ENVIRONMENTAL MANAGEMENT STRATEGY

Document	Version	Issue	Effective	Review	Author	Approved
MCO_ENV_STR_0001	6	Oct 20	Oct 20	Nov 21	MCO	SA

Version	Issue Date	Section Revised	Reason for Revision	Review Team
1	Dec 2008	All	Document developed in accordance with the requirements of Project Approval 05_0117 – Construction	MCO
2	June 2013	All	Document updated to reflect operations undertaken at the site	Environmental Department
3	Mar 2015	All	To include management and mitigation measures for both Stage 1 and Stage 2 of the Project	MCO
4	Sep 2018	All	To incorporate approved modifications to Stage 1 (MOD 11 & MOD 12) and Stage 2 (MOD 1 & MOD 2) of the Project	MCO
5	May 20	All	To incorporate approved modifications to Stage 1 (MOD 14) and Stage 2 (MOD 3) of the Project	MCO
6	Oct 20	All	To incorporate approved modifications to Stage 1 (MOD 15)	MCO

Approved: S.J. Archinal Date: 29/10/2020

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1.0 INTRODUCTION

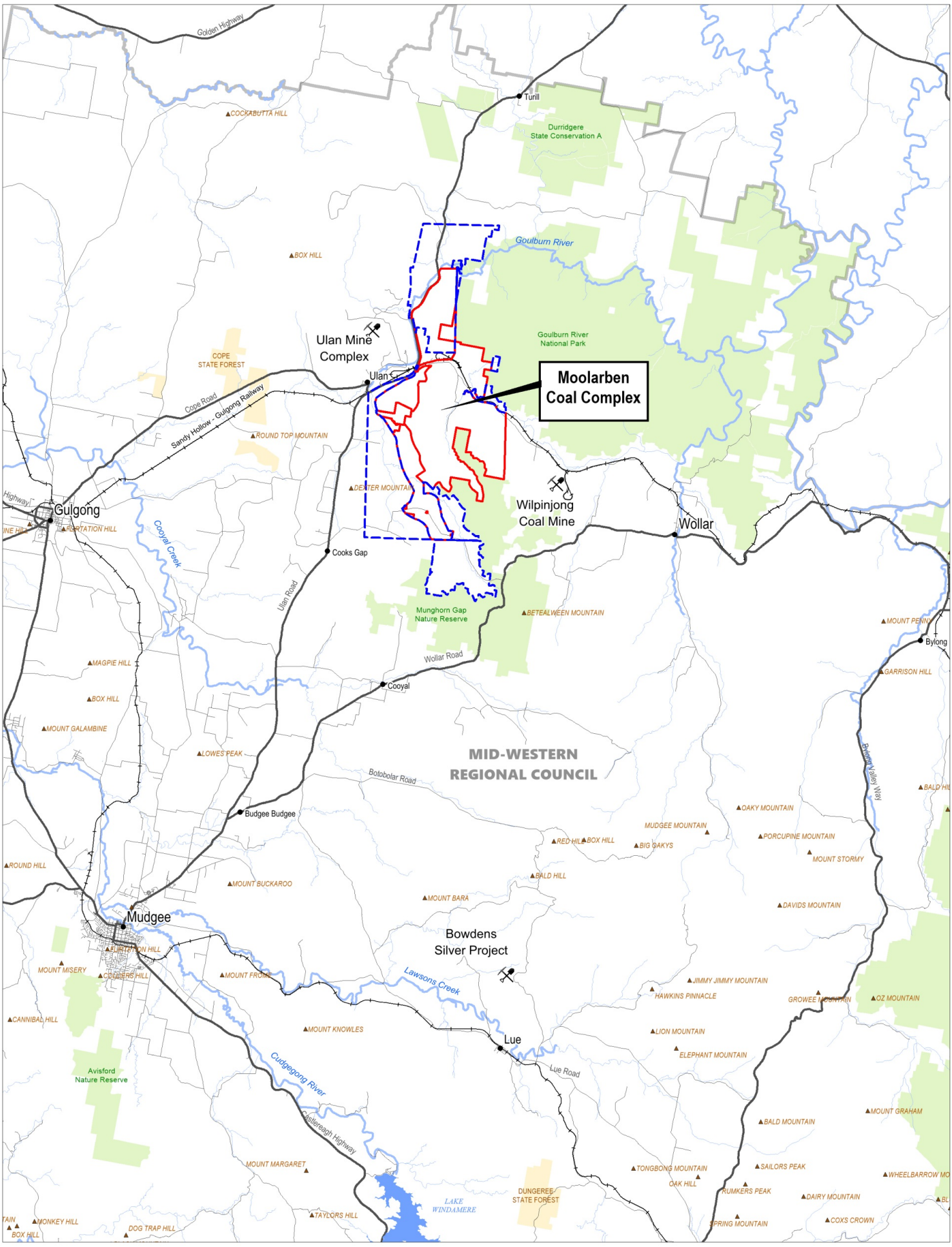
The Moolarben Coal Complex is located approximately 40 kilometres (km) north of Mudgee in the Western Coalfield of New South Wales (NSW) (Figure 1).

Moolarben Coal Operations Pty Ltd (MCO) is the operator of the Moolarben Coal Complex on behalf of the Moolarben Joint Venture (Moolarben Coal Mines Pty Ltd [MCM], Yancoal Moolarben Pty Ltd (YM) and a consortium of Korean power companies). MCO, MCM and YM are wholly owned subsidiaries of Yancoal Australia Limited (Yancoal).

Mining operations at the Moolarben Coal Complex are currently approved until 31 December 2038 and would continue to be carried out in accordance with NSW Project Approval (05_0117) (Moolarben Coal Project Stage 1) as modified (Appendix A) and NSW Project Approval (08_0135) (Moolarben Coal Project Stage 2) as modified (Appendix B).

Mining operations at the Moolarben Coal Complex are undertaken in accordance with the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) approvals EPBC 2007/3297, EPBC 2008/4444, EPBC 2013/6926 and EPBC 2017/7974.

The current mining operations at the Moolarben Coal Complex are conducted in accordance with the requirements of the conditions of Mining Lease (ML) 1605, ML 1606, ML 1628, ML 1691 and ML 1715 granted under the *Mining Act 1992*.



Legend

- Exploration Licence Boundary
- Mining Lease Boundary
- LocalGovernmentArea
- National Park / Nature Reserve
- State Forest

N

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Figure 1
Regional Location

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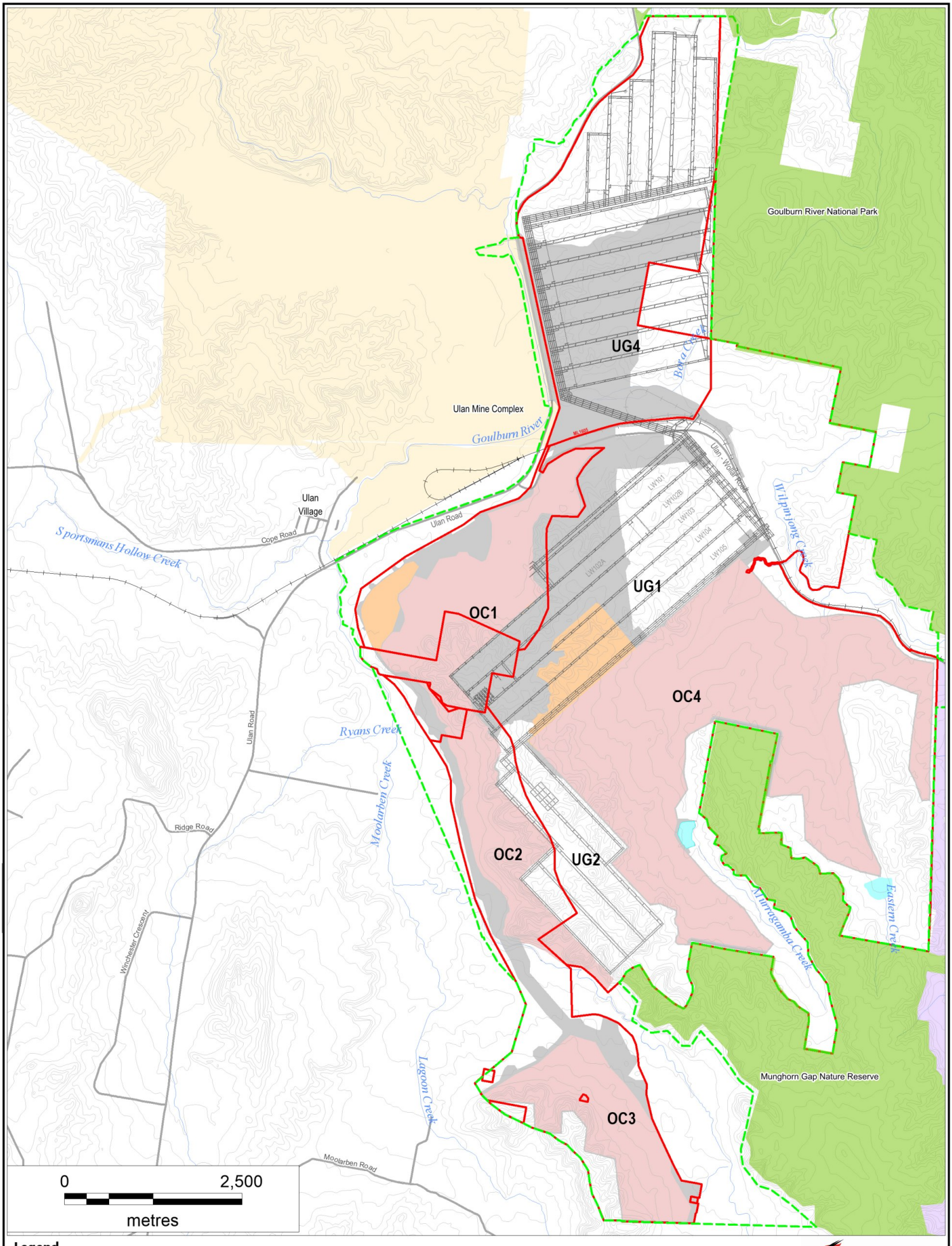

Figure 2
Approved Moolarben Coal Project (Stage 1 and Stage 2)
Indicative General Arrangement

1.1 OPERATIONAL STATUS

The Moolarben Coal Complex comprises four approved open cut mining areas (OC1, OC2, OC3 and OC4), three approved underground mining areas (UG1, UG2 and UG4) and other mining related infrastructure (including coal processing and transport facilities) (Figure 2). Since the commencement of coal mining operations in 2010, mining activities have occurred within OC1, OC2, OC3, OC4 and UG1 with mining to progress to other approved mines in the future.

Construction/development and exploration activities are currently focused on works to facilitate open cut mining progression and development and progression of underground mining operations of the Moolarben Coal Complex.

Construction works in support of open cut mining progression include mine infrastructure areas, offices, water management works, haul roads, diversions, water storages, and other ancillary works.

Construction in support of underground mining progression include mine infrastructure areas, materials handling and processing, water management infrastructure and underground mining surface facilities.

1.2 SITE CONTACTS

The relevant site contacts for the Moolarben Coal Complex are provided in Table 1.

Table 1: Site Contacts

Position	Person	Phone
General Manager	Steve Archinal	02 6376 1500
Environment and Community Manager	Graham Chase	02 6376 1500
Open Cut Operations Manager	Ed Busbridge	02 6376 1500
Underground Operations Manager	Steven Chandler	02 6376 1500
CHPP Manager	Trent Moorman	02 6376 1500
Health, Safety and Training Manager	Steve Robertson	02 6376 1500
Environment and Community Superintendent	Trent Cini	02 6376 1500
Community Response (Complaints) Hotline		1800 556 484

2.0 PURPOSE AND SCOPE

This Environmental Management Strategy (EMS) has been prepared by MCO to satisfy the requirements under NSW Project Approval (05_0117) (as modified) and NSW Project Approval (08_0135) (as modified).

The objectives of this EMS are to fulfil the relevant consent conditions by providing a strategic framework for environmental management of the Moolarben Coal Complex including all environmental management plans (EMPs), strategies and programs prepared for the site. This EMS establishes the overarching framework for the monitoring and environmental management of activities undertaken at the Moolarben Coal Complex. This EMS incorporates the principles of continuous improvement and is consistent with the five pillars of ISO 14001: Environmental Management Systems detailed in Figure 3.

The EMPs, strategies and programs required at the Moolarben Coal Complex are:

- this EMS;
- Noise Management Plan (NMP);
- Blast Management Plan (BMP);
- Air Quality Management Plan (AQMP);
- Extraction Plan (and subsidence management plan), incorporating:
  - Built Features Management Plan;
  - Water Management Plan;
  - Biodiversity Management Plan;
  - Land Management Plan;
  - Heritage Management Plan; and
  - Public Safety Management Plan;
- Rehabilitation Management Plan (RMP);
- Biodiversity Management Plan (BioMP);
- Water Management Plan (WMP), incorporating:
  - Site Water Balance (SWB);
  - Surface Water Management Plan (SWMP);
  - Groundwater Management Plan (GWMP);
- Brine Management Plan;
- Heritage Management Plan (HMP);
- Greenhouse Gas Minimisation Plan;
- Pollution Incident Response Management Plan (PIRMP)[1]; and
- Ulan Road Strategy.

[1] Required under the *Protection of the Environment Operations Act 1997*.

An overview of the interaction of the plans listed above, the NSW Project Approvals (05_0117 and 08_0135) and other licences and leases is provided in Appendix C.

This EMS has been prepared to assist those undertaking the works on site to apply appropriate environmental management measures. Where there is any conflict between the provisions of this EMS and the contractual obligations of any mining contactor, the statutory requirements are to take precedence. In the case of any real or perceived ambiguity between elements of this EMS and statutory requirements, a contractor shall first request clarification from MCO prior to implementing that element of the EMS over which the ambiguity is identified.

All works (including construction, operations and maintenance) and other related activities (e.g. monitoring and biodiversity offset activities) consistent with the NSW Project Approvals (05_0117 and 08_0135) are covered by this EMS. This EMS does not cover exploration activities beyond the Project Boundary in Appendix 2 of the Project Approvals (05_0117 and 08_0135) and ML boundaries (e.g. within Exploration Licence 6288) which are subject to separate regulatory requirements.

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MOOLARBEN COAL OPERATIONS
Environmental Management Principles
Figure 3

3.0 COMMITMENT AND LEADERSHIP

Achieving effective environmental and community management requires responsible and proactive leadership. Yancoal's Environment and Community Relations Policy (E&C Policy) provides the governing principles for environmental and community management. The E&C Policy is provided in Appendix D.

Managers at the Moolarben Coal Complex will demonstrate commitment by:

- implementing the principles outlined in the E&C Policy into MCO's operations;
- endorsing and implementing MCO's EMS;
- making personnel aware of their responsibilities in relation to the policy;
- ensuring the E&C Policy is readily accessible and is displayed in prominent locations; and
- appropriately resourcing implementation and review of MCO's EMS.

Managers at the Moolarben Coal Complex must demonstrate visible and proactive leadership through their commitment to achieving the EMS objectives and goals of the E&C Policy.

This EMS is approved by the MCO General Manager.

4.0 PLANNING AND POLICY

MCO's statutory obligations are contained in:

- the conditions of the NSW Project Approval (05_0117) (as modified) and NSW Project Approval (08_0135) (as modified);
- the conditions of the Commonwealth Approvals (EPBC 2007/3297, EPBC 2013/6926, EPBC 2017/7974 and EPBC 2008/4444);
- relevant licences (e.g. Environment Protection Licence [EPL] 12932) and permits, including conditions attached to MLs (ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715); and
- other relevant legislation.

Obligations relevant to this EMS are described below.

4.1 NSW PROJECT APPROVAL

The conditions of the NSW Project Approvals (05_0117 and 08_0135) relevant to this EMS are described below.

This EMS provides a strategic overview of environmental management at the Moolarben Coal Complex. The EMS has been prepared by MCO in compliance with the requirements of Condition 1, Schedule 5 and Condition 1, Schedule 6 of the NSW Project Approvals (05_0117 and 08_0135, respectively).

Attachment 1 presents these requirements and indicates where they are addressed within this EMS.

4.2 COMMONWEALTH GOVERNMENT APPROVALS

The Commonwealth Approvals relevant to MCO operations are outlined below:

- Approvals Decision (EPBC 2007/3297) granted 24 October 2007;
- Approvals Decision (EPBC 2013/6936) granted 13 November 2014;
- Approvals Decision (EPBC 2008/4444) granted 18 May 2015; and
- Approvals Decision (EPBC 2017/7974) granted June 2019.

MCO will also report annually in accordance with the requirements of the *National Greenhouse and Energy Reporting Act 2007*.

4.3 LICENCES, PERMITS AND LEASES

In addition to the NSW Project Approvals (05_0117 and 08_0135) and Commonwealth Approvals (EPBC 2007/3297, EPBC 2013/6936, EPBC 2008/4444 and EPBC 2017/7974), all activities at the Moolarben Coal Complex will be conducted in accordance with a number of licences, permits and leases which have been issued or are pending issue.

Key licences, permits and leases pertaining to the Moolarben Coal Complex include:

- ML 1605 issued under Part 5 of the NSW *Mining Act 1992* and approved by the Minister for Mineral Resources in December 2007.
- ML 1606 issued under Part 5 of the NSW *Mining Act 1992* and approved by the Minister for Mineral Resources in December 2007.
- ML 1628 issued under Part 5 of the NSW *Mining Act 1992* and approved by the Minister for Mineral Resources in February 2009.
- ML 1691 issued under Part 5 of the NSW *Mining Act 1992* and approved by the Minister for Resources and Energy in September 2013.
- ML 1715 issued under Part 5 of the NSW *Mining Act 1992* and approved by the Minister for Resources and Energy in August 2015.
- EPL 12932 issued under Part 3 of the NSW *Protection of the Environment Operations Act 1997* by the NSW Environment Protection Authority in November 2014.
- Groundwater Licences issued under the *Water Act 1912*.
- Groundwater Licences issued under the *Water Management Act 2000*.
- Mining Operations Plan approved by the Division of Resources and Energy.

ML 1605, ML 1606, ML 1628, ML 1691, ML 1715 and EPL 12932 do not contain any conditions requiring the preparation of this EMS. Notwithstanding they do contain conditions relevant to environmental management and reporting at the Moolarben Coal Complex.

The NSW Acts that may be applicable to the Moolarben Coal Complex include, but are not limited to, the:

- *Crown Lands Act 1989;*
- *Fisheries Management Act 1994;*
- *Heritage Act 1977;*
- *Coal Mine Subsidence Compensation Act 2017;*
- *Mining Act 1992;*
- *National Parks and Wildlife Act 1974;*
- *Protection of the Environment Operations Act 1997;*

- *Roads Act 1993;*
- *Biodiversity Conservation Act 2016;*
- *Water Act 1912;*
- *Water Management Act 2000;*
- *Work Health and Safety Act 2011;* and
- *Work Health and Safety (Mines) Act 2013.*

5.0 IMPLEMENTATION – MOOLARBEN COAL COMPLEX ENVIRONMENTAL MANAGEMENT STRUCTURE

An overview of the environmental management structure at the Moolarben Coal Complex is provided in Appendix C.

5.1 ROLES AND RESPONSIBILITIES

A combination of MCO and mining contractor staff are responsible for environmental management at the Moolarben Coal Complex. Figure 4 outlines the organisational structure responsible for environmental management at the Moolarben Coal Complex. The roles and responsibilities of members of the site including the environmental management team are provided in Appendix E.

5.2 ENVIRONMENTAL EMERGENCIES

MCO maintains a PIRMP that relates to its operations. This management plan outlines the process for responding to environmental emergencies in a timely and effective manner and adopting appropriate measures for the control and recovery from emergencies. Where appropriate, environmental emergency response procedures are integrated with on site emergency response plans.

MCO operates and maintains a Safety Management System (SMS) to ensure the health and safety of the workers across the complex. The SMS encompasses Procedures, Policy and Plans and sets arrangements for generally managing risks including non-environmental emergencies.

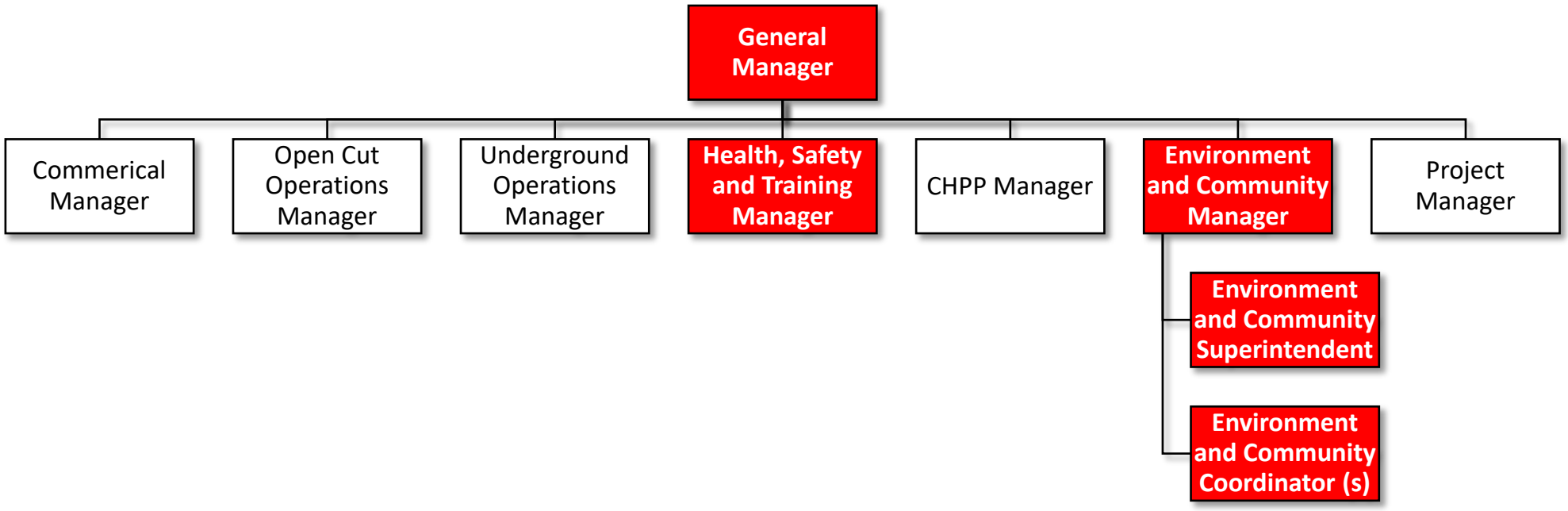
An Emergency Response Team is maintained and trained to coordinate and respond to emergency situations and accidents, and undertake rescues as required. Preparedness for emergencies by staff, personnel, contractors and service providers is undertaken in accordance with on site training requirements whereby personnel will be appropriately trained in the use of emergency response equipment and procedures, and will be made aware of their responsibilities should such an event occur.

Reporting of incidents will be undertaken in accordance with the protocol outlined in Section 6.3.

5.3 INFORMATION DISSEMINATION

Community Consultative Committee

In accordance with Condition 6, Schedule 5 and Condition 6, Schedule 6 of the Project Approvals (05_0117 and 08_0135, respectively) a Community Consultative Committee (CCC) has been established to the satisfaction of the Secretary of the Department of Planning Industry and Environment (DPIE). The CCC is operated in general accordance with the *Community Consultative Committees Guidelines: State Significant Projects January 2019*.



Key personnel responsible for implementation of the Environmental Management Strategy

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MOOLARBEN COAL OPERATIONS
Organisational Structure
Figure 4

In accordance with the Condition 6, Schedule 5 and Condition 6, Schedule 6 of the NSW Project Approvals (05_0117 and 08_0135), the membership of the CCC will be comprised of an independent chair and appropriate representation from MCO, affected councils, recognised environmental groups and the general community. The CCC meets at least twice a year.

In accordance with Condition 11, Schedule 5 and Condition 11, Schedule 6 of the NSW Project Approvals (05_0117 and 08_0135, respectively), a copy of the minutes of the CCC meetings will be made available on the Moolarben Coal Website.

Moolarben Coal Website

In accordance with Condition 11, Schedule 5 and Condition 11, Schedule 6 of the NSW Project Approvals (05_0117 and 08_0135, respectively), the Moolarben Coal Website will be maintained as a tool for the provision of information to stakeholders and interested parties about the operation and environmental performance of Moolarben Coal Complex. The following information will be available on the Moolarben Coal Website:

- the Environmental Assessment (EA);
- current statutory approvals for the project;
- approved strategies, plans or programs required under the conditions of the Project Approvals;
- 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 the Project Approvals;
- a complaints register, which is updated on a monthly basis;
- minutes of CCC meetings;
- the last five annual reviews;
- any independent environmental audit, and MCO's response to the recommendations in any audit; and
- any other matter required by the Secretary of the DPIE.

Information available on the Moolarben Coal Website will be updated as required by the NSW Project Approvals (05_0117 and 08_0135).

Internal Communication

Environmental management documentation developed and retained by MCO are filed in accordance with the document register and made available to relevant MCO and mining contractor staff.

Environmental management and performance is communicated to staff, contractors and visitors through:

- newsletters;
- toolbox training, formal training, memos, weekly/daily planning meetings;
- induction and orientation processes;
- incident or near miss communications;
- site inspections and auditing; and
- communication sessions.

5.4 COMPLAINTS MANAGEMENT

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 and in the community newsletters.

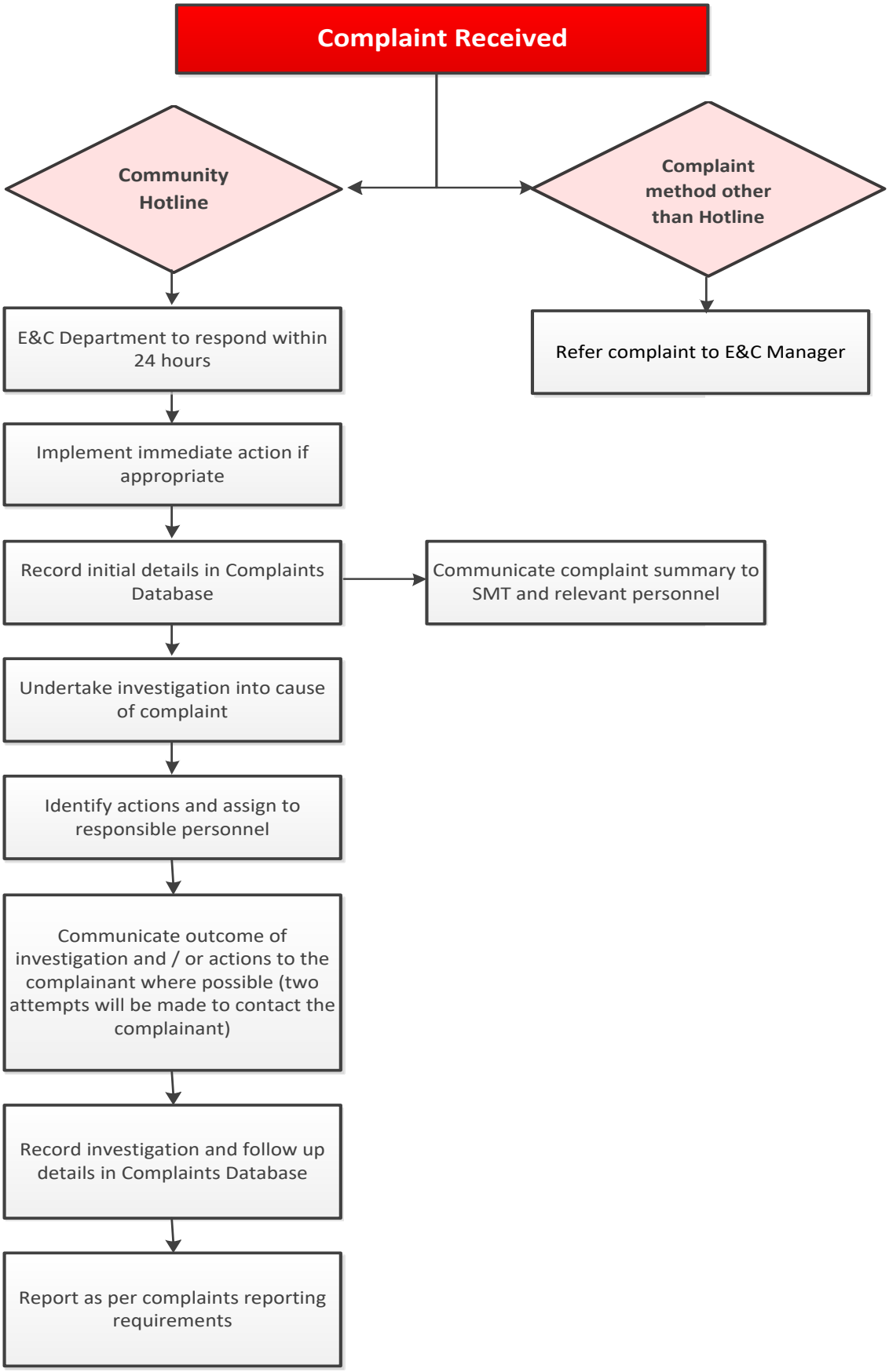
MCO follows a complaints management process when receiving, responding to and recording community complaints. A complaints management database has been developed to allow for the capture and management of complaints. Initial contact regarding the complaint is generally undertaken within 48hrs of receiving 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). This investigation will be used to develop appropriate mitigation measures which will be presented to the complainant.

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.

An overview of the community complaint response process is detailed in Figure 5. In accordance with Condition 11, Schedule 5 and Condition 11, Schedule 6 of the Project Approvals (05_0117 and 08_0135, respectively), the complaints register will be updated monthly and made available on the MCO Website.



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MOOLARBEN COAL OPERATIONS
Community Complaints Response Process
Figure 5

5.5 DISPUTE RESOLUTION

In the event of a disagreement between MCO and a member of the community, the Environment and Community Manager (or delegate) will undertake the necessary liaison to reach a resolution.

For disputes related to concerns raised by community members regarding the exceedance of criteria or performance measures in Project Approvals (05_0117 and 08_0135), should resolution of the dispute not be reached through this primary process, either party may refer the matter to the Secretary of the DPIE for resolution.

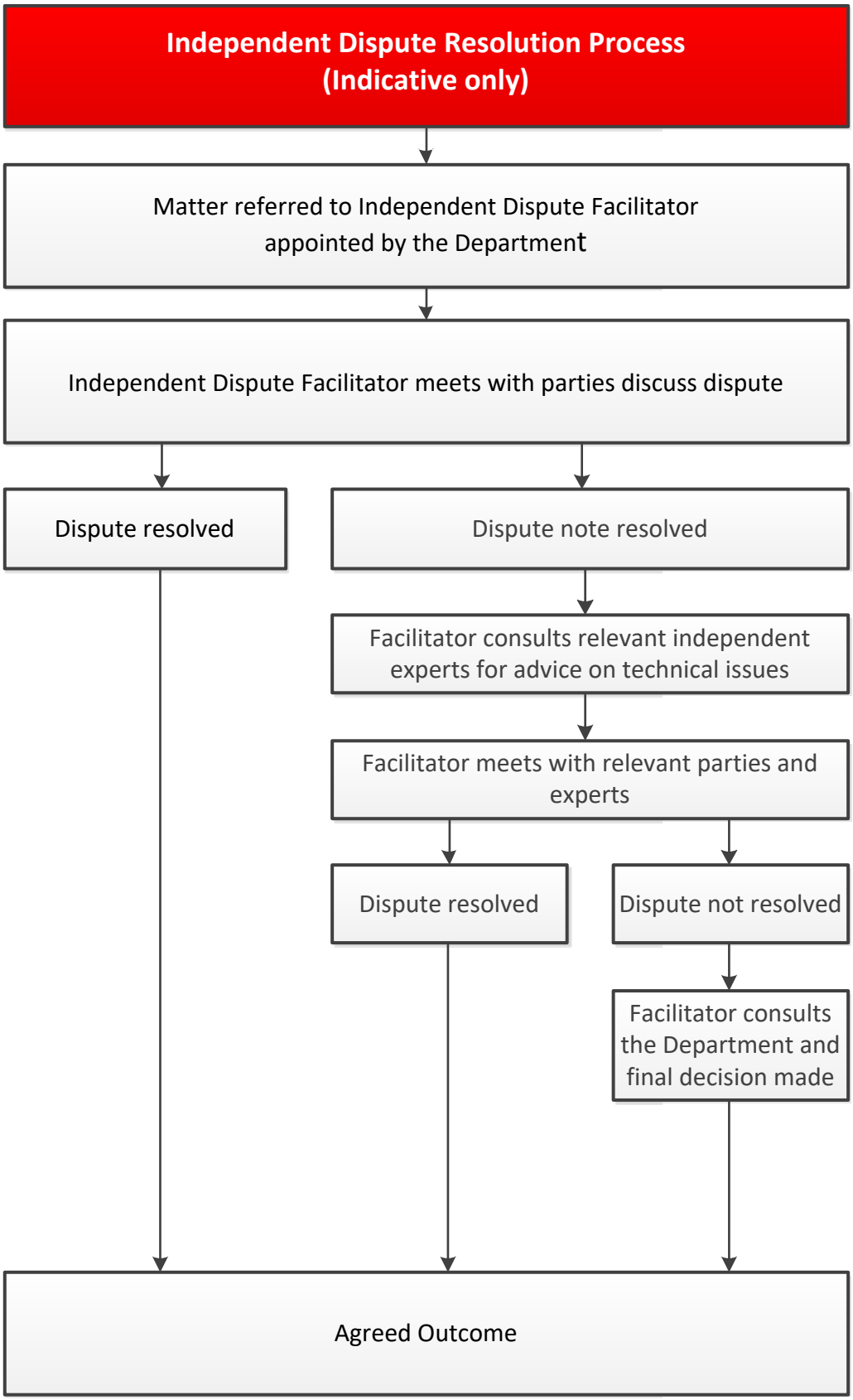
For disputes not related to the exceedance of criteria or performance measures, should resolution of the dispute not be reached through this primary process, MCO may engage an independent mediator to assist with seeking a resolution to the matter.

In accordance with the Project Approvals (05_0117 and 08_0135), the dispute resolution process will be conducted using the Independent Dispute Resolution Process (Figure 6).

The Secretary of the DPIE, where required, can provide conflict resolution in the following situations:

- MCO is required to implement noise mitigation measures such as double-glazing, insulation and/or air conditioning at any privately owned residence where mine contributed noise exceeds limits in the NSW Project Approvals and/or on receiving a written request from land owners specified in the NSW Project Approvals. In the circumstances whereby noise mitigation measures cannot be agreed upon between the two parties within a three month period, then either party may refer the matter to the Secretary for resolution.

- MCO is required to commission a suitably qualified, experienced and independent person to undertake a property inspection in the event that a landowner within 2 km of the Moolarben Coal Complex provides a written request. The property inspection will be conducted in order to establish the baseline condition of any buildings or structures on the land and to identify measures that should be implemented to minimise the potential blasting impacts on these buildings or structures. In the event that there is a dispute over the selection of the suitable qualified, experienced and independent person or either party disagrees with the findings of the property inspection report, either party may refer the matter to the Secretary for resolution.



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MOOLARBEN COAL OPERATIONS
Independent Dispute Resolution Process
Figure 6

- MCO is required to commission a suitably qualified, experienced and independent person to undertake a property investigation in the event that a landowner claims that blasting operations at the Moolarben Coal Complex has resulted in damage to buildings and/or structures on his/her land. In the circumstances where the selection of a suitably qualified, experienced and independent person is disputed or the landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.

- MCO is required to provide a long-term compensatory water supply, within 24 hours, to any landowner whose water supply is adversely and directly impacted as a result of operations at the Moolarben Coal Complex. In the event that an agreement cannot be reached as to 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.

- MCO is required to 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 as well as to make financial contributions towards the implementation of this plan. In the event that 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.

- MCO is required to implement additional visual impact mitigation measures (such as landscaping treatments or vegetation screens) to reduce the visibility of mining operations in the event that 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 provides a written request. In the event that no agreement can be reached on the measures to be implemented or there is a dispute about the implementation of the measures, then either party may refer the matter to the Secretary for resolution.

- MCO is required to ensure that operations at the Moolarben Coal Complex do not cause any exceedances to the performance of the measures listed in the NSW Project Approvals. Any dispute over the interpretation, application or implementation of the performance measures in Table 15 and Table 19 of the NSW Project Approvals (05_0117 and 08_0135, respectively) between MCO and the owner of a built feature is to be settled by the Secretary, following consultation with the Resources Regulator.

- MCO is required to make a binding written offer to the landowner in the event of receiving a written request from the landowner with acquisition rights. In the circumstances that both parties cannot agree on an acquisition price after three months from the receipt of a written request for acquisition, then either party may refer the matter to the Secretary for resolution.

- The provision for independent review (Schedule 4 and Schedule 5 of the NSW Project Approvals [05_0117 and 08_0135, respectively]) offers dispute resolution. In the event that an owner of privately-owned land considers the Moolarben Coal Complex to be exceeding the relevant criteria in Schedule 3 of the NSW Project Approvals (05_0117 and 08_0135), the owner may ask the Secretary in writing for an independent review of the impacts of the Moolarben Coal Complex on his/her land.

5.6 TRAINING

It is the responsibility of MCO to employ people that are appropriately trained, competent and have an appropriate level of experience and understanding to undertake their work in a manner that minimises impacts on the environment and community. In addition, a component of the site specific induction is to promote and provide all employees and contractors with general environmental awareness training.

A register of training records and competencies will be maintained and kept up to date in the MCO Training Register.

Visitors Induction

All visitors are required to undertake a Visitor's Induction, which outlines the overarching health and safety requirements and obligations of a visitor to the operation. The nominated MCO site contact will be responsible for the actions and conduct of their visitors and will clarify and reinforce any environmental requirements as required.

At all times visitors will be accompanied by the nominated MCO contact unless specific direction is provided and the visitor will be restricted from performing certain work duties on site.

Site Induction

Prior to commencing any work duties on site, all personnel will undergo a site specific induction. The site specific induction includes a detailed summary of the Moolarben Coal Complex operation as well as associated health, safety, environment and community requirements. The induction also includes a comprehensive understanding of the Moolarben Coal Complex environmental impacts and aspects with a focus on the relevant legislation and legal responsibilities applicable to site.

Task specific training

Occasions may arise where employees or contractors are required to undertake training in specific environmental management duties (i.e. use of air quality monitoring equipment, or use of real-time response protocols). A training needs analysis will identify where these instances occur.

5.7 DOCUMENT CONTROL

All MCO documentation will follow the MCO Document and Data Control Standard, including:

- identification of document need;
- assigning author, unique identifier and header/footer requirements;
- document approval; and
- document review.

5.8 RECORDS MANAGEMENT

A copy of any document that includes data or records will be kept and maintained by MCO to demonstrate compliance with relevant legislation, leases, licences, approvals, and any other document that governs operations at the Moolarben Coal Complex. The Environment and Community Manager will be responsible for the management of any necessary environmental records.

6.0 MEASUREMENT AND EVALUATION

A list of EMPs required at the Moolarben Coal Complex is provided in Section 2. 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).

Monitoring for all parameters nominated in the NSW Project Approvals (05_0117 and 08_0135) and Commonwealth Approvals (EPBC 2007/3297, EPBC 2013/6926, EPBC 2017/7974 and EPBC 2008/4444) is comprehensively addressed within the EMPs developed to successfully manage each key issue identified.

The Annual Review and the Mining Operations Plan support these plans. In addition, an independent environmental audit is conducted every three years in addition to internal reviews. Required EMPs, strategies and programs are summarised in Table 4 and the requirements of individual EMPs necessary under the Project Approvals (05_0117 and 08_0135) are detailed in Appendices A and B. Monitoring Plans are included in each specific Environmental Management Plan. Copies of these Plans are included in Appendix G. To the extent of any inconsistency, the specific approved Environmental Management Plan takes precedence. The MCO Environment and Community Manager is responsible for implementation of all EMPs in Table 2.

6.1 REPORTING

In accordance with Condition 3, Schedule 5 and Condition 3, Schedule 6 of the NSW Project Approvals (05_0117 and 08_0135, respectively), MCO has developed protocols for managing and reporting the following:

- incidents;
- complaints;
- non-compliances with statutory requirements; and
- exceedances of the impact assessment criteria and/or performance criteria.

Environmental reporting requirements including timing, submission and distribution method are summarised in Table 3.

Table 2: Summary of Required Environmental Management Strategies, Plans and Programs

Plan	EMP Framework
Environmental Management Strategy*	• The objective of this document is to outline the strategic framework for environmental management at the Moolarben Coal Complex.
Rehabilitation Management Plan*	• Includes a description of integration of rehabilitation with the biodiversity offset strategy, measures for compliance with approval conditions, performance and completion criteria and a program to report on the effectiveness of completion criteria.
Biodiversity Management Plan*	• Describes the implementation of the biodiversity offset strategy and its integration with rehabilitation and the management of flora and fauna on site, including: revegetation, resource salvage, salinity management and erosion control. • Details performance and completion criteria, monitoring methods and program, reporting and review.
Water Management Plan*	• Includes site water balance, surface water criteria and monitoring program, trigger levels for investigation of adverse water and vegetation health impacts, groundwater criteria and monitoring program and a program for validation of modelling predictions. • Outlines the performance criteria for the compliance with Water Management Performance Measures.
Brine Management Plan**	• Describes the storage, monitoring and management of brine produced from the reverse osmosis facility.
Heritage Management Plan*	• Includes measures for management and protection of known and unknown heritage items, access arrangements to heritage items and ongoing consultation with stakeholders.
Noise Management Plan*	• Identification of relevant criteria, monitoring locations, monitoring frequency and operating conditions. • Describes the methods to evaluate compliance against noise criteria and operating conditions and the effectiveness of the management system.
Blast Management Plan*	• Identification of relevant blasting and vibration criteria, monitoring methods and program, protection of infrastructure, property inspections, stakeholder consultation, reporting.
Air Quality Management Plan*	• Identification of relevant criteria and monitoring methods and program. • Describes the methods to evaluate compliance against criteria, operating conditions, effectiveness of the system and defines protocol for identification of incidents and notification of relevant parties of their occurrence.
Extraction Plan#*	• Incorporates a Built Features Management Plan, Water Management Plan, Biodiversity Management Plan, Land Management Plan, Heritage Management Plan, Subsidence Monitoring Program and a Public Safety Management Plan.
Greenhouse Gas Minimisation Plan*	• Identification of options for minimising greenhouse gas emissions from underground mining operations. • Proposes measures to be implemented in the short to medium term to minimise greenhouse gas emissions.

Plan	EMP Framework
Pollution Incident Response Management Plan†	• Outlines the reporting, management and communication to the general community of pollution incidents.
Ulan Road Strategy*	• Outlines the detailed plan for the implementation of the Ulan Road Strategy.

* Requirement of the NSW Project Approvals (05_0117 and 08_0135).

** Requirement of the NSW Project Approval (05_0117).

In accordance with Condition 13, Schedule 2 and Condition 13, Schedule 2 of the NSW Project Approvals (05_0117 and 08_0135, respectively) the Extraction Plan will be submitted prior to the commencement of Second Workings.

† Requirement of the *Protection of the Environment Operations Act 1997*.

Table 3: Moolarben Coal Operations Reporting Requirements

Report	Frequency	Distribution	Distribution Method	Responsibility for Data Collection and Preparation	Responsibility for Submission
Incident Report	As required – see Section 6.3	DPIE EPA Other relevant agencies	Email	Environment and Community Manager	General Manager
Annual Review (incorporating Annual Environmental Management Report)	Annually (for the period 1 January to 31 December)	DPIE DRG DPIE Water CCC	Email and Website	Environment and Community Manager	General Manager
National Pollutant Inventory Report	Annually (for the period 1 January to 31 December)	EPA	Email	Environment and Community Manager	General Manager
National Greenhouse and Energy Report	Annually (for the period 1 July to 30 June)	DAWE	Email	Environment and Community Manager	General Manager
Annual Return	Annually (for the period 1 January to 31 December)	EPA	Email	Environment and Community Manager	General Manager
EPBC Act Compliance Report	Annually (for the period 1 January to 31 December)	DAWE	Email and Website	Environment and Community Manager	General Manager
Compliance summary	Every six months	EPA	Email	Environment and Community Manager	Environment and Community Manager

6.2 COMPLIANCE

Compliance with MCO's conditions and undertakings is to be achieved via:

- adherence to the NSW Project Approvals (05_0117 and 08_0135), licence and ML conditions, and corporate policies;
- annual compliance reporting in the Annual Review;
- review of the EMPs on an annual basis, following a reported incident, after an Independent Environmental Audit or modifications to the conditions of the current approval;
- compliance auditing (both internal and external);
- monthly evaluation of monitoring data against criteria and trigger levels;
- identification of performance against objectives and targets; and
- implementation of corrective procedures/strategies following complaint or monitoring inspection and identification and approval from necessary authorities and stakeholders.

