based Environmental | Complies | |
| M3.2 | Testing Methods – concentration limits | Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the | Sampling and Testing Records: <ul style="list-style-type: none">Nine random field sampling sheets from 2018, 2019, 2020 and 2021 were reviewed (for example SW12 dated 8 July 2019). | | | MCO has agreements in place with two sampling and testing laboratories. All analysis is undertaken by NATA registered laboratories in accordance with the approved methods. The two sampling / testing organisations are: ALS completes testing - off-site and external | Complies | |

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| | | Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted. | <ul style="list-style-type: none"> Four random certificates of analysis from ALS Environmental (for example ME2000573 (water analysis for various sampling points) dated 21 April 2020. <p>Two Chain of Custody forms, for example (reference ME2000573) dated 14 April 2020.</p> | | | Monitoring - Carbon-based Environmental | | |
| M4.1 | 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. | Air Quality Management Plan Version 6 dated 28 October 2020. | | The meteorological weather station (licence point 50 – Photograph 4) was inspected during this IEA. | <p>Meteorological monitoring is covered in section 3.1 of the AQMP. Meteorological monitoring is undertaken at MCO, in accordance with NSW Project Approval and EPL requirements.</p> <p>MCO has an Automatic Weather Station (AWS) located on a property on Ulan Road and is referred to as WS3. WS3 is linked into the real-time monitoring system and is the main weather station for reporting purposes.</p> <p>Additional weather stations may be used to supplement weather data as required.</p> | Complies | |
| M4.2 | 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. | <p>Air Quality Management Plan Version 6, dated 28 October 2020.</p> <p>POEO Annual Return 2019</p> <p>EPL Variation (Notice Number 1583644) dated 4 October 2019. The variation updated EPA monitoring points and added the note to Conditions 2.2 and 2.4.</p> | | The meteorological weather station (licence point 50) was inspected during this IEA. | <p>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:</p> <ul style="list-style-type: none"> -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). <p>A copy of the Monitoring Monthly results was viewed during the audit which contained daily measurements for the following:</p> <ul style="list-style-type: none"> -Temperature at 2m and 10m -Humidity -Rain (mm) <p>The auditor sighted the weather station during the audit site inspection.</p> <p>During the audit period (June 2019) there were two occasions where non-continuous monitoring occurred, however an investigation found this to be the result of equipment breakdown. In accordance with the note associated with condition M4.1 and M4.2 data capture rates do not apply under these situations.</p> | Non-Compliance | The October variation to the EPL has resolved the potential for non-compliances due to continuous monitoring equipment outages. No further action is recommended. |

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| M4.2 | Table M4.2 | Parameter | Sampling Method | Units | Averaging Period | Frequency | Note: For the purposes of conditions M4.1 and M4.2, 'Continuous' refers to the continuous monitoring of the relevant weather parameters for the duration of the frequency reporting period except during the following situations: a) equipment breakdown; b) power loss; c) scheduled maintenance; d) performance specification testing; e) vandalism. | |
| | | Wind Direction at 10m | AM-2 & AM-4 | Degrees | 15 minutes | Continuous | | |
| | | Wind Speed at 10m | AM-2 & AM-4 | Meters per second | 15 minutes | Continuous | | |
| | | Sigma Theta | AM-2 & AM-4 | Degrees | 15 minutes | Continuous | | |
| | | Rainfall | AM-4 | Millimetres | 15 minutes | Continuous | | |
| | | Temperature at 10m | AM-4 | Degrees Celsius | 1 hour | Continuous | | |
| | | Relative humidity | AM-4 | percent | 1 hour | Continuous | | |
| M4.3 | | When the meteorological station is unavailable for a period of time greater than 48 hours, the licensee must notify the EPA and state what alternative weather monitoring arrangements will be put in place until the return to service of the meteorological station. | Annual Return 2019 | | | The meteorological station outages occurred in June 2019, prior to the licence variation that added this Condition. | Not Triggered | |
| M5.1 | Recording 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. | Complaints Register Extract (24/09/2018 to 27/11/2018) Community complaints register summaries for 2017 and 2018 MCO website | | | During the audit a complaints register extract was provided to the auditor. This register was a typed register of all complaints made to MCO. The Register Contains 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 type, and number of complaints per month. | Complies | |
| M5.2 | Recording 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. | Complaints Register Extract (2021) | | | During the audit a complaints register extract was provided to the auditor. 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 status (open or closed) | Complies | |
| M5.3 | Recording Pollution Complaints | The record of a complaint must be kept for at least 4 years after the complaint was made. | MCO website Complaints Register Extract (2021) | | | The MCO website includes a Complaints line with summaries of complaints made available each year. MCO provided the Auditor with access to detailed complaints records covering the audit period. | Complies | |
| M5.4 | Recording Pollution Complaints | The record must be produced to any authorised officer of the EPA who asks to see them. | | | | | Noted | |

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| M6.1 | 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. | MCO website | | | The MCO website includes details of the Complaints line with summaries of complaints made available per year. | Complies | |
| M6.2 | 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. | MCO website | | | The MCO website includes a Complaints page with 1800 556 484 line | Complies | |
| M6.3 | Telephone complaint line | The preceding two conditions do not apply until 3 months after: the date of the issue of this licence. | | | | | Noted | |
| M7.1 | Requirement to monitor volume or mass | <p>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.</p> <p>Point 1:</p> <ul style="list-style-type: none"> Frequency: Continuous during discharge Units: megalitres per day Sampling Method: flow meter and continuous logger <p>Note: For the purposes of condition M7.1, 'Continuous' refers to the capture of relevant volume monitoring data for the duration of the frequency reporting period except during the following situations:</p> <ol style="list-style-type: none"> equipment breakdown; power loss; scheduled maintenance; performance specification testing; vandalism. | Moolarben Coal Annual Review 2020. | | | <p>Discharge Point 1 was utilised from 2020 for the discharge of treated water. Volumes have been reported in the 2020 Annual Review. No discharges occurred during 2018 or 2019.</p> <p>No other discharge points were utilised during the review period.</p> | Complies | |
| M7.2 | Requirement to monitor volume or mass | When continuous monitoring equipment is unavailable for a period of time greater than 48 hours, the licensee must notify the EPA to determine whether equivalent manual sampling, testing or estimation needs to be undertaken on a daily basis at the monitoring point(s) prior to the return to service of the monitoring equipment. | Annual Return | | | | Complies | |
| | | | | | | | | |

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| M8.1 | 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. | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Environmental Monitoring Reports January 2021 to September 2021 (MCO Website) | | | All blasts were monitored over the audit period. | Complies | | | | | | | | | | | |
| | Table M8.1 | <table border="1"> <thead> <tr> <th>Parameter</th> <th>Units</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Airblast overpressure</td> <td>dBA (linear peak)</td> <td>All blasts</td> <td>AS 2187.2-2006</td> </tr> <tr> <td>Ground vibration peak velocity</td> <td>mm/s</td> <td>All blasts</td> <td>AS 2187.2-2006</td> </tr> </tbody> </table> | Parameter | Units | Frequency | Sampling Method | Airblast overpressure | dBA (linear peak) | All blasts | AS 2187.2-2006 | Ground vibration peak velocity | mm/s | All blasts | AS 2187.2-2006 | | | | |
| Parameter | Units | Frequency | Sampling Method | | | | | | | | | | | | | | | |
| Airblast overpressure | dBA (linear peak) | All blasts | AS 2187.2-2006 | | | | | | | | | | | | | | | |
| Ground vibration peak velocity | mm/s | All blasts | AS 2187.2-2006 | | | | | | | | | | | | | | | |
| M9.1 | 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). | Noise Management Plan Version 5 dated October 2020. Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Environmental Monitoring Reports January 2021 to September 2021 (MCO Website) | | | Section 8 of the NMP details the Noise Monitoring Program. Noise monitoring during the audit period was in accordance with the requirements of the NMP. | Complies | | | | | | | | | | | |
| 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. | EPA Public Register | | | The EPA Public Register records that MCO has submitted all Annual Returns required during this audit period. | Complies | | | | | | | | | | | |
| R 1.2 | 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). | EPA Public Register | | | The EPA Public Register records that MCO has submitted all Annual Returns required during this audit period. | Complies | | | | | | | | | | | |
| R 1.3 | 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 | | | | | Not Triggered | | | | | | | | | | | |

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| | | 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 | | | | | | |
| R 1.4 | 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. | | | | | Not Triggered | |
| R 1.5 | 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'). | EPA Public Register | | | The EPA Public Register records that MCO has submitted all Annual Returns required during this audit period. | Complies | |
| R 1.6 | 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. | Annual Return 2018 Annual Return 2019 Annual Return 2020 | | | The Auditor was provided with a copy of each Annual Return. | Complies | |
| R1.7 | 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. | EPA Public Register | | | The EPA Public Register records that MCO has submitted all Annual Returns required during this audit period. | Complies | |
| R2.1 | Notification of environmental harm | Notifications must be made by telephoning the Environment Line service on 131 555. | Environmental Management Strategy Version 6 dated 29 October 2020. Letter from MCO (G Chase) to the EPA, titled "Environmental Event Report Moolarben Coal Operations Pty Ltd – Blast Event 1 July 2019", dated 8 July 2019. The report was prepared in response to a request by the EPA on 4 July 2019 for further information. Report by MCO (G Chase), titled | | | The EMS states that 'In the event of a pollution incident, notification in accordance with the PIRMP is considered under Part 5.7 of the NSW Protection of the Environment Operations Act 1997'. The Auditor reviewed the incident reports related to the reportable incidents. Reports included evidence that the required notifications were made by telephoning the Environmental Line NSW EPA (131 555). | Complies | |

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| R2.2 | 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. | <p>“Environmental Event Report Moolarben Coal Operations Pty Ltd – Moolarben Creek Rain Event 19 February 2020”, dated 26 February 2020. The report was prepared in response to the incident by MCO.</p> <p>Report by MCO (G Chase), titled “Environmental Event Report Moolarben Coal Operations Pty Ltd – Sediment Drain Overtopping 21 December 2020”, dated 21 January 2021. The report was prepared in response to the incident by MCO.</p> <p>Email from MCO (T Cini) to the EPA (K Willows) titled “R3 report for incident at 12 Ulan-Wollar Road”, dated 21 January 2021. The email is a record of transmission of the Environmental Event Report dated 21 January 2021.</p> <p>Report by MCO (G Chase) titled “Environmental Event Report Moolarben Coal Operations Pty Ltd – Sediment Dam 413 (EPL22) Release Report”, dated 29 March 2021. The report was prepared in response to the incident by MCO.</p> | | | Incident reports were prepared by MCO and issued to the EPA in accordance with this Condition. | Complies | |
| 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. | Letter from MCO (G Chase) to the EPA, titled “Environmental Event Report Moolarben Coal Operations Pty Ltd – Odour Complaint 20 October 2019”, dated 28 October 2019. The report was prepared in response to a request by the EPA on 21 October 2019 as a result of the complaint received by the EPA. | | | <p>MCO issued an incident notification by the NSW EPA regarding an Odour Complaint 20 October 2019. MCO provided a written report to the EPA as required by this Condition.</p> <p>This notification (dated 20/10/2019) was viewed during the audit and included all the requirements of this condition.</p> | Complies | |
| 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. | Letter from MCO (G Chase) to the EPA, titled “Environmental Event Report Moolarben Coal Operations Pty Ltd – Odour Complaint 20 October 2019”, dated 28 October 2019. The report was prepared in response to a request by the EPA on 21 October 2019 as a result of the complaint received by the EPA. | | | <p>MCO issued an incident notification by the NSW EPA regarding an Odour Complaint 20 October 2019. MCO provided a written report to the EPA as required by this Condition.</p> <p>This notification (dated 20/10/2019) was viewed during the audit and included all the requirements of this condition.</p> | Complies | |
| R3.3 | Reporting Conditions, written report | The request may require a report which includes any or all of the following information: 1. the cause, time and duration of the event; 2. the type, volume and concentration of every pollutant discharged as a result of the event; 3. the name, address and business | | | | | Noted | |

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| | | <p>hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;</p> <p>4. 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;</p> <p>5. action taken by the licensee in relation to the event, including any follow-up contact with any complainants;</p> <p>6. details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and</p> <p>7. any other relevant matters.</p> | | | | | | |
| 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 | |
| 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> <ol style="list-style-type: none"> 1. Data, reported graphically where practicable, for monitoring conducted in accordance with licence requirements; 2. Statement of compliance; and 3. A complaints summary. <p>The report must be received by the EPA no later than 4 weeks after the end of the period being reported.</p> | <p>Biannual Monitoring Report (1 January to 30 June 2019)</p> <p>Biannual Monitoring Report (1 July to 31 December 2019)</p> <p>Biannual Monitoring Report (1 January to 30 June 2020)</p> <p>Biannual Monitoring Report (1 July to 31 December 2020)</p> <p>Biannual Monitoring Report (1 January to 30 June 2021)</p> | | | <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 | Complies | |
| 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. | EPL Application MCO website EPL 12932 | | | 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 '. | Complies | |
| 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. | EPL Application MCO website EPL 12932 | | | 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 '. | Complies | |
| G1.3 | General Conditions, copy of licence | The licence must be available for inspection by any employee or agent of the licensee | EPL Application MCO website EPL 12932 | | | 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 | Complies | |

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| | to be kept at the premises or plant | working at the premises. | | | | audit. Additionally, the licence is available on the MCO website under 'Licences & Approvals' all employees have access to computers and the internet. | | |
| G2.1 | General Conditions, signage | Each monitoring and discharge point must be clearly marked by a sign that indicates the EPA point identification number. | | | During the site inspection the Audit inspected monitoring and discharge points across the site. All sites inspected were properly signposted in accordance with this Condition. | All monitoring and discharge sites inspected were properly signposted in accordance with this Condition. | Complies | |
| G3.1 | Completed Programs | Refer to Table G3.1 – completed programs | | | | | Noted | |
| E1.1 | Independent Water Quality Study | <p>The licensee must complete an independent water quality study that must:</p> <ul style="list-style-type: none"> • Be undertaken in accordance with ANZECC Guidelines; • Be undertaken by an independent scientific organisation; • Collect and utilise water quality data in the Goulburn River using locations endorsed by the EPA; • Recommend an electrical conductivity limit for treated water discharges to the Goulburn River from the premises on the process outlined in the ANZECC Guidelines. <p>A report summarising the findings must be provided to the Central West (Bathurst) office of the EPA within the time frame stipulated under Condition 32A of Stage 1 Mod 14 (project 05_117).</p> | <p>Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Project Stage 1 (05_0177) Independent Water Study and Brine Management Plan", dated 08/7/2019. The letter approves the appointment of the report authors.</p> <p>Letter from DPIE (S O'Donoghue) to MCO (T Cini) titled "Moolarben Coal Complex Stage 1 (05_0117) Extension of Time to Submit Independent Water Quality Study" dated 15 November 2021). The letter provides an extension of time (to Feb 2022) for the preparation of the plan.</p> | <p>Environment and Community Manager - Extension of time granted to 28 February 2022.</p> | | <p>The IWQS has commenced, the auditor sighted letter evidence consistent with condition E1.1, the IWQS was provided to the EPA on the 10th December for consultation.</p> <p>An extension of time for submission of the IWSQ has been granted by the DPIE on the 15th November 2021.</p> <p>Submission is now required by the 28th February 2022.</p> | Complies | |

EPBC APPROVALS: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, EPBC 2017/7974

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| EPBC Approval 2007/3297 | | | | | | | |
| 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 to 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 | Certificate of Title Lot 1 DP 1143354 Letter from Crown Solicitor (L Darcy) to Hannaford Cox Connelian & McFarland (C Connelian) titled "Minister administering the National Parks and Wildlife Act 1974 transfer of L01 DP 1143354 from Moolarben Coal Pty Ltd Goulburn River National Park", dated 16 September 2020. | | | Completed in prior audit period. The funds for the transfer and ongoing management of 135ha were paid to OEH on 29 September 2008. The dedication of land for incorporation into the Goulburn River National Park was completed in December 2010. DECC paid funds as part of the transfer. No further action from MCO is required in relation to the ongoing management of this land. | Complies | |
| | (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. | Letter from MCO (A Wells) to DECC (R Whyte) titled "Condition 41(b) of Minister for Planning Approval, Dated 6 September 2007 for Moolarben Coal Project", dated 29 September 2008. | | | | Complies | |
| 1A | The approval holder must undertake the action within the area enclosed by the red line designated as 'DA Boundary' in the map at Appendix 1. The approval holder must not undertake the action within the areas designated as 'Areas not part of the Action' in the map at Appendix 1. | Mining Operations Plan Version C dated October 2021. | | | Stage 1 Action undertaken within the DA Boundary and not undertaken within the areas designated as 'Areas not part of the Action'. The location of clearance can be found in the approved MOP, which is consistent with the EPBC 2007/3297 approval. | Complies | |
| 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; | SJ Landscape Constructions report titled "Moolarben Offset Area Tree Planting Report 2014". | | | Revegetation works were undertaken in a prior audit period with on-going maintenance works undertaken. Supplementary plantings were undertaken in 2021 and management reported that further planting is planned for 2022. An area of land associated with the Drip has been gifted to the National Parks Estate, with a further portion to be converted to a State Conservation Area. | Complies | |
| | (b) Revegetate at least 143 hectares of cleared land on the "Red Hills" property with suitable native vegetation to improve wildlife corridor linkages; | SJ Landscape Constructions report titled "Moolarben Offset Area Tree Planting Report 2014". | | | | Complies | |
| | (c) Conserve and enhance at least 1262 hectares of existing native vegetation onsite; and | Positive Covenant (covering Area 3, Clifford, Properties 24 and 25, Property 5, Moolarmoo, Clarke, Ulan 18, Libertus, Dun Dun West, and Dun Dun East offset areas). | | | MCO continues to conserve Area 1, Area 2 and Area 3 (>1262ha). Offset security mechanisms (Covenants on title) have been executed by MCO and the NSW Department of Planning, Industry and Environment. | Complies | |
| | (d) Make arrangements, as approved in writing by the Minister, to protect these offset areas from development in the long term. | Positive Covenant (covering Area 1, Area 2, Elward, Bobabeen West, Bobabeen East, Old Bobabeen and the on-site offset areas). Restrictive Use Covenant (covering Area 3, Clifford, Properties 24 and 25, Property 5, Moolarmoo, Clarke, Ulan 18, Libertus, Dun Dun West, and Dun Dun East offset areas). Restrictive Use Covenant (covering Area 1, Area 2, Elward, Bobabeen West, Bobabeen East, Old Bobabeen and the on-site offset areas). | | | MCO continues to conserve Area 1, Area 2 and Area 3 (>1262ha). Offset security mechanisms (Covenants on title) have been executed by MCO and the NSW Department of Planning, Industry and Environment. | Complies | |

EPBC APPROVALS: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, EPBC 2017/7974

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation | |
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| 3 | 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; | Landscape Management Plan (Rehabilitation and Off-set Management Plan, Final Void Management Plan, Mine Closure Plan), Version 1. Moolarben Coal Complex Annual Review 2018 Section 9. Moolarben Coal Complex Annual Review 2019 Section 9. Moolarben Coal Complex Annual Review 2020 Section 9. Letter from DPI (H Reed) to MCO (L Bowden) titled "Moolarben Coal Mine (MP 05_0117) Management Plan Approvals", dated 5 November 2013. The letter approved the Landscape Management Plan. | | | During the site inspection for this IEA the Auditor inspected the competed rehabilitation areas and confirmed that progressive rehabilitation works were being undertaken. For example, the former OC 1 area has been substantially rehabilitated. | 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. Rehabilitation objectives are detailed in Section 3.4, 3.7 (Table 14), 3.8 and 3.9 of the LMP. MCO is preparing a complex wide Biodiversity Management Plan which will address the management of offsets for all MCO managed offsets. The Complex wide Biodiversity Management Plan will supersede the LMP. Progressive rehabilitation is reported in the MCO Annual Reviews for 2019 and 2020. DPI approved the Landscape Management Plan in November 2013. | Complies | |
| | (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; | Landscape Management Plan (Rehabilitation and Off-set Management Plan, Final Void Management Plan, Mine Closure Plan), Version 1 | | | 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. | Complies | | |
| | (c) Performance and completion criteria for the rehabilitation of the site, implementation of the vegetation offsets, and landscaping of the environmental bunds; | Landscape Management Plan (Rehabilitation and Off-set Management Plan, Final Void Management Plan, Mine Closure Plan), Version 1 | | | Performance and completion criteria for the rehabilitation of the site is detailed in Section 3.26 of the LMP. | Complies | | |
| | (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. | Landscape Management Plan (Rehabilitation and Off-set Management Plan, Final Void Management Plan, Mine Closure Plan), Version 1 | | | This is covered in section 3.4 and 3.6 of the LMP and refers to the progressively updated Mining Operations Plan. | Complies | | |
| | (e) A program to monitor the effectiveness of these measures, and progress against the performance and completion criteria (see (c) above); | Landscape Management Plan (Rehabilitation and Off-set Management Plan, Final Void Management Plan, Mine Closure Plan), Version 1 | | | A monitoring program is described in Section 3.25 of the LMP. | Complies | | |
| | (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; and | Landscape Management Plan (Rehabilitation and Off-set Management Plan, Final Void Management Plan, Mine Closure Plan), Version 1 | | | Potential risks and risk management is described in Section 3.3 of the LMP. | Complies | | |
| | (g) Details of who would be responsible for monitoring, reviewing, and implementing the plan. | Landscape Management Plan (Rehabilitation and Off-set Management Plan, Final Void Management Plan, Mine Closure Plan), Version 1 Letter from DSEWPC (N Livermore) to MCO (J Thomas) titled "Moolarben Coal Mine Project EPBA 2007/3297", dated 6 September 2011. The letter approves the Landscape Management Plan. | | | Roles and responsibilities are detailed in section 8 of the LMP. | Complies | | |
| | Coal mining operations must not commence until the plan has been approved. The approved plan must be implemented. | | | | DSEWPC approved the plan in September 2011. | Complies | | |

EPBC APPROVALS: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, EPBC 2017/7974

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
|--------------------------------|--|---|--|----------------------------|--|----------------------|----------------|
| 4 | 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 must, by 1 July each year after the commencement of operations, provide a certificate stating that they have complied with the conditions of approval. | Email from MCO (G Chase) to DAWE titled "EPBC Monitoring", dated 29 March 2019. The email advised DAWE that EPBC reports are available on the MCO website. Email from MCO (T Cini) to DAWE titled "EPBC 2007/3297, 2008/4444, 2013/6926, 2017/7974 Compliance Report", dated 31 March 2021. The email advised that the reports are on the website. | Environment and Community Manager - The Annual compliance reports are available on the MCO website. The DAWE was notified of the compliance reports publishing in the required time frame. | | MCO has prepared EPBC monitoring reports and provided links to those reports to DAWE in accordance with the Condition. | Complies | |
| 5 | 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. | | Environment and Community Manager – No directions have been received from DAWE | | No directions have been received from DAWE | Not Triggered | |
| 6 | 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 approved plan, report or strategy must be implemented. | | Environment and Community Manager – No directions to make revisions of any plans, reports or strategies have been received from DAWE | | No directions to make revisions of any plans, reports or strategies have been received from DAWE | Not Triggered | |
| 7 | 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 | | Environment and Community Manager – No notices have been received from DAWE | | No directions have been received from DAWE | Not Triggered | |
| EPBC Approval 2008/4444 | | | | | | | |
| 1 | The approval holder must not clear more than 1, 534 hectares of native vegetation within the defined footprint at Schedule 1. | Moolarben Coal Complex Annual Review 2020 Section 9. Mining Operations Plan Version C dated October 2021. | | | The 2020 annual review (Table 30) states that in 2020 the mine footprint was 1,687 ha and it is predicted to be 1,960 ha in 2021. This includes clearing associated with EPBC 2007/3297, EPBC2008/4444, EPBC 2013/6926 & EPBC 2017/7974. Figure 4 of the 2020 Annual review shows the areas of cleared land. Approximately 658ha of disturbance was associated with EPBC 2008/4444 as at 31 December 2020. The location of clearance can be found in the current approved MOP, which is consistent with the EPBC 2008-4444 approval. | Complies | |
| 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, | Vegetation Clearance Protocol & landscape Management Plan Moolarben Coal Project (EPBC | | | The VCPLMP was prepared and submitted to the Department of Environment. VCPLMP approval was granted on 29 May 2015. | Complies | |

EPBC APPROVALS: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, EPBC 2017/7974

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | 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: | 2008/4444) Version 1 dated 29 May 2015. Letter from the Department of Environment (S Gaddes) to MCO (M Jacobs) titled "Moolarben Coal Project Stage 2 NSW (EPBC 2008/4444) Vegetation Clearance Protocol and Landscape Management Plan", dated 29 May 2015. The letter approved the plan. | | | The VCPLMP is incorporated into the Ground Disturbance Process. Section 2.1 of the plan delineates the areas to be cleared. | | |
| | 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. | Vegetation Clearance Protocol & landscape Management Plan Moolarben Coal Project (EPBC 2008/4444) Version 1 dated 29 May 2015. | | | The collection and retaining of important habitat features is covered in Section 2.2.3 of the plan. | Complies | |
| 2 | c. Require use of native, locally sourced seed for propagation for rehabilitation activates. | Vegetation Clearance Protocol & landscape Management Plan Moolarben Coal Project (EPBC 2008/4444) Version 1 dated 29 May 2015. | | | Section 3 of the plan specifies the requirements of collection and use of locally sources native seeds for propagation. | Complies | |
| | 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. | Vegetation Clearance Protocol & landscape Management Plan Moolarben Coal Project (EPBC 2008/4444) Version 1 dated 29 May 2015. | | | Section 2.4 of the plan specifies the requirement for the two-stage clearance protocol. | Complies | |
| | The approval holder must not commence until the VCPLMP is approved by the Minister. The approved VCPLMP must be implemented. | Letter from the Department of Environment (S Gaddes) to MCO (M Jacobs) titled "Moolarben Coal Project Stage 2 NSW (EPBC 2008/4444) Vegetation Clearance Protocol and Landscape Management Plan", dated 29 May 2015. The letter approved the plan. | | | The plan was approved by DoE in May 2015. | Complies | |
| 3 | 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) threatened ecological community and 902 hectares of habitat for EPBC Act listed threatened species, the approval holder must submit, by 1 September 2021, a Biodiversity Offset Management Plan (BOMP) for the Minister's written approval. The BOMP must: | Biodiversity Off-set Management Plan Version 6 dated 15 December 2021. Letter from MCO (T Cini) to DAWE titled "MOOLARBEN COAL COMPLEX – EPBC 2008/4444 AND 2017/7974 COMPLEX WIDE BIODIVERSITY AND OFFSET MANAGEMENT PLAN FOR APPPROVAL", dated 20 August 2021. Letter from DAWE (K Farrant) to MCO (T Cini) titled "Moolarben Coal Project Stage 2 NSW – EPBC 2008/4444 Biodiversity and Offset Management Plan", dated 14 December 2021. The letter approved the current version of the BOMP. | | | An updated Biodiversity Offset Management Plan was submitted to the DAWE on 20 August 2021. A further revision was submitted on 26 November 2021. The BOMP was approved by DAWE on 14 December 2021. MCO has continued to manage offset areas with revegetation and conservation management actions undertaken. The MCO 2020 Annual Review section 6.5.1 states that 70,000 stems were planted in 2020 to supplement natural regeneration and describes maintenance activities such as weed control, fencing and track maintenance. Further revegetation and maintenance works are in progress in 2021. Monitoring results are included in the EPBC Annual Compliance Reports. | Complies | |
| | b. include a survey, and describe the condition of, the offset areas specified at Figures 1-7 of Schedule 2, immediately prior to them being managed as offset areas; | Biodiversity Off-set Management Plan Version 6 dated 15 December 2021. | | | Section 3 of the BOMP describes the existing environment (prior to the area being managed as an off-set area). | Complies | |
| | c. for offset areas shown at Figures 1-3 and 6-7 of Schedule 2: (i) specify strategies and management actions that will improve the quality of WBGW and habitat for EPBC Act listed threatened species; (ii) include timeframes for management actions; (iii) specify performance and completion criteria for achieving (i) above, for evaluating effectiveness of the management of the offset areas, and criteria for | Biodiversity Off-set Management Plan Version 6 dated 15 December 2021. | | | (i) Strategies to manage vegetation and improve connectivity is covered in Section 3.7 of the BOMP. (ii) Biodiversity management measures are described in Section 4 of the BOMP. Table 12 of section 4.4 (BOA Consolidated Offset Outcomes with Performance Indicators and Completion Criteria) provides time frames for implementing the approved performance measures. (iii) Table 12 of section 4.4 (BOA Consolidated Offset | Complies | Ensure that the next revision of the plan identifies the potential risks to successful implementation of the offset strategy and contingency measures to be implemented to address those risks. |

EPBC APPROVALS: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, EPBC 2017/7974

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | <p>triggering remedial action;</p> <p>(iv) include a program to detect trigger criteria and monitor and report on the effectiveness of management actions, and progress against the performance and completion criteria;</p> <p>(v) describe potential risks to achieving the plan's objectives, measures that will be implemented to mitigate against these risks and remedial actions that will be implemented if defined trigger criteria are detected; and</p> <p>(vi) detail of who will be responsible for monitoring, reviewing, and implementing the BOMP.</p> | | | | <p>Outcomes with Performance Indicators and Completion Criteria) provides the approved performance measures.</p> <p>(iv) The off-set monitoring program is described in Section 4.6 of the plan.</p> <p>(v) Potential risks and contingency measures are included in section 4.7 table 15.</p> <p>(vi) Roles and responsibilities are described in Section 5.1 of the BOMP.</p> | | |
| | <p>d. for offset areas shown at Figures 4 and 5 of Schedule 2, explain how management of the offset areas will ensure the quality of WBGW and habitat for EPBC Act listed threatened species in the offset areas will be improved and protected for the period of approval.</p> <p>If, after 1 December 2021, the Minister informs the approval holder that the submitted BOMP (required by 1 September 2021) is not suitable for approval, the Minister may, after 1 February 2022, approve a version of the BOMP revised by the Department.</p> | <p>Biodiversity Off-set Management Plan Version 6 dated 15 December 2021.</p> | | | <p>(i) Strategies to manage vegetation and improve connectivity is covered in Section 3 of the BOMP.</p> <p>(ii) Biodiversity management measures are described in Section 4 of the BOMP. Table 12 of section 4 (BOA Consolidated Offset Outcomes with Performance Indicators and Completion Criteria) provides time frames for implementing the approved performance measures.</p> <p>(iii) Table 12 of section 4 (BOA Consolidated Offset Outcomes with Performance Indicators and Completion Criteria) provides the approved performance measures.</p> <p>(iv) The off-set monitoring program is described in Section 4.6 of the plan.</p> <p>(v) Roles and responsibilities are described in Section 5.1 of the BOMP.</p> | <p>Complies</p> | |
| 3 | <p>The approved BOMP must be published on the approval holder's internet web site, within 1 month of being approved by the Minister and remain so published for the period of approval.</p> <p>The approval holder must implement the BOMP approved by the Minister in writing.</p> | <p>MCO Website</p> | | | <p>The approved plan has been uploaded to the MCO website.</p> | <p>Complies</p> | |
| 4 | <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>Positive Covenant (covering Area 3, Clifford, Properties 24 and 25, Property 5, Moolarmoo, Clarke, Ulan 18, Libertus, Dun Dun West, and Dun Dun East offset areas).</p> <p>Positive Covenant (covering Area 1, Area 2, Elward, Bobabeen West, Bobabeen East, Old Bobabeen and the on-site offset areas).</p> <p>Restrictive Use Covenant (covering Area 3, Clifford, Properties 24 and 25, Property 5, Moolarmoo, Clarke, Ulan 18, Libertus, Dun Dun West, and Dun Dun East offset areas).</p> <p>Restrictive Use Covenant (covering Area 1, Area 2, Elward, Bobabeen West, Bobabeen East, Old Bobabeen and the on-site offset areas).</p> | | | <p>MCO is required to secure the 8 EPBC2008/4444 Offset properties. Of the 8 offsets, 1 was transferred to the National Parks Estate, 1 secured through a Conservation Agreement prior to this audit period.</p> <p>During the audit period, the remaining 6 offsets were secured by 'Positive Covenant' and a 'Restriction on the Use of Land by a Prescribed Authority' under Section 88E(3) of the NSW Conveyancing Act 1919.</p> <p>Covenants for four (4) Offsets (Libertus, Ulan 18, Dun Dun East, and Dun Dun West) were registered by the NSW Land Registry Services on 12 December 2019. Covenants for the remaining two (2) Offsets (Old Bobadeen and On-site) were executed by MCO and the NSW Department of Planning, Industry and Environment (DPIE). The executed covenants will be registered on title.</p> | <p>Complies</p> | |
| | <p>b. Prevent any future development activities, including mining and mineral extraction;</p> | <p>Refer to Condition 4 a. above.</p> | | | <p>Refer to Condition 4 a. above.</p> | <p>Complies</p> | |

EPBC APPROVALS: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, EPBC 2017/7974

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | c. Ensure the active management of the land; and | <p>Biodiversity Off-set Management Plan Version 6 dated 15 December 2021.Moolarben Coal Project 2020 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2021.</p> <p>Moolarben Coal Project 2019 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2020.</p> <p>Moolarben Coal Project 2018 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2019.</p> | | | The implementation of the BOMP and monitoring of the areas as reported in the annual EPBC compliance reports evidences that the areas were being actively managed during the audit period. | Complies | |
| | d. Be provided to the Department within 3 months of it being issued, as evidence of compliance with this condition. | <p>Email from MCO (G Chase) to DAWE titled "EPBC 2007/3297, EPBC 2008/444, EPBC 2013/6926 and EPBC 2017/7974 Offset Security", dated 18 September 2020.</p> <p>Letter from MCO (G Chase) to DAWE titled "MOOLARBEN COAL COMPLEX – EPBC 2008/4444 UPDATE", dated 31 January 2020.</p> | | | DAWE was advised that is condition had been complied with on the 31 January 2021 and 18 September 2021. | Complies | |
| 5 | 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 Environmental Planning and Assessment Act 1979 (NSW) on 30 January 2015. | <p>Water Management Plan Version 6 dated 28 October 2020.</p> <p>Moolarben Coal Complex Annual Review 2018</p> <p>Moolarben Coal Complex Annual Review 2019</p> <p>Moolarben Coal Complex Annual Review 2020</p> | | | <p>The MCO Water Management Plan (WMP) has been developed and approved by the NSW DPIE to manage and monitor water resources.</p> <p>Section 3 of the WMP 'Water Management' details the surface and groundwater overview with additional details provided in the site Water balance, Surface Water Management Plan and Groundwater Management Plan. The Management plan includes monitoring, management, triggers for investigation and action and contingency.</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>Results of water resources monitoring is provided in each of the Annual Reviews that have been uploaded to the MCO website.</p> | Complies | |
| 6 | 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. | Ulan coal Mine and Moolarben Coal Mine - Water Sharing Agreement (dated 10/08/2009). | Environment and Community Manager - No request has been received during the audit period. | | <p>DAWE has not requested the supply of groundwater monitoring data during this audit period.</p> <p>A monitoring data sharing agreement between MCO, Ulan and Wilpinjong Mines is in place. The protocol for sharing data is included in Section 5.5 of the WMP</p> | Not Triggered | |

EPBC APPROVALS: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, EPBC 2017/7974

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| 7 | 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. | | Environment and Community Manager - No request has been received during the audit period. The Water Management Plan is available on the Moolarben Website. | | MCO has not received any request from DAWE during the audit period. | Not Triggered | |
| 8 | Within 30 days after the commencement of the action, the approval holder must advise the Department in writing of the actual date of commencement. | Letter from MCO (G Chase) to DAWE (P Blackwell) titled "Moolarben Coal Project Stage 2 NSW (EPBC 2008/4444) Commencement of Action", dated 13 August 2015. | | | The Action commenced in 2 August 2015 and DAWE was notified 13 August 2015. | Complies | |
| 9 | 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. | Moolarben Coal Project 2020 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2021. Moolarben Coal Project 2019 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2020. Moolarben Coal Project 2018 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2019. Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | | MCO completes an annual EPBC Compliance Report to satisfy the requirements of EPBC approvals including 2008/4444. MCO also prepares 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 and water licences. The reports present a summary of regulatory compliance, environmental performance, and community engagement activities for MCO. Records have been provided to the DAWE during inspections. | Complies | |
| 10 | 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. | Moolarben Coal Project 2020 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2021. Moolarben Coal Project 2019 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2020. Moolarben Coal Project 2018 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2019. Email from MCO (G Chase) to DAWE titled "EPBC Monitoring", dated 29 March 2019. The email advised DAWE that EPBC reports are available on the MCO website. Email from MCO (T Cini) to DAWE titled "EPBC 2007/3297, 2008/4444, 2013/6926, 2017/7974 Compliance Report", dated 31 March 2021. The email advised that the reports are on the website. | | | The Annual compliance reports are available on the MCO website. The DAWE was notified of the compliance reports publishing in the required time frame. | Complies | |
| 11 | 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. | Moolarben Coal Project 2020 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2021. Moolarben Coal Project 2019 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated | Environment and Community Manager – MCO are not aware of any non-compliances against this EPBC approval. | | MCO were not aware of any non-compliances against EPBC 2008/4444 during this audit period. The annual compliance reports reported compliance against all conditions. | Complies | |

EPBC APPROVALS: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, EPBC 2017/7974

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | | 31 March 2020. Moolarben Coal Project 2018 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2019 | | | | | |
| 12 | 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. | | Environment and Community Manager – MCO has not been directed to commission an independent EPBC audit. | | MCO has not been directed to commission an independent EPBC audit. | Not Triggered | |
| 13 | 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. | | Environment and Community Manager – MCO has not and does not plan to undertake any works associated with this action otherwise than in compliance with approved management plans. | | | Noted | |
| 14 | 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. | | Environment and Community Manager – MCO has not been received any directions from DAWE in relation to this action. | | MCO has not been directed to revise any plans related to this action. | Not Triggered | |
| 15 | 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. | | | The mining operations were inspected and are well advanced. | The action covered by EPBC 2008/4444 has commenced. | Not Triggered | |

EPBC APPROVALS: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, EPBC 2017/7974

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| EPBC Approval 2013/6926 | | | | | | | |
| 1 | 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. | Moolarben Coal Complex Annual Review 2020 Section 9. Mining Operations Plan Version C dated October 2021. | | | The 2020 annual review (Table 30) states that in 2020 the mine footprint was 1,687 ha and it was predicted to be 1,960 ha in 2021. This includes clearing associated with EPBC 2007/3297, EPBC2008/4444, EPBC 2013/6926 & EPBC 2017/7974. Figure 4 of the 2020 Annual review shows the areas of cleared land. Approximately 126.5ha of disturbance was associated with EPBC 2013/6926 as at 31 December 2020. The location of clearance can be found in the current approved MOP, which is consistent with the EPBC 2013-6296 approval. | Complies | |
| 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: | Vegetation Clearance Protocol & landscape Management Plan Moolarben Coal Project Stage 1 (EPBC 2013/6926) Version 1 dated 24 November 2014. Letter from the Department of Environment (S Gaddes) to MCO (M Jacobs) titled "Moolarben Coal Project Stage 2 NSW (EPBC 2013/6926) Biodiversity Offset management Plan, Vegetation Clearance Protocol and Landscape Management Plan", Proposed Instrument to Secure the Offset Area", dated 17 December 2014. The letter approved the plan. | | | The VCPLMP was prepared and submitted to the Department of Environment. VCPLMP approval was granted on 17 December 2014. Section 2.1 of the plan delineates the areas to be cleared. | Complies | |
| | b. Require collection and stockpiling of habitat features important to threatened fauna species for reinstatement in rehabilitation areas. | Vegetation Clearance Protocol & landscape Management Plan Moolarben Coal Project Stage 1 (EPBC 2013/6926) Version 1 dated 24 November 2014. | | | The collection and retaining of important habitat features are covered in Section 2.2.3 of the plan. | Complies | |
| | c. Require use of native, locally sourced seed for propagation for rehabilitation activities. | Vegetation Clearance Protocol & landscape Management Plan Moolarben Coal Project Stage 1 (EPBC 2013/6926) Version 1 dated 24 November 2014. | | | Section 3 of the plan specifies the requirements of collection and use of locally sources native seeds for propagation. | Complies | |
| | 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. | Vegetation Clearance Protocol & landscape Management Plan Moolarben Coal Project Stage 1 (EPBC 2013/6926) Version 1 dated 24 November 2014. | | | Section 2.4 of the plan specifies the requirement for the two-stage clearance protocol. | Complies | |
| | 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). | Vegetation Clearance Protocol & landscape Management Plan Moolarben Coal Project Stage 1 (EPBC 2013/6926) Version 1 dated 24 November 2014. | | | Section 4 of the plan provides the revegetation strategy to improve vegetation connectivity | Complies | |
| 3 | The approval holder must not commence until the VCPLMP is approved by the Minister. The approved VCPLMP must be implemented. | Letter from the Department of Environment (S Gaddes) to MCO (M Jacobs) titled "Moolarben Coal Project Stage 2 NSW (EPBC 2013/6926) Biodiversity Offset management Plan, Vegetation Clearance Protocol and Landscape Management Plan", Proposed Instrument to Secure the Offset Area", dated 17 December 2014. The letter approved the plan. | | | The plan was approved by DoE in December 2014. | Complies | |
| 4 | 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) | Biodiversity Off-set Management Plan Version 5 dated 15 September 2020. Letter from the Department of Environment (S | | | The DAWE approved the stage 1 Modification (EPBC 2013/6926) BOMP on 17 December 2014. | Complies | |

EPBC APPROVALS: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, EPBC 2017/7974

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | 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. | Gaddes) to MCO (M Jacobs) titled "Moolarben Coal Project Stage 2 NSW (EPBC 2013/6926) Biodiversity Offset management Plan, Vegetation Clearance Protocol and Landscape Management Plan", Proposed Instrument to Secure the Offset Area", dated 17 December 2014. The letter approved the plan. | | | | | |
| 4 | 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). | Biodiversity Off-set Management Plan (EPBC 2013/6926) Version 1 dated 1 December 2014. | | | Maps of lands identified as Offset Areas are included in Appendix A of the BOMP (EPBC 2013/6926). | Complies | |
| | b. Provide a survey and description of the current condition (prior to any management activities) of the offset areas identified in Condition 4a. | Biodiversity Off-set Management Plan (EPBC 2013/6926) Version 1 dated 1 December 2014. | | | Section 3.3 of the BOMP (EPBC 2013/6926) provides a survey and description of the current condition of offset areas. | Complies | |
| | 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. | Biodiversity Off-set Management Plan (EPBC 2013/6926) Version 1 dated 1 December 2014. | | | 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". | Complies | |
| 5 | 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. | Biodiversity Off-set Management Plan (EPBC 2013/6926) Version 1 dated 1 December 2014. Letter from MCO (M Jacobs) to DoE (P Blackwell) titled "Moolarben Coal Project Stage 1 Modification (EPBC 2013/6926) - Commencement Of Action - - Confirmation ff Website Access to the Approved Biodiversity Offset Management Plan", dated 20 January 2015. The letter advised DoE that the action commenced on 23 December 2014. MCO Website. | | | The DAWE approved the stage 1 Modification (EPBC 2013/6926) BOMP on 17 December 2014 and the action commenced on 20 December 2014. The BOMP is available on the MCO Website. | Complies | |
| 6 | 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 | Positive Covenant (covering Area 3, Clifford, Properties 24 and 25, Property 5, Moolarmoo, Clarke, Ulan 18, Libertus, Dun Dun West, and Dun Dun East offset areas). Positive Covenant (covering Area 1, Area 2, Elward, Bobabeen West, Bobabeen East, Old Bobabeen and the on-site offset areas). Restrictive Use Covenant (covering Area 3, Clifford, | | | MCO is committed to secure 6 EPBC2013/6296 Offset properties. The properties are secured by 'Positive Covenant' and a 'Restriction on the Use of Land by a Prescribed Authority' under Section 88E (3) of the NSW Conveyancing Act 1919. Covenants for three (3) Offsets (Clarke, Clifford, and Property 5) were registered by the NSW Land Registry Services on 12 December 2019. Covenants for the remaining three (3) Offsets (Bobadeen East, Bobadeen West and | Complies | |

EPBC APPROVALS: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, EPBC 2017/7974

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | 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. | Properties 24 and 25, Property 5, Moolarmoo, Clarke, Ulan 18, Libertus, Dun Dun West, and Dun Dun East offset areas). Restrictive Use Covenant (covering Area 1, Area 2, Elward, Bobabeen West, Bobabeen East, Old Bobabeen and the on-site offset areas). Letter from MCO (M Jacobs) to DoE (P Blackwell) titled "MOOLARBEN COAL PROJECT STAGE 1 MODIFICATION (EPBC 2013/6926) - COMMENCEMENT OF ACTION -- CONFIRMATION OF WEBSITE ACCESS TO THE APPROVED BIODIVERSITY OFFSET MANAGEMENT PLAN", dated 20 January 2015. The letter advised DoE that the action commenced on 23 December 2014. | | | Elward) were executed by MCO and the NSW Department of Planning, Industry and Environment (DPIE). The executed covenants will be registered on title. Evidence of the covenants were provided to the DAWE on the 31 January 2021 and 18 September 2021. The Department approved the protection mechanism for offsets under EPBC 2013/6926 on 17 December 2014. | | |
| 7 | 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. | Letter from the Department of Environment (S Gaddes) to MCO (M Jacobs) titled "Moolarben Coal Project Stage 2 NSW (EPBC 2013/6926) Biodiversity Offset management Plan, Vegetation Clearance Protocol and Landscape Management Plan", Proposed Instrument to Secure the Offset Area", dated 17 December 2014. The letter approved the plan. | Environment and Community Manager - This was completed during the previous audit period. The Action commenced on 23 December 2014 and DAWE was notified on 20 January 2015. | | This was completed during the previous audit period. The Action commenced on 23 December 2014 and DAWE was notified on 20 January 2015. | Complies | |
| 8 | Within 30 days after the commencement of the action, the approval holder must advise the Department in writing of the actual date of commencement. | Letter from MCO (M Jacobs) to DoE (P Blackwell) titled "MOOLARBEN COAL PROJECT STAGE 1 MODIFICATION (EPBC 2013/6926) - COMMENCEMENT OF ACTION -- CONFIRMATION OF WEBSITE ACCESS TO THE APPROVED BIODIVERSITY OFFSET MANAGEMENT PLAN", dated 20 January 2015. The letter advised DoE that the action commenced on 23 December 2014. | | | The action commenced on 20 December 2014 and MCO advised DoE of the commencement of the action on 23 December 2014. | Complies | |
| 9 | 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. | Moolarben Coal Project 2020 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2021. Moolarben Coal Project 2019 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2020. Moolarben Coal Project 2018 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2019. Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | | MCO completes an annual EPBC Compliance Report to satisfy the requirements of EPBC approvals including 2008/4444. MCO also prepares 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 and water licences. The reports present a summary of regulatory compliance, environmental performance, and community engagement activities for MCO. Records have been provided to the DAWE during inspections. | Complies | |
| 10 | 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. | Moolarben Coal Project 2020 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2021. Moolarben Coal Project 2019 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2020. Moolarben Coal Project 2018 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC | | | The Annual compliance reports are available on the MCO website. The DAWE was notified of the compliance reports publishing in the required time frame. | Complies | |

EPBC APPROVALS: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, EPBC 2017/7974

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| | | 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2019. Email from MCO (G Chase) to DAWE titled "EPBC Monitoring", dated 29 March 2019. The email advised DAWE that EPBC reports are available on the MCO website. Email from MCO (T Cini) to DAWE titled "EPBC 2007/3297, 2008/4444, 2013/6926, 2017/7974 Compliance Report", dated 31 March 2021. The email advised that the reports are on the website. | | | | | |
| 11 | 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. | Moolarben Coal Project 2020 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2021. Moolarben Coal Project 2019 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2020. Moolarben Coal Project 2018 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2019 | Environment and Community Manager – MCO are not aware of any non-compliances against this EPBC approval. | | MCO were not aware of any non-compliances against EPBC 2008/4444 during this audit period. The annual compliance reports reported compliance against all conditions. | Complies | |
| 12 | 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. | | Environment and Community Manager – MCO has not been directed to commission an independent EPBC audit. | | MCO has not been directed to commission an independent EPBC audit. | Not Triggered | |
| 13 | 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. | | Environment and Community Manager – MCO has not and does not plan to undertake any works associated with this action otherwise than in compliance with approved management plans. | | | Noted | |
| 14 | 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. | | Environment and Community Manager – MCO has not received any directions from DAWE in relation to this action. | | MCO has not been directed to revise any plans related to this action. | Not Triggered | |

EPBC APPROVALS: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, EPBC 2017/7974

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| 15 | 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. | | | The mining operations were inspected and are well advanced. | The action covered by EPBC 2013/6926 has commenced. | Not Triggered | |
| EPBC Approval 2017/7974 | | | | | | | |
| Part A C01 | The approval holder must undertake the Moolarben Coal Project within the development footprint. | Moolarben Coal Complex Annual Review 2020 Section 9. Mining Operations Plan Version C dated October 2021. | | | The 2020 annual review (Table 30) states that in 2020 the mine footprint was 1,687 ha and it is predicted to be 1,960 ha in 2021. This includes clearing associated with EPBC 2007/3297, EPBC2008/4444, EPBC 2013/6926 & EPBC 2017/7974. Figure 4 of the 2020 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 2017-7974 approval. | Complies | |
| Part A C02 | The approval holder must comply with Condition 34A of Schedule 3 of the NSW Consolidated Project Approvals to implement the supplementary offset strategy, by retiring the required number of credits specified in Table 12A. | Mining Operations Plan Version C dated October 2021. Letter from DPIE (S O'Donoghue) to MCO (T Cini) titled "Moolarben Coal Project Stage 1 (MP05_0117) Extension of Time to Secure Biodiversity Stewardship Agreement", dated 23 August 2021. Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Complex Stage 1 Project Approval 05_0117 Proposed Rehabilitation Performance and Completion Criteria", dated 7 July 2020. | | | MCO is in the process of establishing a Biodiversity Stewardship Agreement over the Gilgal property. Rehabilitation completion criteria for the residual credits in Table 12A have been developed in consultation with the DAWE and approved by the NSW DPIE. The Mining Operations Plan includes the approved completion criteria for the rehabilitation. DPIE has granted an extension of time to 31 March 2022 to allow for the finalisation of property boundary adjustments associated with the Gilgal property. | Complies | |
| Part A C03 | The approval holder must comply with Conditions 35A of the NSW Consolidated Project Approvals to secure the credits and/or area at the Gilgal Offset Area (as identified at Attachment B) under a Biodiversity Stewardship Agreement, unless otherwise agreed in writing by the Minister. The approval holder may seek agreement from the Minister to use an alternative mechanism to secure the credits and/or area, subject to the additional rules at Condition 20. The approval holder must submit a copy of the Biodiversity Stewardship Agreement to the Minister within ten business days of an agreement being made. | Letter from DPIE (S O'Donoghue) to MCO (T Cini) titled "Moolarben Coal Project Stage 1 (MP05_0117) Extension of Time to Secure Biodiversity Stewardship Agreement", dated 23 August 2021. | Environment and Community Manager –DPIE has granted an extension of time to March 2022 for Condition 35A. | | The Gilgal Property is owned and managed by MCO. MCO is in the process of establishing a Biodiversity Stewardship Agreement (BSA) over the Gilgal property. The Secretary of the DPIE granted an Extension of Time to 31 March 2022 for the application of the BSA. | Complies | |
| Part A C04 | The approval holder must provide for the long-term security of the Area 2 (extract) offset area as identified at Attachment B, by 30 June 2020. The approval holder must submit details of the security mechanism to the Minister within ten business days of the mechanism being made. | Letter from MCO (G Chase) to DAWE titled "Moolarben Coal Complex – EPBC 2017/7974 - Offset Security And Request For Extension of Time", dated 24 June 2020. Email from MCO (G Chase) to DAWE titled "EPBC 2017/7974 - Offset Security And Request For Extension of Time", dated 2 July 2020. Letter from MCO (G Chase) to DPIE (S O'Donoghue) titled "Moolarben Coal Complex Stage 1 (05_0117) – Response To DPIE Request For Information, and Request For Approval of Rehabilitation Performance And Completion Criteria", dated 3 July 2020. | | | Area 2 (Extract) offset was secured on 25 August 2020, post the required due date. MCO advised the DAWE on 24 June 2020 that the offsets security mechanism was in the final stages of execution and requested an Extension of time to 31 August 2020 to align with the offset security timing as approved by the NSW DPIE for the same offset area. On 2 July 2020 MCO advised the DAWE of a technical noncompliance as the offset security mechanism for Area 2 (Extract) had been executed by MCO but not the NSW DPIE on 30 June 2020. On 25 August 2020, a 'Positive Covenant' and a | Non-Compliance | This non-compliance has been resolved. There are no further actions required. |

EPBC APPROVALS: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, EPBC 2017/7974

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| | | <p>Positive Covenant (covering Area 1, Area 2, Elward, Bobabeen West, Bobabeen East, Old Bobabeen and the on-site offset areas).</p> <p>Restrictive Use Covenant (covering Area 1, Area 2, Elward, Bobabeen West, Bobabeen East, Old Bobabeen and the on-site offset areas).</p> | | | <p>'Restriction on the Use of Land by a Prescribed Authority' under Section 88E(3) of the NSW Conveyancing Act 1919 was executed by MCO and the NSW Department of Planning, Industry and Environment (DPIE) to secure the Area 2 (Extract).</p> <p>On 18 September 2020, MCO provided the DAWE with a copy of the Positive and Restrictive Covenants executed by MCO and the NSW Department of Planning, Industry and Environment (DPIE) to secure the Area 2 (Extract) offset.</p> | | |
| Part A C05 | The approval holder must enhance existing native vegetation in the Area 2 (extract) offset area, in accordance with the biodiversity offset strategy required by Condition 34 of the NSW Consolidated Project Approvals, and in accordance with the Biodiversity Management Plan required by Condition 36 of Schedule 3 of the NSW Consolidated Project Approvals. | <p>Biodiversity Off-set Management Plan Version 5 dated 15 September 2020.</p> <p>Moolarben Coal Complex 2018 Annual Review</p> <p>Moolarben Coal Complex 2019 Annual Review</p> <p>Moolarben Coal Complex 2020 Annual Review</p> | Environment and Community Manager - During the reporting period MCO continued works to maintain and enhance the existing native vegetation in the Area 2 (Extract) in conjunction with the management of Area 2 BOA | | <p>The staged Biodiversity Management Plan (BioMP) is being implemented and meets the requirements set out in Table 12.</p> <p>Section 6.5.1 of the 2019 Annual Review provides a summary of the Biodiversity offset works undertaken during the audit period.</p> | Complies | |
| Part A C06 | The approval holder must comply with Condition 35B of Schedule 3 of the NSW Consolidated Project Approvals to develop suitable rehabilitation performance and completion criteria for the rehabilitation of OC2 and/or OC3, to generate the required number of residual credits specified in Table 12A of Schedule 3. | <p>Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Complex Stage 1 Project Approval 05_0117 Proposed Rehabilitation Performance and Completion Criteria", dated 7 July 2020. The letter approves the proposed rehabilitation offset criteria.</p> <p>Email from DAWE (Z Neulinger) to MCO (G Chase) titled "Moolarben – DAWE letter – Proposed rehabilitation and completion criteria to generate offset credits [SEC=OFFICAL]", dated 6 May 2020. The email confirms consultation regarding the proposed rehabilitation offset criteria.</p> <p>Letter from BCD (S Carr) to DPIE (S O'Donoghue) titled "Moolarben Coal Mine – Proposed rehabilitation and completion criteria to generate offset credits", dated 27 May 2020. The letter confirms consultation regarding the proposed rehabilitation offset criteria.</p> | | | <p>Rehabilitation performance and completion criteria for OC2 and/or OC3 have been developed by MCO to generate the required number of residual credits with approval of the criteria granted by the NSW DPIE on 7 July 2020 in accordance with Condition 35B of Schedule 3. DAWE was consulted during the preparation of these criteria.</p> | Complies | |
| Part A C07 | <p>Unless the approval holder retires the residual credits in accordance with Condition 8, the approval holder must undertake progressive rehabilitation of OC2 and OC3, so as to meet the rehabilitation performance and completion criteria developed in accordance with Condition 6, and in accordance with an approved Rehabilitation Management Plan.</p> <p>The approval holder must also comply with Condition 35C of Schedule 3 of the NSW Consolidated Project Approvals to retire the residual credits if the performance and completion criteria are not achieved in the specified timeframe in Condition 35C, subject to the additional rules at Condition 20.</p> | <p>Mining Operations Plan Version C dated October 2021.</p> <p>Moolarben Coal Complex 2020 Annual Review</p> | | | <p>The current Mining Operations Plan figures show the progressive rehabilitation on OC2. Rehabilitation is yet to commence in OC3.</p> <p>The extent of rehabilitation is also shown in the 2020 Annual Review (Section 9 and Figure 4).</p> | Complies | |
| Part A C08 | The approval holder may retire the residual credits earlier than the specified timeframe in Condition 35C in accordance with Condition 35D of Schedule 3 of the NSW Consolidated Project Approvals, subject to the additional rules at Condition 20. If the approval holder chooses to retire credits early, the approval holder must notify the Department within 30 business days of retiring the credits. | | | | | Noted | |