A protocol for the managing and reporting of non-compliances with statutory requirements has been developed as a component of this EMS and is described below.

Protocol for Managing and Reporting of Non-Compliances
Compliance with all approvals, plans and procedures will be the responsibility of all personnel (staff and contractors) employed on or in association with the Moolarben Coal Complex.

The Environment and Community Manager (or delegate) will undertake regular inspections, internal audits and initiate directions identifying any remediation/rectification work required, and areas of actual or potential non-compliance.

As described in Section 6.3, MCO will notify the Secretary of the DPIE, the EPA and any other relevant agencies of any incident associated with the Moolarben Coal Complex that causes or threatens to cause material harm to the environment that is not trivial immediately after MCO becomes aware of the incident. Within seven days of the date of the incident, MCO will provide the Secretary of the DPIE and any relevant agencies with a detailed report on the incident.

MCO will implement adaptive management to avoid exceedances of criteria and/or performance measures. However, if an exceedance of the criteria or performance measures in the NSW Project Approvals (05_0117 and 08_0135) has occurred, MCO will, at the earliest opportunity and to the satisfaction of the Secretary of the DPIE:

(a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;

(b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the DPIE describing those options and any preferred remediation measures or other course of action; and

(c) implement remediation measures as directed by the Secretary of the DPIE.

In addition, as soon as practicable after obtaining monitoring results showing an exceedance of the criteria detailed in the NSW Project Approvals (05_0117 and 08_0135) and completion of the protocol for determining if an exceedance is a non-compliance (as outlined in each management plan), MCO shall, in accordance with Condition 3, Schedule 4 and Condition 3, Schedule 5 of the NSW Project Approvals (05_0117 and 08_0135, respectively):

- notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the Moolarben Coal Complex is again complying with the relevant criteria; and
- in the event of an exceedance of the air quality criteria, 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.

A review of MCO’s compliance with all conditions in the NSW Project Approvals, MLs and all other approvals and licences will be undertaken prior to (and included within) each Annual Review. The Annual Review will be made publicly available on the Moolarben Coal Website in accordance with Condition 11, Schedule 5 and Condition 11, Schedule 6 of the NSW Project Approvals (05_0117 and 08_0135, respectively).

6.3 INCIDENTS

An incident is defined as a set of circumstances that causes or threatens to cause, material harm to the environment and/or breaches or exceeds the limits or performance measures/criteria in the NSW Project Approvals due to MCO’s authorised activities.

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. For any other incident associated with the project, MCO will notify the Secretary and any other relevant agencies as soon as practicable after becoming aware of the incident. Further details regarding incidents are contained in the Management Plans (Table 2).

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*.

Within seven days of the date of the incident, MCO will provide the Secretary of the DPIE and any relevant agencies with a detailed report on the incident. The report will:

- describe the date, time and nature of the exceedance/incident;
- identify the cause (or likely cause) of the exceedance/incident;
- describe what action has been taken to date; and
- describe the proposed measures to address the exceedance/incident.

In accordance with Condition 9, Schedule 5 and Condition 9, Schedule 6 of the NSW Project Approvals (05_0117 and 08_0135, respectively), an independent environmental audit will be undertaken every three years. A copy of the independent environmental audit will be provided to the Secretary of the DPIE and made available on the Moolarben Coal Website. The independent environmental audit will be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary of the DPIE. The most recent independent environmental audit was conducted in 2018.

7.0 REVIEW

Annual Review

In accordance with Condition 4, Schedule 5 and Condition 4, Schedule 6 of the Project Approvals (05_0117 and 08_0135, respectively), an Annual Review will be undertaken by the end of March each year. The Annual Review will contain:

- a description of the development that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year;
- a comprehensive review of the monitoring results and complaints records of the Moolarben Coal Complex over the previous calendar year, which includes a comparison of these results against the:
  - relevant statutory requirements, limits or performance measures/criteria;
  - monitoring results of previous years; and
  - relevant predictions in the EA;
- identification of any non-compliances over the previous calendar year and a description of what actions were/are being taken to ensure compliance;
- identification of any trends in monitoring data over the life of Moolarben Coal Complex;
- identification of any discrepancies between the predicted and actual impacts of the Moolarben Coal Complex and an analysis of the potential cause of the discrepancies; and
- description of any measures to be implemented over the next calendar year to improve the environmental performance of the Moolarben Coal Complex.

In accordance with Condition 11, Schedule 5 and Condition 11, Schedule 6 of the NSW Project Approvals (05_0117 and 08_0135, respectively), the Annual Review will be made available on the Moolarben Coal Website.

Attachment A -

Project Approvals (05_0117) and (08_0135) Reconciliation

Table A-4: NSW Project Approval (05_0117) Requirements

NSW Project Approval Condition	EMS Section
1. *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;*	
(b) *provide the strategic framework for environmental management of the project;*	Sections 3 & 4
(c) *identify the statutory approvals that apply to the project;*	Section 4
(d) *describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;*	Section 5.1 & Appendix E
(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;*	Section 5.3
• *receive, handle, respond to, and record complaints;*	Section 5.4
• *resolve any disputes that may arise;*	Section 5.5
• *respond to any non-compliance;*	Section 6.2
• *respond to emergencies; and*	Section 5.2
(f) *include:*	
• *copies of any strategies, plans and programs approved under the conditions of this approval; and*	Refer to EMPs (Appendix F)
• *a clear plan depicting all the monitoring to be carried out in relation to the project.*	Refer to EMPs & Section 6

Table A-5: NSW Project Approval (08_0135) Requirements

NSW Project Approval Condition	EMS Section
1. *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 prior to the commencement of any development on the site;*	
(b) *provide the strategic framework for environmental management of the project;*	Sections 3 & 4
(c) *identify the statutory approvals that apply to the project;*	Section 4
(d) *describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;*	Section 5.1 & Appendix E
(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;*	Section 5.3
• *receive, handle, respond to, and record complaints;*	Section 5.4
• *resolve any disputes that may arise;*	Section 5.5
• *respond to any non-compliance;*	Section 6.2
• *respond to emergencies; and*	Section 5.2
(f) *include:*	
• *copies of any strategies, plans and programs approved under the conditions of this approval; and*	Refer to EMPs (Appendix F)
• *a clear plan depicting all the monitoring to be carried out in relation to the project.*	Refer to EMPs & Section 6

Appendix A – NSW Project Approval (05_0117)

Project Approval

Section 75J of the *Environmental Planning and Assessment Act 1979*

I approve the project application referred to in schedule 1, subject to the conditions in schedules 2 to 5.

These conditions are required to:
- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.

Red type represents the November 2008 modification (MOD 1)
Blue type represents the December 2008 modification (MOD 2)
Green type represents the June 2009 modification (MOD 4)
Purple type represents the October 2009 modification (MOD 5)
Orange type represents the January 2010 modification (MOD 6)
Pink type represents the May 2010 modification (MOD 8)
Violet text represents the January 2011 modification (MOD 7)
Aqua text represents the June 2014 modification (MOD 9)
Maroon text represents the January 2015 modification (MOD3)
Olive green type represents the April 2015 modification (MOD 10)
Brown type represents the July 2015 modification (MOD 11)
Light green type represents the February 2016 modification (MOD 12)
Gold type represents the December 2016 Modification (MOD 13)
Grey type represents the June 2019 Modification (MOD 14)
Dark orange type represents the June 2020 modification (MOD 15)

Frank Sartor MP
Minister for Planning

SIGNED 6 SEPTEMBER 2007

Sydney 2007

SCHEDULE 1

Application Number:	05_0117
Proponent:	Moolarben Coal Mines Pty Limited
Approval Authority:	Minister for Planning
Land:	See Appendix 1
Project:	Moolarben Coal Project Stage 1

TABLE OF CONTENTS

DEFINITIONS

Annual review	The review required by condition 4 of Schedule 5
ANZECC Guidelines	*Australian and New Zealand Guidelines for Fresh and Marine Water Quality*
ARTC	Australian Rail Track Corporation Ltd
BCA	Building Code of Australia
BC Act	*Biodiversity Conservation Act 2016*
BCD	Biodiversity and Conservation Division, within the Department
BCT	NSW Biodiversity Conservation Trust
Blast misfires	The failure of one or more holes in a blast pattern to initiate
Built features	Includes any building or work erected or constructed on land, and includes dwellings and infrastructure such as any formed road, street, path, walk, or driveway; any pipeline, water, sewer, telephone, gas or other service main
CCC	Community Consultative Committee
Conditions of this approval	Conditions contained in Schedules 2 to 5 inclusive
Council	Mid-Western Regional Council
CPI	Australian Bureau of Statistics Consumer Price Index
DAWE	Commonwealth Department of Agriculture, Water and the Environment
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning, Industry and Environment
DoE	Department of Education
DPI	Department of Primary Industries
DPIE Water	Water Group, within the Department
EA	The Moolarben Coal Project Environmental Assessment, Volumes 1-5, dated September 2006, as modified by the: • Preferred Project Report dated December 2006 and associated response to submissions; • Application to Make Modifications to the Project Approval for the Moolarben Coal Project, dated August 2008 (MOD 1); • Environmental Assessment - Section 75W Modification Application, dated December 2008 (MOD 2); • Relevant aspects of the Environmental Assessment for Stage 2 of the Moolarben Coal Project, dated March 2009, and associated environmental assessment (MOD 3); • Documentation in Support of the Balloon Loop Modification, dated April 2009 (MOD 4); • Environmental Assessment - Section 75W Modification Application, dated July 2009, associated response to submissions dated August 2009, and supplementary information dated September 2009 (MOD 5); • Environmental Assessment - Section 75W Modification Application, prepared by Coffey Natural Systems and dated December 2009 (MOD 6); • Environmental Assessment – Section 75W Modification Application, dated March 2010, and associated response to submissions dated June 2010, and supplementary information dated 2 November 2010 and 6 December 2010 (MOD 7); • Environmental Assessment – Section 75W Modification Application, dated April 2010 (MOD 8); • Environmental Assessment for the Moolarben Coal Project Stage 1 Optimisation Modification, dated May 2013, associated response to submissions dated September 2013, and supplementary information dated 2 October 2013, 14 October 2013 and 15 October 2013 (MOD 9); • Modification Application 05_0117 MOD 10 and accompanying letters dated 24 February 2015 and 17 March 2015 (MOD 10); • OC4 South West Modification Environmental Assessment, dated April 2015 and associated response to submission dated June 2015 (MOD 11); • UG1 Optimisation Modification Environmental Assessment, dated June 2015 and associated response to submissions dated September 2015 (MOD 12); • Modification Application 05_0117 MOD 13 and accompanying letter dated 24 November 2016; • Environmental Assessment – Open Cut Optimisation Modification, Volumes 1 and 2, dated November 2017 and associated response to submissions dated May 2018; and supplementary information dated 24 August 2018 (MOD 14); and • Modification Report – Moolarben Coal Complex UG4 Ancillary Works Modification, dated 1 October 2019, associated Submissions Report dated November 2019, Supplementary Submissions Report dated November 2019 and supplementary information dated 9 March 2020 (MOD 15).

EEC	Endangered ecological community, as defined under the BC Act
EPA	Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
EPBC Act	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*
EPL	Environment Protection Licence under the POEO Act
Evening	Evening is defined as the period from 6pm to 10pm
Feasible	Feasible relates to the engineering coordinates and what is practical to build or implement
Heritage Item	An item as defined under the *Heritage Act 1977* and/or an Aboriginal Object or Aboriginal Place as defined under the *National Parks and Wildlife Act 1974*
Incident	A set of circumstances that: • causes, or threatens to cause, material harm to the environment; and/or • breaches or exceeds the limits or performance measures/criteria in this approval
Land	As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions in Schedules 3 and 5 of this approval where it is defined to mean the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this approval
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial.
MEG	Regional NSW – Mining, Exploration and Geoscience
Mine water	Water that accumulates within, or drains from active mining and infrastructure areas (synonymous with dirty water)
Mining operations	Includes the removal and emplacement of overburden, and extraction, processing, handling, storage and transport of coal on site
Minister	Minister for Planning and Public Spaces, or delegate
Minor	Not very large, important or serious
Mitigation	Activities associated with reducing the impacts of the project
Moolarben mine complex	The combined operations of the Moolarben Stage 1 and Stage 2 mines
Moolarben Stage 1 mine	The approved mining operations and associated development enclosed within the blue dashed line on the figure in Appendix 2.
Moolarben Stage 1 mine surface infrastructure area	The approved surface infrastructure area, including the coal handling and preparation plant and the rail loop, as shown on the figures in Appendix 2
Moolarben Stage 2 mine	The approved mining operations and associated development enclosed within the yellow dashed line on the figure in Appendix 2.
Mtpa	Million tonnes per annum
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
NP&W Act	*National Parks & Wildlife Act 1974*
NRAR	Natural Resources Access Regulator
POEO Act	*Protection of the Environment Operations Act 1997*
Privately-owned land	Land that is not owned by a public agency, or a mining company (or its subsidiary)
Project	The development as described in the EA, and adequately modified by other EAs
Proponent	Moolarben Coal Mines Pty Limited, or any other person or persons who rely on this approval to carry out the development that is subject to this approval
Public Infrastructure	Linear and related infrastructure that provides services to the general public, such as roads, railways, water supply, drainage, sewerage, gas supply, electricity, telephone, telecommunications, etc.
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Rehabilitation	The restoration of land disturbed by the project to a good condition, and ensure it is safe, stable and non-polluting
Resources Regulator	NSW Resources Regulator within the Department of Regional NSW
RFS	Rural Fire Service
ROM	Run-of-mine
Secretary	Secretary of the Department, or nominee
Site	The land referred to in Appendix 1
Statement of commitments	The Proponent's commitments in Appendix 3
TfNSW	Transport for NSW
Ulan Road Strategy	The strategy prepared by the Arrb Group Limited, dated December 2011 as amended by the Director-General's letter dated 25 May 2013
VPA	Voluntary planning agreement under the EP&A Act

SCHEDULE 2
ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance criteria established under this approval, the Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the project.

TERMS OF APPROVAL

2. The Proponent shall carry out the project:
   (a) generally in accordance with the EA; and
   (b) in accordance with the statement of commitments and the conditions of this approval.

   Notes:
   - *The general layout of the project is shown in Appendix 2; and*
   - *The statement of commitments is shown in Appendix 3.*

3. If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.

4. The proponent shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:
   (a) any reports, plans, programs, strategies, reviews, audits 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;
   (c) the implementation of any actions or measures contained in these documents

LIMITS ON APPROVAL

Mining Operations

5. The Proponent may carry out mining operations on the site until 31 December 2038.

   Note: Under this approval, the Proponent is required to rehabilitate the site and perform additional undertakings to the satisfaction of both the Secretary and Resources Regulator. Consequently, this approval will continue to apply in all other respects other than the right to conduct mining operations until the rehabilitation of the site and these additional undertakings have been carried out satisfactorily.

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) progresses in the 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.

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Coal Extraction

6. 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;
   (b) 9 million tonnes of ROM coal from the open-cut mining operations of the project in the calendar years 2015 and 2016; and
   (c) 8 million tonnes total of ROM coal from the underground mining operations of the project in any calendar year.

Coal Handling and Processing

7. The Proponent shall not:
   (a) wash more than 16 million tonnes of coal at the coal handling and preparation plant on site in any calendar year, except in the year 2017;
   (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
   (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.

7A. In the 2017 calendar year, the Proponent may wash up to 13.5 million tonnes of coal at the coal handling and preparation plant.

Coal Transport

8. The Proponent shall ensure that:
   (a) all product coal is transported from the site by rail; and
   (b) no more than 8 laden trains leave the site each day on average when calculated over any calendar year;
   (c) no more than 11 laden trains leave the site each day; and
   (d) no more than 22 million tonnes are transported from the site in any calendar year.

STRUCTURAL ADEQUACY

9. The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.

Notes:
- *Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.*
- *Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.*

DEMOLITION

10. The Proponent shall ensure that all demolition work is carried out in accordance with *Australian Standard AS 2601-2001: The Demolition of Structures*, or its latest version.

PROTECTION OF PUBLIC INFRASTRUCTURE

11. Unless the Proponent and the applicable authority agree otherwise, the Proponent shall:
   (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and
   (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the project.

Note: This condition does not apply to any damage to public infrastructure subject to compensation payable under the Mine Subsidence Compensation Act 1961, or to damage to roads caused as a result of general road usage.

OPERATION OF PLANT AND EQUIPMENT

12. 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
   (b) operated in a proper and efficient manner.

STAGED SUBMISSION OF STRATEGIES, PLANS OR PROGRAMS

13. 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.

Notes:
- *While any strategy, plan or program may be submitted on a progressive basis, the Proponent will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times; and*
- *If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.*

13A. With the agreement of the Secretary, the Proponent may prepare a revision of or a stage of a strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition in this consent.

VOLUNTARY PLANNING AGREEMENT

14. 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; and
   (b) the terms of the Proponent's offer to the Minister on 4 September 2007, which includes the matters set out in Appendix 4.

SCHEDULE 3
ENVIRONMENTAL CONDITIONS - GENERAL

NOISE

Noise Criteria

Acquisition Upon Request

1A. (deleted)

Note: The Proponent has acquired all properties provided acquisition rights under this approval.

Transitional Acquisition and Mitigation Arrangements

1B. (deleted)

1. The Proponent shall ensure that the noise generated by the Moolarben mine complex does not exceed the noise criteria in Table 1 at any residence on privately-owned land or the other specified locations.

Table 1: Noise criteria dB(A)

Land Number	Day $L_{Aeq(15min)}$	Evening $L_{Aeq(15min)}$	Night $L_{Aeq(15min)}$	Night $L_{A1(1min)}$
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		-

Note: To interpret the land referred to in Table 1 see the applicable figures in Appendix 5.

Noise generated by the Moolarben mine complex is to be measured in accordance with the relevant requirements of the NSW 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.

Land Acquisition Criteria

2. If the noise generated by the Moolarben mine complex exceeds the criteria in Table 2A, then upon receiving a written request for acquisition from an owner of the land listed in Table 2A, the Proponent shall acquire the land in accordance with the procedures in conditions 10 and 11 of Schedule 4.

Table 2A: Acquisition criteria dB(A) $L_{Aeq\ (15min)}$

Receiver ID	Day ($L_{Aeq\ (15min)}$)	Evening ($L_{Aeq\ (15min)}$)	Night ($L_{Aeq\ (15min)}$)
All other privately-owned residences	40	40	40

Note: To interpret the land referred to Table 2A, see the applicable figures in Appendix 5.

3. If the noise generated by the Moolarben mine complex contributes to exceedances of the relevant criteria in Table 2 on more than 25% of any privately-owned land (and a dwelling could be built on that land under existing planning controls), the Proponent shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 10-11 of Schedule 4.

Table 2: Land acquisition criteria

Day/Evening/Night $L_{Aeq(period)}$	Receiver
55/50/45	All privately-owned land

Note: Noise generated by the 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.

Noise Mitigation Criteria

4. If the noise generated by the Moolarben mine complex exceeds the criteria in Table 3A, then upon receiving a written request the Proponent shall implement additional noise mitigation measures (such as double-glazing, insulation and/or air conditioning) at the residence in consultation with the landowner. These measures must be reasonable and feasible, and directed towards reducing the noise impacts of the project on the residence.

   If within 3 months of receiving this request from the owner, the Proponent and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.

Table 3A: Mitigation criteria dB(A) LAeq (15min)

Receiver ID	Day ($L_{Aeq\ (period)}$)	Evening ($L_{Aeq\ (15min)}$)	Night ($L_{Aeq\ (15min)}$)
All privately owned residences other than those in Table 3	37	37	37

Note: To interpret the land referred to Table 3A, see the applicable figures in Appendix 5.

Mitigation Upon Request

5. (deleted)

Note: The Proponent has acquired all properties provided mitigation upon request rights under this approval.

Operating Conditions

6. The Proponent shall:
   (a) implement best management practice to minimise the operational, road and rail noise of the project;
   (b) operate a comprehensive noise management system on site that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations, and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this approval;
   (c) minimise the noise impacts of the project during meteorological conditions when the noise limits in this approval do not apply (see Appendix 6);
   (d) only use locomotives and rolling stock that are approved to operate on the NSW rail network in accordance with the noise limits in ARTC's EPL;
   (e) co-ordinate noise management with the noise management at Ulan and Wilpinjong mines to minimise cumulative noise impacts; and
   (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

7. The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Secretary. This plan must:
   (a) be prepared in consultation with the EPA and be submitted to the Secretary for approval by 31 March 2015;
   (b) describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions in this approval;
   (c) describe the proposed noise management system in detail;
   (d) include a monitoring program that:
      - 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);

- evaluates and reports on:
  - the effectiveness of the noise management system; and
  - compliance against the noise operating conditions; and
- defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.

BLASTING

Blasting Criteria

8. The Proponent shall ensure that the blasting on the Moolarben mine complex does not cause exceedances of the criteria in Table 4.

Table 4: Blasting criteria

Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance
Residence on privately owned land, churches and schools	120	10	0%
	115	5	5% of the total number of blasts over a period of 12 months
All public infrastructure	-	50 (or a limit determined by the structural design methodology in AS 2187.2-2006, or its latest version, or other alternative limit for public infrastructure, to the satisfaction of the Secretary)	0%

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.

Blasting Hours

9. The Proponent shall only carry out blasting on the site between 9am and 5pm Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays, or at any other time without the written approval of the Secretary.

Blasting Frequency

10. The Proponent may carry out a maximum of:
(a) 2 blasts a day; and
(b) 9 blasts a week, averaged over a calendar year,
at the Moolarben mine complex.

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.

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.

Property Inspections

11. If the Proponent receives a written request from the owner of any privately-owned land within 2 kilometres of any approved open cut mining pit on site for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection updated, then within 2 months of receiving this request the Proponent shall:
(a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to:
  - establish the baseline condition of any buildings and 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
(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.

Property Investigations

12. If the owner of any privately-owned land claims that buildings and/or structures on his/her land have been damaged as a result of blasting on the site, then within 2 months of receiving this claim the Proponent shall:
    (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to investigate the claim; and
    (b) give the landowner a copy of the property investigation report.

    If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damage to the satisfaction of the Secretary.

    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.

Operating Conditions

13. The Proponent shall:
    (a) implement best practice blasting management to:
        - protect the safety of people and livestock in the surrounding area;
        - protect public or private infrastructure/property in the surrounding area from any damage; and
        - minimise the dust and fume emissions of any blasting;
    (b) operate a suitable system to enable the public to get up-to-date information on the proposed blasting Schedule on site; and
    (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.

14. The Proponent shall not undertake blasting on site within 500 metres of:
    (a) any public road;
    (b) the Gulgong to Sandy Hollow Railway Line;
    (c) the Wollar-Wellington 330kV Transmission Line; or
    (d) any land outside the site not owned by the Proponent,
    unless the Proponent has:
        - 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

15. The Proponent shall prepare and implement a Blast Management Plan for the project prior to undertaking any blasting on site to the satisfaction of the Secretary. This plan must:
    (a) be prepared in consultation with the EPA and be submitted to the Secretary for approval by 31 March 2015;
    (b) describe the measures that would be implemented to ensure compliance with the blast criteria and operating conditions of this approval;
    (c) propose and justify any alternative ground vibration limits for public infrastructure in the vicinity of the site (if relevant); and
    (d) include a monitoring program for evaluating compliance with the blasting criteria and operating conditions of this approval.

AIR QUALITY

Odour

16. The Proponent shall ensure that no offensive odours, as defined under the POEO Act, are emitted from the site.

Air Quality Criteria

17. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the Moolarben mine complex do not cause exceedances of the criteria listed in Tables 5, 6 and 7 at any residence on privately owned land.

Table 5: Long term impact assessment criteria for particulate matter

Pollutant	Averaging period	[d]Criterion
Total suspended particulate (TSP) matter	Annual	[a] 90 µg/m^3
Particulate matter < 10 µm (PM_{10})	Annual	[a, d] 25 µg/m^3
Particulate Matter <2.5 µm (PM2.5)	Annual	[a, d] 8 µg/m3

Table 6: Short term impact assessment criterion for particulate matter

Pollutant	Averaging period	[d]Criterion
Particulate matter < 10 µm (PM_{10})	24 hour	[a] 50 µg/m^3
Particulate Matter <2.5 µm ($PM_{2.5}$)	24 hour	[b] 25 µg/m^3

Table 7: Long term impact assessment criteria for deposited dust

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

Notes to Tables 5-7:

[a] Cumulative (i.e. incremental increase in concentrations due to the Moolarben mine complex plus background concentrations due to all other sources);

[b] Incremental impact (i.e. incremental increase in concentrations due to the Moolarben mine complex on its own) with up to 5 allowable exceedances over the life of the project;

[c] Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and

[d] Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents, illegal activities or any other activity agreed by the Secretary.

Mine-owned Land

18. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the Moolarben mine complex do not cause exceedances of the criteria listed in Tables 8, 9 and 10 at any occupied residence on mine-owned land (including land owned by another mine) unless:
    (a) the tenant and landowner has been notified of any health risks associated with such exceedances in accordance with the notification requirements under Schedule 4 of this approval;
    (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;
    (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);
    (d) particulate matter air quality monitoring is regularly undertaken to inform the tenant and landowner of the actual particulate emissions; and
    (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.

Air Quality Acquisition Criteria

19. If particulate matter emissions generated by the Moolarben mine complex exceed the incremental criteria, or contribute to an exceedance of the relevant cumulative criteria, in Tables 8, 9 and 10 at any residence on privately-owned land or on more than 25% of any privately-owned land (and a dwelling could be built on that land under existing planning controls), then upon receiving a written request for acquisition from the landowner, the Proponent shall acquire the land in accordance with the procedures in conditions 10-11 of Schedule 4.

Table 8: Long term land acquisition criteria for particulate matter

Pollutant	Averaging period	[d]Criterion
Total suspended particulate (TSP) matter	Annual	[a] 90 µg/m^3
Particulate matter < 10 µm (PM_{10})	Annual	[a, d] 25 µg/m^3
Particulate Matter <2.5 µm ($PM_{2.5}$)	Annual	[a, d] 8 µg/m^3

Table 9: Short term land acquisition criteria for particulate matter

Pollutant	Averaging period	[d] Criterion	Basis
Particulate matter < 10 µm (PM_{10})	24 hour	[b] 50 µg/m^3	Increment [b]
Particulate Matter <2.5 µm ($PM_{2.5}$)	24 hour	[b] 25 µg/m^3	Increment [b]

Table 10: Long term land acquisition criteria for deposited dust

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

Notes to Tables 8-10:

[a] Cumulative (i.e. incremental increase in concentrations due to the Moolarben mine complex plus background concentrations due to all other sources);

[b] Incremental impact (i.e. incremental increase in concentrations due to the Moolarben mine complex on its own) with up to 5 allowable exceedances over the life of the project

[c] Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and

[d] Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents, illegal activities or any other activity agreed by the Secretary.

Operating Conditions

20. The Proponent shall:
    (a) implement best management practice to minimise the off-site odour, fume and particulate matter (including PM_{10} and $PM_{2.5}$) emissions of the project;
    (b) implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site;
    (c) minimise any visible off-site air pollution generated by the project;
    (d) minimise the surface disturbance of the site;
    (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;
    (f) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see Note d under Table 9); and
    (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.

Air Quality Management Plan

20A. The Proponent shall prepare and implement an Air Quality 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;
    (b) describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this approval:
    (c) describe the air quality management system;
    (d) include an air quality monitoring program that:
        - uses a combination of real-time and supplementary monitors, including a real-time $PM_{2.5}$ monitor, to evaluate the performance of the project against the air quality criteria in this approval;
        - adequately supports the air quality management system;
        - evaluates and reports on the:
            - the effectiveness of the air quality management system; and
            - compliance against the air quality operating conditions;
        - defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents.

METEOROLOGICAL MONITORING

20B. 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
   (b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the NSW Noise Policy for Industry unless a suitable alternative is approved by the Secretary following consultation with the EPA.

ULAN PUBLIC SCHOOL

20C. The Proponent shall consult with DoE and, if requested:
   (a) implement agreed reasonable and feasible measures to ameliorate potential noise and/or dust impacts to Ulan Public School; or
   (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.

21-25. (deleted)

26-28. (deleted)

WATER

Water Supply

29. 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
   (b) any water supply constraints do not compromise any aspect of the environmental performance of the mine.

   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.

Compensatory Water Supply

30. The Proponent shall provide a compensatory water supply to any landowner of privately owned land whose water supply is adversely and directly impacted (other than an impact that is negligible) as a result of the project, in consultation with DPIE Water, and to the satisfaction of the Secretary.

   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.

   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.

   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.

Water Pollution

31. Unless an EPL authorises otherwise, the Proponent shall comply with section 120 of the POEO Act.

Water Management Performance Measures

32. The Proponent shall comply with the performance measures in Table 11 to the satisfaction of the Secretary.

Table 11: Water Management Performance Measures

Feature	Performance Measure
Water Management - General	• 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 water supply to the Drip
Construction and operation of linear infrastructure	• Design, install and maintain erosion and sediment controls generally in accordance with the series Managing Urban Stormwater: Soils and Construction including Volume 1, Volume 2A – Installation of Services and Volume 2C – Unsealed Roads • Design, install and maintain the infrastructure within 40 m of watercourses generally in accordance with the *Guidelines for Controlled Activities on Waterfront Land (DPI 2007)*, or its latest version • Design, installation and maintenance of creek crossings generally in accordance with the Policy and Guidelines for Fish Friendly Waterway Crossings (NSW Fisheries, 2003) and Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries 2003), or their latest versions
Mine Sediment Dams	• 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	• 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	• 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 $< 1 \times 10^{-9}$ m/s
Tailings, acid forming and potentially acid forming materials	• In-pit emplacement, encapsulation or capping to prevent the migration of pollutants beyond the pit shell
In-pit emplacement of tailings, acid forming and potentially acid forming materials	• 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	• Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standard
Aquatic and riparian ecosystem, including the relevant sections of Moolarben Creek, Bora Creek and the Goulburn River	• 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	• Up to 10ML/day for the following periods (unless the Secretary agrees otherwise):
	  o until the commencement of mining operations in UG4; and
	  o 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	• 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

Feature	Performance Measure
Storages constructed for the Water Treatment Facility	• 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

Independent Water Quality Study

32A. 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:

(a) be undertaken by an independent scientific organisation with suitable water expertise whose appointment has been approved by the Secretary;

(b) collect and utilise water quality monitoring data in the Goulburn River using locations endorsed by the EPA;

(c) determine appropriate background salinity and heavy metal levels for the Goulburn River upstream of the project site;

(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.

Water Management Plan

33. The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must:

(a) be prepared in consultation with DPIE Water, NRAR 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;

(a1) include reference to the National Water Quality Management Strategy;

(a2) include detailed performance criteria and describe measures to ensure that the Proponent complies with the Water Management Performance Measures (see Table 11);

(b) in addition to the standard requirements for management plans (see Condition 3 of Schedule 5), 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 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;

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;
  - daily flow levels upstream and downstream of the treated mine water discharge point in the Goulburn River Diversion; 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;

iii. Groundwater Management Plan, that includes:

- 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:
  - 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:
    - 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.

iv. a protocol that has been prepared in consultation with the owners of the Ulan and Wilpinjong mines to:

- minimise cumulative water quality impacts;
- review opportunities of increased water sharing between these projects;
- co-ordinate water quality and flow monitoring programs as far as practicable;
- undertake joint investigations/studies in relation to complaints/exceedences of trigger levels where cumulative impacts are considered likely; and
- co-ordinate modelling programs for validation, re-calibration and re-running of groundwater models.

Brine Management Plan

33A. 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:

(a) be prepared by suitably qualified and experienced persons whose appointment has been approved by the Secretary;
(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;
(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;
(d) include a program to investigate options to decrease the quantity of brine over time; and
(e) include a program to monitor potential impacts of brine storage, transfer and disposal in underground workings.

Following approval, the Proponent must implement the Brine Management Plan for the project.

Note: Water Treatment Facility operations commence following commissioning.

BIODIVERSITY

Biodiversity Offset Strategy

34. The Proponent shall implement the biodiversity offset strategy for the project summarised in Table 12, and shown conceptually in Appendix 8, to the satisfaction of the Secretary.

Table 12: Summary of Biodiversity Offset Strategy

Area	Offset Type	Minimum Size Hectares
Area 3 Property 6	Conserve: • 6 ha of existing EEC Enhance and conserve: • 2.6 ha of regenerating EEC	8.6
Areas 1, 2 and 3 Properties 6, 10, 12, 13, 14 and 15	Enhance existing vegetation: • 1282 ha of native vegetation Revegetate: • 48 ha of existing disturbed land to EEC	1330

Area	Offset Type	Minimum Size Hectares
Area 1 Properties 12, 13, 14 and 15	Revegetate: • 153 ha of cleared land to native vegetation	153
Clark	Enhance existing vegetation: • 300 ha of existing native vegetation • 32 ha of EEC	332
Clifford	Enhance existing vegetation: • 19 ha of native vegetation • 62 ha of EEC	81
Elward	Enhance existing vegetation: • 146 ha of native vegetation • 24 ha of EEC	170
Property 5	Enhance existing vegetation: • 40 ha of native vegetation • 25 ha of EEC	65
Properties 24 and 25	Enhance existing vegetation: • 59 ha of native vegetation • 4 ha of EEC	63
Bobadeen	Enhance existing vegetation: • 8 ha of native vegetation • 159 ha of EEC	167
Moolarmoo	Enhance existing vegetation: • 25 ha of native vegetation • 19 ha of EEC	44

Note: The EEC referred to in this table is the White Box Yellow Box Blakely's Red Gum Woodland as defined under the BC Act and White Box Yellow Box Blakely's Red Gum Grassy Woodland as defined under the EPBC Act.

Supplementary Biodiversity Offset Strategy

34A. 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.

Table 12A: Summary of Supplementary Biodiversity Offset Strategy

Gilgal property credit type	Credits required	Gilgal property credits (area)	Residual credits
Ecosystem Credits			
PCT 281[1] 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 Bioregion	35	35 (5 ha)	-
PCT 618[1] 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 1660[2] Narrow-leaved Ironbark heathy woodland on sandstone ranges of the Sydney Basin and Brigalow Belt South	411	411 (53 ha)	-
PCT 479[3] 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)	-

Gilgal property credit type	Credits required	Gilgal property credits (area)	Residual credits
PCT 1176[4] Slaty Box - Grey Gum shrubby woodland on footslopes of the upper Hunter Valley, Sydney Basin Bioregion	233	233 (27 ha)	-
PCT 1696 Blakely's Red Gum - Rough-barked Apple shrubby woodland of central and upper Hunter	331	0	331
Total	**1,437**	**1,033 (121.5 ha)**	**404**
Species Credits			
Regent Honeyeater	1,568	1,568 (221 ha)	-
Koala	77	64 (9 ha)	13
Brush-tailed Rock Wallaby	693	693 (98 ha)	-

1. Listed as or meets the criteria for *White Box-Yellow Box-Blakely's Red Gum Woodland EEC* under the BC Act and *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland CEEC* under the EPBC Act.
2. Under the FBA offsetting option rules PCT 1660 can be used to offset impacts on PCT 1629 *Narrow-leaved Stringybark – Grey Gum shrubby open forest on sandstone ridges of the Sydney Basin*.
3. Under the FBA offsetting option rules PCT 479 can be used to offset impacts on PCT 1661 *Narrow-leaved Ironbark - Black Pine - Sifton Bush heathy open forest on sandstone ranges of the upper Hunter and Sydney Basin.*
4. Under the FBA offsetting option rules PCT 1176 can be used to offset impacts on PCT 1669 *Red Ironbark - Grey Gum - Narrow-leaved Stringybark - Brown Bloodwood shrubby open forest on sandstone ranges of the Sydney Basin.*

Note: The credits in Table 12A have been calculated in accordance with Framework for Biodiversity Assessment of the NSW Biodiversity Offset Policy for Major Projects (OEH, 2014) and may need to be converted to reasonably equivalent 'biodiversity credits', within the meaning of the BC Act, if the credits are to be retired in accordance with the Biodiversity Offsets Scheme of the BC Act.

Long Term Security of Offsets

35. By the end of June 2015, unless otherwise agreed by the Secretary, the Proponent shall make suitable arrangements to provide appropriate long-term security for the offset areas in Table 12 in perpetuity, in consultation with BCD and to the satisfaction of the Secretary.

Note: The preferred mechanisms for the provision of long-term conservation security are via Biobanking Arrangements and additions to the BCD Estate.

35A. 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.

Rehabilitation Offsets

35B 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).*

Notes:
- *The rehabilitation offset performance and completion criteria form a component of the Rehabilitation Management Plan required under condition 69 of this schedule.*
- *The indicative final rehabilitation areas are shown in Appendix 8.*

35C 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.

Notes:

- *Landform establishment is a recognised stage of rehabilitation when the final land shape has been developed prior to growth medium development and ecosystem development.*
- *As landform establishment stage will progressively occur across the mine site, the performance criteria for new areas progressing into the landform establishment stage will need to be assessed by the Secretary on a regular basis, for example every 3 years, to determine whether the requirements of the condition are being met.*
- *In accordance with the NSW Biodiversity Offsets Policy for Major Projects, additional biodiversity credits can be generated for the ongoing management of the rehabilitation area to ensure its biodiversity values are continually improved. Any additional credits could be secured through a Biobanking Agreement and used to offset future developments.*

35D 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.

35E. 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.

Table 12B: Summary of Supplementary Biodiversity Offset Strategy (MOD 15)

Biodiversity Credit Type	***Credits required[2]***
Ecosystem Credits	
PCT 281[1] 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 Bioregion [1]	42
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	59
PCT 1711 *Tantoon - Lepyrodia leptocaulis* shrubland on sandstone drainage lines of the Sydney Basin	10
Total	**111**
Species Credits	
Gang-Gang Cockatoo	9
Glossy-Black Cockatoo	9
Large-eared Pied Bat	135
Eastern Cave Bat	135
Tylophora linearis	26

1. Portions of this community are listed as or meets the criteria for *White Box-Yellow Box-Blakely's Red Gum Woodland EEC* under the BC Act and *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland CEEC* under the EPBC Act.
2. *The credits listed in Table 12B have been calculated in accordance with the Biodiversity Assessment Method (as at 1 October 2019).*

35F. 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 Bioregion[1]; and

(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.

Note 1: Portions of this community is listed as or meets the criteria for *White Box-Yellow Box-Blakely's Red Gum Woodland EEC* under the BC Act and *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland CEEC* under the EPBC Act.

Biodiversity Management Plan

36. The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:
    (a) be prepared in consultation with BCD and be submitted to the Secretary for approval by 31 March 2015;
    (b) describe the short, medium, and long term measures that would be implemented to:
        - manage the remnant vegetation and habitat on the site and in the offset areas;
        - minimise biodiversity impacts of the project; and
        - implement the biodiversity offset strategy described in Table 12, including detailed performance and completion criteria;
    (c) include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy described in Table 12, and triggering remedial action (if necessary);
    (d) include a detailed description of the measures that would be implemented for:
        - 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 Phytophthora cinnamomi (*P.cinnamomi*) with consideration of actions identified in the relevant threat abatement plan;
        - controlling weeds and feral pests;
        - controlling erosion;
        - managing grazing and agriculture on site;
        - controlling access; and
        - bushfire management;
    (e) include a seasonally-based program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria;
    (f) identify the potential risks to the successful implementation of the biodiversity offset strategy described in Table 12, and include a description of the contingency measures that would be implemented to mitigate against these risks; and
    (g) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

Conservation Bond

37. 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:
    (a) calculating the full cost of implementing the biodiversity offset strategy described in Table 12 (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 described in Table 12 is completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Secretary, the Secretary will release the bond.

    If the offset strategy described in Table 12 is not completed generally in accordance with the completion criteria in the Biodiversity Management Plan, the Secretary will call in all, or part of, the conservation bond, and arrange for the satisfactory completion of the relevant works.

Notes:
- *Existing bonds which have been paid for biodiversity offset areas listed in Table 12 remain current and are satisfactory to fulfil the requirements of this condition for those areas;*

- *Alternative funding arrangements for long-term management of the Biodiversity Offset Strategy, such as provision of capital and management funding as agreed by BCD as part of a Biobanking Agreement or transfer to conservation reserve estate can be used to reduce the liability of the conservation and biodiversity bond, and*
- *The sum of the bond may be reviewed in conjunction with any revision to the biodiversity offset strategy described in Table 12.*

HERITAGE

Protection of Aboriginal Heritage Items

38. Unless otherwise authorised under the NP&W Act, the Proponent shall ensure that the project does not cause any direct or indirect impact on the identified Aboriginal heritage items located outside the approved disturbance area of the project.

Note: Identified Aboriginal heritage items are listed in Appendix 9. The details in Appendix 9 are subject to revision following ongoing survey and assessment in accordance with the Heritage Management Plan required under this Project Approval.

Heritage Management Plan

39. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary within six (6) months from the date of approval for MOD 9. This plan must:
    (a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;
    (b) be prepared in consultation with BCD and the Aboriginal stakeholders (in relation to the management of Aboriginal heritage values);
    (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;
    (d) include the following for the management of Aboriginal Heritage:
        - 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;
        - a description of the measures that would be implemented for:
            - protecting, monitoring and/or managing the heritage sites/items identified in Appendix 9 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;
        - a strategy for the storage of any heritage items salvaged on site, both during the project and in the long term;
    (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.

40-53. (deleted)

TRANSPORT

Road Works

54. Prior to the commencement of mining operations in open cut 2, the Proponent shall divert or close Carrs Gap Road to the satisfaction of Council.

55. Prior to the commencement of mining operations in open cut 3, the Proponent shall divert or close Moolarben Road to the satisfaction of Council.

Note: These road works must be constructed in accordance with the relevant TfNSW or Austroads standards, and signposted and lit in accordance AS 1742 – Manual of Uniform Traffic Control Devices and AS/NZS 1158: 2005 – Lighting for Roads and Public Spaces.

55A. 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.

55B. 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.

Ulan Road Strategy

56. The Proponent shall:
    (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
    (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.

    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.

57. (deleted)

TRAFFIC MANAGEMENT

58. The Proponent shall:
    (a) schedule the shift changes on site to occur outside of school bus hours;
    (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; and
    (c) take all reasonable steps to minimise traffic safety issues and disruption to local road users during road upgrade works.

Rail Transport – West

59. The Proponent shall not transport any coal west of the site through Gulgong and Mudgee without the written approval of the Secretary. In seeking this approval, the Proponent shall submit a report to the Secretary that:
    (a) has been prepared in consultation with Council;
    (b) demonstrates that the railway line has been suitably upgraded to accommodate the proposed coal train traffic;
    (c) describes:
        - 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.

Monitoring of Coal Transport

60. The Proponent shall monitor the:
    (a) amount of coal transported from the site each year; and
    (b) date and time of each train movement generated by the project.

VISUAL

Additional Visual Impact Mitigation

61. Upon receiving a written request from the owner of any residence on privately-owned land which has, or would have, significant direct views of the mining operations and infrastructure on site during the project, the Proponent shall implement additional visual impact mitigation measures (such as landscaping treatments or vegetation screens) to reduce the visibility of these mining operations and infrastructure from the residences on their properties.

These mitigation measures must be reasonable and feasible, and must be implemented within a reasonable timeframe.

If the Proponent and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.