EPBC APPROVALS: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, EPBC 2017/7974

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| Part A C09 | The approval holder must comply with Condition 36 of Schedule 3, and Conditions 3 and 5 of Schedule 5, of the NSW Consolidated Project Approvals to prepare and implement a Biodiversity Management Plan for the Moolarben Coal Project. | <p>Biodiversity Management Plan Version 5 dated 15 September 2020.</p> <p>Letter from BCD (P Christie) to MCO (G Chase) titled "Moolarben – Updated Biodiversity Management Plan", dated 13 September 2019. The letter provides BCD feedback on the most recent revision of the plan.</p> <p>Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Project Stage 1 (05_0117) and Stage 2 (08_0135) Biodiversity Management Plan", dated 2 September 2020.</p> | <p>Environment and Community Manager - A complex wide Biodiversity Management Plan is being prepared in consultation with the DAWE and the NSW DPIE.</p> | | <p>Consultation and approval of the original Biodiversity Management Plan was verified in the 2018 IEA.</p> <p>Evidence of Secretary's approval of the original plan was provided in Appendix F of the EMS document. The letter (dated 31 July 2015) states that DP&E has reviewed approved the plan.</p> <p>The plan was subsequently revised in 2019 / 2020 in consultation with BCD and was approved by DPIE on 2 September 2020.</p> | Complies | |
| Part A C10 | The Biodiversity Management Plan implemented in accordance with Condition 9 must be approved by the Department as adequately providing for the management of protected matters on the site and in the offset areas. | <p>Biodiversity Management Plan Version 5 dated 15 September 2020.</p> <p>Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Project Stage 1 (05_0117) and Stage 2 (08_0135) Biodiversity Management Plan", dated 2 September 2020.</p> <p>Moolarben Coal Complex 2020 Annual Review</p> <p>Letter from MCO (G Chase) to DAWE titled "Moolarben Coal Complex – EPBC 2008/4444 and EPBC 2017/7974 Complex Wide Biodiversity and Offset Management Plan for Approval", dated 5 December 2020.</p> <p>Letter from MCO (G Chase) to DAWE titled "Moolarben Coal Complex – EPBC 2008/4444 and EPBC 2017/7974 Complex Wide Biodiversity and Offset Management Plan for Approval", dated 20 August 2021. The letter requests review and approval of the 2021 revision of the plan.</p> <p>Letter from DPIE (J Turner) to MCO (G Chase) titled "Moolarben Coal Mine (MP05_0117) and Moolarben Coal – Expansion (MP08_0135) Water Management Plan", dated 20 October 2020.</p> | <p>Environment and Community Manager - A complex wide Biodiversity Management Plan being prepared in consultation with the DAWE and the NSW DPIE.</p> <p>MCO continues to progress the development of the Complex wide BOMP in consideration of both State and Federal Department feedback.</p> | | <p>The Biodiversity Management Plan (V5) was approved in September 2020. A complex wide Biodiversity Management Plan being prepared in consultation with the DAWE and the NSW DPIE.</p> <p>The 2020 Annual review describes activities associated with the Biodiversity Management Plan. MCO has submitted a Complex Wide BioMP covering EPBC 2017/7974 to the DAWE for consultation and approval on a number of occasions.</p> <p>The DAWE advised MCO on 14 August 2020 that there is no requirement for the Biodiversity Management Plan to be approved under the EPBC 2017/7974.</p> <p>A revised Complex wide Biodiversity Management Plan was submitted to the DAWE consultation and approval on 5 December 2020 with subsequent revisions addressing agency comments provided on 20 August 2021 and most recently on 26 November 2021 to address the requirements of EPBC 2008/4444 and EPBC 2017/7974. The BOMP was approved by DAWE on 14 December 2021.</p> | Complies | |
| Part A C11 | The approval holder must comply with Condition 33 of Schedule 3, and Conditions 3 and 5 of Schedule 5, of the NSW Consolidated Project Approvals to prepare and implement a revised Water Management Plan for the Moolarben Coal Project. | <p>Water Management Plan Version 6 dated 28 October 2020.</p> <p>Moolarben Coal Complex 2020 Annual Review</p> | | | <p>A revised Moolarben Complex Water Management Plan incorporating EPBC 2017/7974 was approved by DPIE on 20 October 2020. The WMP continues to be implemented.</p> <p>The 2020 Annual Review describes the water management works, including monitoring undertaken.</p> | Complies | |
| Part A C12 | The approval holder must comply with the timing and content requirements of Condition 32A of Schedule 3 of the NSW Consolidated Project Approvals for the completion of an Independent Water Quality Study (IQWS). | <p>Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Project Stage 1 (05_0177) Independent Water Study and Brine Management Plan", dated 08/7/2019. The letter approves the appointment of the report authors.</p> <p>Letter from DPIE (S O'Donoghue) to MCO (T Cini) titled "Moolarben Coal Complex Stage 1 (05_0117) Extension of Time to Submit Independent Water Quality Study" dated 15 November 2021. The letter provides an extension of time (to Feb 2022) for the preparation of the plan.</p> | <p>Environment and Community Manager – The finalisation of the study is progressing. An extension of time has been granted by DPIE to 28 February 2022.</p> | | <p>The Independent Water Quality Study (IWQS) has progressed and is nearing completion.</p> <p>The DPIE has approved the University of Queensland as an Independent scientific organisation.</p> <p>The upstream background site has been determined in consultation with the EPA and the study is nearing completion. The IWQS has been provided to the EPA for consultation on 10 December 2021.</p> <p>The DPIE has granted an EOT until 28 February 2022 for the final delivery of the report following EPA consultation.</p> | Complies | |

EPBC APPROVALS: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, EPBC 2017/7974

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| Part A C13 | The approval holder must ensure that the performance measures recommended in the IQWS are incorporated in a revised version of the Water Management Plan within 12 months of the IWQS being completed and must implement the revised Water Management Plan. | | | | The Independent Water Quality Study was being finalised at the time of this audit. | Noted | |
| Part A C14 | The approval holder must comply with condition 33A of the NSW Consolidated Project Approvals to prepare and implement a Brine Management Plan. | <p>Brine Management Plan Version 2 dated 29 October 2020.</p> <p>Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Mine (05_0117) and Moolarben Coal Independent Water Study and Brine Management Plan", dated 18 September 2019. The letter endorses the appointment of experts to prepare the plan.</p> <p>Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Mine (05_0117) and Moolarben Coal Independent Water Study and Brine Management Plan", dated 18 July 2019.</p> <p>Monthly Environmental Monitoring Report (31 May 2021).</p> | Environment and Community Manager - The water treatment plant was commissioned in May 2020. | The Water Treatment Plant operations were inspected during this IEA. | <p>Brine Management Plan was first approved in January 2019, the water treatment facility was commissioned in May 2020 (Monthly Report May 2020 sighted).</p> <p>The Brine MP continues to be implemented.</p> | Complies | |
| Part B C15 | Notification of date of commencement of the action The approval holder must notify the Department in writing of the date of commencement of works in OC3, within ten business days after the date of commencement of works in OC3. | <p>Letter from MCO (G Chase) to DAWE titled "Moolarben Coal Complex –EPBC 2017/7974 Condition 15 Notification of Commencement of Works in OC3", dated 18 February 2020.</p> <p>Letter from DAWE (T Hart) to MCO (G Chase) titled "Commencement of Action - Moolarben Coal Operations Open Cut Optimisation Modification, NSW (EPBC 2017/7974)", dated 27 February 2020.</p> | | | Notification was provided to the Department on 18 February 2020 informing on the commencement of works in OC3 on 10 February 2020. | Complies | |
| Part B C16 | The approval holder must notify the Department in writing of the date of commencement of operation of the water treatment facility, within ten business days after the date of commencement of operation of the water treatment facility. | <p>Letter from MCO (G Chase) to DAWE titled "Moolarben Coal Complex –EPBC 2017/7974 Condition 16 Notification of Commencement of Operation of the Water Treatment Facility", dated 27 May 2020.</p> <p>Email from DAWE (M Ballard) to MCO (G Chase) titled "EPBC 2017/7974 - Commencement of Operation of Water Treatment Facility", dated 9 June 2020.</p> | | | The commencement of operation of the water treatment facility occurred on 18 May 2020. Written notification of commencement of the water treatment facility was provide to the Department on 27 May 2020. | Complies | |
| Part B C17 | Compliance records The approval holder must maintain accurate and complete compliance records. | <p>Moolarben Coal Project 2020 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2021.</p> <p>Moolarben Coal Project 2019 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2020.</p> <p>Moolarben Coal Project 2018 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2019.</p> <p>Moolarben Coal Complex Annual Review 2018</p> <p>Moolarben Coal Complex Annual Review 2019</p> <p>Moolarben Coal Complex Annual Review 2020.</p> | | | <p>MCO completes an annual EPBC Compliance Report to satisfy the requirements of EPBC approvals including 2017/7974.</p> <p>MCO also prepares 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 and water licences. The reports present a summary of regulatory compliance, environmental performance, and community engagement activities for MCO.</p> <p>Records have been provided to the DAWE during inspections.</p> | Complies | |

EPBC APPROVALS: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, EPBC 2017/7974

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| Part B C18 | <p>If the Department makes a request in writing, the approval holder must provide electronic copies of compliance records to the Department within the timeframe specified in the request.</p> <p>Note: Compliance records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act, and or used to verify compliance with the conditions. Summaries of the result of an audit may be published on the Department's website or through the general media.</p> | | <p>Environment and Community Manager – no requests for compliance records were received during the audit period.</p> | | <p>No requests for compliance records were received during the audit period.</p> | Not Triggered | |
| Part B C19 | <p>Preparation and publication of plans</p> <p>The approval holder must:</p> <p>a. Submit the Biodiversity Management Plan electronically to the Department for approval by the Minister.</p> <p>b. Publish each plan on its website within 20 business days of the date the plan is approved by the Minister and/or Secretary.</p> <p>c. Exclude or redact sensitive ecological data from plans published on its website or provided to a member of the public.</p> | <p>Biodiversity Management Plan Version 5 dated 15 September 2020.</p> <p>Letter from DPIE (S O'Donoghue) to MCO (G Chase) titled "Moolarben Coal Project Stage 1 (05_0117) and Stage 2 (08_0135) Biodiversity Management Plan", dated 2 September 2020.</p> <p>Moolarben Coal Complex 2020 Annual Review</p> <p>Letter from MCO (G Chase) to DAWE titled "Moolarben Coal Complex – EPBC 2008/4444 and EPBC 2017/7974 Complex Wide Biodiversity and Offset Management Plan for Approval", dated 5 December 2020.</p> <p>Letter from MCO (G Chase) to DAWE titled "Moolarben Coal Complex – EPBC 2008/4444 and EPBC 2017/7974 Complex Wide Biodiversity and Offset Management Plan for Approval", dated 20 August 2021. The letter requests review and approval of the 2021 revision of the plan.</p> <p>Letter from DPIE (J Turner) to MCO (G Chase) titled "Moolarben Coal Mine (MP05_0117) and Moolarben Coal – Expansion (MP08_0135) Water Management Plan", dated 20 October 2020</p> <p>MCO Website</p> | | | <p>The Biodiversity Management Plan (V5) was approved in September 2020. The Biodiversity Management Plan (V5) is available on MCOs website.</p> <p>MCO has submitted a Complex Wide BioMP covering EPBC 2017/7974 to the DAWE for consultation and approval on a number of occasions.</p> <p>The DAWE advised MCO on 14 August 2020 that there is no requirement for the Biodiversity Management Plan to be approved under the EPBC 2017/7974.</p> <p>A revised Complex wide Biodiversity Management Plan was submitted to the DAWE consultation and approval on 5 December 2020 with subsequent revisions addressing agency comments provided on 20 August 2021 and most recently on 26 November 2021 to address the requirements of EPBC 2008/4444 and EPBC 2017/7974.</p> <p>The BOMP was approved by DAWE on 14 December 2021.</p> | Complies | |
| Part B C20 | <p>The approval holder must use one or a combination of the following methods to retire the credits required for protected matters:</p> <p>a. Retire like-for-like biodiversity credits within the meaning of the Biodiversity Conservation Act 2016 (NSW).</p> <p>b. Make payments into an offsets fund that has been developed by the NSW Government and that has been endorsed by the Minister. The financial contribution or payments into an offset fund must be determined by converting biodiversity credits to an equivalent dollar value through the NSW offsets payment calculator. The approval holder must submit evidence to the Minister of any payments, within ten business days of the payment being made.</p> <p>c. Fund a biodiversity conservation action within the meaning of the Biodiversity Conservation Act 2016 (NSW). The financial contribution to biodiversity conservation actions must be determined by converting biodiversity credits to an equivalent dollar value through the NSW offsets payment calculator. The approval holder must submit to the Minister evidence of any payments within ten business days of the</p> | | <p>Environment and Community Manager - MCO are currently progressing with the retirement of like-for-like biodiversity credits (method C20 a).</p> | | <p>Noted. MCO are currently progressing with method C20 a.</p> | Complies | |

EPBC APPROVALS: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, EPBC 2017/7974

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | payment being made. | | | | | | |
| Part B C21 | <p>Annual compliance reporting The approval holder must prepare a compliance report each year. The timing for preparing the compliance report must be consistent with the requirements of Condition 4 of Schedule 5 of the NSW Consolidated Project Approvals, or otherwise in accordance with an annual date that has been agreed to in writing by the Department. The approval holder must:</p> <p>a. Publish each compliance report on its website within one month of being approved by the Secretary. b. Notify the Department by email that a compliance report has been published on its website within five business days of the date of publication. c. Exclude or redact sensitive ecological data from compliance reports published on its website. d. Where any sensitive ecological data has been excluded from the version published, submit the full compliance report to the Department within five business days of publication. Note: Compliance reports may be published on the Department's website.</p> | <p>Moolarben Coal Project 2020 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2021.</p> <p>Moolarben Coal Project 2019 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2020.</p> <p>Moolarben Coal Project 2018 Compliance Report (EPBC 2007/3297, EPBC 2013/6926, EPBC 2008/4444, EPBC 2017/7974), Version 1, dated 31 March 2019.</p> <p>Email from MCO (G Chase) to DAWE titled "EPBC Monitoring", dated 29 March 2019. The email advised DAWE that EPBC reports are available on the MCO website.</p> <p>Email from MCO (T Cini) to DAWE titled "EPBC 2007/3297, 2008/4444, 2013/6926, 2017/7974 Compliance Report", dated 31 March 2021. The email advised that the reports are on the website.</p> | | | <p>The Annual compliance reports have been prepared and are available on the MCO website. The DAWE was notified of the compliance reports publishing in the required time frame. Sensitive ecological data was not required to be redacted.</p> | Complies | |
| Part B C22 | <p>Reporting non-compliance The approval holder must notify the Department in writing of any non-compliance with the conditions or non-compliance with the commitments made in plans that relate to protected matters. The notification must be given no later than two business days after becoming aware of the non-compliance. The notification must specify:</p> <p>a. The condition which is or may be in breach. b. A short description of the non-compliance.</p> | <p>Email from MCO (G Chase) to DAWE titled "EPBC 2017/7974 Offset Security and Request for Extension of Time", dated 2 July 2020.</p> | | | <p>MCO advised the DAWE of a non-compliance with condition 4 on 2 July 2020 (Refer condition 4 comments above). No other non-compliances associated with EPBC 2017/7974 occurred during the reporting period.</p> | Complies | |
| Part B C23 | <p>The approval holder must provide to the Department the details of any non-compliance with the conditions or commitments made in plans that relate to protected matters no later than ten business days after becoming aware of the non-compliance, specifying:</p> <p>a. Any corrective action or investigation which the approval holder has already taken or intends to take in the immediate future. b. The potential impacts of the non-compliance. c. The method and timing of any remedial action that will be undertaken by the approval holder.</p> | <p>Email from MCO (G Chase) to DAWE titled "EPBC 2017/7974 Offset Security and Request for Extension of Time", dated 2 July 2020.</p> | | | <p>MCO advised the DAWE of a non-compliance with condition 4 on 2 July 2020 (Refer condition 4 comments above). No other non-compliances associated with EPBC 2017/7974 occurred during the reporting period.</p> | Complies | |
| Part B C24 | <p>Independent audit The approval holder must ensure that independent audits of compliance with the conditions are conducted as requested in writing by the Minister.</p> | | <p>Environment and Community Manager – No request for independent audits were received during the audit period.</p> | | <p>No request from the minister has been received during the audit period.</p> | Not Triggered | |
| Part B C25 | <p>For each independent audit, the approval holder must:</p> <p>a. Provide the name and qualifications of the independent auditor and the draft audit criteria to the Department. b. Only commence the independent audit once the audit criteria have been approved in writing by the Department. c. Submit an audit report to the Department within the timeframe specified in the approved audit criteria.</p> | | <p>Environment and Community Manager – No request for independent audits were received during the audit period.</p> | | <p>No request from the minister has been received during the audit period.</p> | Not Triggered | |

EPBC APPROVALS: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, EPBC 2017/7974

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| Part B C26 | The approval holder must publish the audit report on its website within ten business days of receiving the Department's approval of the audit report and keep the audit report published on its website until the end date of this approval. | | Environment and Community Manager – No request for independent audits were received during the audit period. | | No request from the minister has been received during the audit period. | Not Triggered | |
| Part B C27 | Revision of action management plans 27. The approval holder may, at any time, apply to the Minister for a variation to the Biodiversity Management Plan approved by the Minister under condition 10, or as subsequently revised in accordance with these conditions, by submitting an application in accordance with the requirements of section 143A of the EPBC Act. | | Environment and Community Manager - No approved Biodiversity Management Plan has been revised during the audit period. | | No approved Biodiversity Management Plan has been varied during the audit period. | Not Triggered | |
| Part B C28 | The approval holder may revise the Biodiversity Management Plan approved by the Minister under condition 10, or as subsequently revised in accordance with these conditions, without submitting it for approval under section 143A of the EPBC Act, if the taking of the action in accordance with the revised Biodiversity Management Plan would not be likely to have a new or increased impact. | | Environment and Community Manager - No approved Biodiversity Management Plan has been revised during the audit period. | | No approved Biodiversity Management Plan has been revised during the audit period. | Not Triggered | |
| Part B C29 | If the approval holder revises the Biodiversity Management Plan without submitting it for approval, the approval holder must: a. notify the Department in writing that the approved action management plan has been revised and provide the Department with: i. An electronic copy of the revised Biodiversity Management Plan. ii. An explanation of the differences between the approved action management plan and the revised Biodiversity Management Plan. iii. The reasons the approval holder considers that taking the action in accordance with the revised Biodiversity Management Plan would not be likely to have a new or increased impact. iv. Written notice of the date on which the approval holder will implement the revised Biodiversity Management Plan. | | Environment and Community Manager - No approved Biodiversity Management Plan has been revised during the audit period. | | No approved Biodiversity Management Plan has been revised during the audit period. | Not Triggered | |
| Part B C30 | If the Minister gives a notice to the approval holder that the Minister is satisfied that the taking of the action in accordance with the revised Biodiversity Management Plan would be likely to have a new or increased impact, then: a. Condition 28 does not apply, or ceases to apply, in relation to the revised Biodiversity Management Plan. b. The approval holder must implement the Biodiversity Management Plan specified by the Minister in the notice. | | Environment and Community Manager - No approved Biodiversity Management Plan has been revised during the audit period. | | No approved Biodiversity Management Plan has been revised during the audit period. | Not Triggered | |
| Part B C31 | At the time of giving the notice under condition 3D, the Minister may also notify that for a specified period of time, condition 28 does not apply for one or more specified action management plans. Note: conditions 28-31 are not intended to limit the operation of section 143A of the EPBC Act which allows the approval holder to submit a revised action management plan, at any time, to the Minister for | | Environment and Community Manager - No approved Biodiversity Management Plan has been revised during the audit period. | | No approved Biodiversity Management Plan has been revised during the audit period. | Not Triggered | |

EPBC APPROVALS: EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926, EPBC 2017/7974

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | approval. | | | | | | |
| Part B C32 | <p>Notification of change to conditions The approval holder must notify the Department in writing of any proposed change to the conditions of the NSW Consolidated Project Approvals referred to in the conditions of this approval, no later than two weeks after formally proposing a change or becoming aware of a change being proposed. The approval holder must also notify the Department in writing of any change to the conditions of the NSW Consolidated Project Approvals referred to in the conditions of this approval, within two weeks of a change being finalised.</p> | <p>PA 05_0117 PA 08_0135</p> | | | <p>There have been no proposed changes to the conditions of the NSW Consolidated Project Approvals referred to in the conditions of this approval during the reporting period.</p> | Not Triggered | |
| Part B C33 | <p>Completion of the action Within 30 days after the completion of the action, the approval holder must notify the Department in writing and provide completion data.</p> | | | | <p>The action is still in progress.</p> | Not Triggered | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| ML 1605 | | | | | | | |
| C01 | 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. | 2018 Independent Environmental Audit | | | ML1605 was granted in 2007 - Compliance with this condition was verified in the 2018 IEA. | Complies | |
| C02 | 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. | Environmental Management Strategy Version 6 dated 29 October 2020.Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Incident Register | Environment and Community Manager - Key environmental issues are managed in accordance with the MCO Environmental Management Plans (EMPs) prepared in accordance with the requirements of the Project approval No penalty notices have been issued during the reporting period. | | During this IEA, the Auditor has verified that the EMS and EMPs have been substantially implemented. No significant compliance incidents were reported in 2018. Two reportable incidents including a spontaneous combustion incident resulted in an odour compliant were recorded in 2019. Five noncompliances were recorded in 2020, none of the incidents resulted in material harm to the environment. | Complies | |
| | 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. | Mining Operations Plan Version C dated October 2021. Letter from the Resources Regulator (S Gaddes) to MCO (S Archinal) titled "ML 1606 (1992), ML 1628 (1992), ML 1715 (1992), ML 1691 (1992), ML 1605 (1992), Moolarben Coal Mines Pty Limited Approval of Mining Operations Plan and Assessment of Security Deposit", dated 23 November 2021. The letter approved the plan. | | | The review of compliance against the Project Approvals 05_0117 and 08_0135 and the EPL confirm that the Mining operations at Moolarben Coal Mine are carried out in accordance with the approved Mining Operations Plan (MOP). The Resource Regulator approved the latest version of the MOP (letter dated 23/11/2021). Letter viewed during the audit. | Complies | |
| C03 | 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 | Mining Operations Plan Version C dated October 2021. | | | I. Plans 3A, B, and C provide in the MOP identify 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. | Complies | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | The titleholder may apply to the Director-General to amend the approved MOP at any time . | | | | <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>The MOP has been varied accordance with this condition.</p> | | |
| C03 | <p>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>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> | | | | | Noted | |
| C04 | The lease holder must lodge Environmental Management Reports (EMR) with The Director-General annually or at dates otherwise directed by the Director-General. | <p>Moolarben Coal Complex Annual Review 2018</p> <p>Moolarben Coal Complex Annual Review 2019</p> <p>Moolarben Coal Complex Annual Review 2020</p> <p>Email from RR to MCO (C Chase) titled "ML 1605 (1992), ML 1606 (1992), ML 1628 (1992), ML 1691 (1992), ML 1715 (1992), Annual Environmental Management Report", dated 6 April 2021.</p> | | | <p>Annual Reviews sent to RR annually and are available on MCO website from 2012 to 2020.</p> <p>Section 5 of the Annual Reviews contains actions required from the previous reporting period.</p> | Complies | |
| C05 | 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; | <p>Moolarben Coal Complex Annual Review 2018</p> <p>Moolarben Coal Complex Annual Review 2019</p> <p>Moolarben Coal Complex Annual Review 2020</p> | | | <p>Rehabilitation activities against the MOP are described in the Annual Reviews, rehabilitation progress is covered in section 8.</p> <p>Statement of compliance with approvals is detailed in section 1.</p> <p>Guidelines used in producing the Annual Reviews are detailed throughout the document including ESG3: Mining Operations Plan (MOP) Guidelines September 2013 published on the Departments website at www.resources.nsw.gov.au/environmental.</p> | Complies | |
| C06 | 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. | | <p>Environment and Community Manager -</p> <p>No request to provide additional environmental reports have been made by the RR during the Audit Period</p> | | <p>No requests have been received from RR to provide additional environmental reports during the Audit Period.</p> | Not Triggered | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| C07 | Disturbed land must be rehabilitated to a sustainable/agreed end land use to the satisfaction of the Director/General. | Rehabilitation Management Plan Version 7 dated 30 October 2020 Mining Operations Plan Version C dated October 2021. | | During the IEA, the Auditor inspected rehabilitation works (both in progress and complete). | <p>This is covered in the following sections of the RMP:</p> <ul style="list-style-type: none"> 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). <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>Additionally, sections 4 and 5 of the MOP identify how the mine will be managed to allow mine closure</p> | Complies | |
| C08 | <p>Extraction Plan</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 & 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</p> | | <p>Environment and Community Manager - No longwall mining within the UG4 mining domain during the period of the Audit.</p> <p>MCO has submitted an extraction plan for approval in December 2021 for LW401 to 408 within the UG4 mining domain.</p> <p>Longwall mining is planned to commence in Mid 2022 on approval of the extraction plan.</p> | | <p>No longwall mining within the UG4 mining domain during the period of the Audit.</p> <p>MCO has submitted an extraction plan for approval in December 2021 for LW401 to 408 within the UG4 mining domain.</p> <p>Longwall mining is planned to commence in Mid 2022 on approval of the extraction plan.</p> | Not Triggered | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | monitoring device or risk control measure set out in the approved Extraction Plan addressing: A. built features; B. public safety; or C. subsidence monitoring. | | | | | | |
| C09 | Condition deleted effective 08/10/2018 | | | | N/A | | |
| C10 | Control of Operations (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: - (i) cease working the lease; or (ii) cease that part of the operation not complying Until in the opinion of the Environmental Officer the situation is rectified. (b) The lease holder must comply with any direction given. The Director-General may confirm, vary or revoke any such direction. (c) A direction referred to in this condition may be served on the Mine Manager. | | Environment and Community Manager – no directions have been received from DRG inspectors requiring MCO to cease any operations. | | No directions have been received from DRG inspectors requiring MCO to cease any operations during the audit period. | Noted | |
| C11 | 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: (a) Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period; (b) Details of expenditure incurred in conducting the exploration; (c) A summary of all geological findings acquired through mining or development evaluation activities; (d) Particulars of exploration propose to be conducted in the next twelve months period; (e) All plans, maps, sections and other data necessary to satisfactorily interpret the report. | Annual Exploration Report for the period 23/8/2019 to 22/08/2020 Exploration Licence 6288. Annual Exploration Report for the period 23/8/2019 to 22/08/2020. MCO Annual Exploration Report for the period 20/12/2019 to 19/12/2020 Moolarben ML Group Exploration Report. | Environment and Community Manager – The requirements of this condition have been met by the Annual Exploration reports | | A sample of The Annual Exploration Reports for various mining leases and exploration licences by the Auditor. (a) Exploration completed during the reporting period is covered in Section D; (b) Details of expenditure incurred in conducting the exploration is provided in Section D3; (c) A summary of all geological findings acquired through mining or development evaluation activities is provided in Sections E and F; (d) Particulars of exploration proposed to be conducted in the next twelve months period is cover in Section G; (e) All plans, maps, sections and other data necessary to satisfactorily interpret the report are provided through out the report | Complies | |
| C12 | 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. (b) The non-exclusive licence will operate as a consent for the purposes of section 365 of the Mining Act 1992. | | | | | Noted | |
| C13 | Confidentiality 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: (i) The lease holder has agreed that specified reports may be made non-confidential. (ii) Reports deal with exploration conducted exclusively on areas that have ceased to be part | | | | | Noted | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | <p>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> | | | | | | |
| C14 | <p>The terms of the non-exclusive copyright licence granted under condition 12 are: (a) The Minister may sub-licence others to publish, print, adapt and reproduce but not on-licence reports. (b) The Minister and any sub- licensee will acknowledge the lease holder's and any identifiable consultant's ownership of copyright in any reproduction of the reports, including storage of reports onto an electronic database. (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. (d) There is not royalty payable by the Minister for the licence. (e) If the lease holder has reasonable grounds to believe that the Minister has exercised his rights under the non-exclusive copyright licence in a manner which adversely affects the operations of the lease holder that licence is revocable on the giving of a period of not less than three months' notice</p> | | | | | Noted | |
| C15 | <p>Blasting</p> <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>Moolarben Coal Complex Annual Review 2018 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2019 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2020 Section 6, Table 13.</p> <p>Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021.</p> | | | <p>No exceedances of the blast criteria were reported during the 2018, 2019 and 2020 calendar years or during the first nine months of 2021.</p> | Complies | |
| | <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> | <p>Moolarben Coal Complex Annual Review 2018 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2019 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2020 Section 6, Table 13.</p> <p>Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021.</p> | | | <p>No exceedances of the blast criteria were reported during the 2018, 2019 and 2020 calendar years or during the first nine months of 2021.</p> | Complies | |
| C16 | <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. Abandoned shafts and excavations</p> | <p>Public Safety Management Plan Version 3 dated 11 June 2020.</p> | | <p>During the IEA site inspection, the Auditor verified that the site is securely fenced and signposted.</p> | <p>To ensure public safety mechanisms such as void perimeter bunding and safety fencing has been implemented.</p> <p>Additionally, suitable signs, clearly stating the risk to public safety and prohibiting public access are erected at certain sections of mining operations.</p> | Complies | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | opened up or used by their lease holder must be filled in or otherwise rendered safe to a standard acceptable to the Director-General. | | | | | | |
| C17 | (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. | Site Exploration Procedure dated 20 July 2020. | | | Section 5.2.1 and Section 5.4 of the Site Exploration Procedure specifies that approval is required from the Resource Regulator for all exploration drilling. | Complies | |
| C17 | (2) If the lease holder drills exploratory drill holes he must satisfy the Director-General that:- (a) All cored holes are accurately surveyed and permanently marked in accordance with Departmental guidelines so that their location can be easily established; (b) All holes cored or otherwise are sealed to prevent the collapse of the surrounding surface; (c) All drill holes are permanently sealed with cement plugs to prevent surface discharge or groundwater's; (d) If any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape; (e) If any drill hole meets an artesian or sub-artesian flow it is effectively sealed to prevent contamination of aquifers. (f) Once any drill hole ceases to be used the hole must be sealed in accordance with Department guidelines. Alternatively, the hole must be sealed as instructed by the Director-General. (g) Once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition. | Site Exploration Procedure dated 20 July 2020. | | | MCO has prepared and implemented a Site Exploration Procedure: (b) Section 6.10 details the borehole data collection requirements including location (GPS). (c) – (f) Boreholes sealing, site cleanup and rehabilitation are detailed in Section 6.15 | Complies | |
| C18 | 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 groundwaters. The lease holder must observe and perform any instructions given by the Director-General in this regard. | Incident Register Complaints Register Air Quality Management Plan Version 6 dated 28 October 2020. Water Management Plan Version 6 dated 28 October 2020. | Environment and Community Manager – No directions have been received in relation to air emission, water or erosion and sediment control over this audit period. No pollution incidents have occurred on ML 1605 during the audit period. | No dust generation was observed during the site inspection. | Air Pollution: Air quality management for mining operation is covered in section 6 of the AQMP. No visible off-site air pollution was observed during the site investigation. 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. | Complies | |
| C19 | 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 they may stipulate. | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Incident Register Complaints Register | Environment and Community Manager - No public utilities affected during the Audit Period | | No complaints or reports of damage or interference with public infrastructure during the audit period were received by MCO. | Complies | |
| C20 | Condition suspended on the 6 November 2008 | | | | | | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| C21 | 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. | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Incident Register Complaints Register | Environment and Community Manager - No non-mined owned roads affected during the Audit Period. | | No complaints or reports of damage or interference with public roads during the audit period were received by MCO. | Complies | |
| C22 | 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. | Mining Operations Plan Version C dated October 2021. | Environment and Community Manager - Existing roads utilised where practicable above UG4. All proposed ground disturbance activities must go through the GDP process. The GDP process is described in detailed in the Approved MOP. | | Existing roads utilised where practicable above UG4. All proposed ground disturbance activities must go through the GDP process. The GDP process is described in detailed in the Approved MOP. The DECC(W) does no longer exists and was split into the EPA and OEH, prior to previous 2018 audit period | Noted | |
| C23 | Condition suspended on 6 November 2008. | | | | | | |
| | There is no condition 24 | | | | | | |
| C25 | Resource Recovery a) Notwithstanding any description of mining methods and their sequence or of proposed resource recovery contained within the Mining Operations Plan, if at any time the Director-General is of the opinion that minerals which the lease entitles the lease holder to mine and which are economically recoverable at the time are not being recovered 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 | | Environment and Community Manager - No notice from the Resource Regulator has been received during the Audit Period regarding resource recovery. | The Auditor observed mining operations being undertaken during the site inspection. | MCO have been actively mining on this lease during the audit period. | Not Triggered | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

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| | 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. | | | | | | |
| C26 | 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 | |
| C27 | The lease holder is required to provide and maintain a security deposit to secure funding for the fulfilment of obligations of all or any kind under the mining leases including obligations of all or any kind under the mining leases that may arise in the future. The amount of the security deposit to be provided as a group security has been assessed by the Secretary at \$53,926,000. The leases covered by the group security include ML1605, ML1606 & ML1715 (Act 1992). The variation takes effect from 18 September 2019. | Letter from the RR (M Yuen) to MCO (G Chase) titled "Notice of Variation of Security Deposit Condition Reference: SF21/71377", dated 19 July 2021. Letter from the RR (M Yuen) to MCO (G Chase) titled "Notice of Variation of Security Deposit Condition Reference SF21/70552", dated 19 July 2021. Letter from the Resources Regulator (S Gaddes) to MCO (S Archinal) titled "ML 1606 (1992), ML 1628 (1992), ML 1715 (1992), ML 1691 (1992), ML 1605 (1992), Moolarben Coal Mines Pty Limited Approval of Mining Operations Plan and Assessment of Security Deposit", dated 23 November 2021. | | | During the audit two letters from Resource Regulator were sighted which confirmed that the security deposits had been lodged: <ul style="list-style-type: none"> Letter dated (19/07/2021) for ML1605, ML1606, ML1715 security deposit Letter dated (19/07/2021) for ML1628, ML1991 security deposit \$21,199,000 | Complies | |
| C1 | The lease holder must rehabilitate the land described in Schedule C (of ML1605 - AMA1015) that is or may be affected by the carrying out of the ancillary mining activity(s). | Rehabilitation Management Plan Version 7 dated 30 October 2020 2018 Annual Review Section 9 2019 Annual Review Section 9 2020 Annual Review Section 9 | | | Mine site rehabilitation plans are documented in the Rehabilitation Management Plan and are generally consistent with the objectives outlined in Table 13 of the Project Approval (PA05_0117). Table B-1 (Project Approval Reconciliation) provides a guide to where each rehabilitation objective is documented within the RMP. The Annual Reviews report on the progressive rehabilitation on site over each reporting year. | Complies | |
| C2.1 | Conditions 3 and 4 of Mining Lease 1605 (Act 1992) relevant to the Mining Operations Plan (MOP) and Environmental Management Reporting applies to the ancillary mining activity(s). | | | | Refer to Condition 3 and 4 above. | Complies | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| C2.2 | The lease holder must update the MOP to incorporate the carrying out of the ancillary mining activity(s) and submit the updated MOP to the Minister for approval within 45 days of this variation. | <p>Letter from MCO (G Chase) to the Dept of Regional NSW (A Mckenzie) titled" Moolarben Coal Complex – Mining Operations Plan 2020-2022 Amendment B", dated 24 September 2020.</p> <p>Letter from the RR (G Kininmonth) to MCO (G Chase) titled" ML 1606 (1992), ML 1628 (1992), ML 1715 (1992), ML 1691 (1992), ML 1605 (1992), Moolarben Coal Mines Pty Limited Approval of Mining Operations Plan and Assessment of Security Deposit", dated 30 October 2020.</p> <p>Letter from the Dept of Regional NSW (D Rankin) to MCO (T Holz) titled" Application to Vary Mining Lease 1605 (Act 1992) to impose an Ancillary Mining Activity", dated 1 September 2020.</p> | | | ML1605 AMA was granted on the 1 September 2020 (letter dated 20/09/2020), MCO submitted an amended MOP on the 24 September 2020 that included the AMA area (letter from MCO submitting MOP dated 24/09/2020). | Complies | |
| ML 1606 | | | | | | | |
| C01 | 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. | 2018 Independent Environmental Audit | | | ML1606 was granted in 2007 - Compliance with this condition was verified in the 2018 IEA. | Complies | |
| C02 | 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. | <p>Environmental Management Strategy Version 6 dated 29 October 2020.Moolarben Coal Complex Annual Review 2018</p> <p>Moolarben Coal Complex Annual Review 2019</p> <p>Moolarben Coal Complex Annual Review 2020</p> <p>Incident Register</p> | <p>Environment and Community Manager - Key environmental issues are managed in accordance with the MCO Environmental Management Plans (EMPs) prepared in accordance with the requirements of the Project approval</p> <p>No penalty notices have been issued during the reporting period.</p> | | <p>During this IEA, the Auditor has verified that the EMS and EMPs have been substantially implemented.</p> <p>No significant compliance incidents were reported in 2018. Two reportable incidents including a spontaneous combustion incident resulted in an odour compliant were recorded in 2019.</p> <p>Five non-compliances were recorded in 2020, none of the incidents resulted in material harm to the environment.</p> | Complies | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

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| CO3 | 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>Mining Operations Plan Version C dated October 2021.</p> <p>Letter from the Resources Regulator (S Gaddes) to MCO (S Archinal) titled "ML 1606 (1992), ML 1628 (1992), ML 1715 (1992), ML 1691 (1992), ML 1605 (1992), Moolarben Coal Mines Pty Limited Approval of Mining Operations Plan and Assessment of Security Deposit", dated 23 November 2021. The letter approved the plan.</p> <p>Moolarben Coal Complex Annual Review 2018 Section 12 (Incidents and Non-compliances)</p> <p>Moolarben Coal Complex Annual Review 2019 Section 12 (Incidents and Non-compliances)</p> <p>Moolarben Coal Complex Annual Review 2020 Section 12 (Incidents and Non-compliances)</p> | | | <p>The review of compliance against the Project Approvals 05_0117 and 08_0135 and the EPL confirm that the Mining operations at Moolarben Coal Mine are carried out in accordance with the approved Mining Operations Plan (MOP).</p> <p>The Resource Regulator approved the latest version of the MOP (letter dated 23/11/2021). Letter viewed during the audit.</p> <p>The following incidents were reported over the audit period:</p> <p>One non-compliance was reported in 2018 (second half): Interruption to continuous dust monitoring due to equipment outages.</p> <p>Two non-compliances were reported in 2019:</p> <ul style="list-style-type: none"> • generation of visible blast plume (no dust generated). • Odour emission from site (spon-con event) <p>Five non-compliances were reported in 2020:</p> <ul style="list-style-type: none"> • Interruption to continuous dust monitoring due to equipment outages. • Failure to collect sample at an EPL sampling site. • Two pollution of waters incidents. <p>None of the incidents occurred on ML 1605.</p> | Complies | |
| | <p>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: - 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>The titleholder may apply to the Director-General to amend the approved MOP at any time.</p> | <p>Mining Operations Plan Version C dated October 2021.</p> | | | <p>I. Plans 3A, B, and C provide in the MOP identify 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>The MOP has been varied accordance with this condition.</p> | Complies | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

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| C03 | <p>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>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> | | | | | Noted | |
| C04 | The lease holder must lodge Environmental Management Reports (EMR) with The Director-General annually or at dates otherwise directed by the Director-General. | <p>Moolarben Coal Complex Annual Review 2018</p> <p>Moolarben Coal Complex Annual Review 2019</p> <p>Moolarben Coal Complex Annual Review 2020</p> <p>Email from RR to MCO (C Chase) titled "ML 1605 (1992), ML 1606 (1992), ML 1628 (1992), ML 1691 (1992), ML 1715 (1992), Annual Environmental Management Report", dated 6 April 2021.</p> | | | <p>Annual Reviews sent to RR annually and are available on MCO website from 2012 to 2020.</p> <p>Section 5 of the Annual Reviews contains actions required from the previous reporting period.</p> | Complies | |
| C05 | 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; | <p>Moolarben Coal Complex Annual Review 2018</p> <p>Moolarben Coal Complex Annual Review 2019</p> <p>Moolarben Coal Complex Annual Review 2020</p> | | | <p>Rehabilitation activities against the MOP are described in the Annual Reviews, rehabilitation progress is covered in section 8.</p> <p>Statement of compliance with approvals is detailed in section 1.</p> <p>Guidelines used in producing the Annual Reviews are detailed throughout the document including ESG3: Mining Operations Plan (MOP) Guidelines September 2013 published on the Departments website at www.resources.nsw.gov.au/environmental.</p> | Complies | |
| C06 | 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. | | Environment and Community Manager - No request to provide additional environmental reports have been made by the RR during the Audit Period | | No requests have been received from RR to provide additional environmental reports during the Audit Period. | Not Triggered | |
| C07 | Disturbed land must be rehabilitated to a sustainable/agreed end land use to the satisfaction of the Director/General. | <p>Rehabilitation Management Plan Version 7 dated 30 October 2020</p> <p>Mining Operations Plan Version C dated October 2021.</p> | | During the IEA, the Auditor inspected rehabilitation works (both in progress and complete). | <p>This is covered in the following sections of the RMP:</p> <ul style="list-style-type: none"> 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) | Complies | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | | | | | <ul style="list-style-type: none"> 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 | | |
| CO8 | Extraction Plan (a) In this condition: I. Approved Extraction Plan means a plan, being: (a) An extraction plan or subsidence management plan approved in accordance with the conditions of a relevant development consent and provided to the Secretary; or (b) A subsidence management plan relating to the mining operations subject to this lease: 1. Submitted to the Secretary on or before 31 December 2014; and 2. Approved by the Secretary. 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. | UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020. Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex Stage 1 (PA05_0117) and Stage 2(PA 08_0135) Revisions of Management Plans and Strategies", dated 23/09/2020. Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex Stage 2 (08_0135) Extraction Plan – UG1 Longwalls 101 to 105", dated 09/06/2020. The letter provides DPIE approval of the Extraction Plan and each of the plans and programs contained in the appendices to the Extraction Plan. | Environment and Community Manager 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. | | The Extraction Plan has been revised [by MCO with assistance from Mine Subsidence Engineering Consultants, SLR, WRM Water & Environment, Eco Logical Australia Pty Ltd, and Niche Environment and Heritage] in 2020. DPIE endorsed the appointment of experts to prepare the revised plan in December 2019. Attachment 2 of the Extraction Management Plan provides a table of consultation activities with government agencies and includes dates and summaries of consultation activities. A letter from DPIE (dated 09/06/2020) was sighted which approved the extraction plan for the second workings. | Complies | |
| Co8 | (b) The lease holder must not undertake any underground mining operations that may cause subsidence except in accordance with an approved Extraction Plan. | Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex Stage 2 (08_0135) Extraction Plan – UG1 Longwalls 101 to 105", dated 09/06/2020. The letter provides DPIE approval of the Extraction Plan and each of the plans and programs contained in the appendices to the Extraction Plan. | | | The extraction plan was submitted to and approved by DPIE prior to commencement of coal extraction. | Complies | |
| CO8 | (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. | UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020. | | | 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. | Complies | |
| CO8 | (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) Built 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, | Incident Register 2018 Annual Review Section 8 2019 Annual Review Section 8 2020 Annual Review Section 8 | Environment and Community Manager - - No subsidence related incidents have occurred during the audit period. | | The Annual Reviews covering the Audit Period (Section 8 'Mine Subsidence' Table 28) detail the assessment of subsidence performance indicator measures for Built Features. No Indicators or performance measures were exceeded during the audit period. | Not Triggered | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | mining purposes and prospecting. | | | | | | |
| CO9 | Deleted | | | | | | |
| C10 | Control of Operations (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: - (i) cease working the lease; or (ii) cease that part of the operation not complying Until in the opinion of the Environmental Officer the situation is rectified. (b) The lease holder must comply with any direction given. The Director-General may confirm, vary or revoke any such direction. (c) A direction referred to in this condition may be served on the Mine Manager. | | Environment and Community Manager – no directions have been received from RR inspectors requiring MCO to cease any operations. | | No directions have been received from RR inspectors requiring MCO to cease any operations during the audit period. | Noted | |
| C11 | 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: (a) Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period; (b) Details of expenditure incurred in conducting the exploration; (c) A summary of all geological findings acquired through mining or development evaluation activities; (d) Particulars of exploration propose to be conducted in the next twelve months period; (e) All plans, maps, sections and other data necessary to satisfactorily interpret the report. | Annual Exploration Report for the period 23/8/2019 to 22/08/2020 Exploration Licence 6288. Annual Exploration Report for the period 23/8/2019 to 22/08/2020. MCO Annual Exploration Report for the period 20/12/2019 to 19/12/2020 Moolarben ML Group Exploration Report. | Environment and Community Manager – The requirements of this condition have been met by the Annual Exploration reports | | A sample of The Annual Exploration Reports for various mining leases and exploration licences by the Auditor. (a) Exploration completed during the reporting period is covered in Section D; (b) Details of expenditure incurred in conducting the exploration is provided in Section D3; (c) A summary of all geological findings acquired through mining or development evaluation activities is provided in Sections E and F; (d) Particulars of exploration proposed to be conducted in the next twelve months period is cover in Section G; (e) All plans, maps, sections and other data necessary to satisfactorily interpret the report are provided through out the report | Complies | |
| C12 | 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. (b) The non-exclusive licence will operate as a consent for the purposes of section 365 of the Mining Act 1992. | | | | | Noted | |
| C13 | Confidentiality 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: (i) The lease holder has agreed that specified reports may be made non-confidential. (ii) Reports deal with exploration conducted exclusively on areas that have ceased to be part of the lease. (b) Confidentiality will be continued beyond the termination of a lease where an application for a flow-on title was lodged during the currency of the lease. The confidentiality will last until that | | | | | Noted | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | flow-on title or any subsequent flow-on title, has terminated. (c) The Director-General may extend the period of confidentiality. | | | | | | |
| C14 | The terms of the non-exclusive copyright licence granted under condition 12 are: (a) The Minister may sub-licence others to publish, print, adapt and reproduce but not on-licence reports. (b) The Minister and any sub-licensee will acknowledge the lease holder's and any identifiable consultant's ownership of copyright in any reproduction of the reports, including storage of reports onto an electronic database. (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. (d) There is not royalty payable by the Minister for the licence. (e) If the lease holder has reasonable grounds to believe that the Minister has exercised his rights under the non-exclusive copyright licence in a manner which adversely affects the operations of the lease holder that licence is revocable on the giving of a period of not less than three months' notice | | | | | Noted | |
| C15 | Blasting (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. | Moolarben Coal Complex Annual Review 2018 Section 6, Table 13. Moolarben Coal Complex Annual Review 2019 Section 6, Table 13. Moolarben Coal Complex Annual Review 2020 Section 6, Table 13. Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021. | | | No exceedances of the blast criteria were reported during the 2018, 2019 and 2020 calendar years or during the first nine months of 2021. | Complies | |
| | (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. | Moolarben Coal Complex Annual Review 2018 Section 6, Table 13. Moolarben Coal Complex Annual Review 2019 Section 6, Table 13. Moolarben Coal Complex Annual Review 2020 Section 6, Table 13. Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021. | | | No exceedances of the blast criteria were reported during the 2018, 2019 and 2020 calendar years or during the first nine months of 2021. | Complies | |
| C16 | 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. 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. | Public Safety Management Plan Version 3 dated 11 June 2020. | | During the IEA site inspection, the Auditor verified that the site is securely fenced and signposted. | Public safety is managed through the Public Safety Management Plan that includes 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. | Complies | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation | |
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| C17 | (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. | Site Exploration Procedure dated 20 July 2020. | | | | Section 5.2.1 and Section 5.4 of the Site Exploration Procedure specifies that approval is required from the Resource Regulator for all exploration drilling. | Complies | |
| | (2) If the lease holder drills exploratory drill holes he must satisfy the Director-General that:- (a) All cored holes are accurately surveyed and permanently marked in accordance with Departmental guidelines so that their location can be easily established; (b) All holes cored or otherwise are sealed to prevent the collapse of the surrounding surface; (c) All drill holes are permanently sealed with cement plugs to prevent surface discharge or groundwater's; (d) If any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape; (e) If any drill hole meets an artesian or sub-artesian flow it is effectively sealed to prevent contamination of aquifers. (f) Once any drill hole ceases to be used the hole must be sealed in accordance with Department guidelines. Alternatively, the hole must be sealed as instructed by the Director-General. (g) Once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition. | Site Exploration Procedure dated 20 July 2020. | | | | MCO has prepared and implemented a Site Exploration Procedure: (d)Section 6.10 details the borehole data collection requirements including location (GPS). – (f) Boreholes sealing, site cleanup and rehabilitation are detailed in Section 6.15 | Complies | |
| C18 | 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 groundwaters. The lease holder must observe and perform any instructions given by the Director-General in this regard. | Incident Register Complaints Register Air Quality Management Plan Version 6 dated 28 October 2020. Water Management Plan Version 6 dated 28 October 2020. | Environment and Community Manager – no directions have been received for RR in relation to air emission, water or erosion and sediment control over this audit period. No pollution incidents have occurred on ML 1605 during the audit period. | No dust generation was observed during the site inspection. | Air Pollution: Air quality management for mining operation is covered in section 6 of the AQMP. No visible off-site air pollution was observed during the site investigation. 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. | Complies | | |
| C19 | 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 they may stipulate. | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Incident Register Complaints Register | Environment and Community Manager - No public utilities affected during the Audit Period | | No complaints or reports of damage or interference with public infrastructure during the audit period were received by MCO. | Complies | | |
| C20 | Condition suspended on the 6 November 2008 | | | | | | | |
| C21 | 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 | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | Environment and Community Manager - No non-mined owned roads affected during the Audit Period. | | No complaints or reports of damage or interference with public roads during the audit period were received by MCO. | Complies | | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | 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. | Incident Register Complaints Register | | | | | |
| C22 | 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. | Mining Operations Plan Version C dated October 2021. | Environment and Community Manager - All proposed ground disturbance activities must go through the GDP process. The GDP process is described in detailed in the Approved MOP. | | All proposed ground disturbance activities must go through the GDP process. The GDP process is described in detailed in the Approved MOP. The DECC(W) does no longer exists and was split into the EPA and OEH, prior to previous 2018 audit period | Noted | |
| C23 | Condition suspended on 6 November 2008. | | | | | | |
| | There is no condition 24 | | | | | | |
| C25 | <p>Resource Recovery</p> <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> <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</p> | | Environment and Community Manager - No notice from the Resource Regulator has been received during the Audit Period regarding resource recovery. | The Auditor observed mining operations being undertaken during the site inspection. | MCO have been actively mining on tis lease during the audit period. | Not Triggered | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | must comply with the requirements of this notice. | | | | | | |
| C26 | 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 | |
| C27 | The lease holder is required to provide and maintain a security deposit to secure funding for the fulfilment of obligations of all or any kind under the mining leases including obligations of all or any kind under the mining leases that may arise in the future. The amount of the security deposit to be provided as a group security has been assessed by the Secretary at \$53,926,000. The leases covered by the group security include ML1605, ML1606 & ML1715 (Act 1992). The variation takes effect from 18 September 2019. | Letter from the RR (M Yuen) to MCO (G Chase) titled "Notice of Variation of Security Deposit Condition Reference: SF21/71377", dated 19 July 2021. Letter from the RR (M Yuen) to MCO (G Chase) titled "Notice of Variation of Security Deposit Condition Reference SF21/70552", dated 19 July 2021. Letter from the Resources Regulator (S Gaddes) to MCO (S Archinal) titled "ML 1606 (1992), ML 1628 (1992), ML 1715 (1992), ML 1691 (1992), ML 1605 (1992), Moolarben Coal Mines Pty Limited Approval of Mining Operations Plan and Assessment of Security Deposit", dated 23 November 2021. | | | During the audit two letters from Resource Regulator were sighted which confirmed that the security deposits had been lodged: <ul style="list-style-type: none"> Letter dated (19/07/2021) for ML1605, ML1606, ML1715 security deposit \$104,756,000 Letter dated (19/07/2021) for ML1628, ML1991 security deposit \$21,199,000 | Complies | |
| C29 | Prescribed Dam (a) Notwithstanding any Mining Operations Plan, the lease holder must not mine within any part of the lease area which is within the notification area of the Moolarben Creek Dam without the prior written approval of the Minister and subject to any conditions he may stipulate. | Letter from the Dam Safety Committee (S Knight) to MCO (H Richter) titled "Mining Within the Moolarben Creek Dam Notification Area MOOLARBEN-1", dated 17 May 2013. | Environment and Community Manager – The dam is no longer "Prescribed". In any case, no mining has occurred in the vicinity of Moolarben Dam. | | Moolarben Dam has been de-prescribed; therefore, this condition is no longer triggered. | Not Triggered | |
| C29 | (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. | Letter from the Dam Safety Committee (S Knight) to MCO (H Richter) titled "Mining Within the Moolarben Creek Dam Notification Area MOOLARBEN-1", dated 17 May 2013. | Environment and Community Manager – The dam is no longer "Prescribed". In any case, no mining has occurred in the vicinity of Moolarben Dam. | | Moolarben Dam has been de-prescribed; therefore, this condition is no longer triggered. | Not Triggered | |
| C29 | (c) The Minister must not, except in the circumstances set out in sub-paragraph (ii), grant approval unless sub-paragraph (i) of this paragraph has been complied with. This sub-paragraph is complied with if: | Letter from the Dam Safety Committee (S Knight) to MCO (H Richter) titled "Mining Within the Moolarben Creek Dam Notification Area MOOLARBEN-1", dated 17 May 2013. | Environment and Community Manager – The dam is no longer "Prescribed". In any case, no mining has occurred in the vicinity of Moolarben Dam. | | Moolarben Dam has been de-prescribed; therefore, this condition is no longer triggered. | Not Triggered | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | <p>(I) the Dams Safety Committee as constituted by Section 7 of the Dams Safety Act 1978 and the owner of the dam have been notified in writing of the desire to mine referred to in paragraph (b).</p> <p>(ii) the notifications referred to in clause (a) are accompanied by a description or plan of the area to be mined.</p> <p>(iii) the Director-General has complied with any reasonable request made by the Dams Safety Committee or the owner of the dam for further information in connection with the mining proposal.</p> <p>(iv) the Dams Safety Committee has made its recommendations concerning the mining proposal or has informed the Minister in writing that it does not propose to make any such recommendations; and</p> <p>(v) where the Dams Safety Committee has made recommendations the approval is in terms that are:</p> <ul style="list-style-type: none"> - in accordance with those recommendations; or - where the Minister does not accept those recommendations or any of them - in accordance with a determination under sub-paragraph (ii) of this paragraph. <p>(vi) Where the Minister does not accept the recommendations of the Dams Safety Committee or where the Dams Safety Committee has failed to make any recommendations and has not informed the Minister in writing that it does not propose to make any recommendations, the approval shall be in terms that are, in relation to matters dealing with the safety of the dam:</p> <ul style="list-style-type: none"> - as determined by agreement between the Minister and the Minister administering the Dams Safety Act 1978; or - in the event of failure to reach such agreement - as determined by the Premier. | | | | | | |
| C29 | <p>(d) The Minister, on notice from the Dams Safety Committee, may at any time or times:</p> <p>(i) cancel any approval given where a notice pursuant to Section 18 of the Dams Safety Act 1978 is given.</p> <p>(ii) suspend for a period of time, alter, omit from or add to any approval given or conditions imposed.</p> | <p>Letter from the Dam Safety Committee (S Knight) to MCO (H Richter) titled "Mining Within the Moolarben Creek Dam Notification Area MOOLARBEN-1", dated 17 May 2013.</p> | <p>Environment and Community Manager – The dam is no longer "Prescribed". In any case, no mining has occurred in the vicinity of Moolarben Dam.</p> | | <p>Moolarben Dam has been de-prescribed; therefore, this condition is no longer triggered.</p> | <p align="center">Not Triggered</p> | |
| | | | | | | | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| ML 1628 | | | | | | | |
| C01 | 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. | 2018 Independent Environmental Audit | | | ML1628 was granted in 2009 - Compliance with this condition was verified in the 2018 IEA. | Complies | |
| C02 | 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. | Environmental Management Strategy Version 6 dated 29 October 2020.Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Incident Register | Environment and Community Manager - Key environmental issues are managed in accordance with the MCO Environmental Management Plans (EMPs) prepared in accordance with the requirements of the Project approval No penalty notices have been issued during the reporting period. | | During this IEA, the Auditor has verified that the EMS and EMPs have been substantially implemented. No significant compliance incidents were reported in 2018. Two reportable incidents including a spontaneous combustion incident resulted in an odour complaint were recorded in 2019. Five noncompliances were recorded in 2020, none of the incidents resulted in material harm to the environment. | Complies | |
| C03 | 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. | Mining Operations Plan Version C dated October 2021. Letter from the Resources Regulator (S Gaddes) to MCO (S Archinal) titled "ML 1606 (1992), ML 1628 (1992), ML 1715 (1992), ML 1691 (1992), ML 1605 (1992), Moolarben Coal Mines Pty Limited Approval of Mining Operations Plan and Assessment of Security Deposit", dated 23 November 2021. The letter approved the plan. Moolarben Coal Complex Annual Review 2018 Section 12 (Incidents and Non-compliances) Moolarben Coal Complex Annual Review 2019 Section 12 (Incidents and Non-compliances) Moolarben Coal Complex Annual Review 2020 Section 12 (Incidents and Non-compliances) | | | The review of compliance against the Project Approvals 05_0117 and 08_0135 and the EPL confirm that the Mining operations at Moolarben Coal Mine are carried out in accordance with the approved Mining Operations Plan (MOP). The Resource Regulator approved the latest version of the MOP (letter dated 23/11/2021). Letter viewed during the audit. The following incidents were reported over the audit period: One non-compliance was reported in 2018 (second half): Interruption to continuous dust monitoring due to equipment outages. Two non-compliances were reported in 2019: <ul style="list-style-type: none"> • generation of visible blast plume (no dust generated). • Odour emission from site (spon-con event) Five non-compliances were reported in 2020: <ul style="list-style-type: none"> • Interruption to continuous dust monitoring due to equipment outages. • Failure to collect sample at an EPL sampling site. • Two pollution of waters incidents. One water incident represented a potential | Complies | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | | | | | breach of Schedule 3 Condition 27. <ul style="list-style-type: none"> None of the incidents occurred on ML 1628. | | |
| | <p>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: - 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>The titleholder may apply to the Director-General to amend the approved MOP at any time .</p> | Mining Operations Plan Version C dated October 2021. | | | <p>I. Plans 3A, B, and C provide in the MOP identify 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>The MOP has been varied accordance with this condition.</p> | Complies | |
| | <p>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. 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> | | | | | Noted | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| C04 | The lease holder must lodge Environmental Management Reports (EMR) with The Director-General annually or at dates otherwise directed by the Director-General. | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Email from RR to MCO (C Chase) titled "ML 1605 (1992), ML 1606 (1992), ML 1628 (1992), ML 1691 (1992), ML 1715 (1992), Annual Environmental Management Report", dated 6 April 2021. | | | Annual Reviews sent to RR annually and are available on MCO website from 2012 to 2020. Section 5 of the Annual Reviews contains actions required from the previous reporting period. | Complies | |
| C05 | 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; | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | | Rehabilitation activities against the MOP are described in the Annual Reviews, rehabilitation progress is covered in section 8. Statement of compliance with approvals is detailed in section 1. Guidelines used in producing the Annual Reviews are detailed throughout the document including ESG3: Mining Operations Plan (MOP) Guidelines September 2013 published on the Departments website at www.resources.nsw.gov.au/environmental . | Complies | |
| C06 | 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. | | Environment and Community Manager - No request to provide additional environmental reports have been made by the RR during the Audit Period | | No requests have been received from RR to provide additional environmental reports during the Audit Period. | Not Triggered | |
| C07 | Disturbed land must be rehabilitated to a sustainable/agreed end land use to the satisfaction of the Director-General. | Rehabilitation Management Plan Version 7 dated 30 October 2020 Mining Operations Plan Version C dated October 2021. | | During the IEA, the Auditor inspected rehabilitation works (both in progress and complete). | This is covered in the following sections of the RMP: <ul style="list-style-type: none"> 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 | Complies | |
| C08 | Extraction Plan (a) In this condition: I. Approved Extraction Plan means a plan, being: (a) An extraction plan or subsidence management plan approved in accordance with the conditions of a relevant development consent and provided to the Secretary; or (b) A subsidence management plan relating to the mining operations subject to this lease: 1. Submitted to the Secretary on or before 31 December 2014; and 2. Approved by the Secretary. | UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020. Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex Stage 1 (PA05_0117) and Stage 2(PA 08_0135) Revisions of Management Plans and Strategies", dated 23/09/2020. Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex Stage 2 (08_0135) Extraction Plan – UG1 Longwalls 101 to 105", dated 09/06/2020. The letter provides DPIE | Environment and Community Manager 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. | | The Extraction Plan has been revised [by MCO with assistance from Mine Subsidence Engineering Consultants, SLR, WRM Water & Environment, Eco Logical Australia Pty Ltd, and Niche Environment and Heritage] in 2020. DPIE endorsed the appointment of experts to prepare the revised plan in December 2019. Attachment 2 of the Extraction Management Plan provides a table of consultation activities with government agencies and includes dates | Complies | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | 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. | approval of the Extraction Plan and each of the plans and programs contained in the appendices to the Extraction Plan. | | | and summaries of consultation activities. A letter from DPIE (dated 09/06/2020) was sighted which approved the extraction plan for the second workings. | | |
| C08 | (b) The lease holder must not undertake any underground mining operations that may cause subsidence except in accordance with an approved Extraction Plan. | Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex Stage 2 (08_0135) Extraction Plan – UG1 Longwalls 101 to 105", dated 09/06/2020. The letter provides DPIE approval of the Extraction Plan and each of the plans and programs contained in the appendices to the Extraction Plan. | | | The extraction plan was submitted to and approved by DPIE prior to commencement of coal extraction. | Complies | |
| C08 | (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. | UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020. | | | 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. | Complies | |
| C08 | (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. | Incident Register 2018 Annual Review Section 8 2019 Annual Review Section 8 2020 Annual Review Section 8 | Environment and Community Manager - - No subsidence related incidents have occurred during the audit period. | | The Annual Reviews covering the Audit Period (Section 8 'Mine Subsidence' Table 28) detail the assessment of subsidence performance indicator measures for Built Features. No Indicators or performance measures were exceeded during the audit period. | Not Triggered | |
| C09 | Deleted | | | | | | |
| C10 | Control of Operations (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: - (i) cease working the lease; or (ii) cease that part of the operation not complying Until in the opinion of the Environmental Officer the situation is rectified. (b) The lease holder must comply with any direction given. The Director-General may confirm, vary or revoke any such direction. (c) A direction referred to in this condition may be served on the Mine Manager. | | Environment and Community Manager – no directions have been received from RR inspectors requiring MCO to cease any operations. | | No directions have been received from RR inspectors requiring MCO to cease any operations during the audit period. | Noted | |
| C11 | 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: | Annual Exploration Report for the period 23/8/2019 to 22/08/2020 Exploration Licence 6288. Annual Exploration Report for the period 23/8/2019 to 22/08/2020. MCO Annual Exploration Report for the period 20/12/2019 to 19/12/2020 Moolarben ML Group | Environment and Community Manager – The requirements of this condition have been met by the Annual Exploration reports | | A sample of The Annual Exploration Reports for various mining leases and exploration licences by the Auditor. (a) Exploration completed during the reporting period is covered in Section D; (b) Details of expenditure incurred in conducting the exploration is provided in | Complies | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