Notes:

- *The additional visual impact mitigation measures must be aimed at reducing the visibility of the mining operations on site from significantly affected residences, and do not require measures to reduce the visibility of the mining operations from other locations on the affected properties.*
- *The additional visual impact mitigation measures do not necessarily have to include the implementation of measures on the affected property itself (i.e. the additional measures could involve the implementation of measures outside the affected property boundary that provide an effective reduction in visual impacts).*

Operating Conditions

62. The Proponent shall:
    (a) implement best management practice to minimise the visual and off-site lighting impacts of the project;
    (b) ensure no fixed outdoor lights shine above the horizontal;
    (c) ensure no in-pit mobile lighting rigs shine above the pit wall and other mobile lighting rigs do not shine above the horizontal;
    (d) ensure that all external lighting associated with the project complies with *Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting* or its latest version;
    (e) provide for the establishment of trees and shrubs and/or the construction of mounding or bunding to minimise visual and lighting impacts on the Proponent's land adjoining public roads with views of the site;
    (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.

BUSHFIRE MANAGEMENT

63. The Proponent shall:
    (a) ensure that the project is suitably equipped to respond to any fires on site; and
    (b) assist the RFS and emergency services as much as practicable if there is a fire in the vicinity of the site.

WASTE

64. 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.

REHABILITATION

Rehabilitation Objectives

65. The Proponent shall rehabilitate the site to the satisfaction of 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

Feature	*Objective*
Mine site (as a whole)	• 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	• 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;

Feature	Objective
	• 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	• 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	• To be decommissioned and removed, unless the Executive Director, Mineral Resources agrees otherwise.
Agricultural land	• 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	• Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of: • native forests and woodland, including EECs; • habitat for threatened fauna species; and • wildlife corridors (as indicated in the figure in Appendix 8).
Community	• Ensure public safety; and • Minimise the adverse socio-economic effects associated with mine closure.

Progressive Rehabilitation

66. 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.

67. The Proponent shall progressively landscape the environmental bunds on site.

Rehabilitation Management Plan

68. The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Resources Regulator. This plan must:
    (a) be prepared in consultation with the Department, DPIE Water, BCD, Council and the CCC;
    (b) be submitted to the Resources Regulator for approval by 31 March 2015;
    (c) be prepared in accordance with any relevant MEG guideline;
    (c1) provide for the periodic review and updating of the rehabilitation plans and management strategies to ensure best practice landform design and establishment strategies are employed
    (d) describe how the rehabilitation of the site would be integrated with the implementation of the biodiversity offset strategies in Table 12 and Table 12A;
    (e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);
    (f) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, and address all aspects of rehabilitation including mine closure, final landform, and final land use;
    (g) include interim rehabilitation where necessary to minimise the area exposed for dust generation;
    (h) include a program to monitor, independently audit and report on the effectiveness of the measures, and progress against the detailed performance and completion criteria; and
    (i) build to the maximum extent practicable on the other management plans required under this approval.

The Drip

69. Notwithstanding the approval of Modification 9, there is to be no extraction of the additional coal resource approved under Modification 9 until the land tenure and surrounds associated with the natural feature known as 'the Drip' is resolved to ensure its conservation to the satisfaction of the Secretary and the Office of Environment and Heritage.

    This does not prohibit the implementation of the components for Modification 9 including construction and operation the approved water management infrastructure upgrade works.

GREENHOUSE GAS

70. Deleted.

Gas Drainage

71. The Proponent shall implement all reasonable and feasible measures to minimise the greenhouse gas emissions from the underground mining operations to the satisfaction of the Secretary.

72. 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;
(b) investigate the feasibility of implementing each option;
(c) propose the measures that would be implemented in the short to medium term on site; and
(d) include a research program to inform the continuous improvement of the greenhouse gas minimisation measures on site.

SUBSIDENCE

Performance Measures – Natural and Heritage Features

73. The Proponent shall ensure that the project does not cause any exceedances of the performance measures in Table 14, to the satisfaction of the Secretary.

Table 14: Subsidence Impact Performance Measures

Special Feature	
The Drip and Goulburn River Gorge (see Appendix 7)	Nil impact or environmental consequences
Water Resources	
Goulburn River and the bed of the Goulburn River (see Appendix 7)	Negligible impact or environmental consequences. Remain outside the zone of recorded subsidence damage for longwall mining.
Land	
Cliff Line 3	Minimise subsidence damage
Heritage Sites	
Aboriginal heritage sites 264, 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 any feature where performance measures in this table require negligible impact, negligible consequence or negligible loss	To remain long-term stable and non-subsiding.
Second workings	To be carried out only within the longwall mining domains, in accordance with an approved Extraction Plan.

Notes:
- *The locations of the features referred to in Table 14 are shown in Appendix 7.*
- *The Proponent will be required to define more detailed performance indicators (including impact assessment criteria) for each of these performance measures in the various management plans that are required under this approval.*
- *Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of proposed methods, the Secretary will be the final arbiter.*
- *The requirements of this condition only apply to the impacts and consequences of mining operations, construction or demolition undertaken following the date of this approval.*

Offsets

74. If the Proponent exceeds the performance measures in Table 14 and the Secretary determines that:
(a) it is not reasonable or feasible to remediate the impact or environmental consequence; or

(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.
Impacts to the Drip cannot be offset and consequently the proponent shall ensure that the project has no impact on the Drip or the water supply to the Drip.

Performance Measures – Built Features

75. The Proponent shall ensure that the project does not cause any exceedances of the performance measures in Table 15, to the satisfaction of the Secretary.

Table 15: Subsidence Impact Performance Measures – Built Features

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

Notes:

- *The locations of the features referred to in Table 15 are shown in Appendix 7.*
- *The Proponent will be required to define more detailed performance indicators for each of these performance measures in Built Features Management Plans or Public Safety Management Plan (see condition 74 below).*
- *Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of proposed methods, the Secretary will be the final arbiter.*
- *The requirements of this condition only apply to the impacts and consequences of mining operations undertaken following the date of this approval.*
- *Requirements under this condition may be met by measures undertaken in accordance with the Mine Subsidence Compensation Act 1961.*
- *Requirements regarding safety or serviceability do not prevent preventative or mitigatory actions being taken prior to or during mining in order to achieve or maintain these outcomes.*

76. Any dispute between the Proponent and the owner of any built feature over the interpretation, application or implementation of the performance measures in Table 15 is to be settled by the Secretary, following consultation with Resources Regulator. Any decision by the Secretary shall be final and not subject to further dispute resolution under this approval.

Extraction Plan

77. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:

(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;
(c) include detailed plans of existing and proposed first and second workings and any associated surface development;
(d) include detailed performance indicators for each of the performance measures in Tables 14 and 15;
(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;
(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;

(g) include a Built Features Management Plan, which has been prepared in consultation with 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;

(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 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; and

(i) include a Biodiversity Management Plan, which has been prepared in consultation with BCD , 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;

(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;

(k) include a Heritage Management Plan, which has been prepared in consultation with BCD 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 schedule 3;

(l) include a Public Safety Management Plan, which has been prepared in consultation with DRG, to ensure public safety in the mining area;

(m) include a Subsidence Monitoring Program, which has been prepared in consultation with Resources 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; and
  v. inform the contingency plan and adaptive management process.
  vi. (deleted)

(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;

(o) proposes appropriate revisions to the Rehabilitation Management Plan required under condition 68 of Schedule 3; and

(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.

78A. Prior to the commencement of second workings in longwall LW12, the Proponent shall:

(a) prepare a report:
  i. analysing the subsidence, surface water, and groundwater impacts of the cumulative progress of longwall mining for the project, including consideration of data collected from the previously mined panels up to and including commencement in longwall LW11;
  ii. updating the predicted impacts based on the available local data and current scientific understanding of these relevant fields (demonstrating compliance with the requirements of this approval);

(b) commission suitably 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; and

(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.

Note: The locations of LW9-LW14 are marked in Appendix 7, figure 7.1.

78. 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; and
    (b) a detailed description of the measures that would be implemented to remediate predicted impacts.

First Workings

79. 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.

Payment of Reasonable Costs

80. The Proponent shall pay all reasonable costs incurred by the department to engage suitably qualified, experienced and independent experts to review the adequacy of any aspect of an Extraction Plan.

SCHEDULE 4
ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS/TENANTS

1. 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 Schedule 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 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;
   (b) notify the tenants of any mine-owned land of their rights under this approval; and
   (c) send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the owners and/or existing tenants of any land (including mine-owned land) where the predictions in the EA identify that dust emissions generated by the project are likely to be greater than the relevant air quality criteria in Schedule 3 at any time during the life of the project.

2. Prior to entering into any tenancy agreement for any land owned by the Proponent that is predicted to experience exceedances of the recommended dust and/or noise criteria, or for any of the land listed in Table 3 that is subsequently purchased by the Proponent, the Proponent shall:
   (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
   (b) advise the prospective tenants of the rights they would have under this approval,
   to the satisfaction of the Secretary.

3. As soon as practicable after obtaining monitoring results showing:
   (a) (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
   (b) (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).

INDEPENDENT REVIEW

4. If an owner of privately-owned land considers the project to be exceeding the criteria in Schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the project on his/her land.

   If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision, the Proponent shall:

   (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 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
   (b) give the Secretary and landowner a copy of the independent review.

5-9. (deleted)

LAND ACQUISITION

10. Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent shall make a binding written offer to the landowner based on:
   (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 and/or air quality mitigation measures in conditions 4 and 5 of Schedule 3;

(b) the reasonable costs associated with:
- 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

(c) reasonable compensation for any disturbance caused by the land acquisition process.

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:
- 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.

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.

However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Secretary will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions.

Within 14 days of this determination, the Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the Secretary's determination.

If the landowner refuses to accept the Proponent's binding written offer under this condition within 6 months of the offer being made, then the Proponent's obligations to acquire the land shall cease, unless the Secretary determines otherwise.

11. The Proponent shall pay all reasonable costs associated with the land acquisition process described in condition 10 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.

SCHEDULE 5
ENVIRONMENTAL MANAGEMENT, AUDITING AND REPORTING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

1. 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;
   (b) provide the strategic framework for environmental management of the project;
   (c) identify the statutory approvals that apply to the project;
   (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;
   (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;
      - respond to any non-compliance;
      - respond to emergencies; and
   (f) include:
      - 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.

Adaptive Management

2. The Proponent must assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this approval and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.

   Where any exceedance of these criteria and/or performance measures has occurred, the Proponent must, at the earliest opportunity:
   (a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;
   (b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and
   (c) implement remediation measures as directed by the Secretary,
   to the satisfaction of the Secretary.

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;
   (b) a description of:
      - 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;
   (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
   (d) a program to monitor and report on the:
      - impacts and environmental performance of the project;
      - effectiveness of any management measures (see c above);
   (e) a contingency plan to manage any unpredicted impacts and their consequences;
   (f) a program to investigate and implement ways to improve the environmental performance of the project over time;
   (g) a protocol for managing and reporting any:
      - incidents;
      - complaints;
      - non-compliances with statutory requirements; and
      - exceedances of the impact assessment criteria and/or performance criteria; and
   (h) a protocol for periodic review of the plan.

Annual Review

4. By the end of March each year, or other timing as may be agreed by the Secretary, the Proponent shall review the environmental performance of the project to the satisfaction of the Secretary. This review must:
   (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;
   (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
      - 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;
   (d) identify any trends in the monitoring data over the life of the project;
   (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and
   (f) describe what measures will be implemented over the next year to improve the environmental performance of the project.

Revision of Strategies, Plans and Programs

5. Within 3 months of the submission of:
   (a) the submission for annual review under condition 4 above;
   (b) the submission for incident report under condition 7 below;
   (c) the submission for audit under condition 9 below; or
   (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.

Community Consultative Committee

6. The Proponent shall operate a Community Consultative Committee (CCC) for the Moolarben mine complex to the satisfaction of the Secretary. This CCC must be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version).

   Notes:
   - *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval; and*
   - *The CCC should be comprised of an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community.*

REPORTING

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.

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.

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:
   (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.

Note:
- *Notwithstanding the timing referred to above, audits must be carried out prior to the completion of longwall panels 4 and 8. The Proponent must liaise with the Department to determine the precise date of these audits.*
- *This audit team should be led by a suitably qualified auditor, and include experts in the field of subsidence, surface water and groundwater management, noise, ecology and mine rehabilitation.*

10. Within 6 weeks of completing this audit, or as otherwise agreed by the Secretary, the Proponent shall submit a copy of the audit report to the Secretary with a response to any recommendations contained in the audit report.

ACCESS TO INFORMATION

11. The Proponent shall:
(a) make the following information publicly available on its website:
- 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

(b) keep this information up to date,
(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.

APPENDIX 1:
SCHEDULE OF LAND

Lot and Deposited Plan Number	Tenure Type
Lot 1 DP115031	Freehold
Pt Lot 1 DP803204	Freehold
Lot 1 DP817487	Freehold
Pt Lot 102 DP755442	Freehold
Lot 107 DP755442	Freehold
Lot 108 DP755442	Freehold
Lot 109 DP755442	Freehold
Pt Lot 11 DP1152406	Freehold
Lot 110 DP755442	Freehold
Pt Lot 112 DP755454	Freehold
Pt Lot 113 DP755454	Freehold
Lot 119 DP755442	Freehold
Pt Lot 140 DP755442	Freehold
Lot 145 DP755442	Freehold
Lot 146 DP755442	Freehold
Pt Lot 157 DP755442	Freehold
Lot 16 DP755442	Freehold
Pt Lot 167 DP755442	Freehold
Lot 17 DP755442	Freehold
Pt Lot 170 DP755442	Freehold
Pt Lot 172 DP755442	Freehold
Lot 18 DP755442	Freehold
Pt Lot 183 DP755442	Freehold
Lot 19 DP755442	Freehold
Pt Lot 192 DP755442	Freehold
Pt Lot 193 DP755442	Freehold
Lot 2 DP115031	Freehold
Pt Lot 2 DP878678	Freehold
Pt Lot 205 DP755442	Freehold
Pt Lot 218 DP755442	Freehold
Lot 223 DP755442	Freehold
Pt Lot 228 DP755442	Freehold
Pt Lot 229 DP755442	Freehold
Lot 234 DP755442	Freehold
Pt Lot 238 DP755442	Freehold
Lot 248 DP755442	Freehold
Pt Lot 260 DP755442	Freehold
Pt Lot 261 DP755442	Freehold
Pt Lot 262 DP755442	Freehold
Pt Lot 289 DP704098	Freehold
Pt Lot 3 DP878678	Freehold
Pt Lot 37 DP755442	Freehold
Lot 40 DP755442	Freehold

Lot and Deposited Plan Number	Tenure Type
Lot 44 DP755442	Freehold
Lot 45 DP755442	Freehold
Lot 50 DP755442	Freehold
Lot 51 DP755442	Freehold
Lot 52 DP755442	Freehold
Lot 53 DP755442	Freehold
Pt Lot 6 DP115031	Freehold
Pt Lot 6 DP878678	Freehold
Pt Lot 60 DP755442	Freehold
Pt Lot 61 DP755442	Freehold
Pt Lot 62 DP755442	Freehold
Lot 63 DP755442	Freehold
Lot 64 DP755442	Freehold
Pt Lot 7 DP878678	Freehold
Lot 89 DP755442	Freehold
Pt Lot 93 DP755442	Freehold
Pt Lot 93 DP755454	Freehold
Pt Lot 95 DP755442	Freehold
Pt Lot 96 DP755454	Freehold
Pt Lot 97 DP755454	Freehold
Lot 98 DP755442	Freehold
Lot 99 DP755442	Freehold
Pt Lot 65 DP755442	Freehold
Pt Lot 208 DP755442	Freehold
Pt Lot 4 DP575167	Freehold
Pt Lot 88 DP755442	Freehold
Lot 152 DP755442	Crown
Lot 290 DP704098	Crown
Pt Lot 125 DP755442	Freehold
Pt Lot 91 DP755442	Freehold
Lot 242 DP755442	Freehold
Pt Lot 7009 DP1025321	Crown
Pt Lot 204 DP755442	Crown
Lot 176 DP755442	Crown
Lot 7010 DP1025345	Crown
Pt Lot 92 DP755442	Freehold
Lot 277 DP755442	Freehold
Pt Lot 253 DP755442	Freehold
Lot 272 DP755442	Freehold
Pt Lot 1 DP1089166	Freehold
Pt Lot 1 DP1099037	Freehold
Lot 179 DP755442	Freehold
Lot 1 DP722881	Freehold
Lot 55 DP722794	Crown
Lot 20 DP755439	Freehold

Lot and Deposited Plan Number	Tenure Type
Lot 33 DP755439	Crown
Lot 178 DP755442	Freehold
Pt Lot 1 DP720332	Freehold
Lot 2 DP722882	Freehold
Lot 56 DP722795	Crown
Pt Lot 75 DP750773	Freehold
Lot 45 DP736630	Freehold
Lot 3 DP722882	Freehold
Lot 7005 DP1096180	Crown
Lot 34 DP755439	Crown
Lot 7004 DP1116207	Crown
Pt Lot 7303 DP1143562	Crown
Lot 7302 DP1143562	Crown
Pt Lot 13 DP1152406	Freehold
Lot 17 DP1140073	Freehold
Lot 16 DP1140073	Freehold
Lot 18 DP1140073	Freehold
Lot 20 DP1140073	Freehold
Lot 1 DP1214133	Freehold
Pt Lot 3 DP1214133	Freehold
Pt Lot 5 DP1240416	Freehold
Pt Lot 31 DP755439	Crown
Pt Lot 44 DP736630	Freehold
Pt Lot 43 DP736630	Crown
Pt Lot 1 DP1246895	Freehold
Pt Lot 2 DP1246895	Freehold
Other Land	
Roads located between or adjacent to the above parcels of land	Council and Crown
Creeks or streams located between or adjacent to the above parcels of land	Crown
Sandy Hollow – Gulgong Railway	State Rail Authority

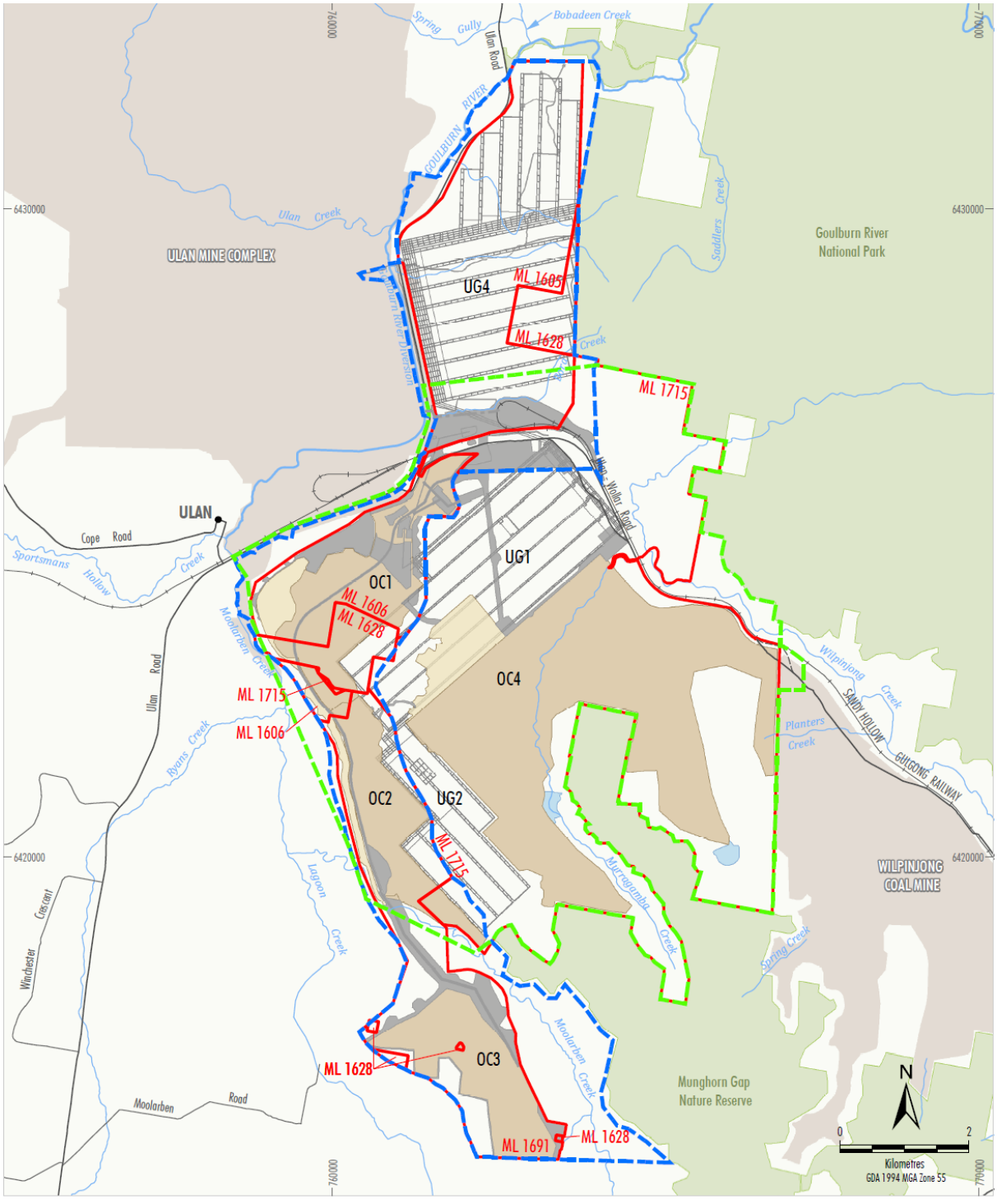


Figure 2.1 – General Project Arrangement

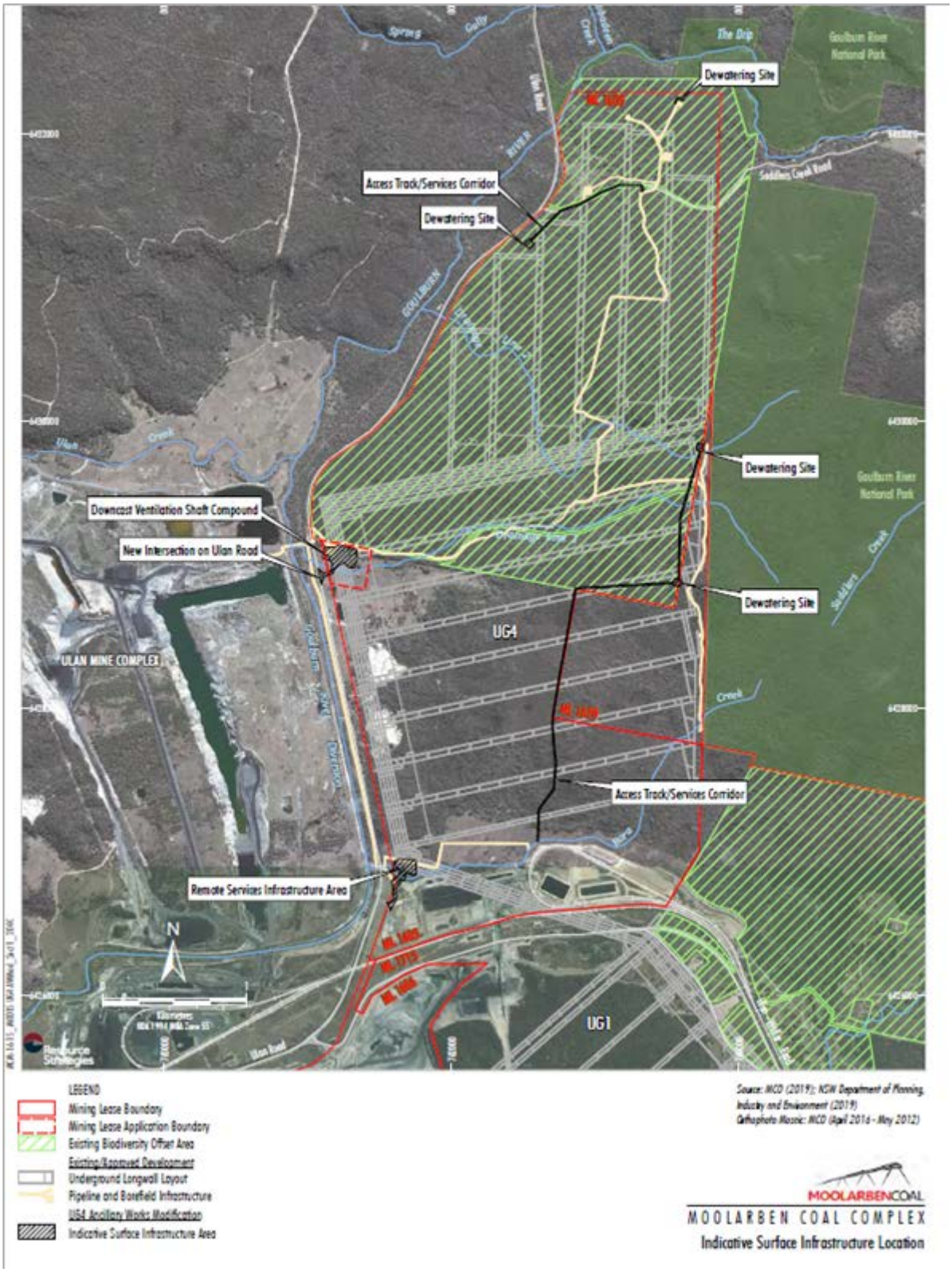


Figure 2.2 – Location of Surface Infrastructure associated with MOD 15

APPENDIX 3:
STATEMENT OF COMMITMENTS

(1) Protect The Drip and Goulburn River Corner Gorge

The Drip and the Goulburn River Corner Gorge are shown on the plan titled "Moolarben Coal Mine – Preferred Mine Plan General Layout" contained in Appendix A9 to the "Moolarben Coal Project Response to Submissions".

Moolarben will conduct its underground mining operations consistent with the Preferred Project Underground No. 4 layout to protect the Goulburn River features known as the Drip, the Goulburn River Corner Gorge and associated cliffs so that there is no damage whilst seeking to maximise recovery of coal resources and as may be required by any conditions of project approval for the Moolarben Coal Project.

(2) Shift Change

Moolarben undertakes to schedule its major employee shift changes to times outside the hours of 8.15 to 9.00 am and 3.15 to 4.00 pm Monday to Friday to seek to reduce overlap of employee traffic and school transport and as may be required by any conditions of project approval for the Moolarben Coal Project.

(3) Replace Water

Moolarben will compensate or replace waters (similar quality and quantity) lost by a private landholder as a consequence of the Moolarben Coal Project in accordance with the adopted protocols and procedures contained in the Moolarben Coal Project Environmental Management System and as may be required by any conditions of project approval for the Moolarben Coal Project.

(4) Environmental Management System

Moolarben will prepare and implement an Environmental Management System containing Environmental Management Plans, and Mine Operating Plan for the life of the Moolarben Coal Project consistent with the Environmental Assessment Report, the Response to Submissions Report, the Preferred Project Report, subsequent modification applications and as may be required by any conditions of project approval for the Moolarben Coal Project.

(5) Noise in School Rooms

Moolarben in consultation with the Ulan Public School and the Department of Education will undertake agreed works to ameliorate potential noise and dust impacts associated with the Moolarben Coal Project upon classrooms and general school operations.

OR

Moolarben will, should the Department of Education request, on a reasonable basis relating to the effect of noise and dust from the Moolarben Coal Project, negotiate to contribute to or meet reasonable costs toward relocating the school.

(6) Land Purchase Commitment

Moolarben will accept an obligation to purchase (if so required by any affected private landholder) any land affected by operations of the Moolarben Coal Project in accordance with any requirement to do so as provided in any project approval for the Moolarben Coal Project.

(7) Mine Water Sharing Plan

Moolarben will seek to enter into a mine water sharing plan in respect of mining operations of the Ulan Coal Mine and Wilpinjong Coal Mine under the auspices of the Director General of the Department of Planning and as may be required by any conditions of project approval for the Moolarben Coal Project.

(8) ***Voluntary Planning Agreement***

Moolarben will enter into a Voluntary Planning Agreement with Mid Western Regional Council and the Minister for Planning incorporating the principles contained in the offer by Moolarben to the Minister for Planning on 4 September 2007 to enter into the Voluntary Planning Agreement.

(9) Employ Local People
Moolarben will, wherever possible and feasible, employ appropriately qualified persons residing within the local area.

(10) Traineeships
Moolarben will provide traineeships for the youth of the local community.

(11) Dronvisa Quarry
Moolarben will seek to enter into an operational agreement with Dronvisa Quarry with regard to the safe continuation of its operations in conjunction with underground mining.

(12) Ecology
Moolarben will enter into such arrangements as may be required by the Secretary to provide for ecological offsets as proposed in the Environmental Assessment, Preferred Project Report, subsequent modification applications and as may be required by any conditions of project approval for the Moolarben Coal Project.

(13) Flows in the Goulburn River – Co-operative Monitoring Program
Moolarben will use its reasonable endeavours to agree and implement a monitoring program in cooperation with the Ulan and Wilpinjong mines (and to the reasonable requirement of the Director General who will consult with the NOW) to identify any potential for any change in the water flows in the Goulburn River due to mining at the Moolarben, Ulan and Wilpinjong mines and as may be required by any conditions of project approval for the Moolarben Coal Project.

(14) Mine Water Management and Salinity – Sharing with Ulan and Wilpinjong
Moolarben will use its reasonable endeavours to agree and implement a co-operative arrangement with and enter into a life of mine agreement between the Ulan and Wilpinjong mines (the "Mines") to establish, implement and operate water sharing and use plans and procedures with the objective of minimising the removal by the Mines of water from the environment and the discharge of minewaters by the Mines to the environment and which shall address the ability of the Mines to utilise mine water produced by the Mines between the Mines and as may be required by any conditions of project approval for the Moolarben Coal Project.

(15) Salinity Off Sets
– Bobadeen Irrigation Scheme ("BIS") - Salinity Offset Management Plan ("SOMP")
In the event that the Moolarben Coal Project reduces the capacity for the removal of salt from the Salinity Offset Management Plan area operated by Ulan Mine in conjunction with the Bobadeen Irrigation Scheme under Environment Protection Licence 394, then Moolarben will, at its election, either:

- *take from Ulan that volume of water that would otherwise have been used in the BIS; OR*
- *provide an area of land with equivalent salt removal capacity; AND*
- *any disputed issue will be determined by an appropriately qualified expert agreed between Moolarben and Ulan and in default appointed by the Director General of Planning.*

(16) Haulage of Coal to the West by Rail
Prior to the haulage of coal by rail to the west of the Moolarben Coal Project, Moolarben shall notify the Secretary with details of expected tonnages, train size and rail scheduling and where practicable schedule rail haulage during daylight hours only through the town of Mudgee as may otherwise be required by any conditions of project approval for the Moolarben Coal Project.

(17) Traffic Management – Mid Western Regional Council

Moolarben acknowledges the need for it to contribute to the upgrade and maintenance of aspects of the local road system affected by the operation of the Moolarben Coal Project and commits to implement the Voluntary Planning Agreement in satisfaction of the principles of that agreement.

(18) Additional Management and Mitigation – Modification of Stage 1

Moolarben commits to implementing the following management and mitigation measures to ensure that impacts associated with modifications to the Moolarben Coal Project are minimised.

Environmental Aspect	***Management and Mitigation Commitments***
Air quality	• *Management and monitoring of air quality will continue to be undertaken in accordance with the best management practices set out in an approved Air Quality Management Plan.* • *Dust control measures will be used on internal haul roads.* • *Raw coal transfer and rejects conveyors will be partially enclosed.* • *Dust sprays will be fitted to the dump hopper.* • *Water carts will be used to minimise dust generation from unsealed access tracks and construction areas, where required.* • *A TEOM will be located to the southwest of the project to enable pro-active dust management and compliance monitoring for private residences to the south of the project prior to mining in Open Cut 2.* • *Use of a TEOM located to the northeast of the project for measuring background dust levels.* • *MCO will continue to report annually in the AEMR, the total amount of greenhouse gas emissions from the MCP and the effectiveness of measures implemented to achieve energy savings.*
Noise	• *Management and monitoring of noise will continue to be undertaken in accordance with an approved Noise Management Plan, including proactive and reactive management.* • *MCO further commits to:* - *Limiting northern borefield construction hours from 7am to 6pm Monday to Friday (inclusive).* - *Fitting haul trucks with noise attenuation equipment to meet sound power levels assumed in the Stage 1 EA and subsequent noise Impact assessments* - *Specifying sound power levels in supply contracts for mobile plant and equipment, where appropriate.* - *Fitting northern borefield water supply/dewatering bores with submersible pumps.* - *Use of a temporary power supply generator located near the borefield pipeline outlet, at least 4km from the nearest private residence, unless power is provided from the electricity network.* - *Maintaining awareness of best practice noise mitigation technologies and alternative operating methodologies, and continuing to investigate the potential for further noise reductions to the haul truck fleet through potential additional noise attenuation and mitigation opportunities (such as Duratray).* - *Designing and locating the haul roads behind earthen bunds as far as practically possible.*

Environmental Aspect	Management and Mitigation Commitments
Biodiversity	• *Where possible, construction works in areas of known and potential threatened woodland species habitat will be avoided during their breeding cycle.* • *Pre-clearing fauna surveys will be undertaken prior to ground clearing disturbance.* • *One of two hollow bearing trees within the rail loop alignment will be retained (where possible).* • *Tree hollows and other habitat features will be salvaged for use as compensatory habitat, in rehabilitation areas.* • *The cleared area along the mining lease boundary will be rehabilitated and revegetated to enable cleared EEC to re-establish.* • *Disturbed areas not required for ongoing access and maintenance will be rehabilitated. Endemic species will be used to supplement natural vegetation regeneration, where required.* • *Groundcover will be maintained to minimise the risk of soil erosion, wherever practicable. Feral animals, weeds and pests will be controlled.* • *MCO further commits to:* - *Undertake a detailed flora and fauna inventory and mapping of the vegetation types and threatened species for properties proposed to offset the clearing impacts of the Open Cut 1 and Open Cut 2 extension areas.* - *Manage offset and rehabilitation areas in accordance with a Rehabilitation and Offset Management Plan (ROMP or equivalent plan) to improve biodiversity outcomes.* - *Provide adequate funds to implement the management measures described in the ROMP.* - *Implement the management actions specific to each property and report annually on the implementation of the plan to relevant stakeholders.* - *Arrange for the independent review of the adequacy and implementation of the ROMP every three years.* - *Provide long-term security of offset areas through an appropriate mechanism (such as a conservation covenant) agreed to with relevant stakeholders.* - *Provide an alternative secure offset property of at least equivalent biodiversity value where long-term security of a nominated offset property is not achievable.* - *Investigate potential roosting sites for bat activity on properties proposed to offset the impacts of Open Cut 1 and Open Cut 2 extension areas.* - *Investigate use of artificial roosting sites for microbat habitat augmentation where offset areas are determined not to have sufficient roosting habitat.* - *Carry out targeted spring surveys for Diuris Tricolor in potential habitat areas within Open Cut 1 and Open Cut 2 extension areas. Where Diuris Tricolor plants are identified in disturbance areas, these will be translocated to suitable offset property habitat areas consistent with the monitoring and reporting requirements of the Australian Network for Plant Conservation translocation guidelines (ANPC, 2004).* - *Review land use history of Derived Native Grassland offset areas (including, where possible, cultivation, fertiliser application, soil nutrient levels and ground cover species) to inform appropriate management and performance and completion criteria. Where monitoring indicates these areas are not recovering as expected within the first five years of management alternative management measures will be investigated.* - *Maintain existing third party access arrangements on offset properties, where required.* - *Progressive rehabilitation of disturbed areas and re-use of habitat features (e.g. hollow logs, rocks) in rehabilitation areas to minimise the habitat resource competition in adjoining conservation reserves.*

Environmental Aspect	Management and Mitigation Commitments
Cultural heritage	• *Cultural heritage sites will be monitored and managed according to the measures described in an approved Heritage Management Plan.* • *Cultural heritage sites adjacent to and outside construction, mining and general disturbance areas will have appropriate controls in place to prevent potential disturbance.* • *Cultural heritage monitoring and salvage will be undertaken by a qualified archaeologist and members of the Aboriginal Stakeholder community groups (Mudgee Local Aboriginal Land Council based in Mudgee; North-East Wiradjuri Pty Ltd, based in Ulan; Murong Gialinga Aboriginal and Torres Strait Islander Corporation, based in Mudgee; and Warrabinga Native Title Claimants Aboriginal Corporation, based in Kandos).* • *Where additional cultural heritage sites are identified, these sites will be managed in accordance with the measures described in the Heritage Management Plan.* • *Local Aboriginal community representatives will be involved in the recording, salvaging and storing of cultural heritage objects impacted by site works.* • *The Heritage Management Plan will be updated to include:* - *Additional registered parties as necessary.* - *Sub-surface testing and potential salvage of S1MC343-345 and S1MC352 where blasting is assessed to adversely impact these sites.* - *Test excavation and potential salvage of S1MC331.*
Water	• *Erosion and sediment control measures detailed in an approved Erosion and Sediment Control Plan (or equivalent) will be implemented.* • *Water pressure will be monitored at the inlet and outlet of the water sharing and borefield pipeline network, and the entire length of pipeline will be inspected regularly.* • *In the event that a leak or loss of pressure is detected in the water sharing or borefield pipeline network, pumping in that portion of the pipeline network will cease and the resultant cause investigated and remediated.* • *Management and monitoring of surface water and groundwater will be undertaken in accordance with an approved Water Management Plan, which will be reviewed and updated, as necessary, to include the Open Cut 1 and Open Cut 2 extension areas and additional surface water management infrastructure. As part of this review, MCO will liaise with the NOW on the water licensing requirements for the open cut extension areas.* • *MCO is committed to the effective management of water in the modified landform and where required will develop strategies to this effect, including returning rehabilitated areas to clean water catchments as promptly as practically possible.* • *MCO will abide by the rules of any relevant water sharing plan and return water where required.*
Rehabilitation	• *Soils will be stockpiled and used to rehabilitate areas not required for ongoing operations.* • *MCO is committed to progressively rehabilitating mined areas as soon as practical following disturbance, in accordance with an approved Rehabilitation Management Plan. The plan will be updated, as required, to include the Open Cut 1 and Open Cut 2 extension areas. The plan will consider use of terrestrial riparian buffers.* • *The majority of the Open Cut 1 and Open Cut 2 extension areas will be rehabilitated for biodiversity outcomes.*
Traffic	• *Appropriate traffic management will be implemented for Ulan Road for construction vehicles entering and leaving the site to Ulan Road and along Saddlers Creek Road, where required.* • *MCO is committed to participate in the Ulan Road Strategy and will continue to consult with MWRC in relation to local road strategies.*

Environmental Aspect	*Management and Mitigation Commitments*
Visual	• *Trees and shrubs will be planted to provide a visual screen:* - *To the switch and bore pads located adjacent to Saddlers Creek Road, where required.* - *Along the southern edge of Cope Road, where views of Open Cut 1 extension areas will be possible, subject to landowner consent.* • *The Landscape Management Plan (or equivalent) will be reviewed and updated to describe the measures that will be implemented to manage visual impacts associated with the Open Cut 1 and Open Cut 2 extension areas, such as:* - *Vegetation screen planting, subject to land owner's consent, along the southern edge of Cope Road, in areas visually affected by direct views of the Open Cut 1 extension area.* - *Investigating the feasibility of targeted vegetation screen planting for affected properties along Ridge Road (with direct views from the residence to both Open Cut 1 and Open Cut 2 extension areas), to mitigate the visual and lighting impacts of Open Cut 1 and Open Cut 2 extension areas, subject to landowner consent.* - *Building-up out-of-pit embankments first so that continued operations are obscured by the embankment. Wherever possible out-of-pit emplacements around the perimeter will be established first, providing a visual screen while work is undertaken in the central part of the emplacement.* - *Seeding and grassing embankment outer faces visually exposed to private residents as soon as practically possible to soften the view.* - *Where possible, maintaining a strip of vegetation along the leading face of the ridgeline associated with the Open Cut 1 extension area to provide a visual screen to workings for as long as practical.* - *Use of operational screening measures such as landform re-establishment sequencing and lighting management.* - *Progressive rehabilitation.* • *As far as practically possible, and where mine safety allows, management protocols will be established and implemented to:* - *Locate mobile lighting plant to be directed away from private residences.* - *Direct stationary lighting sources below the horizontal to minimise potential light spill.* - *Design lighting systems that minimise light spillage.* - *Avoid lighting of light coloured surfaces that have greater reflectivity.*
Social	• *MCO is committed to prevent or minimise negative social impacts resulting from the MCP and will use its best endeavours to enhance the social benefits of the Project in accordance with its Environment and Community Policy.*

APPENDIX 4:
VOLUNTARY PLANNING AGREEMENT

Funding Area	Minimum Proponent Contribution	Funding Time Frame
Monetary Contribution – open cut product coal	$1,000,000	Three equal instalments to be paid over a three year period, with the first annual instalment to be paid within seven days of the first loading and dispatch of coal produced from the open cut operations from the Project.
Monetary Contribution – underground product coal	$300,000	One instalment to be paid within seven days of the first loading and dispatch of coal produced from the underground operations of the Project.
Road Maintenance Contribution – Cope Road and Ulan Road	$1,000,000	Three equal instalments to be paid over a three year period, with the first instalment to be paid within seven days of the commencement of construction
Road Maintenance Contribution – General	$1,250,000	$62,500 each year for a period of 20 years with the first instalment to be paid on the first anniversary of the first loading and dispatch of coal produced from the operations of the Project.
Community Infrastructure Contribution	$1,000,000	$100,000 each year for a period of 10 years with the first instalment to be paid on the first anniversary of the first loading and dispatch of coal produced from the operations of the Project.

Note: The "Road Maintenance Contribution – General" and "Community Infrastructure Contribution" must be reviewed and adjusted to take into account any increase in the CPI over time.