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| | <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> | Exploration Report. | | | <p>Section D3;</p> <p>(c) A summary of all geological findings acquired through mining or development evaluation activities is provided in Sections E and F;</p> <p>(d) Particulars of exploration proposed to be conducted in the next twelve months period is cover in Section G;</p> <p>(e) All plans, maps, sections and other data necessary to satisfactorily interpret the report are provided through out the report</p> | | |
| C12 | <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. (b) The non-exclusive licence will operate as a consent for the purposes of section 365 of the Mining Act 1992.</p> | | | | | Noted | |
| C13 | <p>Confidentiality</p> <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: (i) The lease holder has agreed that specified reports may be made non-confidential. (ii) Reports deal with exploration conducted exclusively on areas that have ceased to be part of the lease.</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 | |
| C14 | <p>The terms of the non-exclusive copyright licence granted under condition 12 are: (a) The Minister may sub-licence others to publish, print, adapt and reproduce but not on-licence reports. (b) The Minister and any sub-licensee will acknowledge the lease holder's and any identifiable consultant's ownership of copyright in any reproduction of the reports, including storage of reports onto an electronic database. (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. (d) There is not royalty payable by the Minister for the licence. (e) If the lease holder has reasonable grounds to believe that the Minister has exercised his rights under the non-exclusive copyright licence in a manner which adversely affects the operations of the lease holder that licence is revocable on the giving of a period of not less than three months'</p> | | | | | Noted | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

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| | notice | | | | | | |
| C15 | <p>Blasting</p> <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>Moolarben Coal Complex Annual Review 2018 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2019 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2020 Section 6, Table 13.</p> <p>Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021.</p> | | | <p>No exceedances of the blast criteria were reported during the 2018, 2019 and 2020 calendar years or during the first nine months of 2021.</p> | Complies | |
| | <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> | <p>Moolarben Coal Complex Annual Review 2018 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2019 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2020 Section 6, Table 13.</p> <p>Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021.</p> | | | <p>No exceedances of the blast criteria were reported during the 2018, 2019 and 2020 calendar years or during the first nine months of 2021.</p> | Complies | |
| C16 | <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. 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> | <p>Public Safety Management Plan Version 3 dated 11 June 2020.</p> | | <p>During the IEA site inspection, the Auditor verified that the site is securely fenced and signposted.</p> | <p>Public safety is managed through the Public Safety Management Plan that includes 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> | Complies | |
| C17 | <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>Site Exploration Procedure dated 20 July 2020.</p> | | | <p>Section 5.2.1 and Section 5.4 of the Site Exploration Procedure specifies that approval is required from the Resource Regulator for all exploration drilling.</p> | Complies | |
| C17 | <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>Site Exploration Procedure dated 20 July 2020.</p> | | | <p>MCO has prepared and implemented a Site Exploration Procedure:</p> <p>(e) Section 6.10 details the borehole data collection requirements including location (GPS).</p> <p>– (f) Boreholes sealing, site cleanup and rehabilitation are detailed in Section 6.15</p> | Complies | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

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| | (g) Once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition. | | | | | | |
| C18 | <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.</p> <p>For the purpose of this condition, water shall be taken to include any watercourse, waterbody or groundwaters.</p> <p>The lease holder must observe and perform any instructions given by the Director-General in this regard.</p> | <p>Incident Register</p> <p>Complaints Register</p> <p>Air Quality Management Plan Version 6 dated 28 October 2020.</p> <p>Water Management Plan Version 6 dated 28 October 2020.</p> | <p>Environment and Community Manager – No directions have been received relation to air emission, water or erosion and sediment control over this audit period.</p> <p>No pollution incidents have occurred on ML 1628 during the audit period.</p> | <p>No dust generation was observed during the site inspection.</p> | <p>Air Pollution: Air quality management for mining operation is covered in section 6 of the AQMP. 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.</p> | Complies | |
| C19 | 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 they may stipulate. | <p>Moolarben Coal Complex Annual Review 2018</p> <p>Moolarben Coal Complex Annual Review 2019</p> <p>Moolarben Coal Complex Annual Review 2020</p> <p>Incident Register</p> <p>Complaints Register</p> | <p>Environment and Community Manager -</p> <p>No public utilities affected during the Audit Period</p> | | <p>No complaints or reports of damage or interference with public infrastructure during the audit period were received by MCO.</p> | Complies | |
| C20 | Condition suspended on the 6 November 2008 | | | | | | |
| C21 | 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. | <p>Moolarben Coal Complex Annual Review 2018</p> <p>Moolarben Coal Complex Annual Review 2019</p> <p>Moolarben Coal Complex Annual Review 2020</p> <p>Incident Register</p> <p>Complaints Register</p> | <p>Environment and Community Manager -</p> <p>No non-mined owned roads affected during the Audit Period.</p> | | <p>No complaints or reports of damage or interference with public roads during the audit period were received by MCO.</p> | Complies | |
| C22 | 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. | <p>Mining Operations Plan Version C dated October 2021.</p> | <p>Environment and Community Manager -</p> <p>All proposed ground disturbance activities must go through the GDP process. The GDP process is described in detailed in the Approved MOP.</p> | | <p>All proposed ground disturbance activities must go through the GDP process. The GDP process is described in detailed in the Approved MOP.</p> <p>The DECC(W) does no longer exists and was split into the EPA and OEH, prior to previous 2018 audit period</p> | Noted | |
| C23 | Condition suspended on 6 November 2008. | | | | | | |
| | There is no condition 24 | | | | | | |
| C25 | <p>Resource Recovery</p> <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</p> | | <p>Environment and Community Manager -</p> <p>No notice from the Resource Regulator has been received during the Audit Period regarding resource recovery.</p> | <p>The Auditor observed mining operations being undertaken during the site inspection.</p> | <p>MCO have been actively mining on tis lease during the audit period.</p> | Not Triggered | |

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| | <p>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> <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> | | | | | | |
| C26 | <p>The lease holder must indemnify and keep indemnified the Crown from and against all actions, suits, claims and demands of whatsoever nature and all costs, charges and expenses which may be brought against the lease holder or which the lease holder may incur in respect of any accident or injury to any person or property which may arise out of the construction, maintenance or working of any workings now existing or to be made by the lease holder within the lease area or in connection with any of the operations notwithstanding that all other conditions of this lease shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do.</p> | | | | | Noted | |
| C27 | <p>(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 this lease. If the lease holder fails to fulfil any one or more of such obligations the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purpose of this clause the lease holder shall be</p> | <p>Letter from the Resources Regulator (S Gaddes) to MCO (S Archinal) titled “ML 1606 (1992), ML 1628 (1992), ML 1715 (1992), ML 1691 (1992), ML 1605 (1992), Moolarben Coal Mines Pty Limited Approval of Mining Operations Plan and Assessment of Security Deposit”, dated 23 November 2021.</p> | | | <p>The Resources Regulator approved the revised security payment calculations covering all five mining leases in November 2021.</p> | Complies | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

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| | 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 under subclause (a) in one of the following forms: Cash, a security certification in a form approved by the Minister and issued by an authorised deposit-taking institution. | Letter from the Resources Regulator (S Gaddes) to MCO (S Archinal) titled "ML 1606 (1992), ML 1628 (1992), ML 1715 (1992), ML 1691 (1992), ML 1605 (1992), Moolarben Coal Mines Pty Limited Approval of Mining Operations Plan and Assessment of Security Deposit", dated 23 November 2021. The letter approved the plan | | | The Resources Regulator approved the revised security payment calculations covering all five mining leases in November 2021. | Complies | |
| C28 | There is no Condition 28 | | | | | | |
| C29 | Prescribed Dam (a) Notwithstanding any Mining Operations Plan, the lease holder must not mine within any part of the lease area which is within the notification area of the Moolarben Creek Dam without the prior written approval of the Minister and subject to any conditions he may stipulate. | Letter from the Dam Safety Committee (S Knight) to MCO (H Richter) titled "Mining Within the Moolarben Creek Dam Notification Area MOOLARBEN-1", dated 17 May 2013. | Environment and Community Manager – The dam is no longer "Prescribed". In any case, no mining has occurred in the vicinity of Moolarben Dam. | | Moolarben Dam has been de-prescribed; therefore this condition is no longer triggered. | Not Triggered | |
| C29 | (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. | Letter from the Dam Safety Committee (S Knight) to MCO (H Richter) titled "Mining Within the Moolarben Creek Dam Notification Area MOOLARBEN-1", dated 17 May 2013. | Environment and Community Manager – The dam is no longer "Prescribed". In any case, no mining has occurred in the vicinity of Moolarben Dam. | | Moolarben Dam has been de-prescribed; therefore this condition is no longer triggered. | Not Triggered | |
| C29 | (c) The Minister must not, except in the circumstances set out in sub-paragraph (ii), grant approval unless sub-paragraph (i) of this paragraph has been complied with. This sub-paragraph is complied with if: (i) the Dams Safety Committee as constituted by Section 7 of the Dams Safety Act 1978 and the owner of the dam have been notified in writing of the desire to mine referred to in paragraph (b). (ii) the notifications referred to in clause (a) are accompanied by a description or plan of the area to be mined. (iii) the Director-General has complied with any reasonable request made by the Dams Safety Committee or the owner of the dam for further information in connection with the mining proposal. (iv) the Dams Safety Committee has made its recommendations concerning the mining proposal or has informed the Minister in writing that it does not propose to make any such recommendations; and (v) where the Dams Safety Committee has made | Letter from the Dam Safety Committee (S Knight) to MCO (H Richter) titled "Mining Within the Moolarben Creek Dam Notification Area MOOLARBEN-1", dated 17 May 2013. | Environment and Community Manager – The dam is no longer "Prescribed". In any case, no mining has occurred in the vicinity of Moolarben Dam. | | Moolarben Dam has been de-prescribed; therefore this condition is no longer triggered. | Not Triggered | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

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| | <p>recommendations, the approval is in terms that are:</p> <ul style="list-style-type: none"> - in accordance with those recommendations; or - where the Minister does not accept those recommendations or any of them - in accordance with a determination under sub-paragraph (ii) of this paragraph. <p>(vi) Where the Minister does not accept the recommendations of the Dams Safety Committee or where the Dams Safety Committee has failed to make any recommendations and has not informed the Minister in writing that it does not propose to make any recommendations, the approval shall be in terms that are, in relation to matters dealing with the safety of the dam:</p> <ul style="list-style-type: none"> - as determined by agreement between the Minister and the Minister administering the Dams Safety Act 1978; or - in the event of failure to reach such agreement - as determined by the Premier. | | | | | | |
| C29 | <p>(d) The Minister, on notice from the Dams Safety Committee, may at any time or times:</p> <ul style="list-style-type: none"> (i) cancel any approval given where a notice pursuant to Section 18 of the Dams 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>Letter from the Dam Safety Committee (S Knight) to MCO (H Richter) titled "Mining Within the Moolarben Creek Dam Notification Area MOOLARBEN-1", dated 17 May 2013.</p> | <p>Environment and Community Manager – The dam is no longer "Prescribed". In any case, no mining has occurred in the vicinity of Moolarben Dam.</p> | | <p>Moolarben Dam has been de-prescribed; therefore, this condition is no longer triggered.</p> | Not Triggered | |
| C30 | <p>Suspension of Mining Operations</p> <p>The holder of the mining lease may not suspend mining operations in the mining areas other than in accordance with the consent of the Minister.</p> | | | | <p>The mining operations progressed through out the audit period.</p> | Not Triggered | |
| C31 | <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. | <p>Letter from MCO (G Chase) to Santos (A Moody) titled "Moolarben Coal Complex – UG4 Ancillary Works Modification" dated 30 August 2019.</p> <p>Email from Santos (A Moody) to MCO (G Chase) titled "Moolarben Coal Complex – UG4 Ancillary Works Modification" dated 2 September 2019</p> | <p>Environment and Community Manger - there are overlapping petroleum titles associate with this Mining Lease.</p> | | <p>MCO have consulted with Santos in relation to the overlapping petroleum title associated with the UG4 operations.</p> | Complies | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| ML 1691 | | | | | | | |
| C01 | 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. | 2018 Independent Environmental Audit | | | ML1691 was granted in 2013 - Compliance with this condition was verified in the 2018 IEA. | Complies | |
| C02 | The lease holder must implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or rehabilitation of any activities under this lease. | Environmental Management Strategy Version 6 dated 29 October 2020.Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Incident Register | Environment and Community Manager - Key environmental issues are managed in accordance with the MCO Environmental Management Plans (EMPs) prepared in accordance with the requirements of the Project approval No penalty notices have been issued during the reporting period. | | During this IEA, the Auditor has verified that the EMS and EMPs have been substantially implemented. No significant compliance incidents were reported in 2018. Two reportable incidents including a spontaneous combustion incident resulted in an odour complaint were recorded in 2019. Five noncompliances were recorded in 2020, none of the incidents resulted in material harm to the environment. | Complies | |
| C03 | 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. | Mining Operations Plan Version C dated October 2021. Letter from the Resources Regulator (S Gaddes) to MCO (S Archinal) titled "ML 1606 (1992), ML 1628 (1992), ML 1715 (1992), ML 1691 (1992), ML 1605 (1992), Moolarben Coal Mines Pty Limited Approval of Mining Operations Plan and Assessment of Security Deposit", dated 23 November 2021. The letter approved the plan. Moolarben Coal Complex Annual Review 2018 Section 12 (Incidents and Non-compliances) Moolarben Coal Complex Annual Review 2019 Section 12 (Incidents and Non-compliances) Moolarben Coal Complex Annual Review 2020 Section 12 (Incidents and Non-compliances) | | | The review of compliance against the Project Approvals 05_0117 and 08_0135 and the EPL confirm that the Mining operations at Moolarben Coal Mine are carried out in accordance with the approved Mining Operations Plan (MOP). The Resource Regulator approved the latest version of the MOP (letter dated 23/11/2021). Letter viewed during the audit. The following incidents related to operations on ML 1691 were reported during the audit period: One non-compliance reported in 2019: <ul style="list-style-type: none">• Odour emission from site (spon-con event) Two non-compliances were reported in 2020: <ul style="list-style-type: none">• Two pollution of waters incidents. One water incident represented a potential breach of Schedule 3 Condition 27. All non-compliance have been investigated and corrective actions completed. There are no additional recommendations. | Complies | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
|-------|--|---|------------|----------------------------|--|------------------------|----------------|
| | <p>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: - 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>The titleholder may apply to the Director-General to amend the approved MOP at any time .</p> | <p>Mining Operations Plan Version C dated October 2021.</p> | | | <p>I. Plans 3A, B, and C provide in the MOP identify 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. The MOP has been varied accordance with this condition.</p> | <p>Complies</p> | |
| | <p>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>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> | | | | | <p>Noted</p> | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| C04 | (a) The lease holder must lodge Environmental Management Reports (EMR) with The Director-General annually or at dates otherwise directed by the Director-General. | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Email from DRG to MCO (C Chase) titled "ML 1605 (1992), ML 1606 (1992), ML 1628 (1992), ML 1691 (1992), ML 1715 (1992), Annual Environmental Management Report", dated 6 April 2021. | | | Annual Reviews sent to DRG annually and are available on MCO website from 2012 to 2020. Section 5 of the Annual Reviews contains actions required from the previous reporting period. | Complies | |
| | (b)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; | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | | Rehabilitation activities against the MOP are described in the Annual Reviews, rehabilitation progress is covered in section 8. Statement of compliance with approvals is detailed in section 1. Guidelines used in producing the Annual Reviews are detailed throughout the document including ESG3: Mining Operations Plan (MOP) Guidelines September 2013 published on the Departments website at www.resources.nsw.gov.au/environmental . | Complies | |
| C05 | Environmental Incident Report (a) The lease holder must report all environmental Incidents. The Incident Report must: (i) be prepared according to any relevant Departmental guidelines; (ii) be submitted within 24 hours of the environmental incident occurring: | Environmental Management Strategy Version 6 dated 29 October 2020. Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Letter from MCO (G Chase) to the EPA, titled "Environmental Event Report Moolarben Coal Operations Pty Ltd – Odour Complaint 20 October 2019", dated 28 October 2019. The report was prepared in response to a request by the EPA on 21 October 2019 as a result of the complaint received by the EPA. Report by MCO (G Chase), titled "Environmental Event Report Moolarben Coal Operations Pty Ltd – Moolarben Creek Rain Event 19 February 2020", dated 26 February 2020. The report was prepared in response to the incident by MCO. Report by MCO (G Chase), titled "Environmental Event Report Moolarben Coal Operations Pty Ltd – Sediment Drain Overtopping 21 December 2020", dated 21 January 2021. The report was prepared in response to the incident by MCO. Email from MCO (T Cini) to the EPA (K Willows) titled "R3 report for incident at 12 Ulan-Wollar Road", dated 21 January 2021. The email is a record of transmission of the Environmental Event Report dated 21 January 2021. Letter from DPIE (K O'Reilly) to MCO (G Chase) titled "Moolarben Coal - Expansion - MP08_0135 Sediment Dam Release 22 March 2021", dated 7 April 2021. Report by MCO (G Chase) titled "Environmental Event Report Moolarben Coal Operations Pty Ltd – Sediment Dam 413 (EPL22) Release Report", dated 29 March 2021. The report was prepared in response to the incident by MCO. | Environment and Community Manager – The following environmental incidents recorded during the audit period occurred on ML 1691; <ul style="list-style-type: none">• Odour complaint• 19 February 2020: release of sediment laden water• 21 December 2020: release of sediment laden water | | Reportable incidences are summarised in the Annual Reviews. 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. 2018 Incidents reported in the Annual Review: <ul style="list-style-type: none">• Interruption to continuous dust monitoring due to equipment outages (not reportable as an incident).• Minor hydrocarbon spill by contractor – no environmental harm (not reportable as an incident) 2019 Incidents reported in the Annual Review: <ul style="list-style-type: none">• Interruption to continuous dust monitoring due to equipment outages (not reportable as an incident).• 1 July: generation of visible blast plume (reportable incident).• 20 October: Odour emission from site 2020 Incidents reported in the Annual Review: <ul style="list-style-type: none">• Interruption to continuous dust monitoring due to equipment outages (not reportable as an incident).• Failure to collect sample at an EPL sampling site (not a reportable incident).• Water sample not collected, for oil and grease analysis (not a reportable incident)• 19 February: release of sediment laden water into Moolarben Creek (Reportable | Complies | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | | | | | Incident) • 21 December: release of sediment laden water from Dam 304 (Reportable Incident) Evidence of notification of all reportable incidents was sighted during the audit. | | |
| | (b) For the purposes of this condition, environmental incident includes: (i) any incident causing or threatening material harm to the environment (ii) any breach of Conditions 1 to 9 and 11 to 24; (iii) any breach of environment protection legislation; or, (iv) a serious complaint from landholders or the public.: | | | | | Noted | |
| | (c) For the purposes of this condition, harm to the environment is material if: (i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or (ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, where loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment. | | | | | Noted | |
| C06 | 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. | | Environment and Community Manager - No request to provide additional environmental reports have been made by the RR during the Audit Period | | No requests have been received from RR to provide additional environmental reports during the Audit Period. | Not Triggered | |
| C07 | Any disturbance as a result of activities under this lease must be rehabilitated to the satisfaction of the Director-General. | Rehabilitation Management Plan Version 7 dated 30 October 2020 Mining Operations Plan Version C dated October 2021. | | During the IEA, the Auditor inspected rehabilitation works (both in progress and complete). | 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 | Complies | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