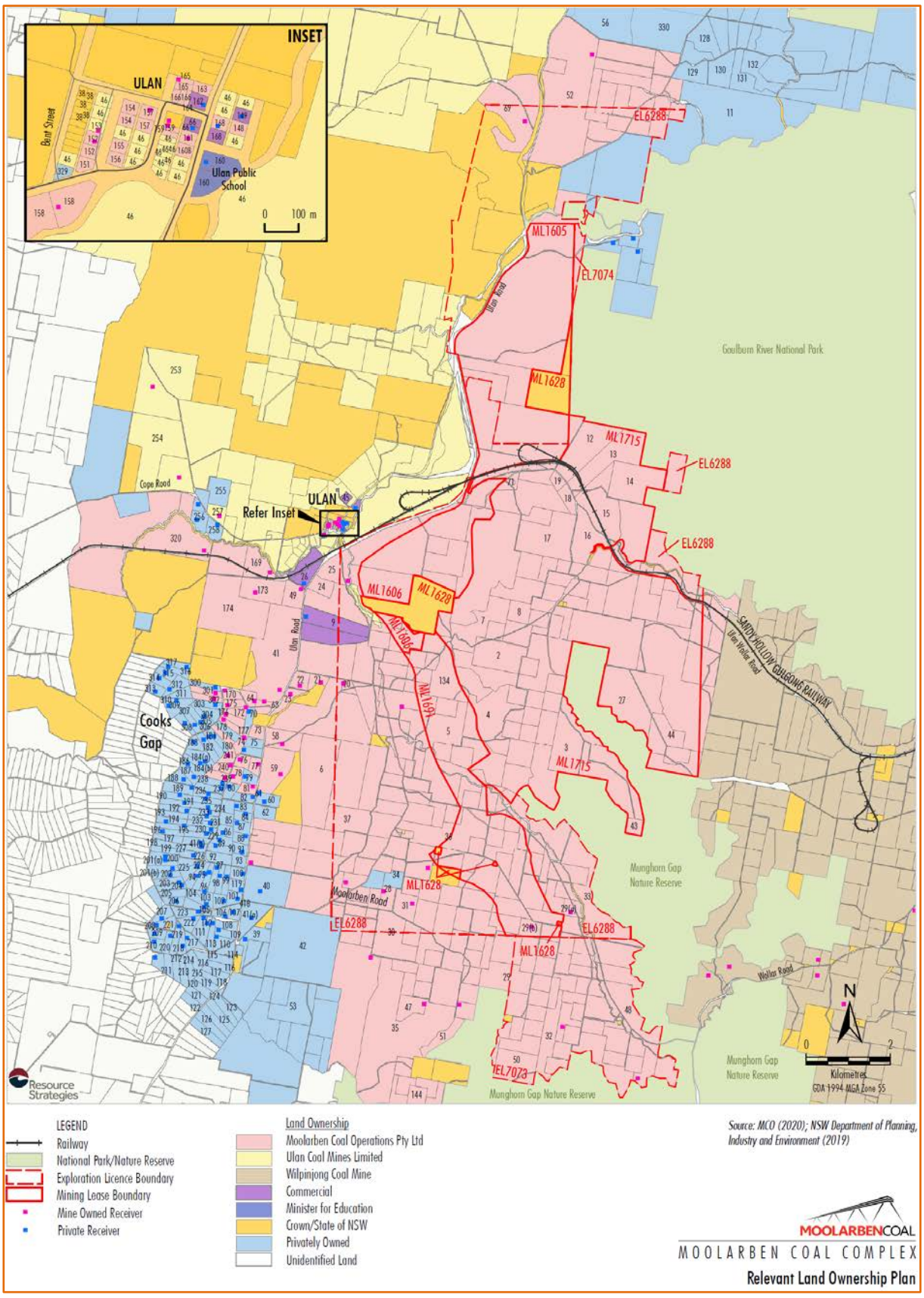


Figure 5.1 Relevant Land Ownership

Ref No	Landholder
1-8	Moolarben Coal Operations Pty Ltd
9	Orica Australia Pty Limited
10	Moolarben Coal Operations Pty Ltd
11	JE Mullins & CD Imrie
12-25	Moolarben Coal Operations Pty Ltd
26	Forty North Pty Limited
27-33	Moolarben Coal Operations Pty Ltd
34	T Rheinberger
35-37	Moolarben Coal Operations Pty Ltd
38	The State of New South Wales
39	RM & DJ Sprigg
40	JM Devenish
41	Moolarben Coal Operations Pty Ltd
41(a&b)	PP Libertis
42	C & L Schmidt
43-44	Moolarben Coal Operations Pty Ltd
45	Advance Energy
46	Moolarben Coal Operations Pty Ltd/ Ulan Coal Mines Limited
46(b)	North-Eastern Wiradjuri Wilpinjong Community Fund Limited
47-52	Moolarben Coal Operations Pty Ltd
53	WD & MS Bryant
56	V Cundy
58-59	Moolarben Coal Operations Pty Ltd
60	CL Rayner & DM Mundey
61	TJ O'Malley
62	R Menchin
63	Moolarben Coal Operations Pty Ltd
64	Moolarben Coal Operations Pty Ltd
66	Rostherne Pty Limited
69	Moolarben Coal Operations Pty Ltd
70	DJ & A Coventry
71	Moolarben Coal Operations Pty Ltd
73-74	Moolarben Coal Operations Pty Ltd
75	P Ban
76-78	Moolarben Coal Operations Pty Ltd
79	PTJ & SE Nagle
80	W & D Sebelic
81	Moolarben Coal Operations Pty Ltd
82	SC Hungerford & MC Clemens
83	CF & CR Wall
84	DS Sebelic
85	J & Z Nikolovski
86	NW Harris
87	BJ & K Howe
88	BC Mayers
89	MV & HM Glover & E & BJ Tomlinson
90	SA Powell
91	HM Graham
92	VA Pullicino & J, S & G Bonnici
93	F & M Fenech
94	LK Mittemayer
95	BJ Withington
96	D Lazicic
97	DJ & MD Smith
98	ME & JJ Piper
99	JR Moles & AJ Newton
100	W Ellem
101	RD & DMZ Hull
101(a)	PJ Kearns
102	KA Roberts
103	SB Burnett & SL Grant
104	RA & LA Deeben
105	DJ & N Katsikaris
106	TB & JH Reid
107	ZJ & M & AA Raso
108	R Varga
109	DA Evans
110	SM & JH Papps
111	GJ & NJ McEwan
112	MJ & LM Croft
113	CPG Ratcliff
114	TF & K Holland
115	PR McLean
116	DJ & SM Reid
117	JM Dick
118	A Scott
119	PJ Kearns
120	PS & DR Ord
121	EJ Cullen
122	WF Wirth
123	G Tuck-Lee & Symons
124	WJ & HE Bailey
125	DB McBride
126	MP Julian
127	BKT & SA Bracken
128	AW Sims
129	M Yelds
130	GP McEwen
131	GR & RA King
132	N Atkins
134	Moolarben Coal Operations Pty Ltd
144	Moolarben Coal Operations Pty Ltd
148	Moolarben Coal Operations Pty Ltd
149	Mid-Western Regional Council
151-152	Moolarben Coal Operations Pty Ltd
153	Ulan Coal Mine Limited
154-159	Moolarben Coal Operations Pty Ltd
160	Minister For Education And Training
160(b)	Moolarben Coal Operations Pty Ltd
161	Moolarben Coal Operations Pty Ltd
162	Rowmint Pty Limited
163-166	Moolarben Coal Operations Pty Ltd
168	PJL Constructions Pty Limited
169-170	Moolarben Coal Operations Pty Ltd
171	AD & SA McGregor
172-177	Moolarben Coal Operations Pty Ltd
178	PR Stone
179	Moolarben Coal Operations Pty Ltd
180	CD & LL Barrett
181	SM Forster
182	J Dutoitcook
183	R & EA Steines
184	(a&b) LA Stevenson
186	RW & IJ Adamson
187	BT & KM Feeney
188	KR & T Fielding
189	GA Fay
190	T & LK Sahyoun
191	BW & TS Lasham
192	D Williams
193	DJ Moloney
194	PM & K Potts
195	R Cottam
196	F Saxberg & M Weir
197	PGG & I Neilsen
198	GR & ME Metcalfe
199	PGG & I Nielsen
200	VK Grimshaw
201	KR & GM Towerton
202	H & VF Butler
203	DJ Miller
204	RB & JE Donnan
205	DW Sparrow & M Tallan
206	CA Marshall & R Vella
207	AA & DM Smith
208	SA & CR Hasaart
209	F Mawson
210	JM & AM Tebutt
211	SA McGregor & WJ Gray
212	E & M Lepik
213	D & J Parsonage
214	RK & EG O'Neil
215	SG & PM Green
216	G Holland & FA Handicott
217	CA Francis
219	T & S Riger
220	SJ Rusten & NJ Smith
221	The State of New South Wales
222	BJ Purtell
223	EW Palmer & JM Stewart
224	RS & PCC Dupond
225	G & RF Doualetas
226	LAA & FC Muscat
227	WP & JA Hughes
229	JJ & BA Lowe
230	DA Hoole & DT Rawlinson
231	T Morrison & SM Benny
232	L & JA Haaring
233	K & D Boal
234	D & L Gow
235	LM & RS Wilson
236	RG & CA Donovan
237	B & S Stokes
238	B Powell
239-241	Moolarben Coal Operations Pty Ltd
253-254	Ulan Coal Limited
255	M Puckeridge
256	RC Campbell
257	Ulan Coal Limited
258	PM & CD Elias
300	CM Collins & CY Marshall
301-302	Moolarben Coal Operations Pty Ltd
303	HJ Ungaro
304	G Balajan
305	L Barisic & M Aul
306	E Armstrong
307	M Chant & NK Young
308	NA Dower
309	GS Maher
310	KI Death
311	BJ & LC Williamson
312	MS & JJ Ioannou
313	NJ & BDE Pracy
314	SL Ford
315	WJ Richards & BJ Uzelac
316	CR Vassel & CM Williams
317	RJ Hore & V Bingham
320	Moolarben Coal Operations Pty Ltd
329	G Tuck-Lee
330	Nwiran Pty Limited

Resource Strategies

Table 5.1: Landowners

APPENDIX 6:
NOISE COMPLIANCE ASSESSMENT

Applicable Meteorological Conditions

1. The noise criteria in Table 2 of the conditions are to apply under all meteorological conditions except the following:
   (a) wind speeds greater than 3 m/s at 10 metres above ground level; or
   (b) stability category F temperature inversion conditions and wind speeds greater than 2 m/s at 10 m above ground level; or
   (c) stability category G temperature inversion conditions.

Determination of Meteorological Conditions

1. Except for wind speed at microphone height, the data to be used for determining meteorological conditions shall be that recorded by the meteorological station located on the site.

Compliance Monitoring

2. Attended monitoring is to be used to evaluate compliance with the relevant conditions of this approval.

3. This monitoring must be carried out at least 12 times a year, unless the Secretary directs otherwise.

4. Unless the Secretary agrees otherwise, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the NSW Noise Policy for Industry (as amended from time to time), in particular the requirements relating to:
   (a) monitoring locations for the collection of representative noise data;
   (b) meteorological conditions during which collection of noise data is not appropriate;
   (c) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and
   (d) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.

APPENDIX 7:
UNDERGROUND MINE LAYOUT AND LOCATION OF SENSITIVE FEATURES

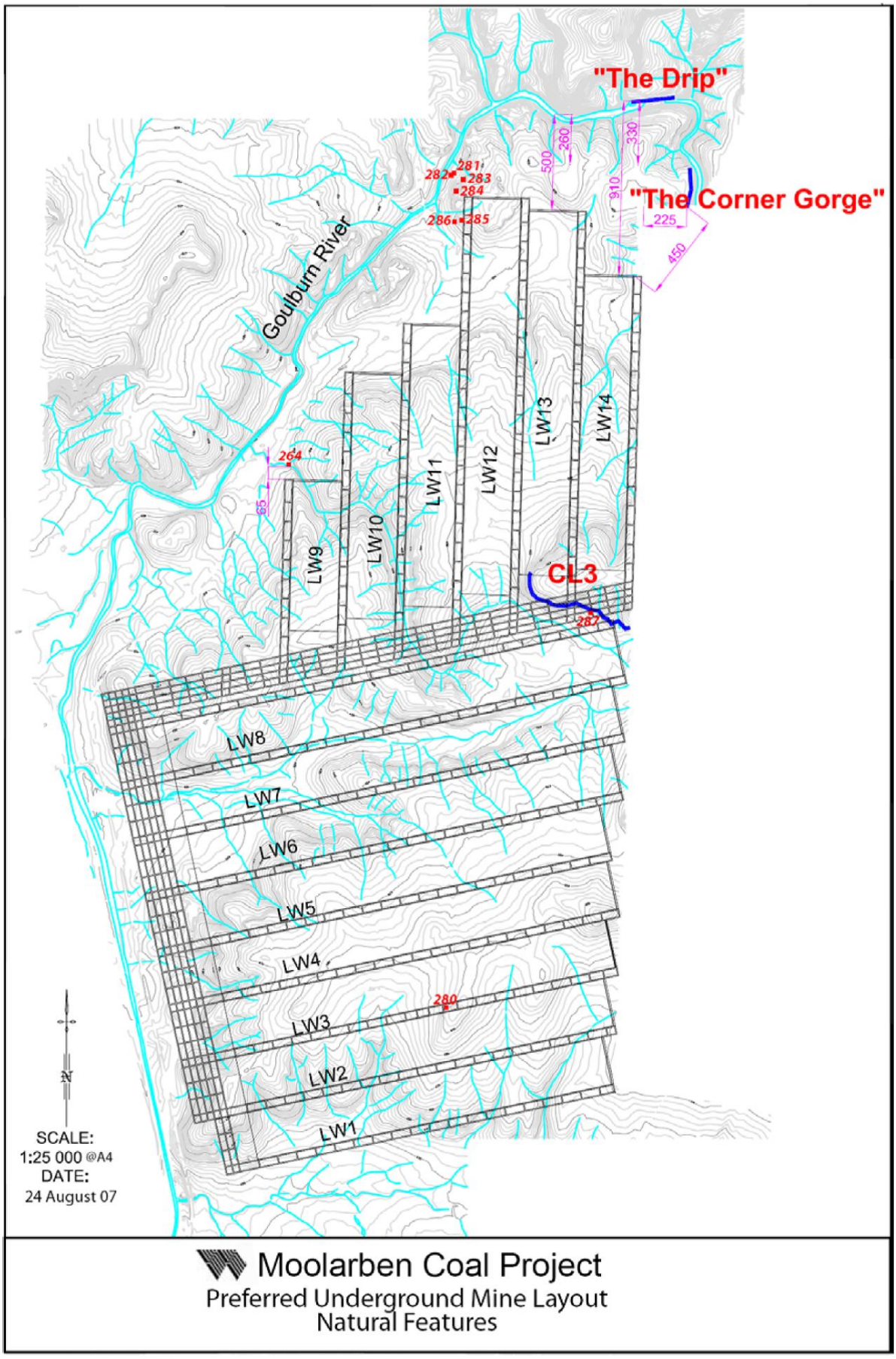


Figure 7.1 Sensitive Natural Features

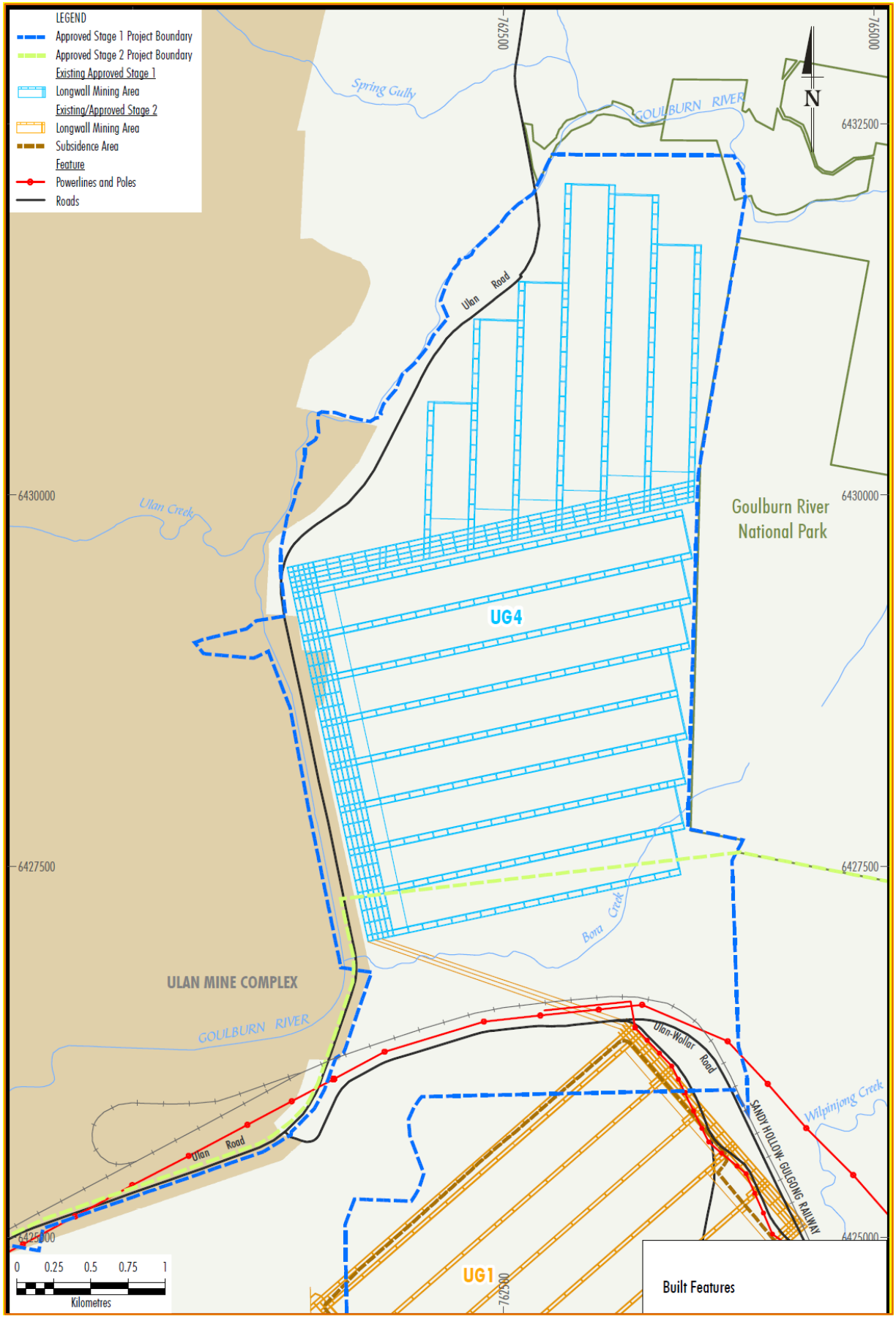


Figure 7.2: Sensitive Built Features

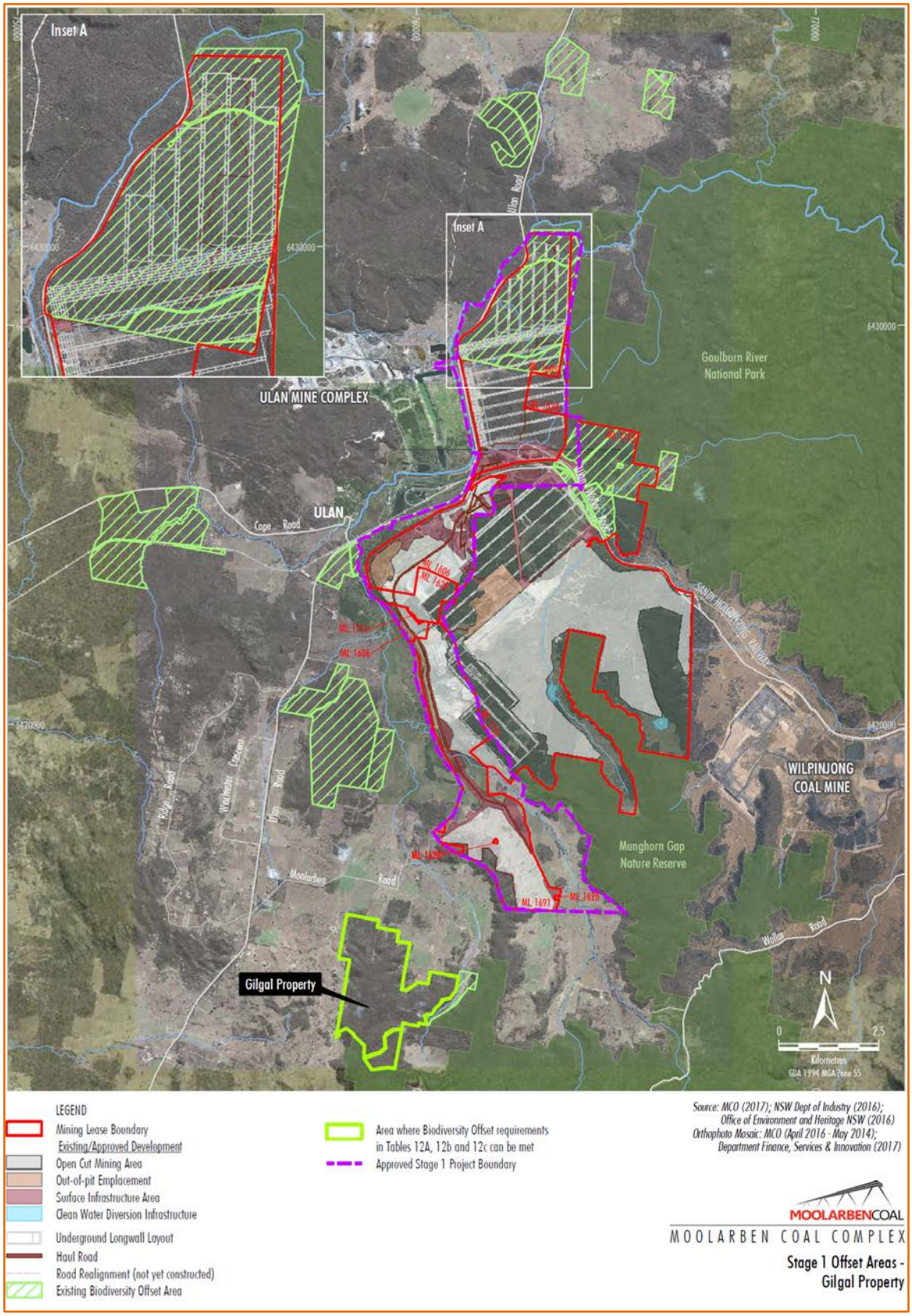


Figure 8.1 Biodiversity Offset Areas (see Table 12) and Supplementary Biodiversity Offset Area (see Table 12A)

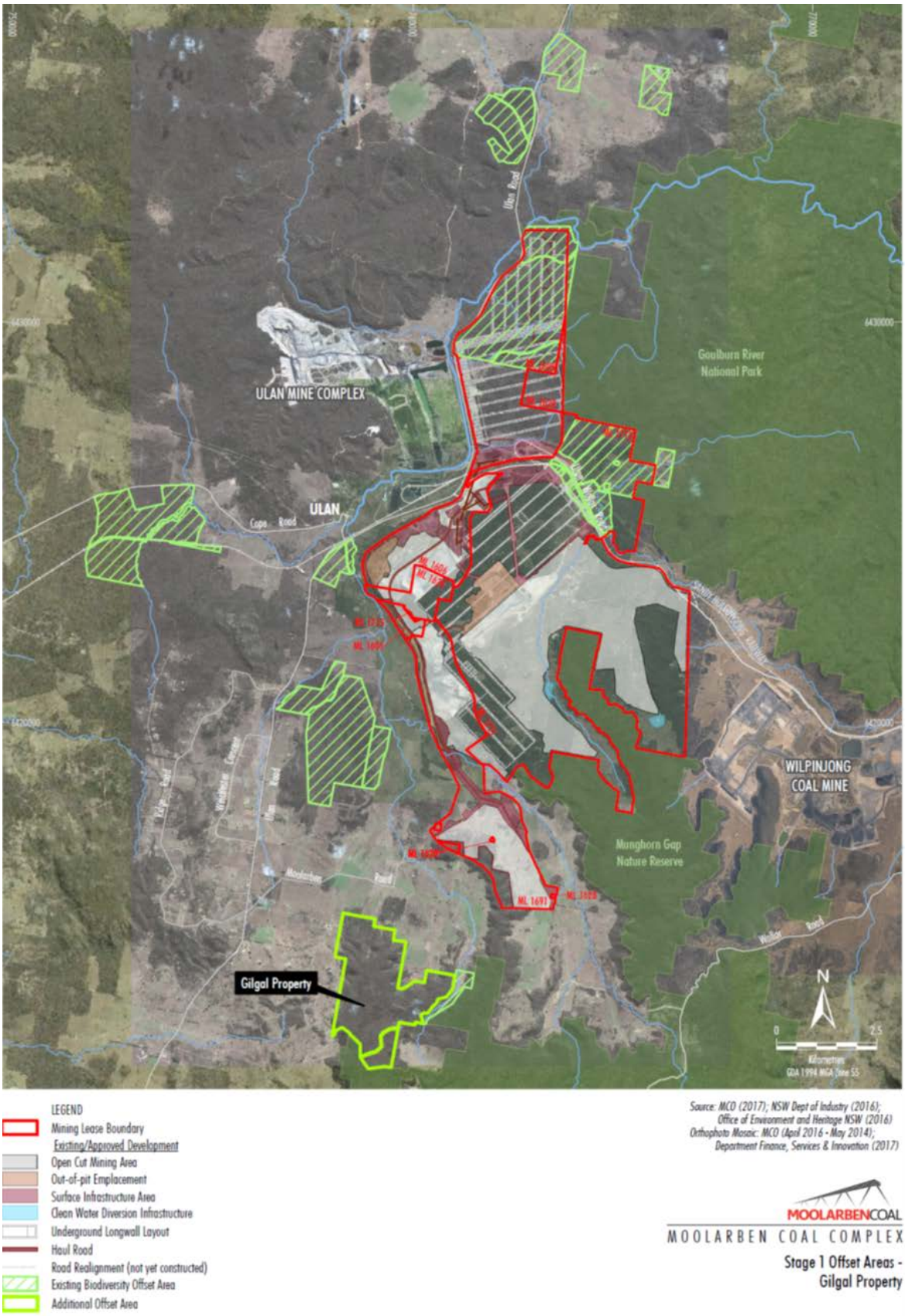


Figure 8.2: Indicative Rehabilitation Areas

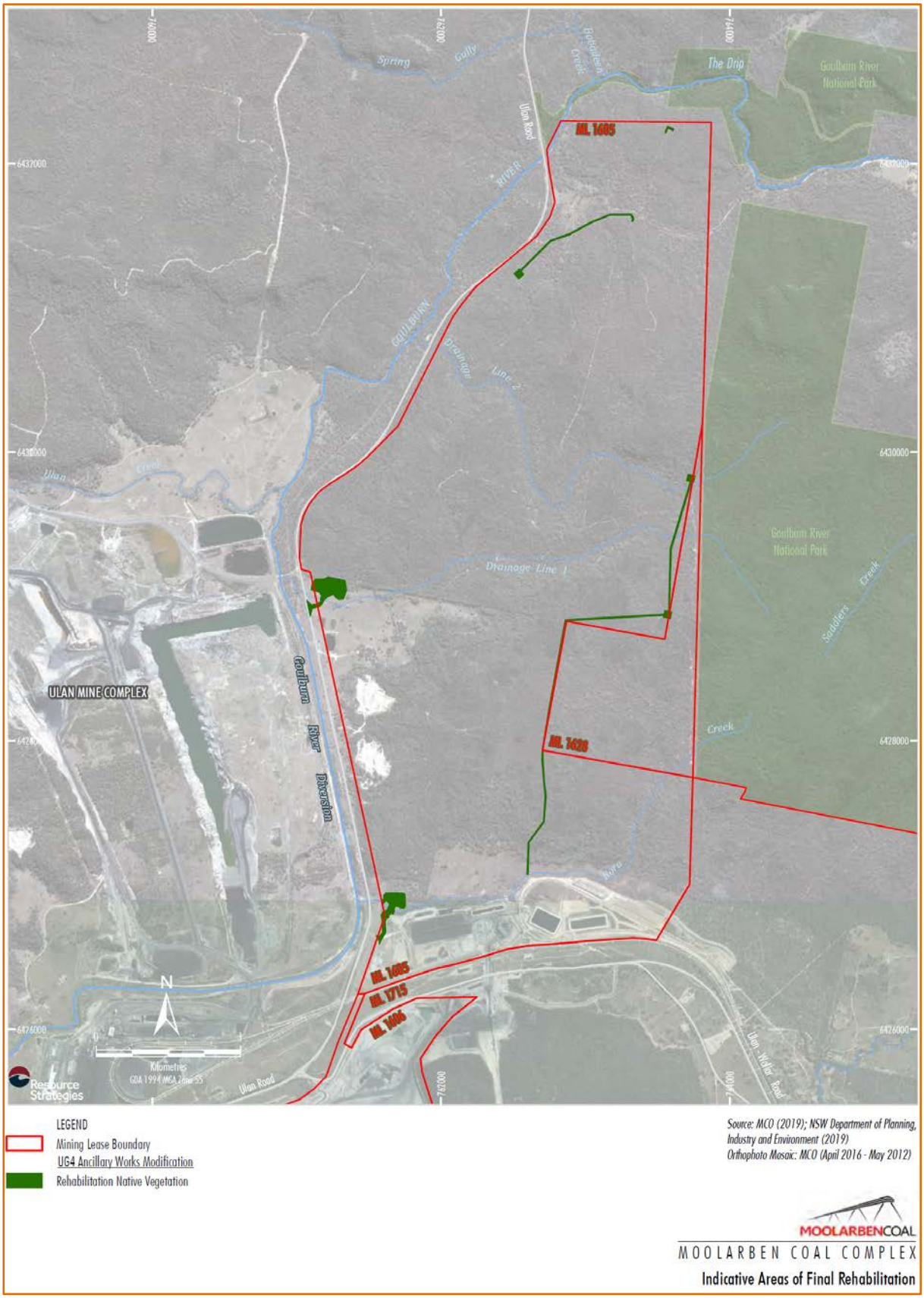
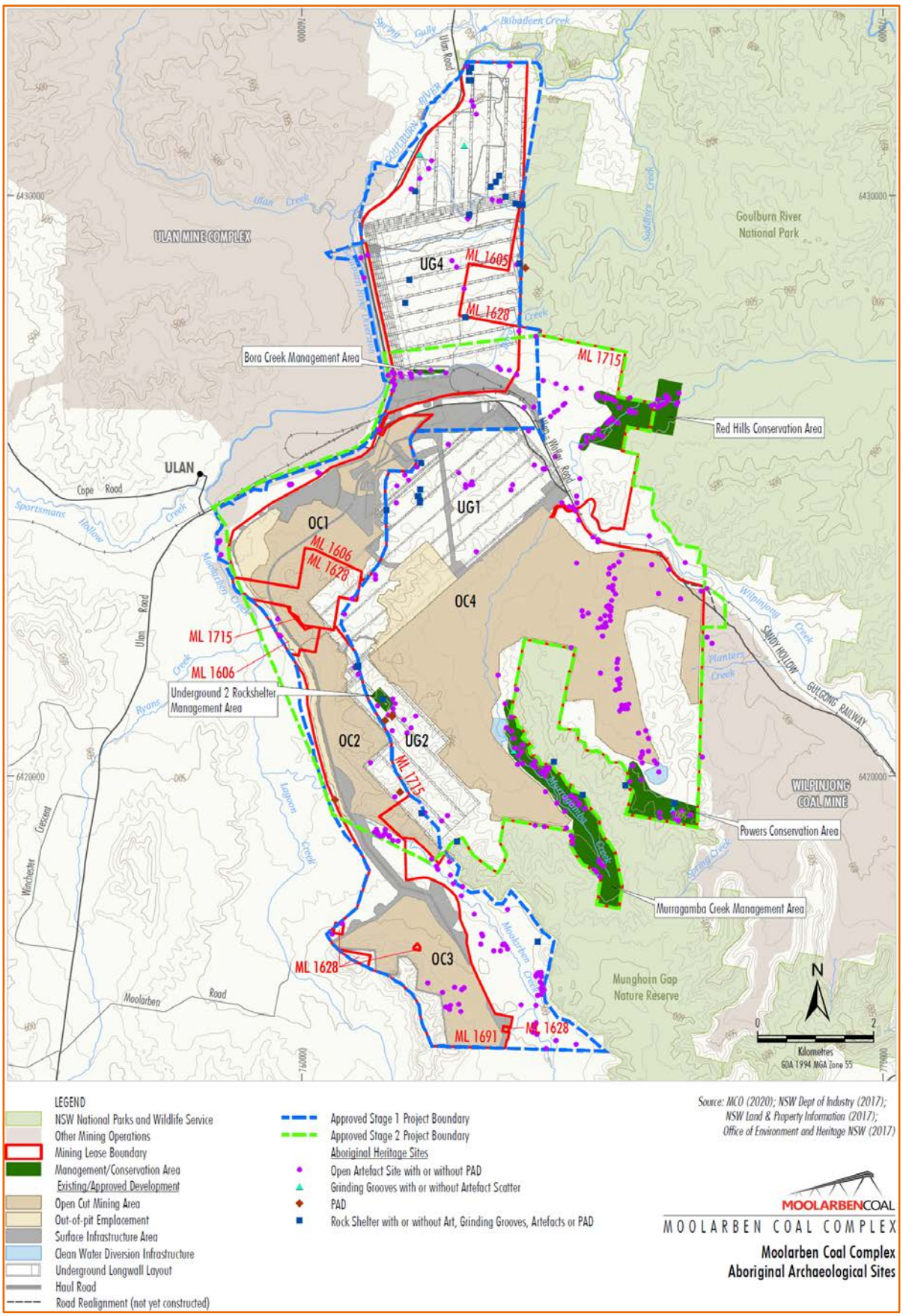


Figure 8.3: Indicative Rehabilitation Areas associated with MOD 15



9.1 Aboriginal Cultural Heritage sites

AHIMS	Site Name	Site Type	AHIMS	Site Name	Site Type
36-3-0691	CE-15-IF	Isolated Find	36-3-2621	S1MC339	Rock shelter with PAD
36-3-0237	MC11	Open Artefact Site	36-3-2622	S1MC340	Rock shelter with PAD
36-3-0223	MC2	Open Artefact Site	36-3-2623	S1MC341	Rock shelter with PAD
36-3-0241	MC4	Open Artefact Site	36-3-2624	S1MC342	Rock shelter with PAD
36-3-0240	MC6	Artefact Scatter	36-3-2625	S1MC343	Rock shelter with PAD
36-3-0337	MC7	Open Artefact Site	36-3-2626	S1MC344	Rock shelter with artefacts
36-3-0239	MC8	Open Artefact Site	36-3-2627	S1MC345	Rock shelter with PAD
36-3-0222	Moolarben Creek MC1	Artefact Scatter	36-3-2628	S1MC346	Rock shelter with PAD
36-3-3144	MUG1-Mod 1	Isolated Find	36-3-2629	S1MC347	Rock shelter with PAD
36-3-0837	PAD 1 Moolarben Coal	Rock Shelter and PAD	36-3-2630	S1MC348	Rock shelter with PAD
36-3-0956	PAD 10 Moolarben Coal	PAD	36-3-2631	S1MC349	Rock shelter with PAD
36-3-0957	PAD 11 Moolarben Coal	PAD	36-3-2632	S1MC350	Rock shelter with PAD
36-3-0958	PAD 12 Moolarben Coal	PAD and Rockshelter	36-3-2633	S1MC351	Rock shelter with PAD
36-3-0838	PAD 2 Moolarben Coal	Artefact Scatter and PAD	36-3-2634	S1MC352	Rock shelter with PAD
36-3-0839	PAD 3 Moolarben Coal	Artefact Scatter and PAD	36-3-2635	S1MC353	Rock shelter with PAD
36-3-0883	PAD 4 Moolarben Coal	PAD	36-3-2636	S1MC354	Rock shelter with PAD
36-3-0884	PAD 5 Moolarben Coal	PAD	36-3-2660	S1MC355	Artefact Scatter
36-3-0885	PAD 6 Moolarben Coal	PAD	36-3-2661	S1MC356	Isolated Find
36-3-0113	PAD 7 Moolarben Coal	PAD	36-3-2662	S1MC357	Artefact Scatter
36-3-0954	PAD 8 Moolarben Coal	Artefact Scatter and PAD	36-3-1150	S2MC001	Isolated Find
36-3-0955	PAD 9 Moolarben Coal	PAD	36-3-1151	S2MC002	Isolated Find
36-3-0798	S1MC001	Scarred Tree	36-3-1152	S2MC003	Artefact Scatter
36-3-0799	S1MC002	Artefact Scatter	36-3-1153	S2MC004	Isolated Find
36-3-0800	S1MC003	Isolated Find	36-3-1154	S2MC005	Artefact Scatter
36-3-0801	S1MC004	Isolated Find	36-3-1155	S2MC006	Artefact Scatter
36-3-0802	S1MC005	Artefact Scatter	36-3-1156	S2MC007	Isolated Find
36-3-0803	S1MC006	Isolated Find	36-3-1157	S2MC008	Isolated Find
36-3-0804	S1MC007	Isolated Find	36-3-1158	S2MC009	Isolated Find
36-3-0805	S1MC008	Isolated Find	36-3-1159	S2MC010	Artefact Scatter
36-3-0806	S1MC009	Isolated Find	36-3-1160	S2MC011	Isolated Find
36-3-0807	S1MC010	Isolated Find	36-3-1161	S2MC012	Isolated Find
36-3-0808	S1MC011	Artefact Scatter	36-3-1162	S2MC013	Isolated Find
36-3-0809	S1MC012	Isolated Find	36-3-1163	S2MC014	Artefact Scatter
36-3-0810	S1MC013	Isolated Find	36-3-1164	S2MC015	Artefact Scatter
36-3-0811	S1MC014	Isolated Find	36-3-1165	S2MC016	Artefact Scatter
36-3-0812	S1MC015	Isolated Find	36-3-1166	S2MC017	Artefact Scatter
36-3-0813	S1MC016	Isolated Find	36-3-1167	S2MC018	Artefact Scatter and PAD
36-3-0814	S1MC017	Isolated Find	36-3-1168	S2MC019	Isolated Find
36-3-0815	S1MC018	Isolated Find	36-3-1169	S2MC020	Artefact Scatter
36-3-0816	S1MC019	Isolated Find	36-3-1170	S2MC021	Isolated Find
36-3-0817	S1MC020	Isolated Find	36-3-1171	S2MC022	Artefact Scatter
36-3-0818	S1MC021	Isolated Find	36-3-1172	S2MC023	Isolated Find
36-3-0819	S1MC022	Isolated Find	36-3-1173	S2MC024	Isolated Find
36-3-0820	S1MC023	Isolated Find	36-3-1174	S2MC025	Isolated Find
36-3-0821	S1MC024	Isolated Find	36-3-0238	S2MC028, MC10	Open Artefact Site
36-3-0822	S1MC025	Isolated Find	36-3-1175	S2MC029	Artefact Scatter
36-3-0823	S1MC026	Isolated Find	36-3-1176	S2MC030	Artefact Scatter
36-3-0824	S1MC027	Isolated Find	36-3-1177	S2MC031	Isolated Find
36-3-0825	S1MC028	Isolated Find	36-3-1178	S2MC032	Artefact Scatter
36-3-0826	S1MC029	Isolated Find	36-3-1179	S2MC033	Artefact Scatter

AHIMS	Site Name	Site Type	AHIMS	Site Name	Site Type
36-3-0827	S1MC030	Isolated Find	36-3-1180	S2MC034	Isolated Find
36-3-0828	S1MC031	Isolated Find	36-3-1181	S2MC035	Isolated Find
36-3-0829	S1MC032	Isolated Find	36-3-1182	S2MC036	Isolated Find
36-3-0830	S1MC033	Isolated Find	36-3-1183	S2MC037	Isolated Find
36-3-0831	S1MC034	Isolated Find	36-3-1184	S2MC038	Artefact Scatter
36-3-0832	S1MC035	Isolated Find	36-3-1185	S2MC039	Artefact Scatter
36-3-0833	S1MC036	Isolated Find	36-3-1186	S2MC040	Artefact Scatter
36-3-0834	S1MC037	Isolated Find	36-3-1186b	S2MC041	Isolated Find
36-3-0835	S1MC038	Isolated Find	36-3-1187	S2MC042	Artefact Scatter
36-3-0836	S1MC039	Isolated Find	36-3-1188	S2MC043	Artefact Scatter
36-3-0845	S1MC040	Artefact Scatter	36-3-1189	S2MC044	Artefact Scatter
36-3-0846	S1MC041	Isolated Find	36-3-1190	S2MC045	Artefact Scatter
36-3-0847	S1MC042	Isolated Find	36-3-1191	S2MC046	Artefact Scatter
36-3-0848	S1MC043	Artefact Scatter	36-3-1192	S2MC047	Artefact Scatter
36-3-0849	S1MC044	Isolated Find	36-3-1193	S2MC048	Artefact Scatter
36-3-0850	S1MC045	Isolated Find	36-3-1194	S2MC049	Isolated Find
36-3-0851	S1MC046	Isolated Find	36-3-1195	S2MC050	Artefact Scatter
36-3-0852	S1MC047	Isolated Find	36-3-1196	S2MC051	Artefact Scatter
36-3-0853	S1MC048	Isolated Find	36-3-1197	S2MC052	Isolated Find
36-3-0854	S1MC049	Isolated Find	36-3-1198	S2MC053	Artefact Scatter
36-3-0855	S1MC050	Isolated Find	36-3-1199	S2MC054	Artefact Scatter
36-3-0856	S1MC051	Isolated Find	36-3-1200	S2MC055	Artefact Scatter
36-3-0857	S1MC052	Isolated Find	36-3-1201	S2MC056	Artefact Scatter
36-3-0858	S1MC053	Artefact Scatter	36-3-1202	S2MC057	Artefact Scatter
36-3-0859	S1MC054	Artefact Scatter	36-3-1203	S2MC058	Artefact Scatter
36-3-0860	S1MC055	Rock Shelter with Artefacts	36-3-1204	S2MC059	Artefact Scatter
36-3-0861	S1MC056	Rock Shelter with Artefacts	36-3-1206	S2MC059b	Isolated Find
36-3-0862	S1MC057	Artefact Scatter	36-3-1207	S2MC060	Isolated Find
36-3-0863	S1MC058	Artefact Scatter	36-3-1208	S2MC061	Artefact Scatter
36-3-0864	S1MC059	Artefact Scatter	36-3-1209	S2MC062	Artefact Scatter
36-3-0865	S1MC060	Artefact Scatter	36-3-1210	S2MC063	Artefact Scatter
36-3-0866	S1MC061	Isolated Find	36-3-1211	S2MC064	Artefact Scatter
36-3-0867	S1MC062	Isolated Find	36-3-1212	S2MC065	Artefact Scatter
36-3-0868	S1MC063	Isolated Find	36-3-1213	S2MC066	Isolated Find
36-3-0869	S1MC064	Isolated Find	36-3-1214	S2MC067	Artefact Scatter
36-3-0870	S1MC065	Isolated Find	36-3-1215	S2MC068	Isolated Find
36-3-0871	S1MC066	Artefact Scatter	36-3-1216	S2MC069	Isolated Find
36-3-0872	S1MC067	Artefact Scatter	36-3-1217	S2MC070	Artefact Scatter
36-3-0873	S1MC068	Isolated Find	36-3-1218	S2MC071	Artefact Scatter
36-3-0874	S1MC069	Isolated Find	36-3-1219	S2MC072	Artefact Scatter
36-3-0875	S1MC070	Isolated Find	36-3-1220	S2MC073	Isolated Find
36-3-0876	S1MC071	Isolated Find	36-3-2581	S2MC074	Artefact Scatter
36-3-0877	S1MC072	Isolated Find	36-3-1221	S2MC075	Isolated Find
36-3-0878	S1MC073	Isolated Find	36-3-1222	S2MC076	Artefact Scatter
36-3-0879	S1MC074	Isolated Find	36-3-1223	S2MC077	Artefact Scatter
36-3-0880	S1MC075	Isolated Find	36-3-1224	S2MC078	Artefact Scatter
36-3-0881	S1MC076	Isolated Find	36-3-1225	S2MC079	Isolated Find
36-3-0882	S1MC077	Isolated Find	36-3-1226	S2MC080	Artefact Scatter
36-3-0886	S1MC078	Artefact Scatter	36-3-1227	S2MC081	Artefact Scatter
36-3-0887	S1MC079	Isolated Find	36-3-1228	S2MC082	Artefact Scatter
36-3-0888	S1MC080	Isolated Find	36-3-1229	S2MC083	Isolated Find
36-3-0889	S1MC081	Isolated Find	36-3-1230	S2MC084	Isolated Find
36-3-0890	S1MC082	Isolated Find	36-3-1231	S2MC085	Isolated Find
36-3-0891	S1MC083	Isolated Find	36-3-1232	S2MC086	Artefact Scatter
36-3-0892	S1MC084	Artefact Scatter	36-3-1233	S2MC087	Artefact Scatter
36-3-0893	S1MC085	Isolated Find	36-3-1234	S2MC088	Artefact Scatter
36-3-0894	S1MC086	Isolated Find	36-3-1235	S2MC089	Artefact Scatter
36-3-0895	S1MC087	Isolated Find	36-3-1236	S2MC090	Isolated Find
36-3-0896	S1MC088	Isolated Find	36-3-1237	S2MC091	Isolated Find
36-3-0897	S1MC089	Isolated Find	36-3-1238	S2MC092	Isolated Find
36-3-0898	S1MC090	Isolated Find	36-3-1239	S2MC093	Artefact Scatter
36-3-0899	S1MC091	Isolated Find	36-3-1240	S2MC094	Isolated Find

AHIMS	Site Name	Site Type	AHIMS	Site Name	Site Type
36-3-0900	S1MC092	Isolated Find	36-3-1241	S2MC095	Isolated Find
36-3-0901	S1MC093	Isolated Find	36-3-1242	S2MC096	Artefact Scatter
36-3-0902	S1MC094	Artefact Scatter	36-3-1243	S2MC097	Artefact Scatter
36-3-0903	S1MC095	Isolated Find	36-3-1244	S2MC098	Isolated Find
36-3-0904	S1MC096	Isolated Find	36-3-1245	S2MC099	Isolated Find
36-3-0905	S1MC097	Isolated Find	36-3-1246	S2MC100	Artefact Scatter
36-3-0906	S1MC098	Isolated Find	36-3-1247	S2MC101	Artefact Scatter
36-3-0907	S1MC099	Isolated Find	36-3-1248	S2MC102	Isolated Find
36-3-0908	S1MC100	Isolated Find	36-3-1249	S2MC103	Isolated Find
36-3-0909	S1MC101	Isolated Find	36-3-1250	S2MC104	Artefact Scatter
36-3-0910	S1MC102	Artefact Scatter	36-3-1251	S2MC105	Isolated Find
36-3-0912	S1MC103	Artefact Scatter	36-3-1252	S2MC106	Isolated Find
36-3-0911	S1MC103a	Artefact Scatter	36-3-1253	S2MC107	Isolated Find
36-3-0913	S1MC104	Artefact Scatter	36-3-1254	S2MC108	Artefact Scatter
36-3-0914	S1MC105	Isolated Find	36-3-1255	S2MC109	Artefact Scatter
36-3-0915	S1MC106	Isolated Find	36-3-1256	S2MC110	Isolated Find
36-3-0916	S1MC107	Isolated Find	36-3-1257	S2MC111	Artefact Scatter
36-3-0917	S1MC108	Isolated Find	36-3-1258	S2MC112	Artefact Scatter
36-3-0918	S1MC109	Isolated Find	36-3-1259	S2MC113	Isolated Find
36-3-0919	S1MC110	Isolated Find	36-3-1260	S2MC114	Artefact Scatter
36-3-0920	S1MC111	Isolated Find	36-3-1261	S2MC115	Isolated Find
36-3-0921	S1MC112	Isolated Find	36-3-1262	S2MC116	Artefact Scatter
36-3-0922	S1MC113	Isolated Find	36-3-1263	S2MC117	Isolated Find
36-3-0923	S1MC114	Isolated Find	36-3-1264	S2MC118	Isolated Find
36-3-0924	S1MC115	Isolated Find	36-3-1265	S2MC119	Artefact Scatter
36-3-0925	S1MC116	Isolated Find	36-3-1266	S2MC120	Isolated Find
36-3-0926	S1MC117	Isolated Find	36-3-1267	S2MC121	Isolated Find
36-3-0927	S1MC118	Isolated Find	36-3-1268	S2MC122	Artefact Scatter
36-3-0928	S1MC119	Isolated Find	36-3-1269	S2MC123	Artefact Scatter
36-3-0929	S1MC120	Isolated Find	36-3-1270	S2MC124	Artefact Scatter
36-3-0930	S1MC121	Isolated Find	36-3-1271	S2MC125	Artefact Scatter
36-3-0931	S1MC122	Isolated Find	36-3-1272	S2MC126	Artefact Scatter
36-3-0932	S1MC123	Isolated Find	36-3-1273	S2MC127	Isolated Find
36-3-0933	S1MC124	Isolated Find	36-3-1274	S2MC128	Artefact Scatter
36-3-0934	S1MC125	Isolated Find	36-3-1275	S2MC129	Artefact Scatter
36-3-0935	S1MC126	Isolated Find	36-3-1276	S2MC130	Artefact Scatter
36-3-0936	S1MC127	Isolated Find	36-3-1277	S2MC131	Isolated Find
36-3-0937	S1MC128	Isolated Find	36-3-1278	S2MC132	Artefact Scatter
36-3-0938	S1MC129	Isolated Find	36-3-1279	S2MC133	Artefact Scatter
36-3-0939	S1MC130	Artefact Scatter	36-3-1280	S2MC134	Artefact Scatter
36-3-0940	S1MC131	Isolated Find	36-3-1281	S2MC135	Artefact Scatter
36-3-0941	S1MC132	Artefact Scatter	36-3-1282	S2MC136	Isolated Find
36-3-0942	S1MC133	Artefact Scatter	36-3-1283	S2MC137	Isolated Find
36-3-0943	S1MC134	Isolated Find	36-3-1284	S2MC138	Isolated Find
36-3-0944	S1MC135	Artefact Scatter	36-3-1285	S2MC139	Isolated Find
36-3-0945	S1MC136	Artefact Scatter	36-3-1286	S2MC140	Artefact Scatter
36-3-0946	S1MC137	Isolated Find	36-3-1287	S2MC141	Artefact Scatter
36-3-0947	S1MC138	Isolated Find	36-3-1288	S2MC142	Isolated Find
36-3-0948	S1MC139	Artefact Scatter	36-3-1289	S2MC143	Isolated Find
36-3-0949	S1MC140	Artefact Scatter	36-3-1290	S2MC144	Isolated Find
36-3-0950	S1MC141	Isolated Find	36-3-1291	S2MC145	Artefact Scatter
36-3-0951	S1MC142	Artefact Scatter	36-3-1292	S2MC146	Artefact Scatter
36-3-0952	S1MC143	Artefact Scatter	36-3-1293	S2MC147	Isolated Find
36-3-0953	S1MC144	Isolated Find	36-3-1294	S2MC148	Artefact Scatter
36-3-1029	S1MC213	Isolated Find	36-3-1295	S2MC149	Isolated Find
36-3-1041	S1MC225	Isolated Find	36-3-1296	S2MC150	Artefact Scatter
36-3-1042	S1MC226	Isolated Find	36-3-1297	S2MC151	Grinding Grooves and Artefact Scatter
36-3-1043	S1MC227	Isolated Find	36-3-1298	S2MC152	Artefact Scatter
36-3-1044	S1MC228	Artefact scatter	36-3-1299	S2MC153	Artefact Scatter
36-3-1045	S1MC229	Isolated Find	36-3-1300	S2MC154	Artefact Scatter
36-3-1046	S1MC230	Artefact Scatter	36-3-1301	S2MC155	Isolated Find
36-3-1047	S1MC231	Isolated Find	36-3-1302	S2MC156	Artefact Scatter
36-3-1048	S1MC232	Isolated Find	36-3-1303	S2MC157	Artefact Scatter
36-3-1049	S1MC233	Artefact Scatter	36-3-1304	S2MC158	Artefact Scatter

AHIMS	Site Name	Site Type	AHIMS	Site Name	Site Type
36-3-1050	S1MC234	Isolated Find	36-3-1305	S2MC159	Artefact Scatter
36-3-1051	S1MC235	Isolated Find	36-3-1306	S2MC160	Isolated Find
36-3-1052	S1MC236	Artefact Scatter	36-3-1307	S2MC161	Artefact Scatter
36-3-1053	S1MC237	Isolated Find	36-3-1308	S2MC162	Artefact Scatter
36-3-1054	S1MC238	Isolated Find	36-3-1309	S2MC163	Artefact Scatter
36-3-1055	S1MC239	Isolated Find	36-3-1310	S2MC164	Isolated Find
36-3-1056	S1MC240	Artefact Scatter	36-3-1311	S2MC165	Artefact Scatter
36-3-1057	S1MC241	Artefact Scatter	36-3-1312	S2MC166	Isolated Find
36-3-1058	S1MC242	Isolated Find	36-3-1313	S2MC167	Isolated Find
36-3-1059	S1MC243	Isolated Find	36-3-1314	S2MC168	Artefact Scatter
36-3-1060	S1MC244	Artefact Scatter	36-3-1315	S2MC169	Isolated Find
36-3-1113	S1MC244a	Artefact Scatter	36-3-1316	S2MC170	Artefact Scatter
36-3-1061	S1MC245	Isolated Find	36-3-1317	S2MC171	Artefact Scatter
36-3-1062	S1MC246	Isolated Find	36-3-1318	S2MC172	Artefact Scatter
36-3-1063	S1MC247	Isolated Find	36-3-1319	S2MC173	Isolated Find
36-3-1064	S1MC248	Isolated Find	36-3-1320	S2MC174	Isolated Find
36-3-1065	S1MC249	Isolated Find	36-3-1321	S2MC175	Isolated Find
36-3-1066	S1MC250	Isolated Find	36-3-1322	S2MC176	Artefact Scatter
36-3-1067	S1MC252	Isolated Find	36-3-1323	S2MC177	Artefact Scatter
36-3-1068	S1MC253	Isolated Find	36-3-1324	S2MC178	Artefact Scatter
36-3-1069	S1MC254	Artefact Scatter	36-3-1325	S2MC179	Artefact Scatter
36-3-1070	S1MC255	Artefact Scatter and PAD	36-3-1326	S2MC180	Artefact Scatter
36-3-1071	S1MC256	Artefact Scatter	36-3-1327	S2MC181	Artefact Scatter
36-3-1072	S1MC257	Artefact Scatter	36-3-1328	S2MC182	Isolated Find
36-3-1073	S1MC258	Artefact Scatter	36-3-1329	S2MC183	Artefact Scatter
36-3-1074	S1MC259	Isolated Find	36-3-1330	S2MC184	Isolated Find
36-3-1075	S1MC260	Isolated Find	36-3-1331	S2MC185	Isolated Find
36-3-1076	S1MC261	Rock Shelter with Artefacts	36-3-1332	S2MC186	Artefact Scatter
36-3-1077	S1MC262	Isolated Find	36-3-1333	S2MC187	Isolated Find
36-3-1078	S1MC263	Isolated Find	36-3-1334	S2MC188	Artefact Scatter
36-3-1079	S1MC264	Grinding Grooves and Artefact Scatter	36-3-1335	S2MC189	Isolated Find
36-3-1080	S1MC265	Artefact Scatter	36-3-1336	S2MC190	Isolated Find
36-3-1081	S1MC266	Isolated Find	36-3-1337	S2MC191	Artefact Scatter
36-3-1082	S1MC267	Rock Shelter with Artefacts	36-3-1338	S2MC192	Isolated Find
36-3-1083	S1MC268	Isolated Find	36-3-1339	S2MC193	Artefact Scatter
36-3-1084	S1MC269	Isolated Find	36-3-1340	S2MC194	Artefact Scatter
36-3-1085	S1MC270	Isolated Find	36-3-1341	S2MC195	Artefact Scatter
36-3-1086	S1MC271	Rock Shelter with Artefacts	36-3-1342	S2MC196	Artefact Scatter
36-3-1087	S1MC272	Artefact Scatter	36-3-1343	S2MC197	Artefact Scatter
36-3-1088	S1MC273	Isolated Find	36-3-1344	S2MC198	Artefact Scatter
36-3-1089	S1MC274	Isolated Find	36-3-1345	S2MC199	Artefact Scatter
36-3-1090	S1MC275	Isolated Find	36-3-1346	S2MC200	Artefact Scatter
36-3-1091	S1MC276	Isolated Find	36-3-1347, 36-3-1348	S2MC201	Artefact Scatter
36-3-1092	S1MC277	Isolated Find	36-3-1349	S2MC202	Artefact Scatter
36-3-1093	S1MC278	Isolated Find	36-3-1350	S2MC203	Artefact Scatter
36-3-1094	S1MC279	Isolated Find	36-3-1351	S2MC204	Artefact Scatter
36-3-0042	S1MC280; Ulan Creek 2	Rock Shelter with Artefacts and Grinding Grooves	36-3-1352	S2MC205	Artefact Scatter
36-3-1095	S1MC281	Artefact Scatter	36-3-1353	S2MC206	Artefact Scatter
36-3-1096	S1MC282	Artefact Scatter	36-3-1354	S2MC207	Artefact Scatter
36-3-0098	S1MC283	Rock Shelter with Artefacts	36-3-1355	S2MC208	Artefact Scatter
36-3-1098	S1MC284	Rock Shelter with Artefacts	36-3-1356	S2MC209	Artefact Scatter
36-3-1099	S1MC285	Rock Shelter with Artefacts	36-3-1357	S2MC210	Artefact Scatter
36-3-1100	S1MC286	Rock Shelter with Artefacts	36-3-1358	S2MC211	Isolated Find

AHIMS	Site Name	Site Type	AHIMS	Site Name	Site Type
36-3-1101	S1MC287	Rock Shelter with Artefacts	36-3-1359	S2MC212	Artefact Scatter
36-3-1102	S1MC288	Rock Shelter with Artefacts	36-3-1360	S2MC213	Isolated Find
36-3-1103	S1MC289	Rock Shelter with Artefacts	36-3-1361	S2MC214	Isolated Find
36-3-1104	S1MC290	Rock Shelter with Artefacts	36-3-1362	S2MC215	Artefact Scatter
36-3-1105	S1MC291	Isolated Find	36-3-1363	S2MC216	Artefact Scatter
36-3-1106	S1MC292	Isolated Find	36-3-1364	S2MC217	Artefact Scatter
36-3-1107	S1MC293	Isolated Find	36-3-1365	S2MC218	Artefact Scatter
36-3-1108	S1MC294	Rock Shelter with Artefacts	36-3-1366	S2MC219	Artefact Scatter
36-3-1109	S1MC295	Isolated Find	36-3-1367	S2MC220	Artefact Scatter
36-3-1110	S1MC296	Rock Shelter with Artefacts	36-3-1368	S2MC221	Isolated Find
36-3-1111	S1MC297	Rock Shelter with Artefacts	36-3-1369	S2MC222	Artefact Scatter
36-3-0840	S1MC298	Artefact Scatter	36-3-1370	S2MC223	Isolated Find
36-3-0841	S1MC299	Isolated Find	36-3-1371	S2MC224	Isolated Find
36-3-0842	S1MC300	Artefact Scatter	36-3-1372	S2MC225	Artefact Scatter
36-3-0843	S1MC301	Artefact Scatter	36-3-1373	S2MC226	Artefact Scatter
36-3-0844	S1MC302	Artefact Scatter	36-3-1374	S2MC227	Artefact Scatter
36-3-1140	S1MC303	Artefact Scatter	36-3-1375	S2MC228	Artefact Scatter
36-3-1141	S1MC304	Artefact Scatter	36-3-1376	S2MC229	Rock Shelter with Artefacts
36-3-1142	S1MC305	Artefact Scatter	36-3-1377	S2MC230	Isolated Find
36-3-1143	S1MC306	Isolated Find	36-3-1378	S2MC231	Rock Shelter with Artefacts
36-3-1144	S1MC307	Isolated Find	36-3-1379	S2MC232	Rock Shelter with Artefacts
36-3-1145	S1MC308	Artefact Scatter and PAD	36-3-1380	S2MC233	Rock Shelter with Artefacts
36-3-1146	S1MC309	Isolated Find	36-3-1381	S2MC234	Artefact Scatter
36-3-1137	S1MC310	Isolated Find	36-3-0016 & 36-3-0134	S2MC236	Rock Shelters with Art and Artefacts
36-3-1138	S1MC311	Isolated Find	36-3-1382	S2MC237	Isolated Find
36-3-1149	S1MC312	Isolated Find	36-3-1383	S2MC238	Artefact Scatter
36-3-1407	S1MC313 (NB1)	Artefact Scatter	36-3-1384	S2MC239	Artefact Scatter
36-3-1408	S1MC314 (NB2)	Artefact Scatter and PAD	36-3-1385	S2MC240	Artefact Scatter
36-3-1409	S1MC315 (NB3)	Isolated Find	36-3-1386	S2MC241	Artefact Scatter
36-3-1410	S1MC316 (NB4)	Artefact Scatter	36-3-1387	S2MC242	Isolated Find
36-3-1411	S1MC317 (NB5)	Isolated Find	36-3-1388	S2MC243	Isolated Find
36-3-1412	S1MC318 (NB6)	Isolated Find	36-3-1389	S2MC244	Isolated Find
36-3-1413	S1MC319 (NB7)	Isolated Find	36-3-1390	S2MC245	Isolated Find
36-3-1414	S1MC320 (NB8)	Isolated Find	36-3-1391	S2MC246	Isolated Find
36-3-1415	S1MC321 (NB9)	Isolated Find	36-3-1392	S2MC247	Artefact Scatter
36-3-1416	S1MC322 (NB10)	Artefact Scatter and PAD	36-3-1393	S2MC248	Artefact Scatter
36-3-1417	S1MC323 (NB11)	Isolated Find	36-3-1394	S2MC249	Artefact Scatter
36-3-2597	S1MC324 (NB12)	Isolated Find	36-3-1395	S2MC250	Artefact Scatter and PAD
36-3-2607	S1MC325	Isolated Find	36-3-1396	S2MC251	Artefact Scatter and PAD
36-3-2608	S1MC326	Rock shelter with PAD	36-3-1397	S2MC252	Isolated Find
36-3-2609	S1MC327	Rock shelter with PAD	36-3-1398	S2MC253	Isolated Find
36-3-2610	S1MC328	Isolated Find	36-3-1399	S2MC254	Isolated Find
36-3-2611	S1MC329	Rock shelter with PAD	36-3-1400	S2MC255	Isolated Find
36-3-2612	S1MC330	Rock shelter with PAD	36-3-1401	S2MC256	Artefact Scatter
36-3-2613	S1MC331	Rock shelter with artefacts	36-3-1402	S2MC257	Isolated Find
36-3-2614	S1MC332	Rock shelter with PAD	36-3-1403	S2MC258	Artefact Scatter and PAD

AHIMS	Site Name	Site Type	AHIMS	Site Name	Site Type
36-3-2615	S1MC333	Rock shelter with PAD	36-3-1404	S2MC259	Isolated Find
36-3-2616	S1MC334	Rock shelter with PAD	36-3-1405	S2MC260	Isolated Find
36-3-2617	S1MC335	Rock shelter with PAD	36-3-1406	S2MC261a	Grinding Grooves and Isolated Find
36-3-2618	S1MC336	Rock shelter with PAD	36-3-2602	S2MC262	Artefact Scatter
36-3-2619	S1MC337	Rock shelter with PAD	36-3-3222	S2MC404	Artefact Scatter
36-3-2620	S1MC338	Rock shelter with PAD	36-3-0720; 36-3-0287	WC1 - Wilpinjong Creek 1	Open Artefact Site
36-3-3470	S1MC460	Isolated find			
36-3-3471	S1MC461	Isolated find			

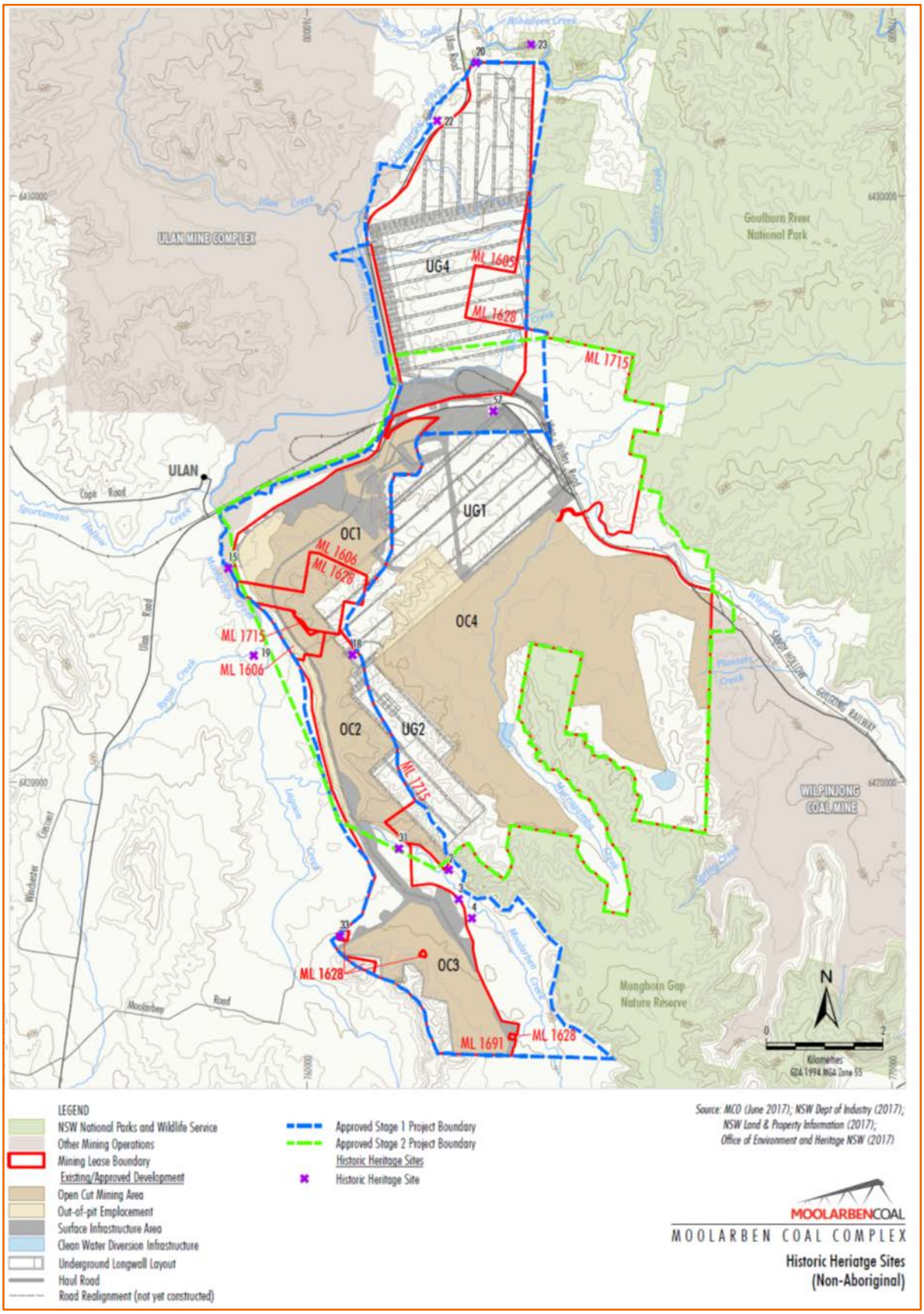
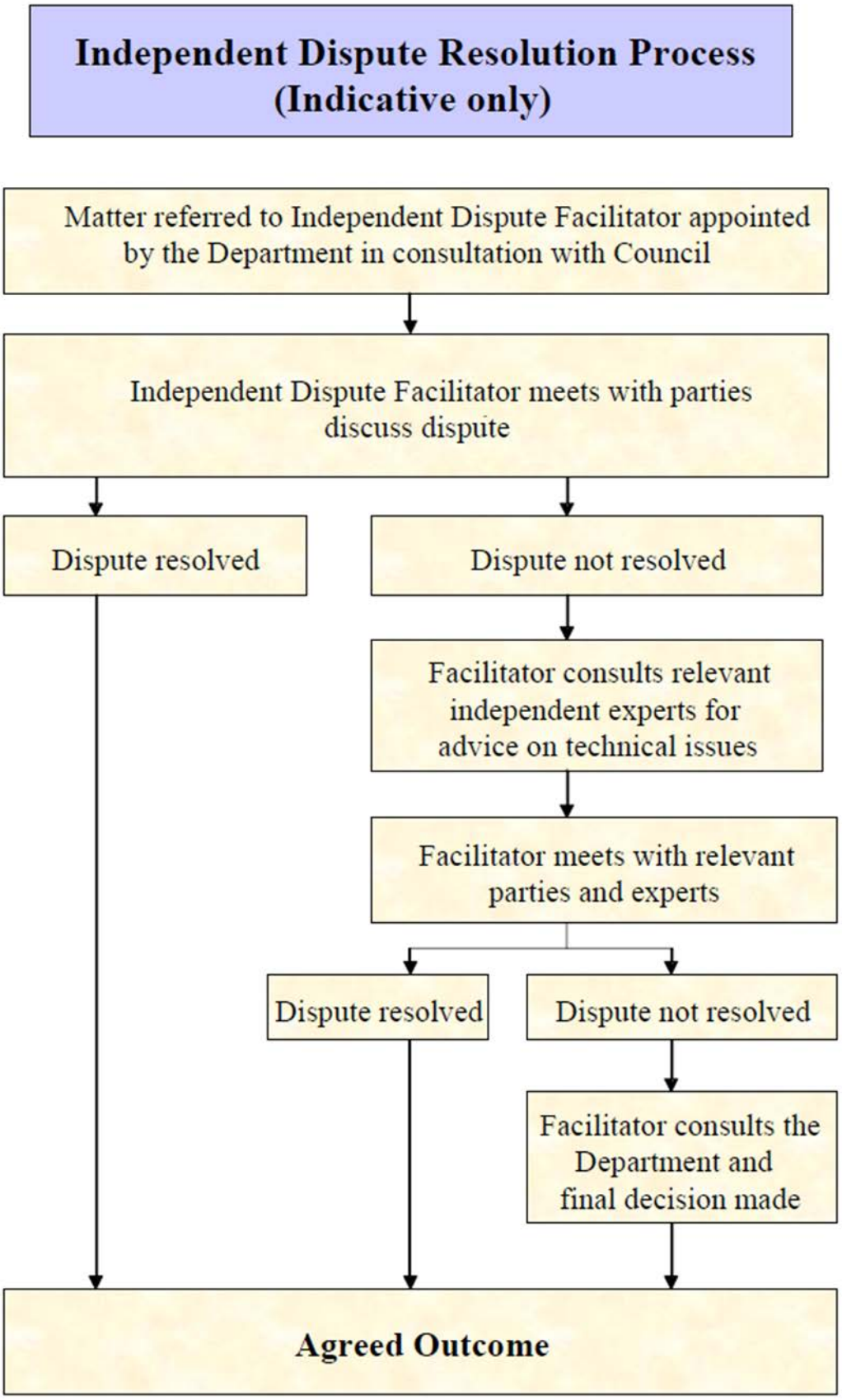


Figure 10.1: Historic Heritage Sites

No	Place Name	Impact Status	Significance	Summary Recommendation
2	Farm site. Portion 218. Ph Moolarben	No impact	Local – moderate	No further action required In situ conservation.
3	Burial site, Roberts family. Portion 146, Ph Moolarben	Impact by Open Cut 3 development	Local – high	Archival recording. Exhumation if impacts unavoidable. Discussion to be held with related families if exhumation to occur.
4	House & burial site. Portion 63, Ph Moolarben	Impact by Open Cut 3 development	Local – moderate	Archival recording. Exhumation if impacts unavoidable. Discussion to be held with related families if exhumation to occur.
14	House site. Portion 178 Ph Moolarben	Impact by Open Cut 1 development	Local – moderate	Archival recording
15	Moolarben Dam	No impact	Local – moderate	In situ conservation
18	Carr's Gap Road. Portion 30. Ph Moolarben	Impact by Open Cut 2 development likely	Local – moderate	Archival recording In situ conservation. If impacted recovery works to be recommended
19	Farm site. 'Glen Moor', Portion 203 Ph Moolarben	No impact	Local – exceptional	Archival recording. In situ conservation.
20	Grave & memorial garden. Portion 30 Ph Lennox	No impact	Local - high	Area to be maintained.
22	Stock yards. Portion 34 Ph Lennox	No impact	Local – moderate	Archival recording. In situ conservation.
23	Natural environment. 'The Drip'	No impact	Local – high	Ensure public access is maintained
29	House site. Portion 45 Ph Moolarben	Impact by Open Cut 3 development	Local – moderate	Archival recording.
30	School site. Portion 176 Ph Moolarben	Impact by Open Cut 3 development	Local – moderate	Archival recording.
31	House site, Portion 228, Ph Moolarben	No impact	Local – moderate	Archival recording. In situ conservation.
32	House site. Portion 89 Ph Moolarben	Impact by Open Cut 3 development	Local – moderate	Archival recording.
33	Recreation Ground. Portion 204. Ph Moolarben	No impact	Local – moderate	Archival recording. In situ conservation.

APPENDIX 11:
INDEPENDENT DISPUTE RESOLUTION PROCESS



Appendix B – NSW Project Approval (08_0135)

Project Approval

Section 75J of the *Environmental Planning & Assessment Act 1979*

As delegate of the Minister for Planning, the Planning Assessment Commission of NSW approves the project application referred to in Schedule 1, subject to the conditions in Schedules 2 to 6.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.

Red type represents the July 2015 modification (MOD 1)
Blue type represents the February 2016 modification (MOD 2)
Grey type represents the June 2019 Modification (MOD 3)

Member of the Commission **Member of the Commission** **Member of the Commission**

SIGNED 30 JANUARY 2015

Sydney 2015

SCHEDULE 1

Application Number:	08_0135
Proponent:	Moolarben Coal Mines Pty Ltd
Approval Authority:	Minister for Planning
Land:	See Appendix 1
Project:	Moolarben Coal Project Stage 2

TABLE OF CONTENTS

DEFINITIONS

Annual review	The review required by condition 4 of Schedule 6
ANZECC Guideline	Australian and New Zealand Guidelines for Fresh and Marine Water Quality (Australian and New Zealand Environment and Conservation Council and Australian and New Zealand Environment and Conservation Council, October 2000)
ARI	Average Recurrence Interval
ARTC	Australian Rail Track Corporation Ltd
BCA	Building Code of Australia
BC Act	*Biodiversity Conservation Act 2016*
BCT	NSW Biodiversity Conservation Trust
Biodiversity offset strategy	The conservation and enhancement strategy described in EA, and depicted conceptually in the figure in Appendix 7
Built features	Includes any building or work erected or constructed on land, and includes dwellings and infrastructure such as any formed road, street, path, walk, or driveway; any pipeline, water, sewer, telephone, gas or other service main
Blast misfire	The failure of one or more holes in a blast pattern to initiate
CCC	Community Consultative Committee
Cliff	A continuous rock face, including overhangs, having a minimum length of 20 metres, a minimum height of 10 metres and a minimum slope of 2 in 1 (>63.4º)
Conditions of this approval	Conditions contained in Schedules 2 to 6 inclusive
Council	Mid-Western Regional Council
ABS	Australian Bureau of Statistics Consumer Price Index
CPI	
CCI	Construction Cost Index
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
DEC	NSW Department of Education and Communities
Department	Department of Planning & Environment
DoI Lands and Water	Department of Industry Lands and Water Division
DRG	Division of Resources and Geoscience and the Resources Regulator within the Department
DSC	Dams Safety Committee
EA	The Moolarben Coal Project Stage 2 Environmental Assessment Report (6 volumes), dated March 2009 as modified by the: • preferred project report, dated January 2012; • response to submissions, dated June 2012; • residual matters report, dated August 2012; • Groundwater Accounting and Water Sharing Plan prepared by RPS Aquaterra Pty Ltd, dated 13 June 2012; • Surface water information prepared by Worley Parsons Services Pty Ltd, dated 28 September 2012, 15 October 2012 and 9 November 2012; • Biodiversity Offset Strategy prepared by Cumberland Ecology Pty Ltd, dated December 2012; • Water Licensing Report – Wollar Creek Water Source prepared by Dundon Consulting Pty Ltd, dated 11 June 2013; • OC4 South-West Modification Environmental Assessment, dated April 2015 and associated response to submissions, dated June 2015 (MOD 1); • UG1 Optimisation Modification Environmental Assessment, dated June 2015 and associated response to submissions, dated September 2015 (MOD 2); and • Environmental Assessment – Open Cut Optimisation Modification, Volumes 1 and 2, dated November 2017 and associated response to submissions dated May 2018; and supplementary information dated 24 August 2018 (MOD 3).
EEC	Endangered ecological community, as defined under the *Threatened species Conservation Act 1995*
Environmental consequences	The environmental consequences of subsidence impacts, including: damage to built features; loss of surface flows to the subsurface; loss of standing pools; adverse water quality impacts; cliff falls; rock falls; damage to Aboriginal heritage sites; impacts on aquatic ecology; and ponding.
EPA	Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*

EPBC Act	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*
EPL	Environment Protection Licence issued under the POEO Act
Evening	The period from 6pm to 10pm
Feasible	Feasible relates to engineering considerations and what is practical to build or implement
Heritage item	An item as defined under the *Heritage Act 1977* and/or an Aboriginal Object or Aboriginal Place as defined under the *National Parks and Wildlife Act 1974*
Incident	A set of circumstances that: • causes or threatens to cause material harm to the environment; and/or • breaches or exceeds the limits or performance measures/criteria in this approval
Land	As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions in Schedules 3 and 5 of this approval where it is defined to mean the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this approval
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Mine water	Water that accumulates within, or drains from, active mining and infrastructure areas (synonymous with 'dirty water')
Mining operations	Includes the removal and emplacement of overburden and extraction, processing, handling, storage and transport of coal carried out on the site
Minister	Minister for Planning, or delegate
Minor	Not very large, important or serious
Minor cliff	A continuous rock face, including overhangs, which has a: • minimum length of 20 metres and a height between 5 metres and 10 metres, or maximum length of 20 metres and a minimum height of 10 metres; and • minimum slope of 2 to 1 (>63.4º).
Mitigation	Activities associated with reducing the impacts of the project
Moolarben mine complex	The combined operations of the Moolarben Stage 1 and Stage 2 mines
Moolarben Stage 1 mine	The approved mining operations and associated development within the area marked in blue dashed line on the figures in Appendix 2
Moolarben Stage 1 mine surface infrastructure area	The approved surface infrastructure area, including the coal handling and preparation plant and the rail loop, as shown on the figures in Appendix 2
Moolarben Stage 2 mine	The approved mining operations and associated development enclosed within the yellow dashed line on the figure in Appendix 2
NP&W Act	*National Parks & Wildlife Act 1974*
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
NRAR	Natural Resources Access Regulator
OEH	Office of Environment and Heritage
POEO Act	*Protection of the Environment Operations Act 1997*
Privately-owned land	Land that is not owned by a public agency or a mining company (or its subsidiary)
Project	The development as described in the EA
Proponent	Moolarben Coal Mines Pty Limited, or any other person or persons who rely on this approval to carry out the development that is subject to this approval.
Public infrastructure	Linear and related infrastructure that provides services to the general public, such as roads, railways, water supply, drainage, sewerage, gas supply, electricity, telephone, telecommunications, etc.
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Reasonable costs	The costs agreed between the Department and the Proponent for obtaining independent experts to review the adequacy of any aspects of the extraction plan, or where such costs cannot be agreed, the costs determined by a dispute resolution process

Rehabilitation	The restoration of land disturbed by the project to a good condition, to ensure it is safe, stable and non-polluting
RFS	Rural Fire Service
RMS	Roads and Maritime Services
Rock face feature	A continuous rock face, including overhangs, which has a: • minimum length of 20 metres and a height between 3 metres and 5 metres, or maximum length of 20 metres and a minimum height of 5 metres; and • minimum slope of 2 to 1 (>63.4º).
ROM	Run-of-mine
Safe, serviceable & repairable	Safe means no danger to users who are present, serviceable means available for its intended use, and repairable means damaged components can be repaired economically
Second workings	Extraction of coal from longwall panels, mini-wall panels or pillar extraction
Secretary	Secretary of the Department, or nominee
Site	The land referred to in Appendix 1
Statement of commitments	The Proponent's commitments in Appendix 3
Steep slope	An area of land having a gradient between 1 in 3 (33% or 18.3º) and 2 in 1 (200% or 63.4º)
Subsidence	The totality of subsidence effects, subsidence impacts and environmental consequences of subsidence impacts
Subsidence effects	Deformation of the ground mass due to mining, including all mining induced ground movements, such as vertical and horizontal displacement, tilt, strain and curvature
Subsidence impacts	Physical changes to the ground and its surface caused by subsidence effects, including tensile and shear cracking of the rock mass, localised buckling of strata caused by valley closure and upsidence and surface depressions or troughs
UCML	Ulan Coal Mines Limited
Ulan Road Strategy	The strategy prepared by the Arrb Group Limited, dated December 2011 as amended by the Secretary's letter dated 25 May 2013

SCHEDULE 2
ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance criteria established under this approval, the Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the project.

TERMS OF APPROVAL

2. The Proponent shall carry out the project:
   (a) generally in accordance with the EA; and
   (b) in accordance with the statement of commitments and the conditions of this approval.

   Notes:
   - *The general layout of the project is shown in Appendix 2; and*
   - *The statement of commitments is shown in Appendix 3.*

3. If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.

4. The Proponent shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:
   (c) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this approval;
   (d) any reports, reviews or audits commissioned by the Department regarding compliance with this approval; and
   (e) the implementation of any actions or measures contained in these documents.

LAPSING OF APPROVAL

5. If the project has not been physically commenced within 5 years of the date of this approval, then this project approval shall lapse.

LIMITS ON APPROVAL

Mining Operations

6. The Proponent may carry out mining operations on site until 31 December 2038.

   Note: Under this approval, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of both the Secretary and DRG . Consequently, this approval will continue to apply in all other respects other than the right to conduct mining operations until the rehabilitation of the site and these additional undertakings have been carried out satisfactorily.

Coal Extraction

7. 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
   (b) 8 million tonnes of ROM coal from the underground mining operations of the project in any calendar year.

   Notes:
   - *The above limits should be read in conjunction with the extraction, processing and coal transport limits in the Moolarben Coal Stage 1 approval (MP 05_0117).*
   - *The total ROM coal extracted from the Moolarben mine complex (open-cut and underground mining) is no more than 24 million tonnes in any calendar year.*
   - *No more than 16 million tonnes of coal from the Moolarben mine complex can be processed (washed) in any calendar year.*
   - *No more than 22 million tonnes can be transported from the Moolarben mine complex in any calendar year.*

Coal Processing and Transport

8. The Proponent shall ensure that all coal extracted from the project is sent to the Moolarben Stage 1 mine surface infrastructure area for processing and/or transport to market.

STRUCTURAL ADEQUACY

9. The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.

Notes:
- *Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates (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.*

DEMOLITION

10. The Proponent shall ensure that all demolition work on site is carried out in accordance with *AS 2601-2001: The Demolition of Structures,* or its latest version.

PROTECTION OF PUBLIC INFRASTRUCTURE

11. Unless the Proponent and the applicable authority agree otherwise, the Proponent shall:
    (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and
    (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the project.

Note: This condition does not apply to any damage to public infrastructure subject to compensation payable under the Mine Subsidence Compensation Act 1961, or to damage to roads caused as a result of general road usage.

OPERATION OF PLANT AND EQUIPMENT

12. The Proponent shall ensure that all plant and equipment used on site, or in connection with the project, is:
    (a) maintained in a proper and efficient condition; and
    (b) operated in a proper and efficient manner.

STAGED SUBMISSION OF STRATEGIES, PLANS OR PROGRAMS

13. 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 05_0117 for the Moolarben Coal Project Stage 1.

Notes:
- *While any strategy, plan or program may be submitted on a progressive basis, the Proponent will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times; and*
- *If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.*

13A. With the agreement of the Secretary, the Proponent may prepare a revision of or a stage of a strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition in this consent.

COMMUNITY ENHANCEMENT

14. From the commencement of construction until mining operations under this approval cease, the Proponent shall pay to Council a total of $515 a year for each full-time equivalent employee/contractor at the Moolarben mine complex in excess of 320. This payment is for the provision of infrastructure and services generated by the project. It is also to be indexed in accordance with the CPI for the previous quarter.

SCHEDULE 3
ENVIRONMENTAL CONDITIONS - GENERAL

NOISE

Acquisition Upon Request

1. (deleted)

Note: The Proponent has acquired all properties provided acquisition rights under this approval.

Mitigation Upon Request

2. (deleted)

Note: The Proponent has acquired all properties provided mitigation upon request rights under this approval.

Noise Criteria

3. The Proponent shall ensure that the noise generated by the Moolarben mine complex does not exceed the criteria in Table 3 at any residence on privately-owned land or the other specified locations.

Table 3: Noise criteria dB(A)

Receiver ID	Day	Evening	Night	
	$L_{Aeq(15min)}$	$L_{Aeq(15min)}$	$L_{Aeq(15min)}$	$L_{A1(1min)}$
30,63	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			-

Note: To interpret the land referred to in Table 3, see the applicable figures in Appendix 5.

Noise generated by the Moolarben mine complex is to be measured in accordance with the relevant requirements of the *NSW 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 criteria do not apply if the Proponent has an agreement with the owner/s of the relevant residence or land to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.

Land Acquisition Criteria

2. 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: Acquisition criteria dB(A) $L_{Aeq\ (15min)}$

Receiver ID	Day ($L_{Aeq\ (15min)}$)	Evening ($L_{Aeq\ (15min)}$)	Night ($L_{Aeq\ (15min)}$)
63	43	43	42
All other privately-owned residences	40	40	40

Note: To interpret the land referred to Table 4, see the applicable figures in Appendix 5.

3. If the noise generated by the Moolarben mine complex contributes to exceedances of the relevant criteria in Table 5 on more than 25% of any privately-owned land (and a dwelling could be built on that land under existing planning controls), the Proponent shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 5 and 6 of Schedule 5.

Table 5: Land acquisition criteria

Day/Evening/Night $L_{Aeq(period)}$	Receiver
55/50/45	All privately-owned land

Note: Noise generated by the project 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.

Noise Mitigation Criteria

4. 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.

   If within 3 months of receiving this request from the owner, the Proponent and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.

Table 6: Mitigation criteria dB(A) $L_{Aeq\ (15min)}$

Receiver ID	Day ($L_{Aeq\ (15min)}$)	Evening ($L_{Aeq\ (15min)}$)	Night ($L_{Aeq\ (15min)}$)
63	40	40	39
All privately owned residences other than those in Table 2	37	37	37

Note: To interpret the land referred to Table 6, see the applicable figures in Appendix 5.

Operating Conditions

5. The Proponent shall:
   (a) implement best management practice to minimise the operational and road noise of the project;
   (b) operate a comprehensive noise management system that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations, and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this approval;
   (c) minimise the noise impacts of the project during meteorological conditions when the noise limits in this approval do not apply (see Appendix 6);
   (d) only use locomotives and rolling stock that are approved to operate on the NSW rail network in accordance with the noise limits in ARTC's EPL;
   (e) co-ordinate noise management at the Moolarben mine complex with the noise management at Ulan and Wilpinjong mines to minimise cumulative noise impacts; and

   (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

6. 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;
   (b) describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions in this approval;
   (c) describe the proposed noise management system in detail; and
   (d) include a monitoring program that:
      - evaluates and reports on:
        - the effectiveness of the noise management system;
        - compliance against the noise criteria in this approval; and
        - compliance against the noise operating conditions;
      - includes a program to calibrate and validate the real-time noise monitoring results with the attended monitoring results over time (so the real-time noise monitoring program can be used as a better indicator of compliance with the noise criteria in this approval and trigger

for further attended monitoring); and
- defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.

BLASTING

Blasting Criteria

7. The Proponent shall ensure that blasting on the Moolarben mine complex does not cause exceedances of the criteria in Table 7.

Table 7: Blasting criteria

Location	***Airblast overpressure (dB(Lin Peak))***	***Ground vibration (mm/s)***	***Allowable exceedance***
Residence on privately owned land	120	10	0%
	115	5	5% of the total number of blasts over a period of 12 months
All public infrastructure	-	50 *(or a limit determined by the structural design methodology in AS 2187.2-2006, or its latest version, or other alternative limit for public infrastructure, to the satisfaction of the Secretary)*	0%

However, these criteria do not apply if the Proponent has a written agreement with the relevant owner to exceed these criteria, and has advised the Department in writing of the terms of this agreement.

Blasting Hours

8. 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.

Blasting Frequency

9. The Proponent may carry out a maximum of:
(a) 2 blasts a day; and
(b) 9 blasts a week, averaged over a calendar year,
at the Moolarben mine complex.

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.

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.

Property Inspections

12. If the Proponent receives a written request from the owner of any privately-owned land within 2 kilometres of any approved open cut mining pit on site for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection updated, then within 2 months of receiving this request the Proponent shall:
(a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to:
- establish the baseline condition of any buildings and 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

(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.

Property Investigations

13. If the owner of any privately-owned land claims that buildings and/or structures on his/her land have been damaged as a result of blasting on the site, then within 2 months of receiving this claim the Proponent shall:
    (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to investigate the claim; and
    (b) give the landowner a copy of the property investigation report.

    If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damage to the satisfaction of the Secretary.

    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.

Operating Conditions

14. The Proponent shall:
    (a) implement best management practice to:
        - protect the safety of people and livestock in the surrounding area;
        - protect public or private infrastructure/property in the surrounding area from any damage; and
        - minimise the dust and fume emissions of any blasting;
    (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);
    (c) operate a suitable system to enable the public to get up-to-date information on the proposed blasting Schedule on site; and
    (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.