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|-------|--|--|--|----------------------------|---|---------------|----------------|
| | | | | | allow mine closure | | |
| CO8 | <p>Extraction Plan</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 (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>UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020.</p> <p>Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex Stage 1 (PA05_0117) and Stage 2(PA 08_0135) Revisions of Management Plans and Strategies", dated 23/09/2020.</p> <p>Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex Stage 2 (08_0135) Extraction Plan – UG1 Longwalls 101 to 105", dated 09/06/2020. The letter provides DPIE approval of the Extraction Plan and each of the plans and programs contained in the appendices to the Extraction Plan.</p> | <p>Environment and Community Manager – 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>The Extraction Plan has been revised [by MCO with assistance from Mine Subsidence Engineering Consultants, SLR, WRM Water & Environment, Eco Logical Australia Pty Ltd, and Niche Environment and Heritage] in 2020. DPIE endorsed the appointment of experts to prepare the revised plan in December 2019. Attachment 2 of the Extraction Management Plan provides a table of consultation activities with government agencies and includes dates and summaries of consultation activities. A letter from DP&E (dated 09/06/2020) was sighted which approved the extraction plan for the second workings.</p> | Complies | |
| | (b) The lease holder must not undertake any underground mining operations that may cause subsidence except in accordance with an approved Extraction Plan. | <p>Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex Stage 2 (08_0135) Extraction Plan – UG1 Longwalls 101 to 105", dated 09/06/2020. The letter provides DPIE approval of the Extraction Plan and each of the plans and programs contained in the appendices to the Extraction Plan.</p> | | | <p>The extraction plan was submitted to and approved by DPIE prior to commencement of coal extraction.</p> | Complies | |
| | (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>UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020.</p> | | | <p>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> | Complies | |
| CO8 | (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>Incident Register</p> <p>2018 Annual Review Section 8</p> <p>2019 Annual Review Section 8</p> <p>2020 Annual Review Section 8</p> | <p>Environment and Community Manager -</p> <p>- No subsidence related incidents have occurred during the audit period.</p> | | <p>The Annual Reviews covering the Audit Period (Section 8 'Mine Subsidence' Table 28) detail the assessment of subsidence performance indicator measures for Built Features. No Indicators or performance measures were exceeded during the audit period.</p> | Not Triggered | |
| CO9 | Deleted | | | | | | |
| C10 | <p>Blasting</p> <p>(a) Ground Vibration</p> <p>The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting within the lease area does not exceed 10 mm/second and does not exceed 5 mm/second in</p> | <p>Moolarben Coal Complex Annual Review 2018 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2019 Section 6, Table 13.</p> <p>Moolarben Coal Complex Annual Review 2020 Section 6, Table 13.</p> | | | <p>No exceedances of the blast criteria were reported during the 2018, 2019 and 2020 calendar years or during the first nine months of 2021.</p> | Complies | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

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| | more than 5% of the total number of blasts over a period of 12 months at any dwelling or occupied premises as the case may be, unless determined otherwise by the Department of Environment, Climate Change and Water. | Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021. | | | | | |
| | (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 Environment, Climate Change and Water. | Moolarben Coal Complex Annual Review 2018 Section 6, Table 13. Moolarben Coal Complex Annual Review 2019 Section 6, Table 13. Moolarben Coal Complex Annual Review 2020 Section 6, Table 13. Moolarben Coal Monthly Environmental Monitoring Reports for January, February, March, April, May and June 2021. | | | No exceedances of the blast criteria were reported during the 2018, 2019 and 2020 calendar years or during the first nine months of 2021. | Complies | |
| C11 | Safety Operations must be carried out in a manner that ensures the safety of persons or stock in the vicinity of the operations. All drill holes shafts and excavations must be appropriately protected, to the satisfaction of the Director-General, to ensure that access to them by persons and stock is restricted. Abandoned shafts and excavations opened up or used by the lease holder must be notified in writing to the Department and filled in or otherwise rendered safe to a standard acceptable to the Director-General. | Public Safety Management Plan Version 3 dated 11 June 2020. | | During the IEA site inspection, the Auditor verified that the site is securely fenced and signposted. | Public safety is managed through the Public Safety Management Plan that includes 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. | Complies | |
| C12 | Prospecting operations must be carried out in a manner that does not cause or aggravate air pollution, water pollution (including groundwater) or soil contamination or erosion, unless otherwise authorised by an accepted Mining Operations Plan. | Incident Register Complaints Register Air Quality Management Plan Version 6 dated 28 October 2020. Water Management Plan Version 6 dated 28 October 2020. | Environment and Community Manager – No directions have been received in relation to air emission, water or erosion and sediment control over this audit period. No pollution incidents have occurred on ML 1691 during the audit period. | No dust generation was observed during the site inspection. | Air Pollution: Air quality management for mining operation is covered in section 6 of the AQMP. No visible off-site air pollution was observed during the site investigation. 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. | Complies | |
| C13 | 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 they may stipulate. | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Incident Register Complaints Register | Environment and Community Manager - No public utilities affected during the Audit Period | | No complaints or reports of damage or interference with public infrastructure during the audit period were received by MCO. | Complies | |
| C14 | (a) The lease holder must pay to the relevant roads authority in control of the road or track the reasonable costs incurred by the roads authority in making good any damage to roads or tracks caused by operations carried out under this lease less any amount paid or payable from the Mine Subsidence Compensation Fund. | Incident Register Complaint Register | Environment and Community Manager – No damage has occurred in any road or other public infrastructure during the audit period. | | There were no reports of damage to public roads from the mining operations over the audit period. | Not Triggered | |
| | (b) During wet weather the use of any road or track must be restricted so as to prevent damage to the road or track. | | | | | Noted | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

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| | (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. | Mining Operations Plan Version C dated October 2021. | Environment and Community Manager - All proposed ground disturbance activities must go through the GDP process. The GDP process is described in detailed in the Approved MOP. | | All proposed ground disturbance activities must go through the GDP process. The GDP process is described in detailed in the Approved MOP. | Noted | |
| | (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. | | | | | Noted | |
| C15 | Condition suspended on 6 November 2008. | | | | | | |
| C16 | <p>Resource Recovery</p> <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> <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> | | Environment and Community Manager - No notice from the Resource Regulator has been received during the Audit Period regarding resource recovery. | The Auditor observed mining operations being undertaken during the site inspection. | MCO have been actively mining on this lease during the audit period. | Not Triggered | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| C17 | 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 | |
| ML 1715 | | | | | | | |
| C01 | <p>Notice to Landholders</p> <p>(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.</p> <p>(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.</p> | 2018 Independent Environmental Audit | Environment and Community Manager - - Land associated with ML1715 is now owned by MCO and Crown Lands | | ML1715 was granted in 2015 - the requirement to notify landholders is outside the Audit Period. Compliance with this condition was verified during the 2018 IEA. Land associated with ML1715 is now owned by MCO and Crown Lands | Complies | |
| C02 | Any disturbance resulting from the activities carried out under this mining lease must be rehabilitated to the satisfaction of the Minister. | <p>Environmental Management Strategy Version 6 dated 29 October 2020. Moolarben Coal Complex Annual Review 2018</p> <p>Moolarben Coal Complex Annual Review 2019</p> <p>Moolarben Coal Complex Annual Review 2020</p> <p>Incident Register</p> | Environment and Community Manager - Key environmental issues are managed in accordance with the MCO Environmental Management Plans (EMPs) prepared in accordance with the requirements of the Project approval No penalty notices have been issued during the reporting period. | | <p>During this IEA, the Auditor has verified that the EMS and EMPs have been substantially implemented.</p> <p>No significant compliance incidents were reported in 2018. Two reportable incidents including a spontaneous combustion incident resulted in an odour compliant were recorded in 2019.</p> <p>Five noncompliances were recorded in 2020, none of the incidents resulted in material harm to the environment.</p> | Complies | |
| C03 | <p>Mining Operations Plan and Annual Rehabilitation Report</p> <p>(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.</p> | <p>Mining Operations Plan Version C dated October 2021.</p> <p>Letter from the Resources Regulator (S Gaddes) to MCO (S Archinal) titled "ML 1606 (1992), ML 1628 (1992), ML 1715 (1992), ML 1691 (1992), ML 1605 (1992), Moolarben Coal Mines Pty Limited Approval of Mining Operations Plan and Assessment of Security Deposit", dated 23</p> | | | <p>The review of compliance against the Project Approvals 05_0117 and 08_0135 and the EPL confirm that the Mining operations at Moolarben Coal Mine are carried out in accordance with the approved Mining Operations Plan (MOP).</p> <p>The Resource Regulator approved the latest version of the MOP (letter dated</p> | Complies | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
|-------|---|--|---|----------------------------|--|------------|----------------|
| | An approved MOP must be in place prior to commencing any significant surface disturbing activities, including mining operations, mining purposes and prospecting. | November 2021. The letter approved the plan. Moolarben Coal Complex Annual Review 2018 Section 12 (Incidents and Non-compliances) Moolarben Coal Complex Annual Review 2019 Section 12 (Incidents and Non-compliances) Moolarben Coal Complex Annual Review 2020 Section 12 (Incidents and Non-compliances) | | | 23/11/2021). Letter viewed during the audit. The following non-compliances relating to the operations on ML 1715 occurred during the audit period: One non-compliance was reported in 2019: <ul style="list-style-type: none"> generation of visible blast plume. One non-compliance was reported in 2021: <ul style="list-style-type: none"> Release of sediment laden water from Dam 413. All non-compliance have been investigated and corrective actions completed. | | |
| | (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; | Mining Operations Plan Version C dated October 2021. | | | The MOP includes: I. Plans 3A, B, and C identify 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. | Complies | |
| CO3 | (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 | Mining Operations Plan Version C dated October 2021. | | | The MOP has been prepared in accordance with the ESG3: Mining Operations Plan (MOP) Guidelines September 2013 | Complies | |
| | (d) The leaseholder may apply to the Director-General to amend the approved MOP at any time. | | Environment and Community Manager - The MOP has been varied accordance with this condition 3 times. | | | Noted | |
| | (e) It is not a breach of this condition if: I. The operations which, but for this condition 3(e) | | | | | Noted | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | 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 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. | | | | | | |
| | (f) The lease holder must prepare a Rehabilitation Report to the satisfaction of the Minister. The report must: I. Provide a detailed review of the progress of rehabilitation against the performance measures and criteria established in the approved MOP; II. Be submitted annually on the grant anniversary date (or at such other times as agreed by the Minister); and III. Be prepared in accordance with any relevant annual reporting guidelines published on the Department's website at www.reources.nsw.gov.au/environment Note: The Rehabilitation Report replaces the Annual Environmental Management Report. | Mining Operations Plan Version C dated October 2021. Rehabilitation Management Plan Version 7 dated 30 October 2020 Moolarben Coal Complex 2018 Annual Review Section 9 Moolarben Coal Complex 2019 Annual Review Section 9 Moolarben Coal Complex 2020 Annual Review Section 9 | | | Rehabilitation of the mine is implemented under the RMP. Rehabilitation activities against the MOP are reported in the Annual Reviews. Rehabilitation progress is covered in section 8. Statement of compliance with approvals is detailed in section 1 of the Annual Reviews. | Complies | |
| | Compliance Report (a) The lease holder must submit a Compliance Report to the satisfaction of the Minister. The report must be prepared in accordance with any relevant guidelines or requirements published by the Minister for compliance reporting. | Moolarben Coal Complex 2018 Annual Review Moolarben Coal Complex 2019 Annual Review Moolarben Coal Complex 2020 Annual Review | | | The 2018, 2019 and 2020 Annual Reviews present a summary of the regulatory compliance, environmental performance, and community engagement activities for MCO. The Annual Reviews state 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). | Complies | |
| CO4 | (b) The Compliance Report must include: i) the extent to which the conditions of this mining lease or any provisions of the Act or the regulations applicable to activities under this mining lease, have or have not been complied with; ii) particulars of any non-compliance with any such conditions or provisions; iii) the reasons for any such non-compliance; iv) any actions taken, or to be taken, to prevent any recurrence, or to mitigate the effects, of that non-compliance. | Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 | | | Statement of compliance with approvals is detailed in section 1. | Complies | |
| CO4 | c) The Compliance Report must be lodged with the Department annually on the grant anniversary date for the life of this mining lease. | Email from RR to MCO (C Chase) titled "ML 1605 (1992), ML 1606 (1992), ML 1628 (1992), ML 1691 (1992), ML 1715 (1992), Annual Environmental Management Report", dated 6 April 2021. | | | Section 2.1 of the 2019 and 2020 Annual Reviews provides a list of key agencies that are provided a copy of the Annual Reviews. Annual Reviews are submitted to RR annually. | Complies | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | d) In addition to annual lodgement under condition 4(c) above, a Compliance Report: i) must accompany any application to renew this mining lease under the Act ii) must accompany any application to transfer this mining lease under the Act; and iii) must accompany any application to cancel, or to partially cancel, this mining lease under the Act | | Environment and Community Manager – this mining lease was not renewed during this audit period. | | | Not Triggered | |
| | 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 | | Environment and Community Manager – No requests for additional compliance reports have been received during the audit period. | | | Not Triggered | |
| | 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. | | | | The mining operations were under progress during this audit period. | Not Triggered | |
| C05 | Environmental Incident Report (a) The lease holder must notify the Department of all: i) breaches of the conditions of this mining lease or breaches of the Act causing or threatening material harm to the environment; and ii) breaches of environment protection legislation causing or threatening material harm to the environment (as defined in the Protection of the Environment Operations Act 1997), arising in connection with significant surface disturbing activities, including mining operations, mining purposes and prospecting operations, under this mining lease. The notification must be given immediately after the lease holder becomes aware of the breach. | Incident Register Complaints Register Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Letter from MCO (G Chase) to the EPA, titled “Environmental Event Report Moolarben Coal Operations Pty Ltd – Blast Event 1 July 2019”, dated 8 July 2019. The report was prepared in response to a request by the EPA on 4 July 2019 for further information. Report by MCO (G Chase) titled “Environmental Event Report Moolarben Coal Operations Pty Ltd – Sediment Dam 413 (EPL22) Release Report”, dated 29 March 2021. The report was prepared in response to the incident by MCO. | | | Reportable incidences are summarised in the Annual Reviews. Environmental reporting requirements including timing, submission and distribution method are summarised in Section 6 (Table 5) of the EMS. Incidents are reported to DPIE, EPA and other relevant agencies via email. 2019 Incidents reported in the Annual Review: <ul style="list-style-type: none"> 1 July: generation of visible blast plume (reportable incident). 2021 Incidents reported in the Annual Review: <ul style="list-style-type: none"> 29 March: release of sediment laden water from Dam 413. Evidence of notification of all reportable incidents was sighted during the audit. | Complies | |
| | 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: i) the details of the mining lease; ii) contact details for the lease holder; iii) a map identifying the location of the incident and where material harm to the environment has or is likely to occur; iv) a description of the nature of the incident or breach, likely causes and consequences; v) a timetable showing actions taken or planned to address the incident and to prevent future incidents or breaches referred to in 5(a) vi) a summary of all previous incidents or breaches which have occurred in the previous 12 months relating to significant surface disturbing activities, including mining operations, mining purposes and prospecting operations under this mining lease. | Incident Register Complaints Register Moolarben Coal Complex Annual Review 2018 Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 Letter from MCO (G Chase) to the EPA, titled “Environmental Event Report Moolarben Coal Operations Pty Ltd – Blast Event 1 July 2019”, dated 8 July 2019. The report was prepared in response to a request by the EPA on 4 July 2019 for further information. Report by MCO (G Chase) titled “Environmental Event Report Moolarben Coal Operations Pty Ltd – Sediment Dam 413 (EPL22) Release Report”, dated 29 March 2021. The report was prepared in response to the incident by MCO. | | | Reportable incidences are summarised in the Annual Reviews. Environmental reporting requirements including timing, submission and distribution method are summarised in Section 6 (Table 5) of the EMS. Incidents are reported to DPIE, EPA and other relevant agencies via email. 2019 Incidents reported in the Annual Review: <ul style="list-style-type: none"> 1 July: generation of visible blast plume (reportable incident). 2021 Incidents reported in the Annual Review: <ul style="list-style-type: none"> 29 March: release of sediment laden water from Dam 413. Evidence of notification of all reportable incidents was sighted during the audit. | Complies | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
|-------|--|--|--|----------------------------|---|----------------------|----------------|
| CO5 | 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 Protection of the Environment Operations Act 1997 arising in connection with significant surface disturbing activities including mining operations, mining purposes and prospecting operations, under this mining lease | <p>Incident Register</p> <p>Complaints Register</p> <p>Moolarben Coal Complex Annual Review 2018</p> <p>Moolarben Coal Complex Annual Review 2019</p> <p>Moolarben Coal Complex Annual Review 2020</p> <p>Letter from MCO (G Chase) to the EPA, titled "Environmental Event Report Moolarben Coal Operations Pty Ltd – Blast Event 1 July 2019", dated 8 July 2019. The report was prepared in response to a request by the EPA on 4 July 2019 for further information.</p> <p>Report by MCO (G Chase) titled "Environmental Event Report Moolarben Coal Operations Pty Ltd – Sediment Dam 413 (EPL22) Release Report", dated 29 March 2021. The report was prepared in response to the incident by MCO.</p> | | | <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 DPIE, EPA and other relevant agencies via email.</p> <p>2019 Incidents reported in the Annual Review:</p> <ul style="list-style-type: none"> 1 July: generation of visible blast plume (reportable incident). <p>2021 Incidents reported in the Annual Review:</p> <ul style="list-style-type: none"> 29 March: release of sediment laden water from Dam 413. <p>Evidence of notification of all reportable incidents was sighted during the audit.</p> | Complies | |
| CO6 | (a) In this condition: I. Approved Extraction Plan means a plan, being: (a) An extraction plan or subsidence management plan approved in accordance with the conditions of a relevant development consent and provided to the Secretary; or (b) A subsidence management plan relating to the mining operations subject to this lease: 1. Submitted to the Secretary on or before 31 December 2014; and 2. Approved by the Secretary. 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>UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020.</p> <p>Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex Stage 1 (PA05_0117) and Stage 2(PA 08_0135) Revisions of Management Plans and Strategies", dated 23/09/2020.</p> <p>Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex Stage 2 (08_0135) Extraction Plan – UG1 Longwalls 101 to 105", dated 09/06/2020. The letter provides DPIE approval of the Extraction Plan and each of the plans and programs contained in the appendices to the Extraction Plan.</p> | <p>Environment and Community Manager – 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>The Extraction Plan has been revised [by MCO with assistance from Mine Subsidence Engineering Consultants, SLR, WRM Water & Environment, Eco Logical Australia Pty Ltd, and Niche Environment and Heritage] in 2020. DPIE endorsed the appointment of experts to prepare the revised plan in December 2019. Attachment 2 of the Extraction Management Plan provides a table of consultation activities with government agencies and includes dates and summaries of consultation activities. A letter from DP&E (dated 09/06/2020) was sighted which approved the extraction plan for the second workings.</p> | Complies | |
| | (b) The lease holder must not undertake any underground mining operations that may cause subsidence except in accordance with an approved Extraction Plan. | <p>Letter from DPIE (S Donoghue) to MCO (G Chase), titled "Moolarben Coal Complex Stage 2 (08_0135) Extraction Plan – UG1 Longwalls 101 to 105", dated 09/06/2020. The letter provides DPIE approval of the Extraction Plan and each of the plans and programs contained in the appendices to the Extraction Plan.</p> | | | <p>The extraction plan was submitted to and approved by DPIE prior to commencement of coal extraction.</p> | Complies | |
| | (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>UG1 Longwalls 101 to 105 Extraction Plan Version 3 Dates June 2020.</p> | | | <p>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> | Complies | |
| | (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) | <p>Incident Register</p> <p>2018 Annual Review Section 8</p> <p>2019 Annual Review Section 8</p> <p>2020 Annual Review Section 8</p> | <p>Environment and Community Manager - - No subsidence related incidents have occurred during the audit period.</p> | | <p>The Annual Reviews covering the Audit Period (Section 8 'Mine Subsidence' Table 28) detail the assessment of subsidence performance indicator measures for Built Features. No Indicators or performance measures were exceeded during the audit period.</p> | Not Triggered | |

MINING LEASES: ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | 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. | | | | | | |
| C07 | 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 | |
| C08 | The lease holder is required to provide and maintain a security deposit to secure funding for the fulfilment of obligations of all or any kind under the mining lease, including obligations of all or any kind under the mining lease that may arise in the future. The amount of the security deposit to be provided as a group security has been assessed by the Minister at \$14,979,000. The lease covered by the group security must include: Mining Lease 1605 (Act 1992) and Mining Lease 1606 (Act 1992) This group security is extended to apply to this lease. | Letter from the RR (M Yuen) to MCO (G Chase) titled "Notice of Variation of Security Deposit Condition Reference: SF21/71377", dated 19 July 2021. Letter from the RR (M Yuen) to MCO (G Chase) titled "Notice of Variation of Security Deposit Condition Reference SF21/70552", dated 19 July 2021. | | | During the audit two letters from Resource Regulator were sighted which confirmed that the security deposits had been lodged: <ul style="list-style-type: none"> Letter dated (19/07/2021) for ML1605, ML1606, ML1715 security deposit \$104,756,000 Letter dated (19/07/2021) for ML1628, ML1991 security deposit \$21,199,000 | Complies | |
| C09 | 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. | Letter from MCO (G Chase) to Santos (A Moody) titled "Moolarben Coal Complex – UG4 Ancillary Works Modification" dated 30 August 2019. Email from Santos (A Moody) to MCO (G Chase) titled "Moolarben Coal Complex – UG4 Ancillary Works Modification" dated 2 September 2019 | Environment and Community Manger - there are overlapping petroleum titles associate with this Mining Lease. | | MCO have consulted with Santos in relation to the overlapping petroleum title associated with the UG4 operations. | Complies | |

WATER LICENCES 20BL173935, WAL39799, WAL 37582, WAL 37583, WAL 41888, WAL 36340

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| 20BL173935 (Bore Licence) | | | | | | | |
| 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 others than those for stock, domestic, test bores and farming purposes. (D) Details of any water analysis and/or pumping tests | Form A's for PZ227 and PZ228 | | | During the audit documentation from construction of bores was viewed. This included Form A (Particulars of completed works) Examples dated 07/11/2020 (PZ227) and 14/11/2020 (PZ228). The Form A for PZ227 was submitted late (7 days) the form A for PZ228 was submitted within the two-month time frame. A) The form showed the drillers licence (licence number 1632) and showed that the driller (Manion Drilling) holds a Class 4 licence. B) Accompanying 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 | Non-Compliance | Provide instructions to drilling supervisors to ensure that all notifications are completed within the required timeframes. |
| 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. | | Environment and Community Manger - No requests for access by NSW Office of Water were received during the audit period. | | No requests for access by NSW Office of Water were received during the audit period. | Not Triggered | |
| 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. | Form A's For PZ227 and PZ228 | | | The construction of each monitoring bore was designed and supervised on-site by a hydrogeologist in consultation with the licensed water bore driller. PVC casings were installed with a perforated section (screen) coincident with the lithology targeted for monitoring, per the Form A's for PZ227 and PZ228 | Not Triggered | |
| 4 | (A) The licensee shall notify NSW Office of Water if a flowing supply (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 pipelines and shall not distribute it in drains, natural or artificial channels or depressions. | | Environment and Community Manger – No flowing water supply was obtained during the audit period. | | Management reported that no flowing water supply was obtained during the audit period. | Not Triggered | |
| 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 | Letter from MCO (G Chase) to Department of Industry (E Avery) titled "Moolarben Coal Operations Pty Ltd – Decommissioning of Groundwater Monitoring Bore PZ187", dated 10 March 2020. Moolarben Coal Borehole Cementing Record Sheet PZ187, dated 22 January 2020. | | | MCO notified the Department that decommissioning works had been completed on six (6) Monitoring Bores associated groundwater licence 20BL173935. 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. | Complies | |

WATER LICENCES 20BL173935, WAL39799, WAL 37582, WAL 37583, WAL 41888, WAL 36340

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | Office of Water. | | | | 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: 12/12/2018 (PZ105B), 20/02/2019 (TB179), 13/12/2018 (TB105), 12/02/2020 (PZ187), 24/01/2020 (PZ186), 20/11/2021 (PZ103B). | | |
| 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. | Incident Register | Environment and Community Manager - no tailwater discharges or drainage from bores occurred during the audit period. | | No incidents relating to drilling, operation or retiring of bores were reported during the audit period. | Complies | |
| 7 | Water shall not be pumped from the bore authorised by this license for any purpose other than groundwater investigation. | Incident Register | Environment and Community Manager - No groundwater was extracted during the audit period for any purpose other than groundwater investigation. | | No groundwater extraction occurred during the audit period for any purpose other than groundwater investigation. | Complies | |

WAL39799 – 20BL172002

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|---|--|--|---|--|---|---------------|--|
| 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. | | Environment and Community Manager – no new bores that pass through alluvial sediments have been constructed during the reporting period | | No new bores that pass through alluvial sediments have been constructed during the reporting period. | Not Triggered | |
| 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. | 2018 Independent Environmental Audit Water Management Plan Version 6 dated 28 October 2020. Groundwater Management Plan Version 4 dated 28 October 2020. | | | Compliance with this condition was verified during the 2018 IEA. Figure 2 of the Water licence Report (2014-2015) is a map of the alluvium and Paleochannel and the extent of impact of the relevant extraction bores. Groundwater Management Plan Table A5 provides details of all bores, production, monitoring and standpipes, including geo-location. | Complies | |
| 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. | Water Management Plan Version 6 dated 28 October 2020. Site Water Balance Version 4 dated 28 October 2020. | | | Site Water Balance is detailed in the Water Management Plan appendix 1 - Site Water Balance. | Complies | |
| 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 | Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | | | Section 7 of the 2018 and 2019 and 2020 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, SLR, HydroSimulations | Complies | |