15. The Proponent shall not undertake blasting on site within 500 metres of:
    (a) any public road;
    (b) the Gulgong to Sandy Hollow Railway Line;
    (c) the Wollar-Wellington 330kV Transmission Line; or
    (d) any land outside the site not owned by the Proponent,

    unless the Proponent has:
    - 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

16. 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;
    (b) describe the measures that would be implemented to ensure compliance with the blast criteria and operating conditions of this approval;
    (c) propose and justify any alternative ground vibration limits for public infrastructure in the vicinity of the site (if relevant); and
    (d) include a monitoring program for evaluating and reporting on compliance with the blasting criteria and operating conditions of this approval.

AIR QUALITY

Odour

17. The Proponent shall ensure that no offensive odours, as defined under the POEO Act, are emitted from the site.

Air Quality Criteria

18. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the Moolarben mine complex do not cause exceedances of the criteria listed in Tables 8, 9 and 10 at any residence on privately-owned land.

Table 8: Long term impact assessment criteria for particulate matter

Pollutant	***Averaging period***	***[d] Criterion***
Total suspended particulate (TSP) matter	Annual	[a] 90 µg/m^3
Particulate matter < 10 µm (PM_{10})	Annual	[a, d] 25 µg/m^3
Particulate Matter <2.5 µm ($PM_{2.5}$)	Annual	[a, d] 8 µg/m^3

Table 9: Short term impact assessment criterion for particulate matter

Pollutant	***Averaging period***	***[d] Criterion***
Particulate matter < 10 µm (PM_{10})	24 hour	[a] 50 µg/m^3
Particulate Matter <2.5 µm ($PM_{2.5}$)	24 hour	[b] 25 µg/m^3

Table 10: Long term impact assessment criteria for deposited dust

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

Notes to Tables 8-10:

[a] *Total impact (i.e. incremental increase in concentrations due to the complex plus background concentrations due to all other sources);*

[b] *Incremental impact (i.e. incremental increase in concentrations due to the complex on its own) with up to 5 allowable exceedances over the life of the project;*

[c] *Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and*

[d] *Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents, illegal activities or any other activity agreed by the Secretary.*

Mine-owned Land

19. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the Moolarben mine complex do not cause exceedances of the criteria listed in Tables 11, 12 and 13 at any occupied residence on mine-owned land (including land owned by another mining company) unless:
    (a) the tenant and landowner (if the residence is owned by another mining company) have been notified of any health risks associated with such exceedances in accordance with the notification requirements under Schedule 5 of this approval;
    (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;
    (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);
    (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
    (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.

Air Quality Acquisition Criteria

20. If particulate matter emissions generated by the Moolarben mine complex exceed the incremental criteria, or contribute an exceedance of the relevant cumulative criteria, in Tables 11, 12 and 13 at any residence on privately-owned land or on more than 25% of any privately-owned land (and a dwelling could be built on that land under existing planning controls), then upon receiving a written request for acquisition from the landowner, the Proponent shall acquire the land in accordance with the procedures in conditions 5 and 6 of Schedule 5.

Table 11: Long term land acquisition criteria for particulate matter

Pollutant	***Averaging period***	***[d] Criterion***
Total suspended particulate (TSP) matter	Annual	[a] 90 µg/m^3
Particulate matter < 10 µm (PM_{10})	Annual	[a] [d] 25 µg/m^3

Table 12: Short term land acquisition criteria for particulate matter

Pollutant	***Averaging period***	***[d] Criterion***	***Basis***
Particulate matter < 10 µm (PM_{10})	24 hour	[b] 50 µg/m^3	Increment [b]
Particulate Matter <2.5 µm ($PM_{2.5}$)	24 hour	[b] 25 µg/m^3	Increment [b]

Table 13: Long term land acquisition criteria for deposited dust

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

Notes to Tables 11-13:

[a] *Cumulative impact (i.e. incremental increase in concentrations due to the complex plus background concentrations due to all other sources);*

[b] *Incremental impact (i.e. incremental increase in concentrations due to the complex on its own) with up to 5 allowable exceedances over the life of the project;*

[c] *Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method;*

[d] Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents, illegal activities or any other activity agreed by the Secretary.

Operating Conditions

21. The Proponent shall:
    (a) implement best management practice to minimise the off-site odour, fume and particulate matter (including PM_{10} and $PM_{2.5}$) emissions of the project;
    (b) implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site;
    (c) minimise any visible off-site air pollution generated by the project;
    (d) minimise the surface disturbance of the site;
    (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;
    (f) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see Note d above under Table 13); and
    (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.

Air Quality Management Plan

22. The Proponent shall prepare and implement an Air Quality Management Plan for the project to the satisfaction of the Secretary. This plan must:
    (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;
    (b) describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this approval:
    (c) describe the air quality management system;
    (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;
        - adequately supports the air quality management system;
        - evaluates and reports on the:
            - the effectiveness of the air quality management system;
            - compliance with the air quality criteria;
            - compliance with the air quality operating conditions; and

- 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.

ULAN PUBLIC SCHOOL

23. 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
    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.

METEOROLOGICAL MONITORING

24. For the life of the project, the Proponent shall ensure that there is a meteorological station in the vicinity of the site that:
    (a) complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline; and
    (b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the *NSW Noise Policy for Industry,* unless a suitable alternative is approved by the Secretary following consultation with the EPA.

WATER

Water Supply

25. 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
    (b) any water supply constraints do not compromise any aspect of the environmental performance of the mine.

Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain the necessary water licences for the project.

Compensatory Water Supply

26. The Proponent shall provide a compensatory water supply to any landowner of privately owned land whose water supply is adversely and directly impacted (other than an impact that is negligible) as a result of the project, in consultation with DoI Lands and Water, and to the satisfaction of the Secretary.

    The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent to the loss attributable to the project. Equivalent water supply should be provided (at least on an interim basis) within 24 hours of the loss being identified, unless otherwise agreed with the landowner.

    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.

    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.

Water Pollution

27. Unless an EPL authorises otherwise, the Proponent shall comply with section 120 of the POEO Act.

Water Management Performance Measures

28. The Proponent shall comply with the performance measures in Table 14 to the satisfaction of the Secretary.

Table 14: Water Management Performance Measures

Feature	***Performance Measure***
Water Management – General	• 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 water supply to the Drip
Construction and operation of linear infrastructure	• Design, install and maintain erosion and sediment controls generally in accordance with the series *Managing Urban Stormwater: Soils and*

Feature	*Performance Measure*
	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	• 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	• 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	• 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 $< 1 \times 10^{-9}$ m/s
Tailings, acid forming and potentially acid forming materials	• 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	• Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standards
Murragamba and Eastern Creek realignments	• Increase the overall length of the creek diversions and reduce the overall average bed slope compared to the existing creek alignments • Mimic the existing meandering plan form of the low flow channel • Include creek corridors which are designed to contain flood flows up to the 1 in 100 year ARI • Include low flow channels which are designed to contain a rainfall event of a 1 in 1 year ARI • Include riffle/drop structures that are designed for a 1 in 20 year ARI peak flow • Incorporate erosion control measures based on vegetation and engineering revetments • Incorporate persistent/permanent pools for aquatic habitat • Incorporate seepage control/flow loss measures through sections of the creek lines to be constructed over mine waste backfill • Revegetate with suitable native riparian vegetation species to restore aquatic biodiversity throughout the realignments
Aquatic and riparian ecosystem, including the relevant sections of Murragamaba Creek, Eastern Creek and Wilpinjong Creek	• 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

Water Management Plan

29. The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must:
    (a) be prepared in consultation with DoI Lands and Water, NRAR and the EPA, by suitably qualified and experienced persons whose appointment has been approved by the Secretary;
    (b) be submitted to the Secretary for approval prior to the commencement of any development on site;
    (c) include reference to the National Water Quality Management Strategy;
    (d) include detailed performance criteria and describe measure to ensure that the Proponent complies with the Water Management Performance Measures (see Table 14);
    (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 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;
        (ii) Surface Water Management Plan, that includes:
            - detailed baseline data on water flows and quality in the waterbodies 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:
                - Murragamba and Eastern Creek realignments;
                - in-pit emplacement areas for tailings, acid forming and potentially acid forming materials;
                - final voids (see the Rehabilitation Objectives in Table 14);
            - 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, Murragamba Creek, Eastern Creek, Wilpinjong 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;
        (iii) Groundwater Management Plan, that includes:
            - 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;
            - a program to monitor and report on:
                - 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;
                - brine emplacement in underground workings and potential changes to groundwater and surface water quality;
                - the permeability, hydraulic gradient, flow direction and connectivity of the palaeochannel and flows within Wilpinjong Creek (requires 3 additional monitoring piezometers within the main trunk of the paleochannel between the open cut 4 boundary and Wilpinjong Creek);
                - impacts of the project on:
                    - regional and local (including alluvial) aquifers;
                    - groundwater supply of potentially affected landowners; and
                    - groundwater dependent ecosystems (including the Drip) and riparian vegetation;

- a program to validate the groundwater model for the project, and compare against monitoring results with modelled predictions; and
- a plan to respond to any exceedances of the groundwater assessment criteria.

(iv) a protocol that has been prepared in consultation with the owners of the Ulan and Wilpinjong mines to:
- minimise cumulative water quality impacts;
- review opportunities of increased water sharing between these projects;
- co-ordinate water quality and flow monitoring programs as far as practicable;
- undertake joint investigations/studies in relation to complaints/exceedences of trigger levels where cumulative impacts are considered likely; and
- co-ordinate modelling programs for validation, re-calibration and re-running of groundwater models.

BIODIVERSITY

Biodiversity Offset Strategy

30. The Proponent shall implement the biodiversity offset strategy for the project summarised in Table 15 and shown conceptually in Appendix 7 to the satisfaction of the Secretary.

Table 15: Summary of the Biodiversity Offset Strategy

Area	***Offset Type***	***Minimum Size hectares (ha)***
Dun Dun East	Enhance existing vegetation: • 1368 ha of native vegetation • 408 ha of EEC Regenerate: • 380 ha of existing grassland to forest/woodland	**1776**
Dun Dun West	Enhance existing vegetation: • 837 ha of native vegetation • 122 ha of EEC Regenerate: • 307 ha of existing grassland to forest/woodland	**959**
Avisford 1	Enhance existing vegetation: • 300 ha of native vegetation • 102 ha of EEC Regenerate: • 7 ha of existing grassland to forest/woodland	**402**
Avisford 2	Enhance existing vegetation: • 203 ha of native vegetation • 5 ha of EEC	**208**
Ulan 18	Enhance existing vegetation: • 291 ha of native vegetation • 48 ha of EEC Regenerate: • 178 ha of existing grassland to forest/woodland	**339**
Onsite Offset	Enhance existing vegetation: • 420 ha of native vegetation • 51 ha of EEC Regenerate: • 199 ha of existing grassland to forest/woodland	**471**
Old Bobadeen	Enhance existing vegetation: • 90 ha of native vegetation • 400 ha of EEC Regenerate: • 409 ha of existing grassland to forest/woodland	**490**
Libertus	Enhance existing vegetation: • 160 ha of native vegetation • 18 ha of EEC Regenerate: • 22 ha of existing grassland to forest/woodland	**178**

Notes:
- *To identify the areas referred to in Table 15, see the applicable figures in Appendix 7;*
- *The amount of native vegetation includes forest/woodland and grassland but excludes woodland and grassland EECs. The combined total of native vegetation and EEC on each property equates to the minimum size available as an offset;*
- *The amount of grassland available for regeneration includes sparsely vegetated woodland; and*
- *The strategy includes the regeneration of existing grassland areas within each offset to woodland communities.*

Regeneration Areas

31. The Proponent shall ensure that the regeneration of vegetation within the specified areas of the biodiversity offset strategy is focused on the re-establishment of flora species typical of the White Box Yellow Box Blakely's Red Gum Woodland as defined under the *Threatened species Conservation Act 1995* and White Box Yellow Box Blakely's Red Gum Grassy Woodland as defined under the EPBC Act.

32. The Proponent shall use its best endeavours to work with the DoI Lands and Water to identify and implement any reasonable and feasible regeneration of vegetation tron Crown lands in the vicinity of Pyramul Creek immediately to the south of the 'Dun Dun East' biodiversity offset area.

Munghorn Gap Nature Reserve

33. 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
    (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.

Habitat for Threatened Fauna Species

34. The Proponent shall ensure that the biodiversity offset strategy provides suitable habitat for all the threatened fauna species confirmed and identified as being potentially present in the disturbance areas.

    Note: The threatened fauna species confirmed and identified as being potentially present in the disturbance areas are listed in Appendix 7.

Regent Honeyeater Study

35. 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
    (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.

36. If the calculations carried out in condition 35 above identify a shortfall of species credits to offset the impacts of the project, then within 24 months of the date of this approval, the Proponent shall satisfy the outstanding offset requirements to the satisfaction of OEH. This can be achieved by one or more of the following:
    (a) acquiring or retiring credits under the Biobanking 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.

Vegetation Information System Mapping Data

37. At the request of OEH, the Proponent shall provide OEH with detailed vegetation mapping and survey data associated with its lands to be conserved in perpetuity in accordance with this approval. This information is to be provided free of charge.

Long Term Security of Biodiversity Offsets

38. 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.

    Note: The preferred mechanisms for the provision of long-term conservation security are via Biobanking Arrangements and additions to the OEH Estate.

Biodiversity Management Plan

39. The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:
    (a) be prepared in consultation with OEH, and submitted to and approved by the Secretary prior to the commencement of any development on site;
    (b) describe the short, medium, and long term measures that would be implemented to:
        - manage the remnant vegetation and fauna habitat on the site; and
        - implement the biodiversity offset strategy;
        - integrate the implementation of the biodiversity offset strategy to the greatest extent practicable with the rehabilitation of the site;
    (c) include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary);

(d) include a detailed description of the measures that would be implemented over the next 3 years for:
- 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;

(e) include a seasonally-based program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria;

(f) identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate against these risks; and

(g) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

Conservation Bond

40. By 31 December 2015, the Proponent shall lodge a Conservation Bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan. The sum of the bond shall be determined by:

(a) calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and

(b) employing a suitably qualified quantity surveyor to verify the calculated costs,

to the satisfaction of the Secretary.

If the offset strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Secretary, the Secretary will release the bond.

If the offset strategy is not completed generally in accordance with the completion criteria in the Biodiversity Management Plan, the Secretary will call in all, or part of, the conservation bond, and arrange for the satisfactory completion of the relevant works.

Notes:

- *Alternative funding arrangements for long-term management of the Biodiversity Offset Strategy, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement or transfer to conservation reserve estate can be used to reduce the liability of the conservation and biodiversity bond, and*
- *The sum of the bond may be reviewed in conjunction with any revision to the biodiversity offset strategy.*

HERITAGE

Protection of Aboriginal Heritage Items

41. Unless otherwise authorised under the NP&W Act, the Proponent shall ensure that the project does not cause any direct or indirect impact on the identified Aboriginal heritage items located outside the approved disturbance area of the project.

42. (deleted)

(a)

(b)

43.

Heritage Conservation Areas

44. The Proponent shall implement the heritage conservation strategy described in the EA, summarised in Table 16, to the satisfaction of the Secretary.

Table 16: Summary of the Heritage Conservation Strategy

Area	*Sites*	*Minimum Size hectares (ha)*
Murragamba Creek Management Area	40 sites - 5 of high significance, 6 of medium and 29 of low	**154**
Powers Conservation Area	10 sites – 1 of high significance, 2 of medium and 7 of low significance	**63**
Red Hills Conservation Area	42 sites – 2 of high significance, 9 of medium and 31 of low significance	**107**

Long Term Security of Heritage Conservation Areas

45. Within 18 months of approval of the Heritage Management Plan, unless the Secretary agrees otherwise, the Proponent shall make suitable arrangements to protect the heritage conservation areas in Table 16 in perpetuity to the satisfaction of the Secretary.

Notes:
- *The protection of the Aboriginal heritage conservation area/s may be combined with the protection of the biodiversity offset areas required under condition 30 of this approval.*

Heritage Management Plan

46. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
    (a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;
    (b) be prepared in consultation with OEH and the Aboriginal stakeholders (in relation to the management of Aboriginal heritage values);
    (c) be submitted to and approved by the Secretary prior to construction, unless the Secretary agrees otherwise;
    (d) include a description of the measures that would be implemented for:
        - 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;
    (e) include the following for the management of Aboriginal Heritage:
        - a detailed plan of management for the Murragamba Creek, Red Hills and Powers conservation areas;
        - a description of the measures that would be implemented for:
            - protecting, monitoring and/or managing (including any proposed archaeological investigations and/or salvage measures) the heritage items identified in the EA;
            - managing the discovery of previously unidentified Aboriginal items on site;
            - 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;
            - 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;
    (f) include a detailed plan for the implementation of the mitigation and management measures outlined for the specified heritage items in Appendix 8, including archival recording, historical research and archaeological assessment prior to any disturbance.

TRANSPORT

Ulan Road Strategy

47. The Proponent shall:
    (a) work with Council and the owners of the Ulan and Wilpinjong mines to develop to a detailed plan for the implementation of the Ulan Road Strategy; and
    (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.

Ulan-Wollar Road Site Access

48. The Proponent shall design, construct, and maintain the site access intersection off Ulan-Wollar Road to the satisfaction of Council.

Cope Road Maintenance

49. The Proponent shall pay Council $480,000 (in 2013 dollar value) for the maintenance of Cope Road. This payment must be:
    (a) made in 4 instalments of $120,000 over the first four years of mining operations, with the first payment to be made on the commencement of mining operations on site;
    (b) indexed in accordance with the CPI for the previous quarter.

VISUAL

50. The Proponent shall:
    (a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the project;
    (b) ensure no fixed outdoor lights shine above the horizontal or above the building line or any illuminated structure;
    (c) ensure no in-pit mobile lighting rigs shine above the pit wall and other mobile lighting rigs do not shine above the horizional;
    (d) ensure that all external lighting associated with the project complies with *Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting,* or its latest version;
    (e) provide for the establishment of trees and shrubs and/or the construction of mounding or bunding to minimise visual and lighting impacts on the Proponent's land adjoining public roads with views of the site;
    (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.

BUSHFIRE MANAGEMENT

51. The Proponent shall:
    (a) ensure that the project is suitably equipped to respond to any fires on site; and
    (b) assist the RFS and emergency services as much as practicable if there is a fire in the vicinity of the site.

WASTE

52. The Proponent shall:
    (a) implement all reasonable and feasible measures to minimise the waste (including coal reject) generated by the project;
    (b) ensure that the waste generated by the project is appropriately stored, handled and disposed of; and
    (c) monitor and report on effectiveness of the waste minimisation and management measures in the Annual Review.

REHABILITATION

Rehabilitation Objectives

53. The Proponent shall rehabilitate the site to the satisfaction of DRG. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EA (and depicted conceptually in the figures in Appendix 9), and comply with the objectives in Table 17.

Table 17: Rehabilitation Objectives

Feature	***Objective***
Mine site (as a whole)	• 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

Feature	Objective
	conservation values of the adjacent Munghorn Gap Nature Reserve and Goulburn River National Park, that is comprised of: - 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	• 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	• 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	• To be decommissioned and removed, unless DRG agrees otherwise.
Degraded riparian areas along Wilpinjong Creek and along Murragamba and Eastern Creeks downstream of the mined areas to the boundary of the Wilpinjong mine.	• Restore channel stability; • Restore riparian and aquatic ecosystem function; and • Include compensatory aquatic habitat areas.
Community	• Ensure public safety; and • Minimise adverse socio-economic effects associated with mine closure.

Progressive Rehabilitation

54. The Proponent shall rehabilitate the site progressively as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim rehabilitation strategies shall be employed when areas prone to dust generation cannot be permanently rehabilitated.

Note: It is accepted that some parts of the site that are progressively rehabilitated may be subject to further disturbance at some later stage of the project.

Long Term Security of Rehabilitated Areas

55. Prior to relinquishing the mining lease that covers the site, unless the Secretary agrees otherwise, the Proponent shall make suitable arrangements to protect the rehabilitation areas with conservation value in perpetuity, in consultation with OEH and to the satisfaction of the Secretary.

Rehabilitation Management Plan

56. The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of DRG. This plan must:
    (a) be prepared in consultation with the Department, DoI Lands and Water, OEH, Council and the CCC;
    (b) be submitted to and approved by DRG prior to the commencement of any development on site under this approval, unless the Secretary agrees otherwise;
    (c) be prepared in accordance with any relevant DRG guideline;

(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;
(e) describe how the rehabilitation of the site would be integrated with the implementation the biodiversity offset strategy;
(f) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);
(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;
(h) include interim rehabilitation where necessary to minimise the area exposed for dust generation;
(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; and
(j) build to the maximum extent practicable on the other management plans required under this approval.

SCHEDULE 4
ENVIRONMENTAL CONDITIONS – UNDERGROUND MINING

SUBSIDENCE

Performance Measures – Natural and Heritage Features

1. The Proponent shall ensure that the project does not cause any exceedances of the performance measures in Table 18, to the satisfaction of the Secretary.

Table 18: Subsidence Impact Performance Measures

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 impact or environmental consequences than predicted in the EA
Mine workings	
First workings under an approved Extraction Plan beneath any feature where performance measures in this table require negligible subsidence impacts or negligible environmental consequences	To remain long-term stable and non-subsiding
Second workings	To be carried out only in accordance with an approved Extraction Plan

Notes:

- *The locations of the features referred to in Table 18 are shown in Appendix 4.*
- *The Proponent will be required to define more detailed performance indicators (including impact assessment criteria) for each of these performance measures in the various management plans that are required under this approval.*
- *Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of proposed methods, the Secretary will be the final arbiter.*
- *The requirements of this condition only apply to the impacts and consequences of mining operations, construction or demolition undertaken following the date of this approval.*

Offsets

2. If the Proponent exceeds the performance measures in Table 18 and the Secretary determines that:
   (a) it is not reasonable or feasible to remediate the impact or environmental consequence; or
   (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.

Performance Measures – Built Features

3. The Proponent shall ensure that the project does not cause any exceedances of the performance measures in Table 19, to the satisfaction of the Secretary.

Table 19: Subsidence Impact Performance Measures – Built Features

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:	
Murragamba Road Low voltage electricity power line	Always safe. Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated. Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.
Telecommunication cable Fibre-optic cable Murragamba Trig Station	Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated. Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.
Other built features and improvements, including fences	Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated. Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.
Public Safety	
Public safety	Negligible additional risk

Notes:

- *The locations of the features referred to in Table 19 are shown in Appendix 4.*
- *The Proponent will be required to define more detailed performance indicators for each of these performance measures in Built Features Management Plans or Public Safety Management Plan (see condition 5 below).*
- *Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of proposed methods, the Secretary will be the final arbiter.*
- *The requirements of this condition only apply to the impacts and consequences of mining operations undertaken following the date of this approval.*
- *Requirements under this condition may be met by measures undertaken in accordance with the Mine Subsidence Compensation Act 1961.*
- *Requirements regarding safety or serviceability do not prevent preventative or mitigatory actions being taken prior to or during mining in order to achieve or maintain these outcomes.*

4. Any dispute between the Proponent and the owner of any built feature over the interpretation, application or implementation of the performance measures in Table 19 is to be settled by the Secretary, following consultation with DRG. Any decision by the Secretary shall be final and not subject to further dispute resolution under this approval.

Extraction Plan

5. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each extraction plan must:
   (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;
   (c) include detailed plans of existing and proposed first and second workings and any associated surface development;
   (d) include detailed performance indicators for each of the performance measures in Tables 18 and 19;
   (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;

(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;

(g) include a Built Features Management Plan, which has been prepared in consultation with DRG and the owners of affected public infrastructure, to manage the potential subsidence impacts and/or environmental consequences of the proposed second workings, and which:
- 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; and
- 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;

(h) include a Water Management Plan, which has been prepared in consultation with EPA and DoI Lands and Water, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on watercourses and aquifers, including:
- 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;
- 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; and
  - 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; and

(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;

(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;

(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;

(l) include a Public Safety Management Plan, which has been prepared in consultation with DRG , to ensure public safety in the mining area;

(m) include a Subsidence Monitoring Program, which has been prepared in consultation with DRG , to:
- 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;

(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;

(o) proposes appropriate revisions to the Rehabilitation Management Plan required under condition 56 of Schedule 3; and

(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.

6. The Proponent shall ensure that the management plans required under conditions 5(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; and

(b) a detailed description of the measures that would be implemented to remediate predicted impacts.

First Workings

7. The Proponent may carry out first workings on site other than in accordance with an approved Extraction Plan, provided that DRG 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.

Second Workings under Palaeochannel

7A. The Proponent shall ensure that the longwall panels of the project do not underlie any saturated section of the palaeochannel in the vicinity of Wilpinjong Creek, unless it has demonstrated that it has obtained the necessary water licences, to the satisfaction of the Secretary.

Payment of Reasonable Costs

8. The Proponent shall pay all reasonable costs incurred by the department to engage suitably qualified, experienced and independent experts to review the adequacy of any aspect of an Extraction Plan.

Gas Drainage

9. The Proponent shall implement all reasonable and feasible measures to minimise the greenhouse gas emissions from the underground mining operations to the satisfaction of the Secretary.

10. 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;
    (b) investigate the feasibility of implementing each option;
    (c) propose the measures that would be implemented in the short to medium term on site; and
    (d) include a research program to inform the continuous improvement of the greenhouse gas minimisation measures on site.

SCHEDULE 5
ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS/TENANTS

1. Within 1 month of the date of this approval, the Proponent shall:
   (a) notify in writing the owners of:
      - 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 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;
   (b) notify the tenants of any mine-owned land of their rights under this approval; and
   (c) send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the owners and/or existing tenants of any land (including mine-owned land) where the predictions in the EA identify that dust emissions generated by the project are likely to be greater than the relevant air quality criteria in Schedule 3 at any time during the life of the project.

2. Prior to entering into any tenancy agreement for any land owned by the Proponent that is predicted to experience exceedances of the recommended dust and/or noise criteria, or for any of the land listed in Table 3 that is subsequently purchased by the Proponent, the Proponent shall:
   (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
   (b) advise the prospective tenants of the rights they would have under this approval,
   to the satisfaction of the Secretary.

3. 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
   (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).

INDEPENDENT REVIEW

4. If an owner of privately-owned land considers the project to be exceeding the criteria in Schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the project on his/her land.

   If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision, the Proponent shall:
   (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 criteria then:
         - determine if more than one mine is responsible for the exceedance, and if so the relative share of each mine regarding the impact on the land;
         - identify the measures that could be implemented to ensure compliance with the relevant criteria; and
   (b) give the Secretary and landowner a copy of the independent review.

LAND ACQUISITION

5. Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent shall make a binding written offer to the landowner based on:
   (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;

(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

(c) reasonable compensation for any disturbance caused by the land acquisition process.

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:
- 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.

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.

However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Secretary will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions.

Within 14 days of this determination, the Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the Secretary's determination.

If the landowner refuses to accept the Proponent's binding written offer under this condition within 6 months of the offer being made, then the Proponent's obligations to acquire the land shall cease, unless the Secretary determines otherwise.

6. The Proponent shall pay all reasonable costs associated with the land acquisition process described in condition 5 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.

SCHEDULE 6
ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

1. 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 prior to the commencement of any development on the site;
   (b) provide the strategic framework for environmental management of the project;
   (c) identify the statutory approvals that apply to the project;
   (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;
   (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;
      - respond to any non-compliance;
      - respond to emergencies; and
   (f) include:
      - 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.

Adaptive Management

2. The Proponent must assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedules 3 & 4. 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:
   (a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;
   (b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and
   (c) implement remediation measures as directed by the Secretary,
   to the satisfaction of the Secretary.

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;
   (b) a description of:
      - 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;
   (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
   (d) a program to monitor and report on the:
      - impacts and environmental performance of the project;
      - effectiveness of any management measures (see c above);
   (e) a contingency plan to manage any unpredicted impacts and their consequences;
   (f) a program to investigate and implement ways to improve the environmental performance of the project over time;
   (g) a protocol for managing and reporting any:
      - incidents;
      - complaints;
      - non-compliances with statutory requirements; and
      - exceedances of the impact assessment criteria and/or performance criteria; and

(h) a protocol for periodic review of the plan.

Annual Review

4. By the end of March each year, or as otherwise 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 current calendar year;
   (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:
      - relevant statutory requirements, limits or performance measures/criteria;
      - monitoring results of previous years; and
      - relevant predictions in the EA;
   (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
   (d) identify any trends in the monitoring data over the life of the project;
   (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and
   (f) describe what measures will be implemented over the next year to improve the environmental performance of the project.

Revision of Strategies, Plans and Programs

5. Within 3 months of the submission of:
   (a) the submission of annual review under condition 4 above;
   (b) the submission of an incident report under condition 7 below;
   (c) the submission of an audit under condition 9 below; or
   (d) any modification to the conditions of this approval or MP 05_0117 (unless the conditions require otherwise),

   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 4 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.

Community Consultative Committee

6. The Proponent shall operate a Community Consultative Committee (CCC) for the Moolarben mine complex to the satisfaction of the Secretary. This CCC must be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version), and be operating by the end of March 2015.

   Notes:
   - *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval; and*
   - *The CCC should be comprised of an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community.*

REPORTING

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.

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.

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:
   (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 project, and/or any strategy, plan or program required under these approvals.

   Note: This audit team must be led by a suitably qualified auditor, and include experts in noise, air quality, ecology, Aboriginal heritage and any other fields specified by the Secretary.

10. Within 3 months of commissioning this audit, or as otherwise agreed by the Secretary, the Proponent shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.

ACCESS TO INFORMATION

11. The Proponent shall:
   (a) make the following information publicly available on its website:
      - 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
   (b) keep this information up to date,
   (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.

APPENDIX 1
SCHEDULE OF LAND

Lot and Deposited Plan Number	Tenure Type
Lot 1 DP1023568	Freehold
Lot 1 DP755454	Freehold
Pt Lot 1 DP803204	Freehold
Lot 1 DP817487	Freehold
Lot 105 DP755454	Freehold
Pt Lot 107 DP755454	Freehold
Lot 11 DP1152406	Freehold
Pt Lot 110 DP755442	Freehold
Lot 112 DP755454	Freehold
Lot 113 DP755454	Freehold
Lot 119 DP755442	Freehold
Pt Lot 192 DP755442	Freehold
Pt Lot 193 DP755442	Freehold
Lot 2 DP1023568	Freehold
Pt Lot 2 DP1143354	Freehold
Lot 2 DP755454	Freehold
Lot 2 DP878678	Freehold
Lot 21 DP755454	Freehold
Pt Lot 218 DP755442	Freehold
Lot 223 DP755442	Freehold
Pt Lot 228 DP755442	Freehold
Pt Lot 229 DP755442	Freehold
Lot 234 DP755442	Freehold
Pt Lot 238 DP755442	Freehold
Lot 262 DP755442	Freehold
Lot 3 DP878678	Freehold
Lot 32 DP755454	Freehold
Lot 33 DP755454	Freehold
Lot 34 DP755454	Freehold
Pt Lot 36 DP755442	Freehold
Lot 36 DP755454	Freehold
Pt Lot 37 DP755442	Freehold
Lot 4 DP755454	Freehold
Lot 4 DP878678	Freehold
Lot 41 DP755454	Freehold
Lot 42 DP755454	Freehold
Lot 44 DP755442	Freehold
Lot 5 DP878678	Freehold
Lot 53 DP755454	Freehold
Lot 57 DP755454	Freehold
Lot 58 DP755454	Freehold

Lot and Deposited Plan Number	Tenure Type
Lot 6 DP878678	Freehold
Lot 60 DP755442	Freehold
Lot 61 DP755442	Freehold
Lot 61 DP755454	Freehold
Lot 62 DP755454	Freehold
Lot 7 DP755454	Freehold
Lot 7 DP878678	Freehold
Lot 76 DP755454	Freehold
Lot 8 DP755454	Freehold
Lot 82 DP755454	Freehold
Lot 85 DP755454	Freehold
Lot 86 DP755454	Freehold
Lot 90 DP755454	Freehold
Lot 91 DP755454	Freehold
Lot 92 DP755454	Freehold
Lot 93 DP755442	Freehold
Lot 93 DP755454	Freehold
Lot 95 DP755442	Freehold
Lot 96 DP755454	Freehold
Lot 97 DP755454	Freehold
Lot 99 DP755454	Freehold
Pt Lot 3 DP115031	Freehold
Lot 91 DP755442	Freehold
Lot 242 DP755442	Freehold
Pt Lot 7 DP755442	Freehold
Lot 95 DP755454	Freehold
Lot 79 DP755454	Freehold
Pt Lot 6 DP206588	Freehold
Pt Lot 68 DP755454	Freehold
Pt Lot 4 DP206588	Freehold
Pt Lot 7010 DP1025345	Crown
Lot 54 DP755454	Freehold
Pt Lot 92 DP755442	Freehold
Pt Lot 67 DP755454	Freehold
Lot 28 DP755454	Freehold
Lot 80 DP755454	Freehold
Lot 65 DP755454	Freehold
Lot 277 DP755442	Freehold
Pt Lot 2 DP206588	Freehold
Lot 77 DP755454	Freehold
Pt Lot 5 DP206588	Freehold
Lot 120 DP724656	Freehold
Lot 117 DP705226	Freehold

Lot and Deposited Plan Number	Tenure Type
Pt Lot 12 DP755454	Freehold
Lot 78 DP755454	Freehold
Pt Lot 3 DP206588	Freehold
Pt Lot 52 DP755454	Freehold
Lot 40 DP755454	Freehold
Lot 38 DP755454	Freehold
Lot 253 DP755442	Freehold
Lot 71 DP755454	Freehold
Lot 63 DP755454	Freehold
Lot 272 DP755442	Freehold
Lot 74 DP755454	Freehold
Lot 75 DP755454	Freehold
Pt Lot 69 DP755454	Freehold
Pt Lot 122 DP724655	Freehold
Lot 118 DP724657	Freehold
Lot 106 DP755454	Freehold
Lot 29 DP755454	Freehold
Pt Lot 59 DP755454	Freehold
Pt Lot 1 DP1089166	Freehold
Lot 50 DP755454	Freehold
Lot 30 DP755454	Freehold
Pt Lot 1 DP1099037	Freehold
Pt Lot 7 DP206588	Freehold
Lot 116 DP705226	Crown
Lot 179 DP755442	Freehold
Lot 121 DP724656	Crown
Lot 119 DP724657	Crown
Pt Lot 123 DP724655	Crown
Lot 43 DP755454	Crown
Lot 44 DP755454	Crown
Lot 1 DP722881	Freehold
Lot 178 DP755442	Freehold
Lot 2 DP722882	Freehold
Lot 3 DP722882	Freehold
Lot 13 DP1152406	Freehold
Lot 17 DP1140073	Freehold
Lot 16 DP1140073	Freehold
Pt Lot 18 DP1140073	Freehold
Lot 20 DP1140073	Freehold
Pt Lot 1 DP1214133	Freehold
Pt Lot 3 DP1214133	Freehold
Lot 1 DP1016396	Freehold
Lot and Deposited Plan Number	**Tenure Type**
Other Land	

Lot and Deposited Plan Number	Tenure Type
Roads located between or adjacent to the above parcels of land	Council and Crown
Creeks or streams located between or adjacent to the above parcels of land	Crown
Sandy Hollow – Gulgong Railway	State Rail Authority

APPENDIX 2
GENERAL LAYOUT OF PROJECT

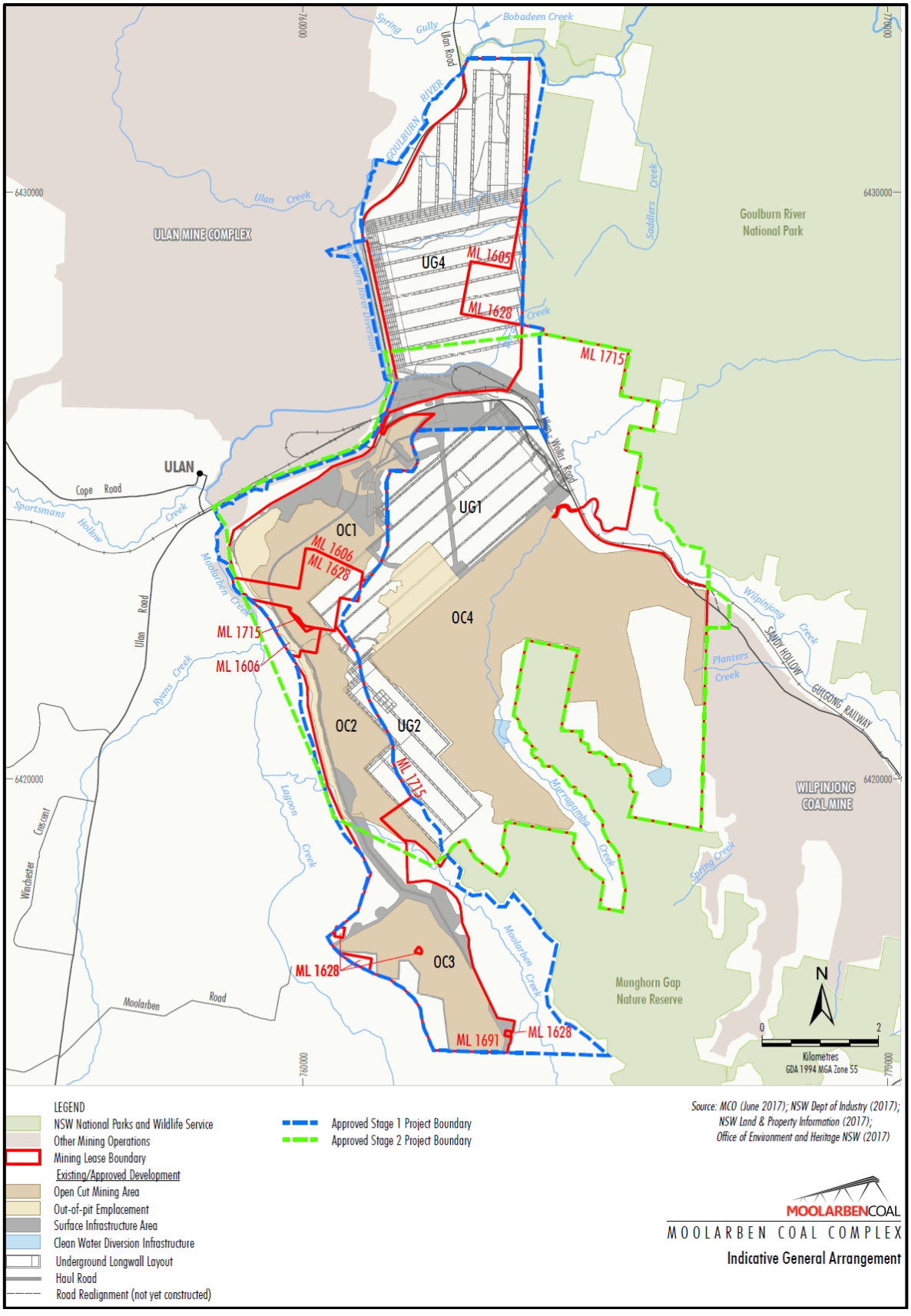


Figure 2.1: General Project Arrangement

APPENDIX 3
STATEMENT OF COMMITMENTS

Ref	Commitment
	Mining Operations
1.	MCM will operate the Stage 1 and Stage 2 projects as a combined mining complex (the MCC) to extract up to 24 Mtpa of ROM coal comprising: • 16 Mtpa from combined open cut operations (with up to 10 Mtpa derived from Stage 1 OCs and up to 16 Mtpa from Stage 2 OC); and • up to 8 Mtpa from underground operations, until 31 December 2038, generally in accordance with the EA.
2.	MCM will ensure that open cut plant and equipment meet the sound power levels described in the noise impact assessment for the project, including specifying sound power levels and factory fitting of attenuation kits in relevant plant and equipment purchase contracts.
3.	MCM will obtain all necessary licences and approvals required to operate the Stage 2 project, generally in accordance with the Stage 2 EA and PPR.
	Environmental Management
4.	MCM will revise the Stage 1 Environmental Management System to incorporate the MCC Stage 2 project in consultation with relevant regulators and stakeholders (where appropriate). This may require revision or preparation of monitoring and management plans as prescribed by the Project Approval, such as (where relevant): • Environmental Monitoring Program; • Air Quality and Greenhouse Gas Management Plan (including energy savings actions); • Spontaneous Combustion Management Plan; • Noise Management Plan; • Blast Management Plan; • Water Management Plan (including groundwater and surface water); • Creek and Aquatic Rehabilitation Plan; • Rehabilitation Management Plan; • Biodiversity Management Plan; • Subsidence Management Plan; • Aboriginal Cultural Heritage Management Plan; • Non Aboriginal Heritage Management Plan; • Erosion and Sediment Control Plan; • Social Engagement and Issue Response Strategy; • Bushfire Management Plan; and • Waste Management Plan. (Note where applicable or appropriate some of these plans may be combined).
	Air Quality
5.	MCM will use its best endeavours to implement industry best practice air quality management initiatives to minimise the air quality impacts of the MCC.
6.	The revised MCC Air Quality Management Plan (and future variations) will include a validation exercise of the real time response triggers.

Ref	Commitment
7.	MCM will complete a review of particulate emission controls implemented at the MCC against industry best practice on a three yearly basis and report the findings in the relevant Annual Review.
8.	MCM will develop and implement meteorological criteria to help ensure that blasting is not undertaken under unfavourable wind and/or atmospheric conditions which would result in an exceedance of relevant criteria.
9.	Where air quality impacts are predicted to exceed criteria at private residences in the PPR due to MCC operations, MCM will install a first flush system to the rain water tanks upon written request of the landholder.
Greenhouse Gas	
10.	MCM will undertake regular revision of energy efficiency initiatives to ensure that Scope 1 greenhouse gas emissions per tonne of product coal are kept to the minimum practicable level.
Noise and Blasting	
11.	MCM will use its best endeavours to implement industry best practice noise control and management measures to minimise the noise impacts of the MCC.
12.	MCM will proactively manage its operations to ensure noise impacts are within the worst case predicted noise envelope.
13.	MCM will ensure noise monitoring is implemented to determine and manage the contribution to cumulative mine noise from the MCC at Property 258, including implementing at least quarterly attended noise monitoring and installing a directional noise monitor in the vicinity of the property in conjunction with the Ulan Mine, unless monitoring indicates there is no noise impact from the MCC at this property.
14.	MCM will work cooperatively with neighbouring mines to develop a blast monitoring system which is representative of the closest sensitive receivers to ensure compliance with the relevant blast criteria.
15.	The sound power of the conveyor used in the NIA will be provided to equipment manufacturers and suppliers to help ensure that the conveyor is maintained at these levels during operations
16.	MCM will continue to advise neighbours of blasting schedules upon request so that any concerns regarding blasting and impacts to pets and livestock can be managed by neighbours.
Water Resources	
17.	MCM will implement the water management and mitigation measures described in the PPR and subsequent supporting documents.
18.	MCM will continue to monitor groundwater impacts on surrounding privately owned bores. In the event that it is demonstrated that water levels in existing landholder bores decline as a consequence of the MCC, leading to an adverse impact on groundwater supply, MCM will: • engage an appropriately qualified and experienced hydrogeologist to investigate the cause of the impact and recommend an appropriate action response plan; and • provide an alternate interim water supply or commensurate compensation as agreed to with the landholder.
19.	MCM will develop a surface water monitoring program to quantify the streamflow and water quality characteristics within Murragamba and Eastern Creeks for existing conditions prior to mining of the creek lines.
20.	MCM will manage rainfall run-off from MCC mine disturbed areas to prevent contamination of downstream water sources from sediment laden water, unless otherwise approved under a relevant Environment Protection Licence.

Ref	Commitment
21.	MCM will develop a six monthly water balance for MCC operations to assist in site water management and monitoring protocols. This will be reviewed on a regular basis to account for changing mine water inflows and water management infrastructure as mining progresses. The frequency of this review will be revised after Year 3 of Stage 2 operations to the approval of relevant regulators.
22.	Collated groundwater monitoring data will be reviewed annually to assess the impacts of the MCC on the groundwater environment and to compare observed impacts with those predicted from groundwater modelling.
23.	The groundwater monitoring program will be revised to include additional piezometers in alluvial areas, including palaeochannel areas, potentially affected by the MCC.
24.	A groundwater modelling post-audit and model re-calibration (where required) will be carried out 2 years (and 5 yearly thereafter) after commencing Stage 2 coal extraction. Should any groundwater review or post-audit indicate a significant variance from the model predictions, an appropriate response will be implemented in consultation with NOW and DP&I.
25.	MCM will acquire relevant licences under the *Water Act 1912* and *Water Management Act 2000* as required (or implement other such ameliorative measures as agreed with relevant regulators, such as return flows or other such reasonable and feasible mitigation measures to reduce the total direct and indirect water take of the MCC from alluvial and connected surface water sources).
26.	MCM will endeavour to implement an integrated monitoring program for the MCC, with UCML and Wilpinjong Coal Mine for data-sharing.
27.	MCM commits to realign and reconstruct the mined sections of Murragamba and Eastern creeks to meet geomorphological, hydraulical and ecological performance and completion criteria developed in consultation with relevant regulators.
28.	MCM will develop operational criteria for the realigned sections of Murragamba and Eastern creeks in consultation with relevant regulators and install diversions around the realigned sections of creek until such time as they become operational.
Ecology	
29.	MCM will implement the ecological management and mitigation measures described in the PPR and subsequent supporting documents.
30.	MCM will establish the Biodiversity Offset Strategy as described in the PPR and subsequent supporting documents to initially maintain and ultimately improve ecological values. Where ownership or the controlling interest of any proposed offset property is not able to be held by MCM it will either provide an alternate property of equal biodiversity value as a replacement, or make other such alternate arrangements as agreed to with relevant regulators. Management of offset properties for conservation purposes will be described in a Rehabilitation Offset Management Plan (or equivalent).
31.	MCM will implement appropriate security mechanisms to ensure that offset areas and rehabilitated areas (at the completion on mining) are protected in the long-term.
32.	MCM will continue to consult with OEH on the inclusion of relevant Moolarben owned properties into the existing Avisford Nature Reserve.
Aboriginal Archaeology and Cultural Heritage	
33.	The salvage and the protection of all known Aboriginal objects within the Project Boundary will be managed in accordance with the measures described in the PPR, subsequent supporting documents and an approved Aboriginal Cultural Heritage Management Plan for the MCC which has been prepared

Ref	Commitment
	in consultation with local Aboriginal community stakeholders and the OEH. Prior to finalisation and approval of the Aboriginal Cultural Heritage Management Plan, the description of significance, development area, potential impacts, management strategies and current management status for all sites in the Stage 2 area will be reviewed by a suitably experienced and qualified archaeologist.
34.	Unsurveyed areas such as the Powers Management Area will be assessed and managed in accordance with the procedures agreed to with local Aboriginal community stakeholders and approved in the Aboriginal Cultural Heritage Management Plan for the MCC.
35.	MCM will manage the Aboriginal conservation zones as outlined in the PPR and subsequent supporting documents in consultation with local Aboriginal community stakeholders.
Rehabilitation	
36.	MCM will rehabilitate the Stage 2 project area to restore forest and woodland across the valley landscape, including rehabilitating 631 ha of currently degraded secondary grasslands. Areas of derived native grassland, secondary grassland and exotic grassland will be rehabilitated to treed landscapes.
37.	MCM will implement best practice environmental management to progressively rehabilitate mined and degraded non-mined areas with a focus on the re-establishment of C/EEC Box Gum Woodland and threatened species habitat.
38.	The gradients of final landform slopes will be generally designed to be no more than 10 to 14 degrees. However, where the out-of-pit (OOP) emplacement area is spatially constrained the final gradients of these slopes will be limited to a maximum of 20 degrees, provided it is agreed to by the relevant regulators.
Traffic and Transport	
39.	Early morning and evening shift changes will be outside school bus service times, and where feasible will be offset from existing Ulan and Wilpinjong mine shift changes over time to minimise peak traffic loads on the road network.
40.	MCM will work with MRWC and Ulan and Wilpinjong coal mines to generally improve road safety and traffic management on the local road network.
Visual	
41.	Rehabilitation will be carried out on disturbed areas as soon as practical after disturbance with emphasis on bunding and the OOP emplacement area.
42.	Infrastructure lighting will be designed to control light spill with directional lighting in elevated and exposed areas and will utilise low intensity lights to the level necessary for operational and safety requirements to minimise adverse night lighting impacts.

Community	
43.	MCM will provide fair and reasonable community enhancement contributions for Stage 2 of the MCC to MWRC, which will augment the existing VPA for Stage 1.
44.	MCM will consult with the community, neighbouring industry and government authorities in relation to the MCC.
45.	MCM will employ appropriately qualified persons residing in the MWRC area where feasible. MCM will also provide traineeships for young people residing in the MWRC area.
Reporting	
46.	MCM will prepare an Annual Review (which summarises monitoring results and reviews performance) and distribute it to the relevant regulatory authorities and the MCM CCC.

APPENDIX 4
UNDERGROUND MINE LAYOUT AND LOCATION OF SENSITIVE NATURAL AND MAN MADE FEATURES

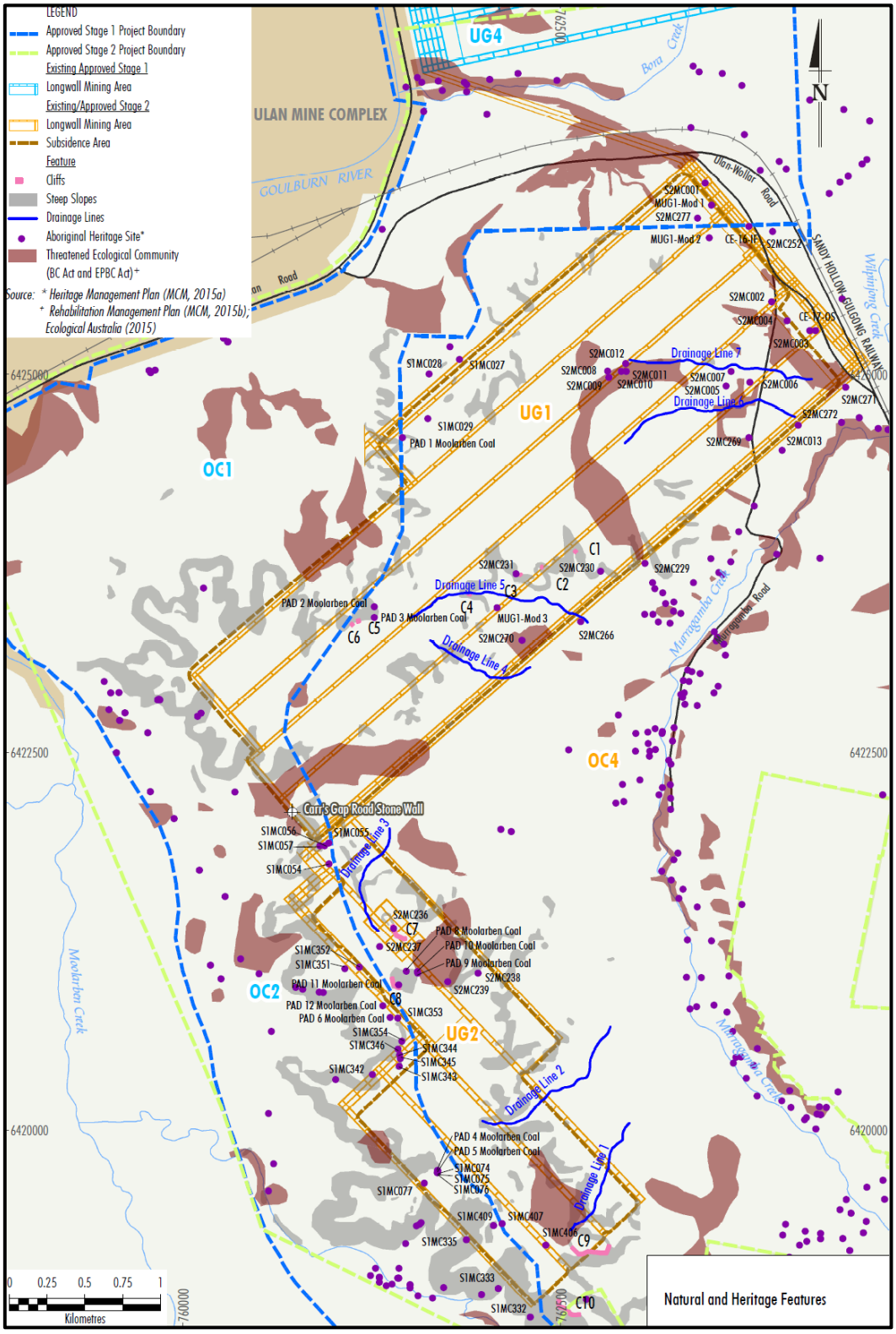


Figure 4.1: Natural and Heritage Features

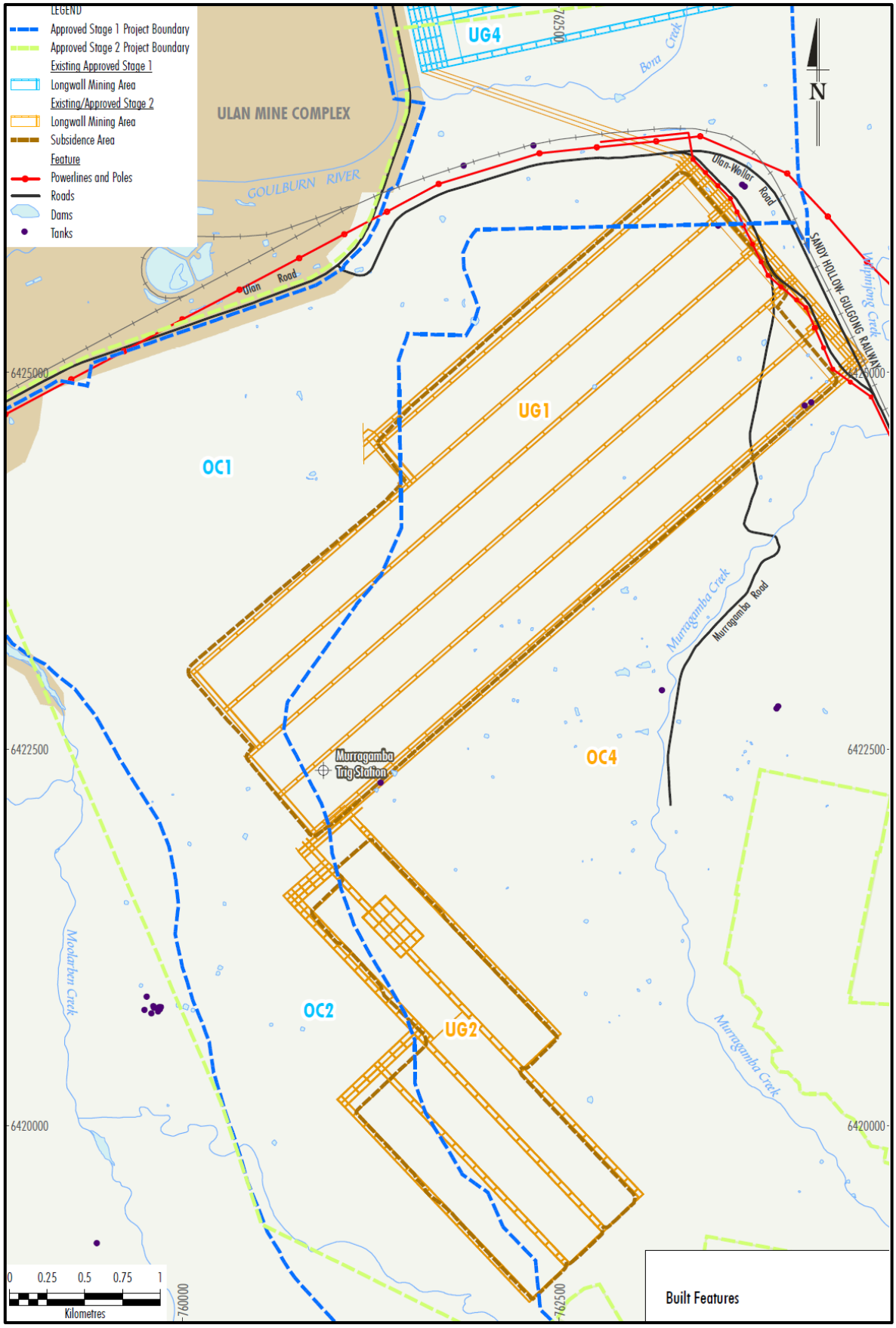


Figure 4.2: Built Features

APPENDIX 5
PROPERTY NUMBERS AND LAND OWNERSHIP

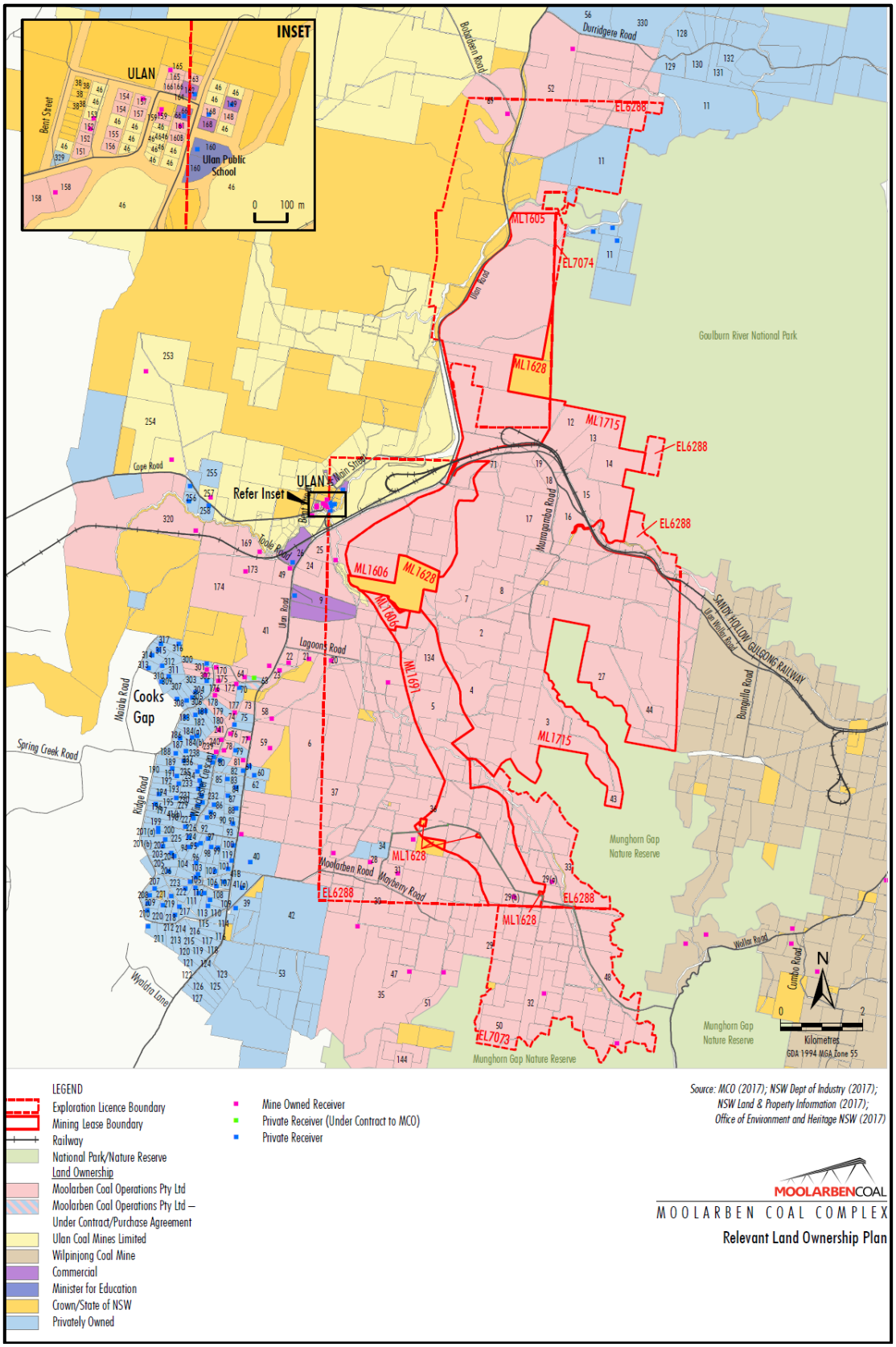


Figure 5.1 Relevant Land Ownership

Ref No	Landholder
1-8	Moolarben Coal Operations Pty Ltd
9	Orica Australia Pty Limited
10	Moolarben Coal Operations Pty Ltd
11	JE Mullins & CD Imrie
12-25	Moolarben Coal Operations Pty Ltd
26	Forty North Pty Limited
27-33	Moolarben Coal Operations Pty Ltd
34	T Rheinberger
35-37	Moolarben Coal Operations Pty Ltd
38	The State of New South Wales
39	RM & DJ Sprigg
40	JM Devenish
41	Moolarben Coal Operations Pty Ltd
41(a&b)	PP Libertis
42	C & L Schmidt
43-44	Moolarben Coal Operations Pty Ltd
45	Advance Energy
46	Ulan Coal Mines Limited
46(b)	North-Eastern Wiradjuri Wilpinjong Community Fund Limited
47-52	Moolarben Coal Operations Pty Ltd
53	WD & MS Bryant
54	MA & C Harris
56	V Cundy
58-59	Moolarben Coal Operations Pty Ltd
60	CL Rayner & DM Mundey
61	MA Miller
62	R Menchin
63	BF & B Whiticker
64	Moolarben Coal Operations Pty Ltd
66	Rostheme Pty Limited
69	Moolarben Coal Operations Pty Ltd
70	DJ & A Coventry
71	Moolarben Coal Operations Pty Ltd
73-74	Moolarben Coal Operations Pty Ltd
75	P Ban
76-78	Moolarben Coal Operations Pty Ltd
79	PTJ & SE Nagle
80	W & D Sebelic
81	Moolarben Coal Operations Pty Ltd
82	SC Hungerford & MC Clemens
83	DS Sebelic
85	J & Z Nikolovski
86	NW Harris
87	BJ & K Howe
88	BC Meyers
89	MV & HM Glover & E & BJ Tomlinson
90	SA Powell
91	HM Graham
92	VA Pullicino & J, S & G Bonnici
93	F & M Fenech
94	LK Mittemayer
95	BJ Withington
96	D Lazicic
97	DJ & MD Smith
98	ME & JJ Piper
99	DE Jenner & WB Jensen
100	W Ellem
101	RD & DMZ Hull

Ref No	Landholder
101(a)	PJ Kearns
102	KA Roberts
103	SB Burnett & SL Grant
104	RA & LA Deeben
105	DJ & N Katsikaris
106	TB & JH Reid
107	ZJ & M & AA Raso
108	R Varga
109	DA Evans
110	JT Thompson & HT Evans
111	GJ & NJ McEwan
112	MJ & LM Croft
113	CPG Ratcliff
114	TF & K Holland
115	PR McLean
116	DJ & SM Reid
117	JM Dick
118	A Scott
119	PJ Kearns
120	PS & DR Ord
121	EJ Cullen
122	WF Wirth
123	G Tuck-Lee & Symons
124	WJ & HE Bailey
125	DB McBride
126	MP Julian
127	BKT & SA Bracken
128	AW Sims
129	M Yelds
130	GP McEwen
131	GR & RA King
132	N Atkins
134	Moolarben Coal Operations Pty Ltd
144	Moolarben Coal Operations Pty Ltd
148	Moolarben Coal Operations Pty Ltd
149	Mid-Western Regional Council
151-152	Moolarben Coal Operations Pty Ltd
153	Ulan Coal Mine Limited
154-159	Moolarben Coal Operations Pty Ltd
160	Minister For Education And Training
160(b)	Moolarben Coal Operations Pty Ltd
161	Moolarben Coal Operations Pty Ltd
162	Rowmint Pty Limited
163-166	Moolarben Coal Operations Pty Ltd
168	PJL Constructions Pty Limited
169-170	Moolarben Coal Operations Pty Ltd
171	AD & SA McGregor
172-177	Moolarben Coal Operations Pty Ltd
178	PR Stone
180	CD & LL Barrett
181	SM Forster
182	J Dutoitcook
183	R & EA Steines
184(a&b)	LA Stevenson
186	RW & IJ Adamson
187	BT & KM Feeney
188	KR & T Fielding
189	GA Fay

Ref No	Landholder
190	T & LK Sahyoun
191	BW & TS Lasham
192	D Williams
193	DJ Moloney
194	PM & K Potts
195	R Cottam
196	F Saxberg & M Weir
197	PGG & I Neilsen
198	GR & ME Metcalfe
199	PGG & I Nielsen
200	VK Grimshaw
201	KR & GM Towerton
202	H & VF Butler
203	DJ Miller
204	RB & JE Donnan
205	DW Sparrow & M Tallan
206	CA Marshall & R Vella
207	AA & DM Smith
208	SA & CR Hasaart
209	F Mawson
210	JM & AM Tebutt
211	SA McGregor & WJ Gray
212	E & M Lepik
213	D & J Parsonage
214	RK & EG O'Neil
215	SG & PM Green
216	G Holland & FA Handicott
217	GF & GEL Soady
219	T & S Riger
220	SJ Rusten & NJ Smith
221	The State of New South Wales
222	BJ Purtell
223	EW Palmer & JM Stewart
224	RS & PCC Dupond
225	G & RF Doualetas
226	LAA & FC Muscat
227	WP & JA Hughes
229	JJ & BA Lowe
230	DA Hoole & DT Rawlinson
231	T Morrison & SM Benny
232	L & JA Haaring
233	K & D Boal
234	D & L Gaw
235	LM & RS Wilson
236	RG & CA Donovan
237	B & S Stokes
238	B Powell
239-241	Moolarben Coal Operations Pty Ltd
244	JT & YR Jones
245	MP & KLE Cresham
247	J & K Batshon
248	G Boustani
249	CJ & JI Eldridge
251	NF Potter & CE Selley
253-254	Ulan Coal Limited
255	HJ & H Schmitz
256	RC Campbell
258	PM & CD Elias

Ref No	Landholder
300	CM Collins & CY Marshall
301-302	Moolarben Coal Operations Pty Ltd
303	HJ Ungaro
304	G Balajan
305	L Barisic & M Aul
306	E Armstrong
307	M Chant & NK Young
308	NA Dower
309	GS Maher
310	KI Death
311	BJ & LC Williamson
312	MS & JJ Ioannou
313	NJ & BDE Pracy
314	SL Ford
315	WJ Richards & BJ Uzelac
316	CR Vassel & CM Williams
317	RJ Hore & V Bingham
320	Moolarben Coal Operations Pty Ltd
325	S & T Fevale
326	AW & LM Murray
327	CA Tanner
328	Essential Energy
329	G Tuck-Lee
330	Nwiran Pty Limited

Table 5.1: Landowners

APPENDIX 6
NOISE COMPLIANCE ASSESSMENT

Applicable Meteorological Conditions

1. The noise criteria in Table 3 of the conditions are to apply under all meteorological conditions except the following:
   (a) wind speeds greater than 3 m/s at 10 metres above ground level; or
   (b) stability category F temperature inversion conditions and wind speeds greater than 2 m/s at 10 m above ground level; or
   (c) stability category G temperature inversion conditions.

Determination of Meteorological Conditions

2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions shall be that recorded by the meteorological station located on the site.

Compliance Monitoring

3. Attended monitoring is to be used to evaluate compliance with the relevant conditions of this consent.

4. This monitoring must be carried out at least 12 times a year, unless the Secretary directs otherwise.

5. Unless the Secretary agrees otherwise, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the *NSW Noise Policy for Industry* (as amended from time to time), in particular the requirements relating to:
   (d) monitoring locations for the collection of representative noise data;
   (e) meteorological conditions during which collection of noise data is not appropriate;
   (f) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and
   (g) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.

APPENDIX 7
BIODIVERSITY OFFSET STRATEGY

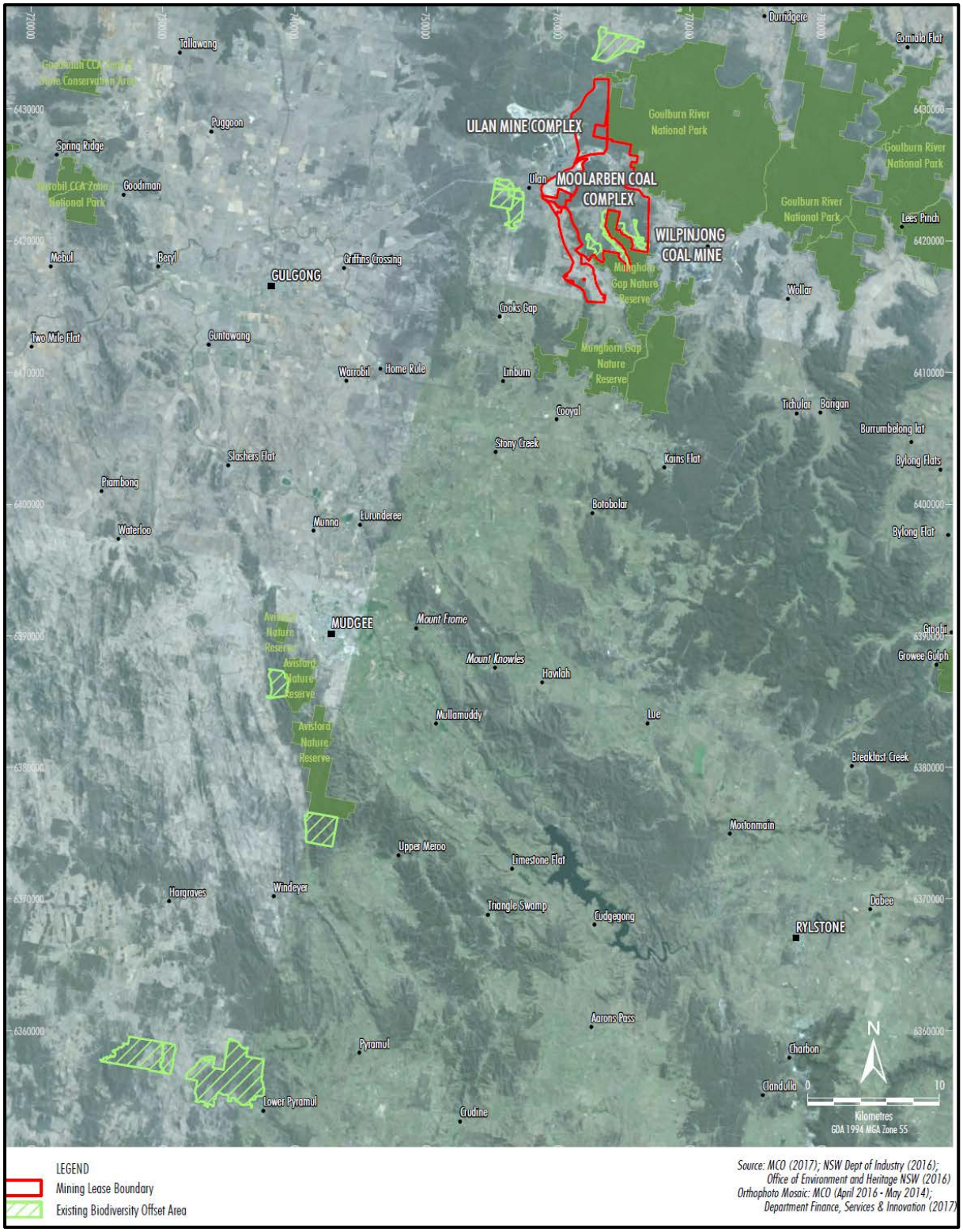


Figure 7.1 Stage 2 Biodiversity Offset Areas

Table 7.1

MOOLARBEN STAGE 2
ACTUAL & POTENTAL THREATENED FAUNA SPECIES LIST

#	Common Name	Scientific Name	TSC	EPBC
	MAMMALS			
1	Yellow-bellied Sheath-tail Bat	*Sccolaimus flaviventris*	V	
2	Large-eared Pied Bat	*Chalinolobus dwyeri*	V	V
3	Little Pied Bat	*Chalinolobus picatus*	V	
4	Eastern Bent-wing Bat	*Miniopterus orinae/schreibersii*	V	
5	Greater Long-eared Bat	*Nyctophilus timoriensis*	V	V
6	Squirrel Glider	*Petaurus norfolcensis*	V	
7	Eastern Pygmy-possum	*Cercartetus nanus*	V	
8	Spotted-tailed Quoll	*Dasyurus maculatus*	E	E
9	Eastern-false Pipistrelle	*Falsistrellus tasmaniensis*	V	
10	Eastern Freetail Bat	*Mormopterus norfolkensis*	V	
11	Yellow-bellied Glider	*Petaurus australis*	V	
12	Koala	*Phascolarctos cinereus*	V	
13	Grey-headed Flying-fox	*Pteropus poliocephalus*	V	V
14	Greater Broad-nosed Bat	*Scoteanax rueppellii*	V	
15	Eastern Cave Bat	*Vespadelus troughtoni*	V	
	BIRDS			
16	Square-tailed Kite	*Lophoicinia isua*	V	
17	Glossy Black Cockatoo	*Calyptorhynchus lathami*	V	
18	Gang Gang Cockatoo	*Callocephalon fimbriatum*	V	
19	Powerful Owl	*Ninox strenua*	V	
20	White-throated Needletail	*Hirundapus caudacutus*		M
21	Rainbow Bee-eater	*Merops ornatus*		M
22	Brown Treecreeper	*Climacteris picumnus*	V	
23	Speckled Warbler	*Chthinicola sagittata*	V	
24	Black-chinned Honeyeater	*Melithreptus gularis*	V	
25	Painted Honeyeater	*Grantiella picta*	V	
26	Grey-crowned Babbler	*Pomatostomus temporalis*	V	
27	Hooded Robin	*Melanodryas cucullata*	V	
28	Gilbert's Whistler	*Pachycephala inornata*	V	
29	Rufous Fantail	*Rhipidura fuliginosa*		M
30	Satin Flycatcher	*Myiagra cyanoleuca*		M
31	Diamond Firetail	*Stagonopleura guttata*	V	
32	Swift Parrot	*Lathamus discolor*	E	E, M
33	Little Eagle	*Hieraaetus morphnoides*	V	
34	Cattle Egret	*Ardea ibis*		M
35	Varied Sittella	*Daphoenositta chrysoptera*	V	
36	Little Lorikeet	*Glossopsitta pusilla*	V	
37	White-fronted Chat	*Epthianura albifrons*	V	
38	Scarlet Robin	*Petroica boodang*	V	
39	Spotted Harrier	*Circus assimilis*	V	
40	Bush Stone Curlew	*Burhinus grallarius*	E	
41	Turquoise Parrot	*Neophema pulchella*	V	
42	Barking Owl	*Ninox connivens*	V	
43	Masked Owl	*Tyto novaehollandiae*	V	V
44	Regent Honeyeater	*Xanthomyza Phrygia*	CE	E, M
45	Superb Parrot	*Polytelis swainsonii*	V	V
46	Flame Robin	*Petroica phoenicea*	V	

APPENDIX 8
ABORIGINAL HERITAGE

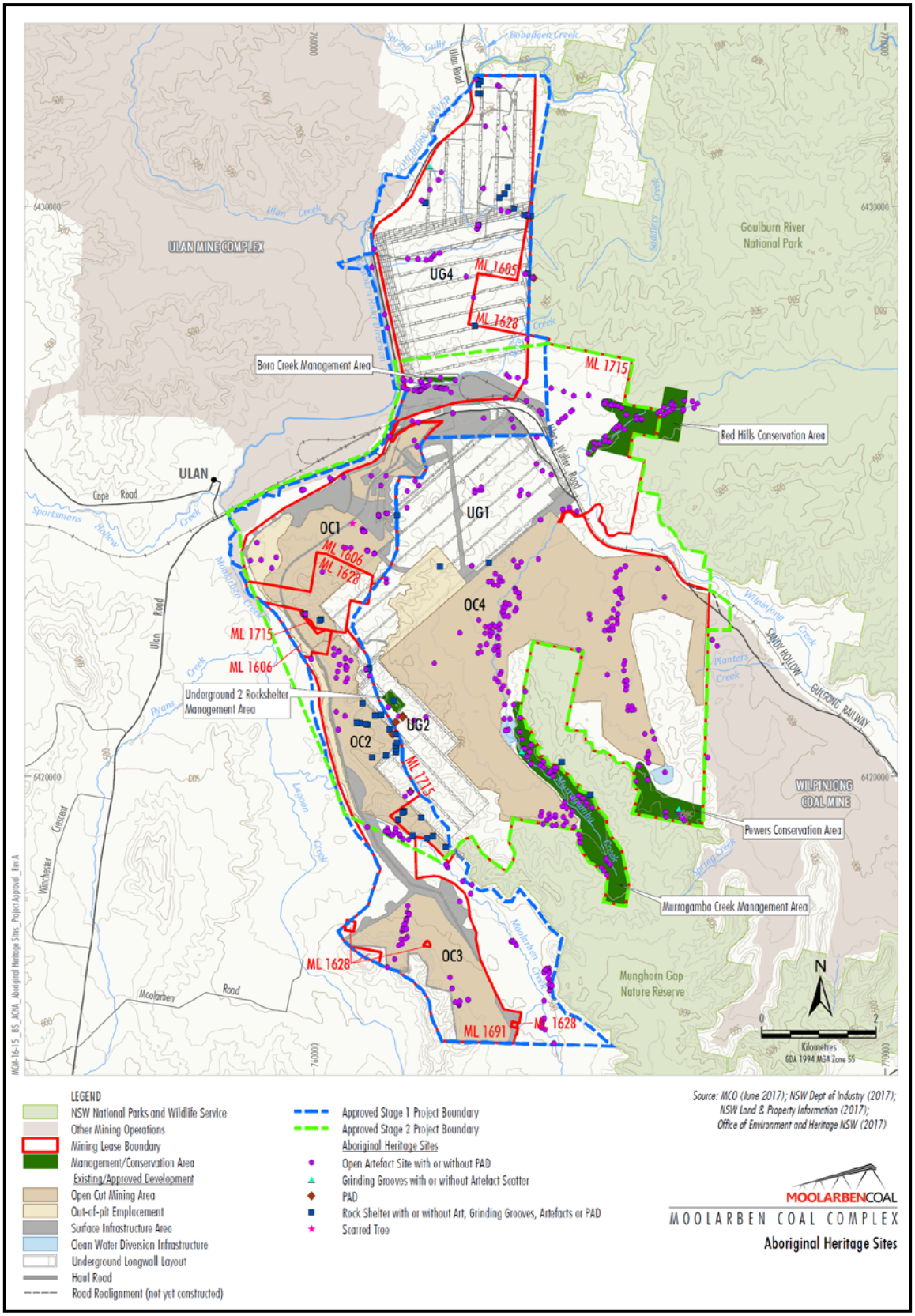


Figure 8.1 Aboriginal Cultural Heritage Sites

Table 8.1 Aboriginal Cultural Heritage Sites

AHIMS	Site Name	Site Type	AHIMS	Site Name	Site Type
36-3-0691	CE-15-IF	Isolated Find	36-3-2621	S1MC339	Rock shelter with PAD
36-3-0237	MC11	Open Artefact Site	36-3-2622	S1MC340	Rock shelter with PAD
36-3-0223	MC2	Open Artefact Site	36-3-2623	S1MC341	Rock shelter with PAD
36-3-0241	MC4	Open Artefact Site	36-3-2624	S1MC342	Rock shelter with PAD
36-3-0240	MC6	Artefact Scatter	36-3-2625	S1MC343	Rock shelter with PAD
36-3-0337	MC7	Open Artefact Site	36-3-2626	S1MC344	Rock shelter with artefacts
36-3-0239	MC8	Open Artefact Site	36-3-2627	S1MC345	Rock shelter with PAD
36-3-0222	Moolarben Creek MC1	Artefact Scatter	36-3-2628	S1MC346	Rock shelter with PAD
36-3-3144	MUG1-Mod 1	Isolated Find	36-3-2629	S1MC347	Rock shelter with PAD
36-3-0837	PAD 1 Moolarben Coal	Rock Shelter and PAD	36-3-2630	S1MC348	Rock shelter with PAD
36-3-0956	PAD 10 Moolarben Coal	PAD	36-3-2631	S1MC349	Rock shelter with PAD
36-3-0957	PAD 11 Moolarben Coal	PAD	36-3-2632	S1MC350	Rock shelter with PAD
36-3-0958	PAD 12 Moolarben Coal	PAD and Rockshelter	36-3-2633	S1MC351	Rock shelter with PAD
36-3-0838	PAD 2 Moolarben Coal	Artefact Scatter and PAD	36-3-2634	S1MC352	Rock shelter with PAD
36-3-0839	PAD 3 Moolarben Coal	Artefact Scatter and PAD	36-3-2635	S1MC353	Rock shelter with PAD
36-3-0883	PAD 4 Moolarben Coal	PAD	36-3-2636	S1MC354	Rock shelter with PAD
36-3-0884	PAD 5 Moolarben Coal	PAD	36-3-2660	S1MC355	Artefact Scatter
36-3-0885	PAD 6 Moolarben Coal	PAD	36-3-2661	S1MC356	Isolated Find
36-3-0113	PAD 7 Moolarben Coal	PAD	36-3-2662	S1MC357	Artefact Scatter
36-3-0954	PAD 8 Moolarben Coal	Artefact Scatter and PAD	36-3-1150	S2MC001	Isolated Find
36-3-0955	PAD 9 Moolarben Coal	PAD	36-3-1151	S2MC002	Isolated Find
36-3-0798	S1MC001	Scarred Tree	36-3-1152	S2MC003	Artefact Scatter
36-3-0799	S1MC002	Artefact Scatter	36-3-1153	S2MC004	Isolated Find
36-3-0800	S1MC003	Isolated Find	36-3-1154	S2MC005	Artefact Scatter
36-3-0801	S1MC004	Isolated Find	36-3-1155	S2MC006	Artefact Scatter
36-3-0802	S1MC005	Artefact Scatter	36-3-1156	S2MC007	Isolated Find
36-3-0803	S1MC006	Isolated Find	36-3-1157	S2MC008	Isolated Find
36-3-0804	S1MC007	Isolated Find	36-3-1158	S2MC009	Isolated Find
36-3-0805	S1MC008	Isolated Find	36-3-1159	S2MC010	Artefact Scatter
36-3-0806	S1MC009	Isolated Find	36-3-1160	S2MC011	Isolated Find
36-3-0807	S1MC010	Isolated Find	36-3-1161	S2MC012	Isolated Find
36-3-0808	S1MC011	Artefact Scatter	36-3-1162	S2MC013	Isolated Find
36-3-0809	S1MC012	Isolated Find	36-3-1163	S2MC014	Artefact Scatter
36-3-0810	S1MC013	Isolated Find	36-3-1164	S2MC015	Artefact Scatter
36-3-0811	S1MC014	Isolated Find	36-3-1165	S2MC016	Artefact Scatter
36-3-0812	S1MC015	Isolated Find	36-3-1166	S2MC017	Artefact Scatter
36-3-0813	S1MC016	Isolated Find	36-3-1167	S2MC018	Artefact Scatter and PAD
36-3-0814	S1MC017	Isolated Find	36-3-1168	S2MC019	Isolated Find
36-3-0815	S1MC018	Isolated Find	36-3-1169	S2MC020	Artefact Scatter
36-3-0816	S1MC019	Isolated Find	36-3-1170	S2MC021	Isolated Find
36-3-0817	S1MC020	Isolated Find	36-3-1171	S2MC022	Artefact Scatter
36-3-0818	S1MC021	Isolated Find	36-3-1172	S2MC023	Isolated Find
36-3-0819	S1MC022	Isolated Find	36-3-1173	S2MC024	Isolated Find
36-3-0820	S1MC023	Isolated Find	36-3-1174	S2MC025	Isolated Find
36-3-0821	S1MC024	Isolated Find	36-3-0238	S2MC028, MC10	Open Artefact Site
36-3-0822	S1MC025	Isolated Find	36-3-1175	S2MC029	Artefact Scatter

AHIMS	Site Name	Site Type	AHIMS	Site Name	Site Type
36-3-0823	S1MC026	Isolated Find	36-3-1176	S2MC030	Artefact Scatter
36-3-0824	S1MC027	Isolated Find	36-3-1177	S2MC031	Isolated Find
36-3-0825	S1MC028	Isolated Find	36-3-1178	S2MC032	Artefact Scatter
36-3-0826	S1MC029	Isolated Find	36-3-1179	S2MC033	Artefact Scatter
36-3-0827	S1MC030	Isolated Find	36-3-1180	S2MC034	Isolated Find
36-3-0828	S1MC031	Isolated Find	36-3-1181	S2MC035	Isolated Find
36-3-0829	S1MC032	Isolated Find	36-3-1182	S2MC036	Isolated Find
36-3-0830	S1MC033	Isolated Find	36-3-1183	S2MC037	Isolated Find
36-3-0831	S1MC034	Isolated Find	36-3-1184	S2MC038	Artefact Scatter
36-3-0832	S1MC035	Isolated Find	36-3-1185	S2MC039	Artefact Scatter
36-3-0833	S1MC036	Isolated Find	36-3-1186	S2MC040	Artefact Scatter
36-3-0834	S1MC037	Isolated Find	36-3-1186b	S2MC041	Isolated Find
36-3-0835	S1MC038	Isolated Find	36-3-1187	S2MC042	Artefact Scatter
36-3-0836	S1MC039	Isolated Find	36-3-1188	S2MC043	Artefact Scatter
36-3-0845	S1MC040	Artefact Scatter	36-3-1189	S2MC044	Artefact Scatter
36-3-0846	S1MC041	Isolated Find	36-3-1190	S2MC045	Artefact Scatter
36-3-0847	S1MC042	Isolated Find	36-3-1191	S2MC046	Artefact Scatter
36-3-0848	S1MC043	Artefact Scatter	36-3-1192	S2MC047	Artefact Scatter
36-3-0849	S1MC044	Isolated Find	36-3-1193	S2MC048	Artefact Scatter
36-3-0850	S1MC045	Isolated Find	36-3-1194	S2MC049	Isolated Find
36-3-0851	S1MC046	Isolated Find	36-3-1195	S2MC050	Artefact Scatter
36-3-0852	S1MC047	Isolated Find	36-3-1196	S2MC051	Artefact Scatter
36-3-0853	S1MC048	Isolated Find	36-3-1197	S2MC052	Isolated Find
36-3-0854	S1MC049	Isolated Find	36-3-1198	S2MC053	Artefact Scatter
36-3-0855	S1MC050	Isolated Find	36-3-1199	S2MC054	Artefact Scatter
36-3-0856	S1MC051	Isolated Find	36-3-1200	S2MC055	Artefact Scatter
36-3-0857	S1MC052	Isolated Find	36-3-1201	S2MC056	Artefact Scatter
36-3-0858	S1MC053	Artefact Scatter	36-3-1202	S2MC057	Artefact Scatter
36-3-0859	S1MC054	Artefact Scatter	36-3-1203	S2MC058	Artefact Scatter
36-3-0860	S1MC055	Rock Shelter with Artefacts	36-3-1204	S2MC059	Artefact Scatter
36-3-0861	S1MC056	Rock Shelter with Artefacts	36-3-1206	S2MC059b	Isolated Find
36-3-0862	S1MC057	Artefact Scatter	36-3-1207	S2MC060	Isolated Find
36-3-0863	S1MC058	Artefact Scatter	36-3-1208	S2MC061	Artefact Scatter
36-3-0864	S1MC059	Artefact Scatter	36-3-1209	S2MC062	Artefact Scatter
36-3-0865	S1MC060	Artefact Scatter	36-3-1210	S2MC063	Artefact Scatter
36-3-0866	S1MC061	Isolated Find	36-3-1211	S2MC064	Artefact Scatter
36-3-0867	S1MC062	Isolated Find	36-3-1212	S2MC065	Artefact Scatter
36-3-0868	S1MC063	Isolated Find	36-3-1213	S2MC066	Isolated Find
36-3-0869	S1MC064	Isolated Find	36-3-1214	S2MC067	Artefact Scatter
36-3-0870	S1MC065	Isolated Find	36-3-1215	S2MC068	Isolated Find
36-3-0871	S1MC066	Artefact Scatter	36-3-1216	S2MC069	Isolated Find
36-3-0872	S1MC067	Artefact Scatter	36-3-1217	S2MC070	Artefact Scatter
36-3-0873	S1MC068	Isolated Find	36-3-1218	S2MC071	Artefact Scatter
36-3-0874	S1MC069	Isolated Find	36-3-1219	S2MC072	Artefact Scatter
36-3-0875	S1MC070	Isolated Find	36-3-1220	S2MC073	Isolated Find
36-3-0876	S1MC071	Isolated Find	36-3-2581	S2MC074	Artefact Scatter
36-3-0877	S1MC072	Isolated Find	36-3-1221	S2MC075	Isolated Find
36-3-0878	S1MC073	Isolated Find	36-3-1222	S2MC076	Artefact Scatter
36-3-0879	S1MC074	Isolated Find	36-3-1223	S2MC077	Artefact Scatter
36-3-0880	S1MC075	Isolated Find	36-3-1224	S2MC078	Artefact Scatter
36-3-0881	S1MC076	Isolated Find	36-3-1225	S2MC079	Isolated Find
36-3-0882	S1MC077	Isolated Find	36-3-1226	S2MC080	Artefact Scatter
36-3-0886	S1MC078	Artefact Scatter	36-3-1227	S2MC081	Artefact Scatter
36-3-0887	S1MC079	Isolated Find	36-3-1228	S2MC082	Artefact Scatter
36-3-0888	S1MC080	Isolated Find	36-3-1229	S2MC083	Isolated Find
36-3-0889	S1MC081	Isolated Find	36-3-1230	S2MC084	Isolated Find
36-3-0890	S1MC082	Isolated Find	36-3-1231	S2MC085	Isolated Find
36-3-0891	S1MC083	Isolated Find	36-3-1232	S2MC086	Artefact Scatter
36-3-0892	S1MC084	Artefact Scatter	36-3-1233	S2MC087	Artefact Scatter
36-3-0893	S1MC085	Isolated Find	36-3-1234	S2MC088	Artefact Scatter