WATER LICENCES 20BL173935, WAL39799, WAL 37582, WAL 37583, WAL 41888, WAL 36340

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | 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. | | | | and Peter Dundon. Water take has been reported in 6 monthly periods in the 2018 Annual Review (Table 22) 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23). Section 2.1 of the 2018, 2019 and 2020 Annual Reviews states that the review is provided to various key agencies including NSW Department of Planning, Industry and Environment – Water (DPIE – Water)/Natural Resources Access Regulator (NRAR) (2018 states NSW Department of Industries - Lands and Water (DI- Water). | | |
| 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. | Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | | | (I) The total volume of groundwater extracted is included in section 7 of the 2018 and 2019 and 2020 Annual Reviews. The 2018 Annual Review (Table 22), 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23) which covers groundwater extraction (bores) inflows. (II) An estimate of the total volume of groundwater taken from the alluvial water source(s) is included in section 7 of the 2018 Annual Review (Table 22), 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23) which details the water takes from various alluvial water sources. | Complies | |
| 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. | Water Management Plan Version 6 dated 28 October 2020. Groundwater Management Plan Version 4 dated 28 October 2020. Surface Management Plan Version 4 dated 28 October 2020. | | | The GWMP and SWMP were revised in October 2020. The revision history table notes the revision has been undertaken for General Review and Update. | Complies | |
| 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. | M1 Form A (M1 21/01/2018) | | | During the audit documentation from construction of bores was viewed. This included Form A (Particulars of completed works) (M1 21/01/2018). The form showed the drillers licence (licence number 1632) and showed that the driller (Gricks Drilling) holds a Class 4 licence. | Complies | |
| 8 | All bores must be constructed in accordance with the minimum construction requirements for water Bores in Australia 2012 or any alternative drilling standards as published or notified by the Department of Primary Industries Water. | M1 Form A (M1 21/01/2018) | | | During the audit documentation from construction of bores was viewed. This included Form A (Particulars of completed works) (M1 21/01/2018). The form showed the drillers licence (licence number 1632) and showed that the driller (Gricks Drilling) holds a Class 4 licence. | Complies | |
| 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) (II) Details of existing bores (III) A plan showing accurately the location of the bore(s) in relation to portion and property boundaries; and | M1 Form A (M1 21/01/2018) | | | M1 was completed in 2018 but notice was not issued to Department of Primary Industries - Water until 31/01/2019 (i) The details were submitted on a Form A (the prescribed form). The form showed the drillers licence (licence number 1632) and showed that the driller (Gricks Drilling) holds a Class 4 licence. (ii) Accompanying the form shows the location of the work on a cadastral map. this is included as part of the forms submitted to MCO. The existing bores were previously provided (2014-2015 Water Licence Report | Non-Compliance | Provide instructions to drilling supervisors to ensure that all notifications are completed within the required timeframes. |

WATER LICENCES 20BL173935, WAL39799, WAL 37582, WAL 37583, WAL 41888, WAL 36340

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
|-------|---|--|--|--|---|----------------------|----------------|
| | (IV) Details of water analyses and/or bore construction pump tests. | | | | outside of the scope of this Audit) (iii) Plan showing the location of the bore is included as part of the Form A Submission (D) Water analysis and pump testing are part of Form A | | |
| 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 (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 (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. | | Environment and Community Manager - No bores were decommissioned under WAL39799 during the reporting period. | | No bores were decommissioned under WAL39799 during the reporting period. | Not Triggered | |
| 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. | Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | Environment and Community Manager – No production bore was used for the extraction of water in 2019, 2020 or 2021. | | No production bore was used for the extraction of water in 2019, 2020 or 2021.. | Not Triggered | |
| 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; (II) Provide a summary of new bores or pits constructed during that year; (III) Provide key statistics for the monitoring data collated for each bore for the previous water year; (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 (V) Include any recommendations or measures to be taken for improvements for the new water year. | Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | | | (i) Section 1.0 of the 2018, 2019 and 2020 Annual Review contains the statement of compliance with relevant approval conditions including WAL39799 (ii) Section 4.0 of the 2018, 2019 and 2020 Annual Review contains details of activities undertaken during the reporting period. (iii) Key statistics for monitoring data has been reported in 6 monthly periods in the 2018 Annual Review (Table 22) 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23) (iv) A description of relevant events that impacted on groundwater during the reporting period is included in section 7.4 of the 2018, 2019 and 2020 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. (v) Recommendations for improvement are included in section 7.4.4 of the 2018, 2019 and 2020 Annual Review which provides actions for next reporting period. | Complies | |
| 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; (II) Assess compliance with the Terms and Conditions of this Licence; and (III) Provide recommendations regarding any works that | 2018 Independent Environment Audit | | The current IEA considers this condition | The 2018 IEA reviewed compliance against this Water Licence. The current IEA incorporates the requirements of this condition. | Complies | |

WATER LICENCES 20BL173935, WAL39799, WAL 37582, WAL 37583, WAL 41888, WAL 36340

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
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| | 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. | | | | | | |
| 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 12month period commencing 1st July. | Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | Environment and Community Manager – No water was extracted from production bore works in during the audit period. | | The volume of groundwater extracted is included in section 7 of the 2018 Annual Review (Table 22), 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23). The volume extracted did not exceed the licence entitlements during the audit period. | Complies | |
| 15 | The number of works authorised by this licence is limited to 25. | | | | | Noted | |
| 16 | This licence is not transferrable and at the end of mining operations, the volume attached to this licence shall lapse. | | | | | Noted | |
| WAL39799 – 20BL173923 | | | | | | | |
| | 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. | | Environment and Community Manager – The 20BL173923 conditions of WAL39799 apply to mine excavations only. No new bores that pass through alluvial sediments have been constructed during the reporting period | | No new bores that pass through alluvial sediments have been constructed during the reporting period. | Not Triggered | |
| 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. | 2018 Independent Environmental Audit Water Management Plan Version 6 dated 28 October 2020. Groundwater Management Plan Version 4 dated 28 October 2020. | | | Compliance with this condition was verified during the 2018 IEA. Figure 2 of the Water licence Report (2014-2015) is a map of the alluvium and Paleochannel and the extent of impact of the relevant extraction bores. Groundwater Management Plan Table A5 provides details of all bores, production, monitoring and standpipes, including geo-location. Section 6 of the Groundwater Management Plan describes the method of determining take associated from this water licence. | Complies | |
| 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. | Water Management Plan Version 6 dated 28 October 2020. Site Water Balance Version 4 dated 28 October 2020. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | | | Site Water Balance is detailed in the Water Management Plan appendix 1 - Site Water Balance. Water budget is included in section 7 of the 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23). | Complies | |

WATER LICENCES 20BL173935, WAL39799, WAL 37582, WAL 37583, WAL 41888, WAL 36340

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
|-------|--|--|--|----------------------------|--|------------|----------------|
| 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. | Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | | | Section 7 of the 2018 and 2019 and 2020 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, SLR, HydroSimulations and Peter Dundon. Water take has been reported in 6 monthly periods in the 2018 Annual Review (Table 22) 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23). (I) The total volume of groundwater extracted is included in section 7 of the 2018 and 2019 and 2020 Annual Reviews. The 2018 Annual Review (Table 22), 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23) which covers groundwater extraction (bores and excavations) inflows. (II) An estimate of the total volume of groundwater taken from the alluvial water source(s) is included in section 7 of the 2018 Annual Review (Table 22), 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23) which details the water takes from various alluvial water sources. Section 2.1 of the 2018, 2019 and 2020 Annual Reviews states that the review is provided to various key agencies including NSW Department of Planning, Industry and Environment – Water (DPIE – Water)/Natural Resources Access Regulator (NRAR) (2018 states NSW Department of Industries - Lands and Water (DI- Water). | Complies | |
| 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. | Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | | | The GWMP and SWMP were revised in October 2020. The revision history table notes the revision has been undertaken for General Review and Update. | Complies | |
| 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. | Water Management Plan Version 6 dated 28 October 2020. Groundwater Management Plan Version 4 dated 28 October 2020. Surface Management Plan Version 4 dated 28 October 2020. | Environment and Community Manager - The extraction of water under this licence condition is associated with mine workings only (not bores). Dewatering system includes flow meters and data loggers to measure and record dewatering. | | The extraction of water under this licence condition is associated with mine workings only (not bores). | Complies | |
| 7 | (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; (II) Provide a summary of new bores or pits constructed during that year; (III) Provide key statistics for the monitoring data collated for each bore for the previous water year; (IV) Summarise events that impacted on groundwater during the previous water year, including actions taken to remedy groundwater impacts in excess of project | Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | | | (i) Section 1.0 of the 2018, 2019 and 2020 Annual Review contains the statement of compliance with relevant approval conditions including WAL39799 (ii) Section 4.0 of the 2018, 2019 and 2020 Annual Review contains details of activities undertaken during the reporting period. (iii) Key statistics for monitoring data has been reported in 6 monthly periods in the 2018 Annual Review (Table 22) 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23) (iv) A description of relevant events that impacted on groundwater during the reporting period is included in section 7.4 of the 2018, 2019 and 2020 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 | Complies | |

WATER LICENCES 20BL173935, WAL39799, WAL 37582, WAL 37583, WAL 41888, WAL 36340

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
|-------|---|--|------------|--|--|------------|----------------|
| | environmental assessments predictions and relevant extra monitoring results; and (V) Include any recommendations or measures to be taken from improvements for the new water year. | | | | reporting period and baseline levels indicating general consistency. (v) Recommendations for improvement are included in section 7.4.4 of the 2018, 2019 and 2020 Annual Review which provides actions for next reporting period. | | |
| 8 | (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. | 2018 Independent Environment Audit | | The current IEA considers this condition | The 2018 IEA reviewed compliance against this Water Licence. The current IEA incorporates the requirements of this condition. | Complies | |
| 9 | (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 12month period commencing 1st July. | Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | | | The volume of groundwater extracted is included in section 7 of the 2018 Annual Review (Table 22), 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23). The volume extracted did not exceed the licence entitlements during the audit period. | Complies | |
| 10 | (10) The number of works authorised by this licence is limited to 25. | | | | | Noted | |

WAL37582 (Upper Goulburn River)

| | | | | | | | |
|----------------------|--|--|--|--|--|----------|--|
| MW06 05- 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. | | Environment and Community Manager – WAL37582 is for indirect take. MCO does not actively pump from the Upper Goulburn River or Wollar Creek catchment | | | Noted | |
| MW06 03- 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. | Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | Environment and Community Manager – The extraction of water under this licence is associated with mine workings. | | This information is included in section 7 of the 2018 Annual Review (Table 22), 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23). The volume extracted did not exceed the licence entitlements during the audit period. Note: MCO's water licences are for incidental take. MCO does not actively pump from the Upper Goulburn River or Wollar Creek catchment. | Complies | |
| MW09 13- 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 | |
| MW23 38- 00001 | The completed logbook must be retained for five (5) years from the last date recorded in the logbook. | Water Management Plan Version 6 dated 28 October 2020. Groundwater Management Plan Version 4 dated 28 October 2020. Surface Management Plan Version 4 dated 28 October 2020. | Environment and Community Manager – WAL37582 is for indirect take. MCO does not actively pump from the Upper Goulburn River or Wollar Creek catchment. | | Water Access Licence (WAL37582) is for indirect water take. This is required when mining increases connection to overlying and underlying strata, and the hydraulic gradients result in the change in flow of groundwater to the mine area. This flow results in indirect take from the surrounding strata. Note that water extracted from the underground mining operations is monitored by flow meters and data | Complies | |

WATER LICENCES 20BL173935, WAL39799, WAL 37582, WAL 37583, WAL 41888, WAL 36340

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
|----------------------|--|--|---|----------------------------|--|----------------------|----------------|
| | | Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | | | loggers. All underground dewatering data is recorded in the MCO SCADA System (refer to Condition MW2339-00001 below). Section 6 of the Groundwater Management Plan describes the method of determining take associated from this water licence. All groundwater data is reported in section 7 of the 2018 Annual Review (Table 22), 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23). | | |
| MW23 36- 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. | | Environment and Community Manager – WAL37582 is for indirect 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. MCO does not use any extracted water for cropping. | | Refer to Condition MW2338-00001 above. No water extracted from MCO is used for cropping. | Not Triggered | |
| MW23 37- 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. | Water Management Plan Version 6 dated 28 October 2020. Groundwater Management Plan Version 4 dated 28 October 2020. Surface Management Plan Version 4 dated 28 October 2020. Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | Environment and Community Manager – WAL37582 is for indirect 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. No water associated with the water licence is used for stock or domestic consumption by MCO. | | A. Refer to Condition MW2338-00001 above. 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 of the 2018 Annual Review (Table 22), 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23). 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 or domestic consumption occurs. | Complies | |
| MW06 06- 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. | Water Management Plan Version 6 dated 28 October 2020. Groundwater Management Plan Version 4 dated 28 October 2020. Surface Management Plan Version 4 dated 28 October 2020. Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | Environment and Community Manager – WAL37582 is for indirect 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. No water associated with the water licence is used for stock or domestic consumption by MCO. | | Refer to Condition MW2338-00001 above. Water take for each water licence is detailed in section 7 of the 2018 Annual Review (Table 22), 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23). 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. | Complies | |
| MW23 39- 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. | | Environment and Community Manager - WAL37582 is for indirect take. MCO does not actively pump from the Upper Goulburn River or Wollar Creek catchment. The underground dewatering system is fitted with flow meters and data loggers. Data is recorded using a range of different systems including the MCO SCADA System, monthly records are also maintained using the site water balance sheet. MCO measures water take in accordance with the approved Water Management Plan. | | Water extracted from the mining operations is monitored by flow meters with data loggers. This data is recorded using a range of different systems including the MCO SCADA System monthly records are also maintained using the site water balance sheet. | Complies | |

WATER LICENCES 20BL173935, WAL39799, WAL 37582, WAL 37583, WAL 41888, WAL 36340

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation | |
|--------------------------------|---|--|---|----------------------------|------------|---|----------------------|--|
| MW00 51- 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. | | Environment and Community Manager – MCO had no non-compliances against this water licence during the audit period. | | | There are no non-compliances reported under this water licence. | Not Triggered | |
| WAL37583 (Wollar Creek) | | | | | | | | |
| MW06 05- 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. | | Environment and Community Manager – WAL37583 is for indirect take. MCO does not actively pump from the Wollar Creek catchment. | | | | Noted | |
| MW06 03- 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. | Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | | | | This information is included in section 7 of the 2018 Annual Review (Table 22), 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23). The volume extracted did not exceed the licence entitlements during the audit period. Note: MCO's water licences are for incidental take. MCO does not actively pump from the Upper Goulburn River or Wollar Creek catchment. | Complies | |
| MW09 13- 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 | |
| MW23 38- 00001 | The completed logbook must be retained for five (5) years from the last date recorded in the logbook. | Water Management Plan Version 6 dated 28 October 2020. Groundwater Management Plan Version 4 dated 28 October 2020. Surface Management Plan Version 4 dated 28 October 2020. Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | Environment and Community Manager – WAL37583 is for indirect take. MCO does not actively pump from the Upper Goulburn River or Wollar Creek catchment | | | Water Access Licence (WAL37583) is for indirect I water take from Wollar Creek. This is required when mining increases connection to overlying and underlying strata, and the hydraulic gradients result in the change in flow of groundwater to the mine area. This flow results in indirect take from the surrounding strata. Note that water extracted from the mining operations is monitored by flow meters with data loggers. This data is recorded using a range of different systems including the MCO SCADA System monthly records are also maintained using the site water balance sheet. (refer to Condition MW2339-00001 below). Section 6 of the Groundwater Management Plan describes the method of determining take associated from this water licence. All groundwater data is reported in section 7 of the 2018 Annual Review (Table 22), 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23). | Complies | |
| MW23 36- 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. | | Environment and Community Manager – MCO does not use any extracted water for cropping. | | | MCO does not use any extracted water for cropping. | Not Triggered | |

WATER LICENCES 20BL173935, WAL39799, WAL 37582, WAL 37583, WAL 41888, WAL 36340

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
|--|--|--|---|----------------------------|---|----------------------|----------------|
| WAL41888 (Upper Goulburn River Aquifer) | | | | | | | |
| MW06 03- 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. | Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | Environment and Community Manager – The extraction of water under this licence is associated with indirect take. MCO does not actively pump from the Upper Goulburn River Aquifer. | | This information is included in section 7 of the 2018 Annual Review (Table 22), 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23). The volume extracted did not exceed the licence entitlements during the audit period. Note: MCO's water licences are for incidental take. MCO does not actively pump from the Upper Goulburn River or Wollar Creek aquifer. | Complies | |
| MW06 05- 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. | | Environment and Community Manager – WAL41888 is for indirect take. MCO does not actively pump from the Upper Goulburn River Creek aquifer. | | | Noted | |
| MW09 13- 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 | |
| MW42 98- 00001 | If the water supply work nominated on this access licence takes water in the Upper Goulburn River 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. | | Environment and Community Manager – WAL41888 is for indirect take. MCO does not actively pump from the Upper Goulburn River Creek aquifer | | MCO did not actively pump from the Upper Goulburn River aquifer during the audit period | Not Triggered | |
| MW23 38- 00001 | The completed logbook must be retained for five (5) years from the last date recorded in the logbook. | Water Management Plan Version 6 dated 28 October 2020. Groundwater Management Plan Version 4 dated 28 October 2020. Surface Management Plan Version 4 dated 28 October 2020. Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | Environment and Community Manager – No water has been pumped from the Upper Goulburn River during the past five years. | | Water Access Licence (WAL41888) is for indirect water take from the Goulburn River aquifer. This is required when mining increases connection to overlying and underlying strata, and the hydraulic gradients result in the change in flow of groundwater to the mine area. This flow results in indirect take from the surrounding strata. Note that water extracted from the mining operations is monitored by flow meters with data loggers. This data is recorded using a range of different systems including the MCO SCADA System monthly records are also maintained using the site water balance sheet. All groundwater data is reported in section 7 of the 2018 Annual Review (Table 22), 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23). | Not Triggered | |
| MW23 36- 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. | | Environment and Community Manager – MCO does not use any extracted water for cropping. | | MCO does not use any extracted water for cropping. | Not Triggered | |
| MW06 06- 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. | Water Management Plan Version 6 dated 28 October 2020. Groundwater Management Plan Version 4 dated 28 October 2020. Surface Management Plan Version 4 dated 28 October 2020. | Environment and Community Manager – WAL41888 is for indirect take. MCO does not actively pump from the Upper Goulburn River or Wollar Creek aquifers. MCO measures water take in accordance with the approved Water | | A. Refer to Condition MW2338-00001 above. MCO's water licences are for indirect take. MCO does not actively pump from the Upper Goulburn River or Wollar Creek aquifers. 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 of the 2018 Annual Review (Table 22), 2019 | Complies | |

WATER LICENCES 20BL173935, WAL39799, WAL 37582, WAL 37583, WAL 41888, WAL 36340

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
|--|--|--|--|----------------------------|--|----------------------|----------------|
| | | Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | Management Plan. No water associated with the water licence is used for stock or domestic consumption by MCO. | | Annual Review (Table 22) and 2020 Annual Review (Table 23). 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 or domestic consumption occurs. | | |
| MW23 37- 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. | Water Management Plan Version 6 dated 28 October 2020. Groundwater Management Plan Version 4 dated 28 October 2020. Surface Management Plan Version 4 dated 28 October 2020. Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | Environment and Community Manager – WAL41888 is for indirect take. MCO does not actively pump from the Upper Goulburn River or Wollar Creek aquifers.. MCO measures water take in accordance with the approved Water Management Plan. No water associated with the water licence is used for stock or domestic consumption by MCO. | | Refer to Condition MW2338-00001 above. Water take for each water licence is detailed in section 7 of the 2018 Annual Review (Table 22), 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23). 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. | Complies | |
| MW23 39- 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. | | Environment and Community Manager - WAL41888 is for indirect take. MCO does not actively pump from the Upper Goulburn River or Wollar Creek aquifer. Water extracted from the mining operations is monitored by flow meters with data loggers. This data is recorded using a range of different systems including the MCO SCADA System monthly records are also maintained using the site water balance sheet. | | Water extracted from the mining operations is monitored by flow meters with data loggers. This data is recorded using a range of different systems including the MCO SCADA System monthly records are also maintained using the site water balance sheet. | Complies | |
| MW00 51- 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. | | Environment and Community Manager – MCO had no non-compliances against this water licence during the audit period. | | There are no non-compliances reported under this water licence. | Not Triggered | |
| WAL36340 (Wollar Creek Aquifer) | | | | | | | |
| MW06 03- 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. | Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | Environment and Community Manager – The extraction of water under this licence is associated with mine workings. MCO does not actively pump from the Wollar Creek Aquifer | | This information is included in section 7 of the 2018 Annual Review (Table 22), 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23). The volume extracted did not exceed the licence entitlements during the audit period. Note: MCO's water licences are for incidental take. MCO does not actively pump from the Upper Goulburn River or Wollar Creek aquifer. | Complies | |
| MW06 05- 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. | | Environment and Community Manager – WAL36340 is for indirect take. MCO does not actively pump from the Wollar Creek aquifer | | | Noted | |

WATER LICENCES 20BL173935, WAL39799, WAL 37582, WAL 37583, WAL 41888, WAL 36340

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
|----------------------|--|--|--|----------------------------|--|----------------------|----------------|
| MW09 13- 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 | |
| MW43 01- 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. | | Environment and Community Manager – The extraction of water under this licence is associated with mine workings. MCO does not actively pump from the Wollar Creek aquifer. | | MCO did not actively pump from the Wollar Creek aquifer during the audit period | Not Triggered | |
| MW23 38- 00001 | The completed logbook must be retained for five (5) years from the last date recorded in the logbook. | Water Management Plan Version 6 dated 28 October 2020. Groundwater Management Plan Version 4 dated 28 October 2020. Surface Management Plan Version 4 dated 28 October 2020. Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | Environment and Community Manager – No water has been pumped from the Wollar Creek Aquifer during the past five years. | | Water Access Licence (WAL36340) is for indirect water take from the Wollar Creek Aquifer. This is required when mining increases connection to overlying and underlying strata, and the hydraulic gradients result in the change in flow of groundwater to the mine area. This flow results in indirect take from the surrounding strata. Note that water extracted from the mining operations is monitored by flow meters with data loggers. This data is recorded using a range of different systems including the MCO SCADA System monthly records are also maintained using the site water balance sheet. All groundwater data is reported in section 7 of the 2018 Annual Review (Table 22), 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23). | Not Triggered | |
| MW23 36- 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. | | Environment and Community Manager – MCO does not use any extracted water for cropping. | | MCO does not use any extracted water for cropping. | Not Triggered | |
| MW06 06- 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. | Water Management Plan Version 6 dated 28 October 2020. Groundwater Management Plan Version 4 dated 28 October 2020. Surface Management Plan Version 4 dated 28 October 2020. Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | Environment and Community Manager – WAL36340 is for indirect take. MCO does not actively pump from the Upper Goulburn River or Wollar Creek aquifer. MCO measures water take in accordance with the approved Water Management Plan. No water associated with the water licence is used for stock or domestic consumption by MCO. | | A. Refer to Condition MW2338-00001 above. MCO's water licences are for incidental take. MCO does not actively pump from the Upper Goulburn River or Wollar Creek aquifer. 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 of the 2018 Annual Review (Table 22), 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23). 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 or domestic consumption occurs. | Complies | |
| MW23 37- 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. | Water Management Plan Version 6 dated 28 October 2020. Groundwater Management Plan Version 4 dated 28 October 2020. Surface Management Plan Version 4 dated 28 October 2020. Moolarben Coal Complex Annual Review 2018. Moolarben Coal Complex Annual Review 2019. Moolarben Coal Complex Annual Review 2020. | Environment and Community Manager – WAL36340 is for indirect 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. No water associated with the water licence is used for stock or domestic consumption by MCO. | | Refer to Condition MW2338-00001 above. Water take for each water licence is detailed in section 7 of the 2018 Annual Review (Table 22), 2019 Annual Review (Table 22) and 2020 Annual Review (Table 23). 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. | Complies | |

WATER LICENCES 20BL173935, WAL39799, WAL 37582, WAL 37583, WAL 41888, WAL 36340

| Cond. | Condition | Documents Reviewed | Interviews | Inspections / Observations | Assessment | Compliance | Recommendation |
|----------------------|---|--------------------|---|----------------------------|---|----------------------|----------------|
| MW23 39- 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. | | Environment and Community Manager - WAL36340 is for indirect take. MCO does not actively pump from the Upper Goulburn River or Wollar Creek catchment. Water extracted from the mining operations is monitored by flow meters with data loggers. This data is recorded using a range of different systems including the MCO SCADA System monthly records are also maintained using the site water balance sheet. | | Water extracted from the mining operations is monitored by flow meters with data loggers. This data is recorded using a range of different systems including the MCO SCADA System monthly records are also maintained using the site water balance sheet. | Complies | |
| MW00 51- 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. | | Environment and Community Manager – MCO had no non-compliances against this water licence during the audit period. | | There are no non-compliances reported under this water licence. | Not Triggered | |

Audit Photographs

Appendix B



Photograph 1 Blasting Notification Board



Photograph 2 - Air Quality Monitoring Station



Photograph 3 - Weather Station



Photograph 4 - Mine Water Storage (near OC3)



Photograph 5 - Mine Water Treatment Plant



Photograph 6 – Rehabilitation (OC1)



Photograph 7 - MCO Fire Truck (parked outside of fire equipment store)



Photograph 8 - General Waste and Paper / Cardboard Storage at Water Treatment Plant



Photograph 9 - Waste Oil Storage Area at Coal Processing Plant



Photograph 10 - Progressive Rehabilitation Works at OC4



Photograph 12 - Water Treatment Plant Discharge to Goulburn River



Photograph 11 - Water Treatment Plant Monitoring Point (EPA 1)



Photograph 13 - Water Supply Pipeline from the Ulan Coal Mine



Photograph 14 - Bulk Fuel Storage



Photograph 15 Flammable Goods Storage



Photograph 16 - Upgraded On-site Sewage Treatment Plant



Photograph 18 - Spill Kit (at bulk fuel storage bund)



Photograph 17 - Powers Conservation Area

DPIE Auditor Approval

Appendix C



Mr Trent Cini
Environment and Community Manager
Moolarben Coal Operations Pty Ltd
12 Ulan-Wollar Road
Ulan NSW 2850

11/10/2021

Dear Mr Cini

MOOLARBEN COAL COMPLEX: STAGE 1 PROJECT APPROVAL (05_0117) AND STAGE 2
PROJECT APPROVAL (08_0135) – INDEPENDENT ENVIRONMENTAL AUDIT TEAM
ENDORSEMENT

I refer to your request (MP08_0135-PA-15) submitted to the Department of Planning, Industry and Environment (the Department) on 6 October 2021 for the Secretary's approval of suitably qualified persons to undertake the Independent Environmental Audit 2021 (the Audit) and prepare the Audit report for Moolarben Coal Complex (the Project) in accordance with Project Approvals 05_0117 and 08_0135.

In accordance with Schedule 5 condition 9 of PA 05_0117 and Schedule 6 condition 9 of PA 08_0135 and the Independent Audit Post Approval Requirements, the Secretary has agreed to the following Audit team to undertake the Audit and prepare the Audit report:

- Lead Auditor and Air quality – Mr Ken Holmes;
- Surface water – Mr Adam Bishop;
- Groundwater – Mr Brian Luinstra;
- Subsidence – Mr Simon Fag;
- Ecology – Ms Katrina Wolf;
- Noise – Mr Oliver Muller;
- Rehabilitation – Mr Andrew Hutton and
- Heritage – Dr Shaun Canning.

This approval is conditional on the audit team being independent of the development.

Please ensure this correspondence is appended to the Audit report and that all members sign the declaration form and append to the Audit report.

The Audit is to be conducted in accordance with the conditions of approvals and IAPAR. A copy of the requirements can be located at <http://planning.nsw.gov.au/Assess-and-Regulate/About-compliance/Compliance-policy-and-guidelines/Independent-audit-post-approval-requirements>.

Auditors may wish to have regard to AS/NZS ISO 19011 Australian/New Zealand Standard: Guidelines for quality and/or environmental management systems.

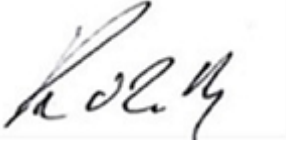
The Department reserves the right to request an alternate auditor or audit team for future audits.

Notwithstanding the agreement for the above listed audit team for this Project, each respective project approval or consent requires a request for the agreement to the auditor or audit team be submitted to the Department, for consideration of the Secretary. Each request is reviewed and depending on the complexity of future projects, the suitability of a proposed auditor or audit team will be considered.

Within 3 months of the Audit, or as otherwise agreed by the Secretary, Moolarben Coal is to submit a copy of the Audit report to the Secretary together with its response to any recommendations contained in the Audit report and a timetable to implement the recommendations. Prior to submitting the Audit report to the Secretary, it is recommended that Moolarben Coal review the report to ensure it complies with the relevant consent condition.

If you wish to discuss the matter further, please contact me on 0429400261.

Yours sincerely

A handwritten signature in black ink, appearing to read 'K. O'Reilly', enclosed in a thin black rectangular border.

Katrina O'Reilly
Team Leader - Compliance
Compliance
As nominee of the Planning Secretary

Stakeholder Consultation Reponses

Appendix D

From: [Andrew Helms](#)
To: [Ken Holmes](#)
Subject: RE: Moolarben Coal - 2021 Independent Environmental Audit - Consultation Request EPA
Date: Friday, 10 December 2021 5:15:34 PM
Attachments: [image002.png](#)

Hi Ken – your request below did eventually find its way back to me to action, and apologies for the delay in responding to you.

I can make the following observations regarding Moolarben Coal’s operations for the period December 2018 to December 2021:-

- Complaints – The EPA received 29 complaints in 2019 (26 noise, 3 air/odour), 6 complaints in 2020 (4 noise, 2 air/odour) and 1 complaint in 2021 to date (air quality – received this week);
- Self-reports – The EPA received a self-report from Moolarben in both 2020 and 2021, both were related to uncontrolled discharges from the dirty water system. One of these was during the March 2021 storm events.
- Inspections – the EPA has carried out 5 inspections in 2019 – with 4 of these comprising attended noise monitoring across the year following the large number of complaints from 4 neighbours.
- Annual Return – Moolarben has reported non-compliances in each of the 3 Annual Returns during the audit period. The non-compliances involved incomplete continuous air monitoring data (on account of power failures, maintenance periods, etc) and missed sampling or analytes associated with surface water monitoring.

Generally Moolarben’s environmental management has been good during this period. Noise monitoring in 2019 did not indicate any exceedances of licence limits nor verify the noise complaints received. Numbers of complaints have dropped over the period and certainly have dropped significantly over the past 10 years.

The EPA currently has no outstanding issues with Moolarben’s operation of the site – Moolarben of course, need to maintain the standard they have created over recent years – especially in regard to dirty water management during these wet times.

Happy to discuss any of this should you wish.

Regards,

Andrew Helms
Regional Operations Officer
Regulatory Operations
NSW Environment Protection Authority
D 02 6333 3805



www.epa.nsw.gov.au [@NSW_EPA](#)

The EPA acknowledges the traditional custodians of the land and waters where we work. As part of the

*world's oldest surviving culture, we pay our respect to
Aboriginal elders past, present and emerging.*

Report pollution and environmental incidents
131 555 or +61 2 9995 5555

From: Ken Holmes <Ken@baeckea.com.au>
Sent: Tuesday, 16 November 2021 2:04 PM
To: Andrew Helms <Andrew.Helms@epa.nsw.gov.au>
Subject: Moolarben Coal - 2021 Independent Environmental Audit - Consultation Request EPA

Good Afternoon Andrew,

I have been commissioned to undertake the 2021 Independent Environmental Audit (**IEA**) of Moolarben Coal Mine. The audit will commence in early December 2021. The IEA will be undertaken accordance with the Stage 1 Project Approval 05_01117 (Schedule 5 Condition 9) and the Stage 2 Project Approval (Schedule 6 Condition 9) that require:

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:

- (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;*
- (b) include consultation with the relevant agencies;*
- (c) assess the environmental performance of the project and assess whether it is complying with the requirements in this approval, and any other relevant approvals, relevant EPL/s and/or Mining Lease (including any assessment, plan or program required under these approvals);*
- (d) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals; and*
- (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.*

The audit will be undertaken in accordance with DPIE's Independent Audit Post Approval and will include an assessment of compliance with the project's Environment Protection Licence, EPBC approval and mining leases.

The Approval require that the Auditor consults with relevant agencies. I would therefore appreciate if you could provide me with any information, comments or concerns that the EPA may have regarding the environmental performance of the operation (over the past three years – the audit period) and details of any specific issues you suggest that the Auditor addresses during the audit.

Please do not hesitate to contact me if you require any additional information.

Thanks and Regards,

Ken Holmes
Lead Auditor

Principal Environmental Consultant

Director

Barnett & May

P +61 (0)438 046 261

E ken@baecka.com.au

A PO Box 365 Belrose NSW 2085

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Any views expressed in this email are those of the individual sender except where the sender expressly and with authority states them to be the views of the Environment Protection Authority.

PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS EMAIL

From: [Nicholas Scholar](#)
To: [Ken Holmes](#)
Cc: [Audit](#); [Hennigan, Stephen \(Agriculture\)](#); [EPBC Monitoring](#)
Subject: RE: Moolarben Coal - 2021 Independent Environmental Audit - Consultation Request DAWE [SEC=UNOFFICIAL]
Date: Thursday, 25 November 2021 9:20:04 AM

Good Morning Ken,

Thanks for your time on the phone the other day.

In terms of the Moolarben Coal project (EPBC 2007/3297) and related other EPBC Act approvals (2013/6926, 2008/4444 and 2017/7974), the department's main area of interest lies in the progress of securing the offset property and implementing the rehabilitation and offset management strategy (condition 1 to 3 of EPBC 2007/3297). I understand the offset requirements are still a work in progress.

It would be great to remain in contact during the audit process.

Let me know if you need any further details.

Regards

Nicholas Scholar

Assistant Director | Environmental Audit Section

Environment Compliance Branch

Compliance and Enforcement Division

Department of Agriculture, Water and the Environment

P: 02 6274 1284 | M: 0427 786 515

E: nicholas.scholar@environment.gov.au

From: Ken Holmes <Ken@baeckea.com.au>
Sent: Friday, 19 November 2021 11:46 AM
To: Nicholas Scholar <Nicholas.Scholar@environment.gov.au>
Subject: Moolarben Coal - 2021 Independent Environmental Audit - Consultation Request DAWE [SEC=UNOFFICIAL]

Good Afternoon Nicholas,

I have been commissioned to undertake the 2021 Independent Environmental Audit (**IEA**) of Moolarben Coal Mine. The audit will commence in early December 2021. The IEA will be undertaken accordance with the Stage 1 Project Approval 05_01117 (Schedule 5 Condition 9) and the Stage 2 Project Approval (Schedule 6 Condition 9) that require:

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:

- (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;*
- (b) include consultation with the relevant agencies;*

(c) assess the environmental performance of the project and assess whether it is complying with the requirements in this approval, and any other relevant approvals, relevant EPL/s and/or Mining Lease (including any assessment, plan or program required under these approvals);
(d) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals; and
(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.

The audit will be undertaken in accordance with DPIE's Independent Audit Post Approval and will include an assessment of compliance with the project's Environment Protection Licence, EPBC approval and mining leases.

The Approval require that the Auditor consults with relevant agencies. I would therefore appreciate if you could provide me with any information, comments or concerns that your Department may have regarding the environmental performance of the operation (over the past three years – the audit period) and details of any specific issues you suggest that the Auditor addresses during the audit.

Please do not hesitate to contact me if you require any additional information.

Thanks and Regards,

Ken Holmes
Lead Auditor

Principal Environmental Consultant
Director

Barnett & May

P +61 (0)438 046 261

E ken@baeckea.com.au

A PO Box 365 Belrose NSW 2085

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From: [Lisa Andrews](#)
To: [Ken Holmes](#)
Subject: Re: Moolarben Coal - 2021 Independent Environmental Audit - Consultation Request CCC
Date: Friday, 3 December 2021 9:54:31 AM
Attachments: [MCO AUDIT 2021_DrJimrie.pdf](#)

Hi Ken

Thanks for the extension of time to allow Dr Julia Imrie, a community representative on the Moolarben Coal Operations Community Consultative Committee to provide you with a list of questions for your consideration during the Independent Environmental Audit (attached).

I confirm that the MCO CCC meets on a regular basis (quarterly) in accordance with the project's conditions of consent. Members on the CCC receive a comprehensive presentation from the proponent in relation to its environmental monitoring program. As you will see from the minutes of these meetings, the main concerns relate to water, given the mines' close proximity to the Goulburn River and environs.

Should you require any further information, please do not hesitate to contact me.

Lisa

Lisa Andrews
Independent Chairperson &
Director
Articulate Solutions Pty Ltd
t: 0401 609 693
e: lisaandrews.ic@gmail.com

On Tue, Nov 16, 2021 at 2:10 PM Ken Holmes <Ken@baeckea.com.au> wrote:

Good Afternoon Lisa,

I have been commissioned to undertake the 2021 Independent Environmental Audit (IEA) of Moolarben Coal Mine. The audit will commence in early December 2021. The IEA will be undertaken accordance with the Stage 1 Project Approval 05_01117 (Schedule 5 Condition 9) and the Stage 2 Project Approval (Schedule 6 Condition 9) that require:

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:

(a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;

(b) include consultation with the relevant agencies;

(c) assess the environmental performance of the project and assess whether it is

complying with the requirements in this approval, and any other relevant approvals, relevant EPL/s and/or Mining Lease (including any assessment, plan or program required under these approvals);

(d) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals; and

(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.

The audit will be undertaken in accordance with DPIE's Independent Audit Post Approval and will include an assessment of compliance with the project's Environment Protection Licence, EPBC approval and mining leases.

The Approval require that the Auditor consults with relevant agencies. I would therefore appreciate if you, as Chair of the CCC, could provide me with any information, comments or concerns that the CCC may have regarding the environmental performance of the operation (over the past three years – the audit period) and details of any specific issues you suggest that the Auditor addresses during the audit.

Please do not hesitate to contact me if you require any additional information.

Thanks and Regards,

Ken Holmes

Lead Auditor

Principal Environmental Consultant

Director

Barnett & May

P +61 (0)438 046 261

E ken@baeckea.com.au

A PO Box 365 Belrose NSW 2085

MCO 2021 AUDIT

Request following concerns are referred to Independent Auditor (Ken Holmes)

Water Monitoring Plans (based on April 2021 vers - review due Nov 2021)

Groundwater Monitoring Plan – *(Approval Conditions - S33 ..Groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts and detailed justification for those trigger levels: S65 Table 13 -Water Quality ..The potential ecological, hydrological and geomorphic impacts from post-mining water discharges on receiving creeks are assessed and appropriate mitigation measures are effectively implemented ..& S73. Ensure Nil impacts on The Drip gorge and negligible environmental consequences on the Goulburn River and bed of the Goulburn River)*

1. **Adequacy** of the current Trigger level criteria that alert of changes in groundwater levels initiating a prompt investigation of monitoring piezometers and effective response to direct or indirect mine related impacts. Potential impacts include leakage from bed of Goulburn River reversal of hydraulic gradient and loss of base flow.
e.g. GWMP Table A-7 Trigger PZ105C – is currently set at 367.4 mAHD. This is below adjacent river bed levels (~ 374mAHD) to which this groundwater system discharges/is connected. Allowing this groundwater resource to be drawn down to this extent would reverse the hydraulic gradient between the Triassic GW system providing baseflow to the river and river alluvium with potentially serious consequences.
2. Suitability of the number and strategic location of monitoring points for UG4 for determining mine impacts on the high quality upper/middle groundwater system. Monitoring currently based around 3 Triassic bores (Table A-7) – investigation trigger levels (PZ101c, PZ105C, PZ129(35m). A total (5) Triassic monitoring PZ in UG4, none strategically located between river bed and LWs 1-10.
3. PZ186 standpipe (installed 2008 significant decline in 2017) was replaced in 2020 with vibrating wire piezometer for monitoring Tertiary paleo-channel /upper Permian groundwater (~600m from LW104) – steady decline in GW levels (despite likely rainfall recharge). Comparison of historic Water Level range (mbgl) not available for analysis in GWMP.
4. Question the MCO assumption (GWMP-8.1.2):
”There is no 'highly productive' groundwater, as defined in the AIP, mapped in the vicinity of the Moolarben Coal Complex”. Monitoring data for UG4 of Triassic and Upper Permian aquifers characteristics indicate a highly productive groundwater resource (water quality and rate of extraction potential).
5. Reporting comparison of predicted groundwater inflows (as modelled HydroSimulations 2017) to actual take from each water source in Annual Reviews
6. Attachment 3 - NSW Office of Water Work Summary Sheet for Domestic Bore Licence: 80BL236762 incorrectly states GWMA as Cudgegong valley – Region: 80- Macquarie-

Western this is obviously an error by driller, as catchment is Hunter. Some reference should be made to this in the report.

Surface Water Management

7. Timing collection of grab samples from sediment dam discharges to ensure no bias in sampling methodology
 8. Reason for failure of Dam304, prompt reporting of sediment spill incident to downstream stakeholders and steps taken to prevent future incidents.
 9. Exceedance of 10ML/day of mine water discharges during development of UG4 headings and prior to commencement of LW coal extraction (ie Extraction Plans have not been approved).
- 6.2 WMP –

Mine Site Water balance –

10. Methodology and reliability on which MCO attributes the proportion (volume) of groundwater contributions to groundwater inflows to underground mining and open cut operations while accounting for range of prevailing climate conditions (including extremes, wet and dry conditions)
11. Estimation and reporting of harvestable rights and the total mine interception of rainwater runoff as a proportion of catchment yield.

AUDIT requirements

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:

(a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;

(b) include consultation with the relevant agencies;

(c) assess the environmental performance of the project and assess whether it is complying with the requirements in this approval, and any other relevant approvals, relevant EPL/s and/or Mining Lease **(including any assessment, plan or program required under these approvals);**

(d) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals; and

(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.

Next Audits are to be carried out prior to the completion of longwall panels 4 and 8 (UG4). The Proponent must liaise with the Department to determine the precise date of these audits.

Dr Julia Imrie
167 Saddlers Creek Road Ulan
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Special Groundwater Auditor Report

Appendix E

Technical Memorandum

| | | | |
|----------------|---------------------------------|----------------|-----------------|
| To | Ken Holmes | Client | Yancoal |
| From | Brian Luinstra | Project | YANXXX |
| Cc | | Date | 8 February 2022 |
| Subject | IEA Technical Specialist Review | | |

1 Introduction

Barnett and May has been retained to complete an Independent Environmental Audit (IEA) for the Moolarben Coal Operations (MCO) on behalf of Yancoal Australia. As part of the audit, a number of questions have been raised by the Community Consultation Committee (CCC) regarding water management. Barnett and May has asked SRK to provide input into the IEA.

1.1 Key personnel

The review of the concerns and responses was completed by Dr Brian Luinstra, Principal Hydrogeologist with SRK. Dr Luinstra has 21 years of experience in the field of hydrogeology working in Australia, Southeast Asia, Europe, South America and Canada. He has worked effectively with resource and utility sector clients to manage groundwater resources, with particular attention to operational issues. These include seepage mitigation studies, mine water supply and dewatering and depressurisation assessments, groundwater monitoring network establishment and program implementation, watershed-scale water budgets and planning, well head protection studies, karst investigations, and hydrological and hydrogeological modelling.

1.2 Key documents

Key documents made available as part of this review include the following:

- Moolarben Coal Water Management Plan version 6 (MCO_ENV_PLN_0028) issued September 2020
- Moolarben Coal Groundwater Management Plan version 4 (MCO_ENV_PLN_0038) issued October 2020
- Moolarben Coal Surface Water Management Plan version 5 (MCO_ENV_PLN_0037) issued October 2020
- Moolarben Coal Complex Annual Review 2019
- Moolarben Coal Complex Annual Review 2020
- Letter to Ken Holmes from Dr. Julia Imrie with list of concerns, undated
- 2021 MCO Independent Environmental Audit Comments and responses, undated
- Monthly environmental monitoring reports publicly available on the MCO website.

1.3 Water management at MCO

Surface and groundwater at MCO is managed under a Water Management Plan (WAMP) which has been prepared by MCO to satisfy the requirements under NSW Project Approval 05_0117 and 08_0135. The WAMP includes the Site Water Balance (SWB), Surface Water Management Plan (SWMP) and Groundwater Management Plan (GWMP)

Relevant sections/appendices of the WAMP have been prepared/reviewed by Dr David Newton (SWB and SWMP), Mr Peter Dundon (GWMP) and Dr Noel Merrick (GWMP) who are approved by the NSW Department of Planning, Industry and Environment (DPIE) as suitably qualified and experienced experts. MCO completed incorporated comments from DPIE and the NSW Environment Protection Authority (EPA) and the WAMP was approved by the DPIE.

2 Key findings

SRK has reviewed the WAMP (including the SWB, SWMP and GWMP) as part of this report. It is the opinion of SRK that the WAMP is fit for purpose, and that MCO has complied with the overall intent and the specific conditions of the WAMP.

Commentary on the raised concerns and SRK's assessment are provided in Table 1. SRK has identified some opportunities to improve water management onsite which include:

1. SRK recommends that some additional investigation be completed in order to assess the potential impact of a potential reversal in gradient within the bed of the Goulburn River:
 - a. Review potential impacts from a reversal of the gradient in this area on hydrologic and ecologic systems including at a conceptual basis prior to the commencement of LW409.
 - b. Trigger levels should be reviewed, and where necessary revised, based on developments in understanding of potential impacts so triggers are fit for purpose.
2. Installation of the proposed additional monitoring bore between the Goulburn River and UG4 LW408/LW409 should proceed as planned.
3. Groundwater levels for the paleochannel/upper Permian groundwater system should be compiled and trend analyses completed once sufficient data is available (typically two full seasonal cycles).

Table 1: Technical Specialist audit findings

| Reference | Comment | Condition | Documents reviewed | Assessment | Recommendation |
|-----------|--|---|---|---|--|
| 1 | Adequacy of the current Trigger level criteria that alert of changes in groundwater levels initiating a prompt investigation of monitoring piezometers and effective response to direct or indirect mine related impacts. Potential impacts include leakage from bed of Goulburn River reversal of hydraulic gradient and loss of base flow. e.g. GWMP Table A-7 Trigger PZ105C – is currently set at 367.4 mAHD. This is below adjacent river bed levels (~374mAHD) to which this groundwater system discharges/is connected. Allowing this groundwater resource to be drawn down to this extent would reverse the hydraulic gradient between the Triassic GW system providing baseflow to the river and river alluvium with potentially serious consequences | PA05_0117 Schedule 3 Condition 33 and PA08_0135 Schedule 3 Condition 29 | Water Management Plan Version 6 dated 28 October 2020. Groundwater Management Plan Version 4 dated 28 October 2020. 2021 MCO Independent Environmental Audit Comments and responses | The approved Groundwater Management Plan was prepared with input from suitably qualified and experienced experts approved by the Department of Planning, Industry and the Environment (DPIE). MCO is currently preparing the extraction plan for UG4 Longwalls 401–408(LW401–408). As part of the UG4 LW401–408 Extraction Plan further consideration has been given to the groundwater monitoring network including locations and triggers with some triggers (including PZ105C) being revised. The LW401–408 Extraction Plan is to be approved prior to commencement of the longwall mining of LW401 to LW408. MCO has complied with the requirements of the WAMP in this area. Sufficient monitoring sites appear to be available in this vicinity. | SRK recommends that some additional investigation be completed in order to assess the potential impact of a potential reversal in gradient: 1. Review potential impacts from a reversal of the gradient in this area on hydrologic and ecologic systems including at a conceptual basis prior to the commencement of LW409. 2. Trigger levels should be reviewed, and were necessary revised, based on developments in understanding of potential impacts so triggers are fit for purpose. |
| 2 | Suitability of the number and strategic location of monitoring points for UG4 for determining mine impacts on the high quality upper/middle groundwater system. Monitoring currently based around 3 Triassic bores (Table A-7) – investigation trigger levels (PZ101c, PZ105C, PZ129(35m). A total (5) Triassic monitoring PZ in UG4, none strategically located between river bed and LWs 1-10. | PA05_0117 Schedule 3 Condition 33 and PA08_0135 Schedule 3 Condition 29 | Water Management Plan Version 6 dated 28 October 2020. Groundwater Management Plan Version 4 dated 28 October 2020. 2021 MCO Independent Environmental Audit Comments and responses | MCO is currently preparing the extraction plan for UG4 Longwalls 401–408(LW401–408). As part of the UG4 LW401–408 Extraction Plan further consideration has been given to the groundwater monitoring network including locations being reviewed and revised. The UG4 LW401–408 Extraction Plan proposes to install an additional groundwater monitoring bore between the Goulburn River and UG4 LW408/LW409 to target shallow groundwater monitoring consistent with AGE recommendations. Installation of the proposed additional monitoring bore between the Goulburn River and UG4 LW408/LW409 should provide sufficient information on the system in this area. | No additional action required. Installation of the proposed additional monitoring bore between the Goulburn River and UG4 LW408/LW409 should proceed as planned. |
| 3 | PZ186 standpipe (installed 2008 significant decline in 2017) was replaced in 2020 with vibrating wire piezometer for monitoring Tertiary paleo-channel /upper Permian groundwater (~600m from LW104) – steady decline in GW levels (despite likely rainfall recharge). Comparison of historic Water Level range (mbgl) not available for analysis in GWMP | PA05_0117 Schedule 3 Condition 33 and PA08_0135 Schedule 3 Condition 29 | Groundwater Management Plan Version 4 dated 28 October 2020. Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 2021 MCO Independent Environmental Audit Comments and responses | PZ186 and PZ186a vibrating wire piezometers were installed in late 2019 with monitoring commencing in 2020. PZ186 was converted from a standpipe monitoring bore to a vibrating wire piezometer. | Groundwater levels for the paleochannel/upper Permian groundwater system should be compiled, and trend analyses completed once sufficient data is available (typically two full seasonal cycles). |

| Reference | Comment | Condition | Documents reviewed | Assessment | Recommendation |
|-----------|--|---|--|---|-------------------------|
| 4 | Question the MCO assumption (GWMP-8.1.2): "There is no 'highly productive' groundwater, as defined in the AIP, mapped in the vicinity of the Moolarben Coal Complex". Monitoring data for UG4 of Triassic and Upper Permian aquifers characteristics indicate a highly productive groundwater resource (water quality and rate of extraction potential). | PA05_0117 Schedule 3 Condition 33 and PA08_0135 Schedule 3 Condition 29 | Groundwater Management Plan Version 4 dated 28 October 2020. 2021 MCO Independent Environmental Audit Comments and responses | 'Highly productive' is a defined term. Department of Industries mapping of groundwater productivity in NSW shows the area in the vicinity of Moolarben Coal Complex as being 'Less Productive Groundwater'. AGE notes that "Given the AIP definition, none of the hydrogeological units surrounding the Moolarben Coal Complex are considered to be highly productive. A combination of low permeability and/or observed groundwater salinity effectively classifies the units as 'less productive'." | No additional comments. |
| 5 | Reporting comparison of predicted groundwater inflows (as modelled HydroSimulations 2017) to actual take from each water source in Annual Reviews | PA05_0117 Schedule 5 Conditions 4 and 7, PA08_0135 Schedule 6 Conditions 4 and 7 | Water Management Plan Version 6 dated 28 October 2020. Groundwater Management Plan Version 4 dated 28 October 2020. Moolarben Coal Complex Annual Review 2019 Moolarben Coal Complex Annual Review 2020 2021 MCO Independent Environmental Audit Comments and responses | The GWMP describes that Annual Review reporting requirements are described in Section 4.1 of the WAMP. Section 7.1 of the MCO Annual Review (MCO, 2020) describes the process of determining the take, documents the take by water source and provides predictions for the following year (Table 23). Groundwater inflows are included in the Site Water Balance in Section 7.2 (Table 24). | No additional comments. |
| 6 | Attachment 3 - NSW Office of Water Work Summary Sheet for Domestic Bore Licence: 80BL236762 incorrectly states GWMA as Cudgegong valley – Region: 80- Macquarie- Western this is obviously an error by driller, as catchment is Hunter. Some reference should be made to this in the report | PA05_0117 Schedule 3 Condition 33 and PA08_0135 Schedule 3 Condition 29 | Groundwater Management Plan Version 4 dated 28 October 2020. 2021 MCO Independent Environmental Audit Comments and responses | Figure 3 of the SWMP includes the catchment boundaries for the area and shows the site is located within the Hunter River Catchment. The GWMP Attachment 3 includes a reproduction of the NSW Office of Water Works Summary which includes the following warning: <i>"Warning To Clients: This raw data has been supplied to the NSW Office of Water by drillers, licensees and other sources. The NOW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data."</i> | No additional comments. |
| 7 | Timing collection of grab samples from sediment dam discharges to ensure no bias in sampling methodology | PA05_0117 Schedule 3 Condition 33 and PA08_0135 Schedule 3 Condition 29 | Surface Water Management Plan Version 5 dated 28 October 2020. 2021 MCO Independent Environmental Audit Comments and responses | Section 6.5 of the SWMP describes sampling of sediment dams. ..." SRK agrees with overall approach to sampling as laid out in the SWMP. As discharge is an infrequent event it is difficult to establish monitoring frequency. Sampling from dams acceptable for characterisation of discharge. | No additional comments. |
| 8 | Reason for failure of Dam 304, prompt reporting of sediment spill incident to downstream stakeholders and steps taken to prevent future incidents. | PA05_0117 Schedule 3 Condition 33 and PA08_0135 Schedule 3 Condition 29 PA05_0117 Schedule 5 Conditions 4 and 7, PA08_0135 Schedule 6 Conditions 4 and 7 | Moolarben Coal Complex Annual Review 2020 Report by MCO (G Chase), titled "Environmental Event Report Moolarben Coal Operations Pty Ltd – Sediment Drain Overtopping 21 December 2020", dated 21 January 2021. The report was prepared in response to the incident by MCO. 2021 MCO Independent Environmental Audit Comments and responses | The MCO 2020 Annual Review describes the: release of sediment water from a drain reporting to Sediment Dam 304. There was not a failure of the Sediment Dam. Activation of a PIRMP with notification of the EPA and other agencies was undertaken. Drain design was reviewed and upgraded. | No additional comments. |

| Reference | Comment | Condition | Documents reviewed | Assessment | Recommendation |
|-----------|--|---|--|--|------------------------|
| 9 | Exceedance of 10ML/day of mine water discharges during development of UG4 headings and prior to commencement of LW coal extraction (ie Extraction Plans have not been approved), 6.2 WMP – | PA05_0117 Schedule 3 Condition 32 | Surface Water Management Plan Version 5 dated 28 October 2020. Monthly environmental monitoring reports publicly available on the MCO website. 2021 MCO Independent Environmental Audit Comments and responses | Mining operations consistent with PA05_0117 commenced in UG4 in 2020. Treated water discharges at a rate greater than 10 ML/day commenced in 2021, after the commencement of mining operations in UG4. | No additional comment. |
| 10 | Methodology and reliability on which MCO attributes the proportion (volume) of groundwater contributions to groundwater inflows to underground mining and open cut operations while accounting for range of prevailing climate conditions (including extremes, wet and dry conditions) | PA05_0117 Schedule 3 Condition 33 and PA08_0135 Schedule 3 Condition 29 | Water Management Plan Version 6 dated 28 October 2020. Groundwater Management Plan Version 4 dated 28 October 2020. Moolarben Coal Complex Annual Review 2020 2021 MCO Independent Environmental Audit Comments and responses | Section 6.1.1 of the Groundwater Management Plan describes groundwater extraction. Section 7.1 of the MCO 2020 Annual Review describes the methodology. The site water balance for the reporting period was prepared with input from suitably qualified and experienced consultants WRM and SLR. Separating groundwater inflows (make) from surface inflows and transitory flow through unsaturated horizons (i.e. 'interflow') is an industry wide issue that is the subject of considerable research. Current best practice is to provide estimates of water take by source as is proposed in the WAMP | No additional comment. |

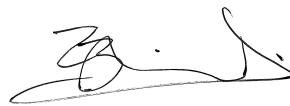
3 Closure

This review and report was prepared by Dr Brian Luinstra, and reflects the opinions based on his experience in evaluating the information provided. Dr Luinstra has no interest in MCO, Yancoal or any of the contractors who have prepared the information.

Regards
SRK Consulting (Australasia) Pty Ltd



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