AHIMS	Site Name	Site Type	AHIMS	Site Name	Site Type
36-3-0894	S1MC086	Isolated Find	36-3-1235	S2MC089	Artefact Scatter
36-3-0895	S1MC087	Isolated Find	36-3-1236	S2MC090	Isolated Find
36-3-0896	S1MC088	Isolated Find	36-3-1237	S2MC091	Isolated Find
36-3-0897	S1MC089	Isolated Find	36-3-1238	S2MC092	Isolated Find
36-3-0898	S1MC090	Isolated Find	36-3-1239	S2MC093	Artefact Scatter
36-3-0899	S1MC091	Isolated Find	36-3-1240	S2MC094	Isolated Find
36-3-0900	S1MC092	Isolated Find	36-3-1241	S2MC095	Isolated Find
36-3-0901	S1MC093	Isolated Find	36-3-1242	S2MC096	Artefact Scatter
36-3-0902	S1MC094	Artefact Scatter	36-3-1243	S2MC097	Artefact Scatter
36-3-0903	S1MC095	Isolated Find	36-3-1244	S2MC098	Isolated Find
36-3-0904	S1MC096	Isolated Find	36-3-1245	S2MC099	Isolated Find
36-3-0905	S1MC097	Isolated Find	36-3-1246	S2MC100	Artefact Scatter
36-3-0906	S1MC098	Isolated Find	36-3-1247	S2MC101	Artefact Scatter
36-3-0907	S1MC099	Isolated Find	36-3-1248	S2MC102	Isolated Find
36-3-0908	S1MC100	Isolated Find	36-3-1249	S2MC103	Isolated Find
36-3-0909	S1MC101	Isolated Find	36-3-1250	S2MC104	Artefact Scatter
36-3-0910	S1MC102	Artefact Scatter	36-3-1251	S2MC105	Isolated Find
36-3-0912	S1MC103	Artefact Scatter	36-3-1252	S2MC106	Isolated Find
36-3-0911	S1MC103a	Artefact Scatter	36-3-1253	S2MC107	Isolated Find
36-3-0913	S1MC104	Artefact Scatter	36-3-1254	S2MC108	Artefact Scatter
36-3-0914	S1MC105	Isolated Find	36-3-1255	S2MC109	Artefact Scatter
36-3-0915	S1MC106	Isolated Find	36-3-1256	S2MC110	Isolated Find
36-3-0916	S1MC107	Isolated Find	36-3-1257	S2MC111	Artefact Scatter
36-3-0917	S1MC108	Isolated Find	36-3-1258	S2MC112	Artefact Scatter
36-3-0918	S1MC109	Isolated Find	36-3-1259	S2MC113	Isolated Find
36-3-0919	S1MC110	Isolated Find	36-3-1260	S2MC114	Artefact Scatter
36-3-0920	S1MC111	Isolated Find	36-3-1261	S2MC115	Isolated Find
36-3-0921	S1MC112	Isolated Find	36-3-1262	S2MC116	Artefact Scatter
36-3-0922	S1MC113	Isolated Find	36-3-1263	S2MC117	Isolated Find
36-3-0923	S1MC114	Isolated Find	36-3-1264	S2MC118	Isolated Find
36-3-0924	S1MC115	Isolated Find	36-3-1265	S2MC119	Artefact Scatter
36-3-0925	S1MC116	Isolated Find	36-3-1266	S2MC120	Isolated Find
36-3-0926	S1MC117	Isolated Find	36-3-1267	S2MC121	Isolated Find
36-3-0927	S1MC118	Isolated Find	36-3-1268	S2MC122	Artefact Scatter
36-3-0928	S1MC119	Isolated Find	36-3-1269	S2MC123	Artefact Scatter
36-3-0929	S1MC120	Isolated Find	36-3-1270	S2MC124	Artefact Scatter
36-3-0930	S1MC121	Isolated Find	36-3-1271	S2MC125	Artefact Scatter
36-3-0931	S1MC122	Isolated Find	36-3-1272	S2MC126	Artefact Scatter
36-3-0932	S1MC123	Isolated Find	36-3-1273	S2MC127	Isolated Find
36-3-0933	S1MC124	Isolated Find	36-3-1274	S2MC128	Artefact Scatter
36-3-0934	S1MC125	Isolated Find	36-3-1275	S2MC129	Artefact Scatter
36-3-0935	S1MC126	Isolated Find	36-3-1276	S2MC130	Artefact Scatter
36-3-0936	S1MC127	Isolated Find	36-3-1277	S2MC131	Isolated Find
36-3-0937	S1MC128	Isolated Find	36-3-1278	S2MC132	Artefact Scatter
36-3-0938	S1MC129	Isolated Find	36-3-1279	S2MC133	Artefact Scatter
36-3-0939	S1MC130	Artefact Scatter	36-3-1280	S2MC134	Artefact Scatter
36-3-0940	S1MC131	Isolated Find	36-3-1281	S2MC135	Artefact Scatter
36-3-0941	S1MC132	Artefact Scatter	36-3-1282	S2MC136	Isolated Find
36-3-0942	S1MC133	Artefact Scatter	36-3-1283	S2MC137	Isolated Find
36-3-0943	S1MC134	Isolated Find	36-3-1284	S2MC138	Isolated Find
36-3-0944	S1MC135	Artefact Scatter	36-3-1285	S2MC139	Isolated Find
36-3-0945	S1MC136	Artefact Scatter	36-3-1286	S2MC140	Artefact Scatter
36-3-0946	S1MC137	Isolated Find	36-3-1287	S2MC141	Artefact Scatter
36-3-0947	S1MC138	Isolated Find	36-3-1288	S2MC142	Isolated Find
36-3-0948	S1MC139	Artefact Scatter	36-3-1289	S2MC143	Isolated Find
36-3-0949	S1MC140	Artefact Scatter	36-3-1290	S2MC144	Isolated Find
36-3-0950	S1MC141	Isolated Find	36-3-1291	S2MC145	Artefact Scatter
36-3-0951	S1MC142	Artefact Scatter	36-3-1292	S2MC146	Artefact Scatter
36-3-0952	S1MC143	Artefact Scatter	36-3-1293	S2MC147	Isolated Find
36-3-0953	S1MC144	Isolated Find	36-3-1294	S2MC148	Artefact Scatter
36-3-1029	S1MC213	Isolated Find	36-3-1295	S2MC149	Isolated Find
36-3-1041	S1MC225	Isolated Find	36-3-1296	S2MC150	Artefact Scatter

AHIMS	Site Name	Site Type	AHIMS	Site Name	Site Type
36-3-1042	S1MC226	Isolated Find	36-3-1297	S2MC151	Grinding Grooves and Artefact Scatter
36-3-1043	S1MC227	Isolated Find	36-3-1298	S2MC152	Artefact Scatter
36-3-1044	S1MC228	Artefact scatter	36-3-1299	S2MC153	Artefact Scatter
36-3-1045	S1MC229	Isolated Find	36-3-1300	S2MC154	Artefact Scatter
36-3-1046	S1MC230	Artefact Scatter	36-3-1301	S2MC155	Isolated Find
36-3-1047	S1MC231	Isolated Find	36-3-1302	S2MC156	Artefact Scatter
36-3-1048	S1MC232	Isolated Find	36-3-1303	S2MC157	Artefact Scatter
36-3-1049	S1MC233	Artefact Scatter	36-3-1304	S2MC158	Artefact Scatter
36-3-1050	S1MC234	Isolated Find	36-3-1305	S2MC159	Artefact Scatter
36-3-1051	S1MC235	Isolated Find	36-3-1306	S2MC160	Isolated Find
36-3-1052	S1MC236	Artefact Scatter	36-3-1307	S2MC161	Artefact Scatter
36-3-1053	S1MC237	Isolated Find	36-3-1308	S2MC162	Artefact Scatter
36-3-1054	S1MC238	Isolated Find	36-3-1309	S2MC163	Artefact Scatter
36-3-1055	S1MC239	Isolated Find	36-3-1310	S2MC164	Isolated Find
36-3-1056	S1MC240	Artefact Scatter	36-3-1311	S2MC165	Artefact Scatter
36-3-1057	S1MC241	Artefact Scatter	36-3-1312	S2MC166	Isolated Find
36-3-1058	S1MC242	Isolated Find	36-3-1313	S2MC167	Isolated Find
36-3-1059	S1MC243	Isolated Find	36-3-1314	S2MC168	Artefact Scatter
36-3-1060	S1MC244	Artefact Scatter	36-3-1315	S2MC169	Isolated Find
36-3-1113	S1MC244a	Artefact Scatter	36-3-1316	S2MC170	Artefact Scatter
36-3-1061	S1MC245	Isolated Find	36-3-1317	S2MC171	Artefact Scatter
36-3-1062	S1MC246	Isolated Find	36-3-1318	S2MC172	Artefact Scatter
36-3-1063	S1MC247	Isolated Find	36-3-1319	S2MC173	Isolated Find
36-3-1064	S1MC248	Isolated Find	36-3-1320	S2MC174	Isolated Find
36-3-1065	S1MC249	Isolated Find	36-3-1321	S2MC175	Isolated Find
36-3-1066	S1MC250	Isolated Find	36-3-1322	S2MC176	Artefact Scatter
36-3-1067	S1MC252	Isolated Find	36-3-1323	S2MC177	Artefact Scatter
36-3-1068	S1MC253	Isolated Find	36-3-1324	S2MC178	Artefact Scatter
36-3-1069	S1MC254	Artefact Scatter	36-3-1325	S2MC179	Artefact Scatter
36-3-1070	S1MC255	Artefact Scatter and PAD	36-3-1326	S2MC180	Artefact Scatter
36-3-1071	S1MC256	Artefact Scatter	36-3-1327	S2MC181	Artefact Scatter
36-3-1072	S1MC257	Artefact Scatter	36-3-1328	S2MC182	Isolated Find
36-3-1073	S1MC258	Artefact Scatter	36-3-1329	S2MC183	Artefact Scatter
36-3-1074	S1MC259	Isolated Find	36-3-1330	S2MC184	Isolated Find
36-3-1075	S1MC260	Isolated Find	36-3-1331	S2MC185	Isolated Find
36-3-1076	S1MC261	Rock Shelter with Artefacts	36-3-1332	S2MC186	Artefact Scatter
36-3-1077	S1MC262	Isolated Find	36-3-1333	S2MC187	Isolated Find
36-3-1078	S1MC263	Isolated Find	36-3-1334	S2MC188	Artefact Scatter
36-3-1079	S1MC264	Grinding Grooves and Artefact Scatter	36-3-1335	S2MC189	Isolated Find
36-3-1080	S1MC265	Artefact Scatter	36-3-1336	S2MC190	Isolated Find
36-3-1081	S1MC266	Isolated Find	36-3-1337	S2MC191	Artefact Scatter
36-3-1082	S1MC267	Rock Shelter with Artefacts	36-3-1338	S2MC192	Isolated Find
36-3-1083	S1MC268	Isolated Find	36-3-1339	S2MC193	Artefact Scatter
36-3-1084	S1MC269	Isolated Find	36-3-1340	S2MC194	Artefact Scatter
36-3-1085	S1MC270	Isolated Find	36-3-1341	S2MC195	Artefact Scatter
36-3-1086	S1MC271	Rock Shelter with Artefacts	36-3-1342	S2MC196	Artefact Scatter
36-3-1087	S1MC272	Artefact Scatter	36-3-1343	S2MC197	Artefact Scatter
36-3-1088	S1MC273	Isolated Find	36-3-1344	S2MC198	Artefact Scatter
36-3-1089	S1MC274	Isolated Find	36-3-1345	S2MC199	Artefact Scatter
36-3-1090	S1MC275	Isolated Find	36-3-1346	S2MC200	Artefact Scatter
36-3-1091	S1MC276	Isolated Find	36-3-1347, 36-3-1348	S2MC201	Artefact Scatter
36-3-1092	S1MC277	Isolated Find	36-3-1349	S2MC202	Artefact Scatter
36-3-1093	S1MC278	Isolated Find	36-3-1350	S2MC203	Artefact Scatter
36-3-1094	S1MC279	Isolated Find	36-3-1351	S2MC204	Artefact Scatter

AHIMS	Site Name	Site Type	AHIMS	Site Name	Site Type
36-3-0042	S1MC280; Ulan Creek 2	Rock Shelter with Artefacts and Grinding Grooves	36-3-1352	S2MC205	Artefact Scatter
36-3-1095	S1MC281	Artefact Scatter	36-3-1353	S2MC206	Artefact Scatter
36-3-1096	S1MC282	Artefact Scatter	36-3-1354	S2MC207	Artefact Scatter
36-3-0098	S1MC283	Rock Shelter with Artefacts	36-3-1355	S2MC208	Artefact Scatter
36-3-1098	S1MC284	Rock Shelter with Artefacts	36-3-1356	S2MC209	Artefact Scatter
36-3-1099	S1MC285	Rock Shelter with Artefacts	36-3-1357	S2MC210	Artefact Scatter
36-3-1100	S1MC286	Rock Shelter with Artefacts	36-3-1358	S2MC211	Isolated Find
36-3-1101	S1MC287	Rock Shelter with Artefacts	36-3-1359	S2MC212	Artefact Scatter
36-3-1102	S1MC288	Rock Shelter with Artefacts	36-3-1360	S2MC213	Isolated Find
36-3-1103	S1MC289	Rock Shelter with Artefacts	36-3-1361	S2MC214	Isolated Find
36-3-1104	S1MC290	Rock Shelter with Artefacts	36-3-1362	S2MC215	Artefact Scatter
36-3-1105	S1MC291	Isolated Find	36-3-1363	S2MC216	Artefact Scatter
36-3-1106	S1MC292	Isolated Find	36-3-1364	S2MC217	Artefact Scatter
36-3-1107	S1MC293	Isolated Find	36-3-1365	S2MC218	Artefact Scatter
36-3-1108	S1MC294	Rock Shelter with Artefacts	36-3-1366	S2MC219	Artefact Scatter
36-3-1109	S1MC295	Isolated Find	36-3-1367	S2MC220	Artefact Scatter
36-3-1110	S1MC296	Rock Shelter with Artefacts	36-3-1368	S2MC221	Isolated Find
36-3-1111	S1MC297	Rock Shelter with Artefacts	36-3-1369	S2MC222	Artefact Scatter
36-3-0840	S1MC298	Artefact Scatter	36-3-1370	S2MC223	Isolated Find
36-3-0841	S1MC299	Isolated Find	36-3-1371	S2MC224	Isolated Find
36-3-0842	S1MC300	Artefact Scatter	36-3-1372	S2MC225	Artefact Scatter
36-3-0843	S1MC301	Artefact Scatter	36-3-1373	S2MC226	Artefact Scatter
36-3-0844	S1MC302	Artefact Scatter	36-3-1374	S2MC227	Artefact Scatter
36-3-1140	S1MC303	Artefact Scatter	36-3-1375	S2MC228	Artefact Scatter
36-3-1141	S1MC304	Artefact Scatter	36-3-1376	S2MC229	Rock Shelter with Artefacts
36-3-1142	S1MC305	Artefact Scatter	36-3-1377	S2MC230	Isolated Find
36-3-1143	S1MC306	Isolated Find	36-3-1378	S2MC231	Rock Shelter with Artefacts
36-3-1144	S1MC307	Isolated Find	36-3-1379	S2MC232	Rock Shelter with Artefacts
36-3-1145	S1MC308	Artefact Scatter and PAD	36-3-1380	S2MC233	Rock Shelter with Artefacts
36-3-1146	S1MC309	Isolated Find	36-3-1381	S2MC234	Artefact Scatter
36-3-1137	S1MC310	Isolated Find	36-3-0016 & 36-3-0134	S2MC236	Rock Shelters with Art and Artefacts
36-3-1138	S1MC311	Isolated Find	36-3-1382	S2MC237	Isolated Find
36-3-1149	S1MC312	Isolated Find	36-3-1383	S2MC238	Artefact Scatter
36-3-1407	S1MC313 (NB1)	Artefact Scatter	36-3-1384	S2MC239	Artefact Scatter
36-3-1408	S1MC314 (NB2)	Artefact Scatter and PAD	36-3-1385	S2MC240	Artefact Scatter
36-3-1409	S1MC315 (NB3)	Isolated Find	36-3-1386	S2MC241	Artefact Scatter
36-3-1410	S1MC316 (NB4)	Artefact Scatter	36-3-1387	S2MC242	Isolated Find
36-3-1411	S1MC317 (NB5)	Isolated Find	36-3-1388	S2MC243	Isolated Find
36-3-1412	S1MC318 (NB6)	Isolated Find	36-3-1389	S2MC244	Isolated Find
36-3-1413	S1MC319 (NB7)	Isolated Find	36-3-1390	S2MC245	Isolated Find
36-3-1414	S1MC320 (NB8)	Isolated Find	36-3-1391	S2MC246	Isolated Find
36-3-1415	S1MC321 (NB9)	Isolated Find	36-3-1392	S2MC247	Artefact Scatter
36-3-1416	S1MC322 (NB10)	Artefact Scatter and PAD	36-3-1393	S2MC248	Artefact Scatter

AHIMS	Site Name	Site Type	AHIMS	Site Name	Site Type
36-3-1417	S1MC323 (NB11)	Isolated Find	36-3-1394	S2MC249	Artefact Scatter
36-3-2597	S1MC324 (NB12)	Isolated Find	36-3-1395	S2MC250	Artefact Scatter and PAD
36-3-2607	S1MC325	Isolated Find	36-3-1396	S2MC251	Artefact Scatter and PAD
36-3-2608	S1MC326	Rock shelter with PAD	36-3-1397	S2MC252	Isolated Find
36-3-2609	S1MC327	Rock shelter with PAD	36-3-1398	S2MC253	Isolated Find
36-3-2610	S1MC328	Isolated Find	36-3-1399	S2MC254	Isolated Find
36-3-2611	S1MC329	Rock shelter with PAD	36-3-1400	S2MC255	Isolated Find
36-3-2612	S1MC330	Rock shelter with PAD	36-3-1401	S2MC256	Artefact Scatter
36-3-2613	S1MC331	Rock shelter with artefacts	36-3-1402	S2MC257	Isolated Find
36-3-2614	S1MC332	Rock shelter with PAD	36-3-1403	S2MC258	Artefact Scatter and PAD
36-3-2615	S1MC333	Rock shelter with PAD	36-3-1404	S2MC259	Isolated Find
36-3-2616	S1MC334	Rock shelter with PAD	36-3-1405	S2MC260	Isolated Find
36-3-2617	S1MC335	Rock shelter with PAD	36-3-1406	S2MC261a	Grinding Grooves and Isolated Find
36-3-2618	S1MC336	Rock shelter with PAD	36-3-2602	S2MC262	Artefact Scatter
36-3-2619	S1MC337	Rock shelter with PAD	36-3-3222	S2MC404	Artefact Scatter
36-3-2620	S1MC338	Rock shelter with PAD	36-3-0720; 36-3-0287	WC1 - Wilpinjong Creek 1	Open Artefact Site

AHIMS	Site Name	Site Type	AHIMS	Site Name	Site Type
36-3-0691	CE-15-IF	Isolated Find	36-3-2621	S1MC339	Rock shelter with PAD
36-3-0237	MC11	Open Artefact Site	36-3-2622	S1MC340	Rock shelter with PAD
36-3-0223	MC2	Open Artefact Site	36-3-2623	S1MC341	Rock shelter with PAD
36-3-0241	MC4	Open Artefact Site	36-3-2624	S1MC342	Rock shelter with PAD
36-3-0240	MC6	Artefact Scatter	36-3-2625	S1MC343	Rock shelter with PAD
36-3-0337	MC7	Open Artefact Site	36-3-2626	S1MC344	Rock shelter with artefacts
36-3-0239	MC8	Open Artefact Site	36-3-2627	S1MC345	Rock shelter with PAD
36-3-0222	Moolarben Creek MC1	Artefact Scatter	36-3-2628	S1MC346	Rock shelter with PAD
36-3-3144	MUG1-Mod 1	Isolated Find	36-3-2629	S1MC347	Rock shelter with PAD
36-3-0837	PAD 1 Moolarben Coal	Rock Shelter and PAD	36-3-2630	S1MC348	Rock shelter with PAD
36-3-0956	PAD 10 Moolarben Coal	PAD	36-3-2631	S1MC349	Rock shelter with PAD
36-3-0957	PAD 11 Moolarben Coal	PAD	36-3-2632	S1MC350	Rock shelter with PAD
36-3-0958	PAD 12 Moolarben Coal	PAD and Rockshelter	36-3-2633	S1MC351	Rock shelter with PAD
36-3-0838	PAD 2 Moolarben Coal	Artefact Scatter and PAD	36-3-2634	S1MC352	Rock shelter with PAD
36-3-0839	PAD 3 Moolarben Coal	Artefact Scatter and PAD	36-3-2635	S1MC353	Rock shelter with PAD
36-3-0883	PAD 4 Moolarben Coal	PAD	36-3-2636	S1MC354	Rock shelter with PAD
36-3-0884	PAD 5 Moolarben Coal	PAD	36-3-2660	S1MC355	Artefact Scatter
36-3-0885	PAD 6 Moolarben Coal	PAD	36-3-2661	S1MC356	Isolated Find
36-3-0113	PAD 7 Moolarben Coal	PAD	36-3-2662	S1MC357	Artefact Scatter
36-3-0954	PAD 8 Moolarben Coal	Artefact Scatter and PAD	36-3-1150	S2MC001	Isolated Find
36-3-0955	PAD 9 Moolarben Coal	PAD	36-3-1151	S2MC002	Isolated Find
36-3-0798	S1MC001	Scarred Tree	36-3-1152	S2MC003	Artefact Scatter
36-3-0799	S1MC002	Artefact Scatter	36-3-1153	S2MC004	Isolated Find
36-3-0800	S1MC003	Isolated Find	36-3-1154	S2MC005	Artefact Scatter

AHIMS	Site Name	Site Type	AHIMS	Site Name	Site Type
36-3-0801	S1MC004	Isolated Find	36-3-1155	S2MC006	Artefact Scatter
36-3-0802	S1MC005	Artefact Scatter	36-3-1156	S2MC007	Isolated Find
36-3-0803	S1MC006	Isolated Find	36-3-1157	S2MC008	Isolated Find
36-3-0804	S1MC007	Isolated Find	36-3-1158	S2MC009	Isolated Find
36-3-0805	S1MC008	Isolated Find	36-3-1159	S2MC010	Artefact Scatter
36-3-0806	S1MC009	Isolated Find	36-3-1160	S2MC011	Isolated Find
36-3-0807	S1MC010	Isolated Find	36-3-1161	S2MC012	Isolated Find
36-3-0808	S1MC011	Artefact Scatter	36-3-1162	S2MC013	Isolated Find
36-3-0809	S1MC012	Isolated Find	36-3-1163	S2MC014	Artefact Scatter
36-3-0810	S1MC013	Isolated Find	36-3-1164	S2MC015	Artefact Scatter
36-3-0811	S1MC014	Isolated Find	36-3-1165	S2MC016	Artefact Scatter
36-3-0812	S1MC015	Isolated Find	36-3-1166	S2MC017	Artefact Scatter
36-3-0813	S1MC016	Isolated Find	36-3-1167	S2MC018	Artefact Scatter and PAD
36-3-0814	S1MC017	Isolated Find	36-3-1168	S2MC019	Isolated Find
36-3-0815	S1MC018	Isolated Find	36-3-1169	S2MC020	Artefact Scatter
36-3-0816	S1MC019	Isolated Find	36-3-1170	S2MC021	Isolated Find
36-3-0817	S1MC020	Isolated Find	36-3-1171	S2MC022	Artefact Scatter
36-3-0818	S1MC021	Isolated Find	36-3-1172	S2MC023	Isolated Find
36-3-0819	S1MC022	Isolated Find	36-3-1173	S2MC024	Isolated Find
36-3-0820	S1MC023	Isolated Find	36-3-1174	S2MC025	Isolated Find
36-3-0821	S1MC024	Isolated Find	36-3-0238	S2MC028, MC10	Open Artefact Site
36-3-0822	S1MC025	Isolated Find	36-3-1175	S2MC029	Artefact Scatter
36-3-0823	S1MC026	Isolated Find	36-3-1176	S2MC030	Artefact Scatter
36-3-0824	S1MC027	Isolated Find	36-3-1177	S2MC031	Isolated Find
36-3-0825	S1MC028	Isolated Find	36-3-1178	S2MC032	Artefact Scatter
36-3-0826	S1MC029	Isolated Find	36-3-1179	S2MC033	Artefact Scatter
36-3-0827	S1MC030	Isolated Find	36-3-1180	S2MC034	Isolated Find
36-3-0828	S1MC031	Isolated Find	36-3-1181	S2MC035	Isolated Find
36-3-0829	S1MC032	Isolated Find	36-3-1182	S2MC036	Isolated Find
36-3-0830	S1MC033	Isolated Find	36-3-1183	S2MC037	Isolated Find
36-3-0831	S1MC034	Isolated Find	36-3-1184	S2MC038	Artefact Scatter
36-3-0832	S1MC035	Isolated Find	36-3-1185	S2MC039	Artefact Scatter
36-3-0833	S1MC036	Isolated Find	36-3-1186	S2MC040	Artefact Scatter
36-3-0834	S1MC037	Isolated Find	36-3-1186b	S2MC041	Isolated Find
36-3-0835	S1MC038	Isolated Find	36-3-1187	S2MC042	Artefact Scatter
36-3-0836	S1MC039	Isolated Find	36-3-1188	S2MC043	Artefact Scatter
36-3-0845	S1MC040	Artefact Scatter	36-3-1189	S2MC044	Artefact Scatter
36-3-0846	S1MC041	Isolated Find	36-3-1190	S2MC045	Artefact Scatter
36-3-0847	S1MC042	Isolated Find	36-3-1191	S2MC046	Artefact Scatter
36-3-0848	S1MC043	Artefact Scatter	36-3-1192	S2MC047	Artefact Scatter
36-3-0849	S1MC044	Isolated Find	36-3-1193	S2MC048	Artefact Scatter
36-3-0850	S1MC045	Isolated Find	36-3-1194	S2MC049	Isolated Find
36-3-0851	S1MC046	Isolated Find	36-3-1195	S2MC050	Artefact Scatter
36-3-0852	S1MC047	Isolated Find	36-3-1196	S2MC051	Artefact Scatter
36-3-0853	S1MC048	Isolated Find	36-3-1197	S2MC052	Isolated Find
36-3-0854	S1MC049	Isolated Find	36-3-1198	S2MC053	Artefact Scatter
36-3-0855	S1MC050	Isolated Find	36-3-1199	S2MC054	Artefact Scatter
36-3-0856	S1MC051	Isolated Find	36-3-1200	S2MC055	Artefact Scatter
36-3-0857	S1MC052	Isolated Find	36-3-1201	S2MC056	Artefact Scatter
36-3-0858	S1MC053	Artefact Scatter	36-3-1202	S2MC057	Artefact Scatter
36-3-0859	S1MC054	Artefact Scatter	36-3-1203	S2MC058	Artefact Scatter
36-3-0860	S1MC055	Rock Shelter with Artefacts	36-3-1204	S2MC059	Artefact Scatter
36-3-0861	S1MC056	Rock Shelter with Artefacts	36-3-1206	S2MC059b	Isolated Find
36-3-0862	S1MC057	Artefact Scatter	36-3-1207	S2MC060	Isolated Find
36-3-0863	S1MC058	Artefact Scatter	36-3-1208	S2MC061	Artefact Scatter
36-3-0864	S1MC059	Artefact Scatter	36-3-1209	S2MC062	Artefact Scatter
36-3-0865	S1MC060	Artefact Scatter	36-3-1210	S2MC063	Artefact Scatter
36-3-0866	S1MC061	Isolated Find	36-3-1211	S2MC064	Artefact Scatter
36-3-0867	S1MC062	Isolated Find	36-3-1212	S2MC065	Artefact Scatter
36-3-0868	S1MC063	Isolated Find	36-3-1213	S2MC066	Isolated Find

AHIMS	Site Name	Site Type	AHIMS	Site Name	Site Type
36-3-0869	S1MC064	Isolated Find	36-3-1214	S2MC067	Artefact Scatter
36-3-0870	S1MC065	Isolated Find	36-3-1215	S2MC068	Isolated Find
36-3-0871	S1MC066	Artefact Scatter	36-3-1216	S2MC069	Isolated Find
36-3-0872	S1MC067	Artefact Scatter	36-3-1217	S2MC070	Artefact Scatter
36-3-0873	S1MC068	Isolated Find	36-3-1218	S2MC071	Artefact Scatter
36-3-0874	S1MC069	Isolated Find	36-3-1219	S2MC072	Artefact Scatter
36-3-0875	S1MC070	Isolated Find	36-3-1220	S2MC073	Isolated Find
36-3-0876	S1MC071	Isolated Find	36-3-2581	S2MC074	Artefact Scatter
36-3-0877	S1MC072	Isolated Find	36-3-1221	S2MC075	Isolated Find
36-3-0878	S1MC073	Isolated Find	36-3-1222	S2MC076	Artefact Scatter
36-3-0879	S1MC074	Isolated Find	36-3-1223	S2MC077	Artefact Scatter
36-3-0880	S1MC075	Isolated Find	36-3-1224	S2MC078	Artefact Scatter
36-3-0881	S1MC076	Isolated Find	36-3-1225	S2MC079	Isolated Find
36-3-0882	S1MC077	Isolated Find	36-3-1226	S2MC080	Artefact Scatter
36-3-0886	S1MC078	Artefact Scatter	36-3-1227	S2MC081	Artefact Scatter
36-3-0887	S1MC079	Isolated Find	36-3-1228	S2MC082	Artefact Scatter
36-3-0888	S1MC080	Isolated Find	36-3-1229	S2MC083	Isolated Find
36-3-0889	S1MC081	Isolated Find	36-3-1230	S2MC084	Isolated Find
36-3-0890	S1MC082	Isolated Find	36-3-1231	S2MC085	Isolated Find
36-3-0891	S1MC083	Isolated Find	36-3-1232	S2MC086	Artefact Scatter
36-3-0892	S1MC084	Artefact Scatter	36-3-1233	S2MC087	Artefact Scatter
36-3-0893	S1MC085	Isolated Find	36-3-1234	S2MC088	Artefact Scatter
36-3-0894	S1MC086	Isolated Find	36-3-1235	S2MC089	Artefact Scatter
36-3-0895	S1MC087	Isolated Find	36-3-1236	S2MC090	Isolated Find
36-3-0896	S1MC088	Isolated Find	36-3-1237	S2MC091	Isolated Find
36-3-0897	S1MC089	Isolated Find	36-3-1238	S2MC092	Isolated Find
36-3-0898	S1MC090	Isolated Find	36-3-1239	S2MC093	Artefact Scatter
36-3-0899	S1MC091	Isolated Find	36-3-1240	S2MC094	Isolated Find
36-3-0900	S1MC092	Isolated Find	36-3-1241	S2MC095	Isolated Find
36-3-0901	S1MC093	Isolated Find	36-3-1242	S2MC096	Artefact Scatter
36-3-0902	S1MC094	Artefact Scatter	36-3-1243	S2MC097	Artefact Scatter
36-3-0903	S1MC095	Isolated Find	36-3-1244	S2MC098	Isolated Find
36-3-0904	S1MC096	Isolated Find	36-3-1245	S2MC099	Isolated Find
36-3-0905	S1MC097	Isolated Find	36-3-1246	S2MC100	Artefact Scatter
36-3-0906	S1MC098	Isolated Find	36-3-1247	S2MC101	Artefact Scatter
36-3-0907	S1MC099	Isolated Find	36-3-1248	S2MC102	Isolated Find
36-3-0908	S1MC100	Isolated Find	36-3-1249	S2MC103	Isolated Find
36-3-0909	S1MC101	Isolated Find	36-3-1250	S2MC104	Artefact Scatter
36-3-0910	S1MC102	Artefact Scatter	36-3-1251	S2MC105	Isolated Find
36-3-0912	S1MC103	Artefact Scatter	36-3-1252	S2MC106	Isolated Find
36-3-0911	S1MC103a	Artefact Scatter	36-3-1253	S2MC107	Isolated Find
36-3-0913	S1MC104	Artefact Scatter	36-3-1254	S2MC108	Artefact Scatter
36-3-0914	S1MC105	Isolated Find	36-3-1255	S2MC109	Artefact Scatter
36-3-0915	S1MC106	Isolated Find	36-3-1256	S2MC110	Isolated Find
36-3-0916	S1MC107	Isolated Find	36-3-1257	S2MC111	Artefact Scatter
36-3-0917	S1MC108	Isolated Find	36-3-1258	S2MC112	Artefact Scatter
36-3-0918	S1MC109	Isolated Find	36-3-1259	S2MC113	Isolated Find
36-3-0919	S1MC110	Isolated Find	36-3-1260	S2MC114	Artefact Scatter
36-3-0920	S1MC111	Isolated Find	36-3-1261	S2MC115	Isolated Find
36-3-0921	S1MC112	Isolated Find	36-3-1262	S2MC116	Artefact Scatter
36-3-0922	S1MC113	Isolated Find	36-3-1263	S2MC117	Isolated Find
36-3-0923	S1MC114	Isolated Find	36-3-1264	S2MC118	Isolated Find
36-3-0924	S1MC115	Isolated Find	36-3-1265	S2MC119	Artefact Scatter
36-3-0925	S1MC116	Isolated Find	36-3-1266	S2MC120	Isolated Find
36-3-0926	S1MC117	Isolated Find	36-3-1267	S2MC121	Isolated Find
36-3-0927	S1MC118	Isolated Find	36-3-1268	S2MC122	Artefact Scatter
36-3-0928	S1MC119	Isolated Find	36-3-1269	S2MC123	Artefact Scatter
36-3-0929	S1MC120	Isolated Find	36-3-1270	S2MC124	Artefact Scatter
36-3-0930	S1MC121	Isolated Find	36-3-1271	S2MC125	Artefact Scatter
36-3-0931	S1MC122	Isolated Find	36-3-1272	S2MC126	Artefact Scatter
36-3-0932	S1MC123	Isolated Find	36-3-1273	S2MC127	Isolated Find
36-3-0933	S1MC124	Isolated Find	36-3-1274	S2MC128	Artefact Scatter
36-3-0934	S1MC125	Isolated Find	36-3-1275	S2MC129	Artefact Scatter

AHIMS	Site Name	Site Type	AHIMS	Site Name	Site Type
36-3-0935	S1MC126	Isolated Find	36-3-1276	S2MC130	Artefact Scatter
36-3-0936	S1MC127	Isolated Find	36-3-1277	S2MC131	Isolated Find
36-3-0937	S1MC128	Isolated Find	36-3-1278	S2MC132	Artefact Scatter
36-3-0938	S1MC129	Isolated Find	36-3-1279	S2MC133	Artefact Scatter
36-3-0939	S1MC130	Artefact Scatter	36-3-1280	S2MC134	Artefact Scatter
36-3-0940	S1MC131	Isolated Find	36-3-1281	S2MC135	Artefact Scatter
36-3-0941	S1MC132	Artefact Scatter	36-3-1282	S2MC136	Isolated Find
36-3-0942	S1MC133	Artefact Scatter	36-3-1283	S2MC137	Isolated Find
36-3-0943	S1MC134	Isolated Find	36-3-1284	S2MC138	Isolated Find
36-3-0944	S1MC135	Artefact Scatter	36-3-1285	S2MC139	Isolated Find
36-3-0945	S1MC136	Artefact Scatter	36-3-1286	S2MC140	Artefact Scatter
36-3-0946	S1MC137	Isolated Find	36-3-1287	S2MC141	Artefact Scatter
36-3-0947	S1MC138	Isolated Find	36-3-1288	S2MC142	Isolated Find
36-3-0948	S1MC139	Artefact Scatter	36-3-1289	S2MC143	Isolated Find
36-3-0949	S1MC140	Artefact Scatter	36-3-1290	S2MC144	Isolated Find
36-3-0950	S1MC141	Isolated Find	36-3-1291	S2MC145	Artefact Scatter
36-3-0951	S1MC142	Artefact Scatter	36-3-1292	S2MC146	Artefact Scatter
36-3-0952	S1MC143	Artefact Scatter	36-3-1293	S2MC147	Isolated Find
36-3-0953	S1MC144	Isolated Find	36-3-1294	S2MC148	Artefact Scatter
36-3-1029	S1MC213	Isolated Find	36-3-1295	S2MC149	Isolated Find
36-3-1041	S1MC225	Isolated Find	36-3-1296	S2MC150	Artefact Scatter
36-3-1042	S1MC226	Isolated Find	36-3-1297	S2MC151	Grinding Grooves and Artefact Scatter
36-3-1043	S1MC227	Isolated Find	36-3-1298	S2MC152	Artefact Scatter
36-3-1044	S1MC228	Artefact scatter	36-3-1299	S2MC153	Artefact Scatter
36-3-1045	S1MC229	Isolated Find	36-3-1300	S2MC154	Artefact Scatter
36-3-1046	S1MC230	Artefact Scatter	36-3-1301	S2MC155	Isolated Find
36-3-1047	S1MC231	Isolated Find	36-3-1302	S2MC156	Artefact Scatter
36-3-1048	S1MC232	Isolated Find	36-3-1303	S2MC157	Artefact Scatter
36-3-1049	S1MC233	Artefact Scatter	36-3-1304	S2MC158	Artefact Scatter
36-3-1050	S1MC234	Isolated Find	36-3-1305	S2MC159	Artefact Scatter
36-3-1051	S1MC235	Isolated Find	36-3-1306	S2MC160	Isolated Find
36-3-1052	S1MC236	Artefact Scatter	36-3-1307	S2MC161	Artefact Scatter
36-3-1053	S1MC237	Isolated Find	36-3-1308	S2MC162	Artefact Scatter
36-3-1054	S1MC238	Isolated Find	36-3-1309	S2MC163	Artefact Scatter
36-3-1055	S1MC239	Isolated Find	36-3-1310	S2MC164	Isolated Find
36-3-1056	S1MC240	Artefact Scatter	36-3-1311	S2MC165	Artefact Scatter
36-3-1057	S1MC241	Artefact Scatter	36-3-1312	S2MC166	Isolated Find
36-3-1058	S1MC242	Isolated Find	36-3-1313	S2MC167	Isolated Find
36-3-1059	S1MC243	Isolated Find	36-3-1314	S2MC168	Artefact Scatter
36-3-1060	S1MC244	Artefact Scatter	36-3-1315	S2MC169	Isolated Find
36-3-1113	S1MC244a	Artefact Scatter	36-3-1316	S2MC170	Artefact Scatter
36-3-1061	S1MC245	Isolated Find	36-3-1317	S2MC171	Artefact Scatter
36-3-1062	S1MC246	Isolated Find	36-3-1318	S2MC172	Artefact Scatter
36-3-1063	S1MC247	Isolated Find	36-3-1319	S2MC173	Isolated Find
36-3-1064	S1MC248	Isolated Find	36-3-1320	S2MC174	Isolated Find
36-3-1065	S1MC249	Isolated Find	36-3-1321	S2MC175	Isolated Find
36-3-1066	S1MC250	Isolated Find	36-3-1322	S2MC176	Artefact Scatter
36-3-1067	S1MC252	Isolated Find	36-3-1323	S2MC177	Artefact Scatter
36-3-1068	S1MC253	Isolated Find	36-3-1324	S2MC178	Artefact Scatter
36-3-1069	S1MC254	Artefact Scatter	36-3-1325	S2MC179	Artefact Scatter
36-3-1070	S1MC255	Artefact Scatter and PAD	36-3-1326	S2MC180	Artefact Scatter
36-3-1071	S1MC256	Artefact Scatter	36-3-1327	S2MC181	Artefact Scatter
36-3-1072	S1MC257	Artefact Scatter	36-3-1328	S2MC182	Isolated Find
36-3-1073	S1MC258	Artefact Scatter	36-3-1329	S2MC183	Artefact Scatter
36-3-1074	S1MC259	Isolated Find	36-3-1330	S2MC184	Isolated Find
36-3-1075	S1MC260	Isolated Find	36-3-1331	S2MC185	Isolated Find
36-3-1076	S1MC261	Rock Shelter with Artefacts	36-3-1332	S2MC186	Artefact Scatter
36-3-1077	S1MC262	Isolated Find	36-3-1333	S2MC187	Isolated Find
36-3-1078	S1MC263	Isolated Find	36-3-1334	S2MC188	Artefact Scatter
36-3-1079	S1MC264	Grinding Grooves and Artefact Scatter	36-3-1335	S2MC189	Isolated Find

AHIMS	Site Name	Site Type	AHIMS	Site Name	Site Type
36-3-1080	S1MC265	Artefact Scatter	36-3-1336	S2MC190	Isolated Find
36-3-1081	S1MC266	Isolated Find	36-3-1337	S2MC191	Artefact Scatter
36-3-1082	S1MC267	Rock Shelter with Artefacts	36-3-1338	S2MC192	Isolated Find
36-3-1083	S1MC268	Isolated Find	36-3-1339	S2MC193	Artefact Scatter
36-3-1084	S1MC269	Isolated Find	36-3-1340	S2MC194	Artefact Scatter
36-3-1085	S1MC270	Isolated Find	36-3-1341	S2MC195	Artefact Scatter
36-3-1086	S1MC271	Rock Shelter with Artefacts	36-3-1342	S2MC196	Artefact Scatter
36-3-1087	S1MC272	Artefact Scatter	36-3-1343	S2MC197	Artefact Scatter
36-3-1088	S1MC273	Isolated Find	36-3-1344	S2MC198	Artefact Scatter
36-3-1089	S1MC274	Isolated Find	36-3-1345	S2MC199	Artefact Scatter
36-3-1090	S1MC275	Isolated Find	36-3-1346	S2MC200	Artefact Scatter
36-3-1091	S1MC276	Isolated Find	36-3-1347, 36-3-1348	S2MC201	Artefact Scatter
36-3-1092	S1MC277	Isolated Find	36-3-1349	S2MC202	Artefact Scatter
36-3-1093	S1MC278	Isolated Find	36-3-1350	S2MC203	Artefact Scatter
36-3-1094	S1MC279	Isolated Find	36-3-1351	S2MC204	Artefact Scatter
36-3-0042	S1MC280; Ulan Creek 2	Rock Shelter with Artefacts and Grinding Grooves	36-3-1352	S2MC205	Artefact Scatter
36-3-1095	S1MC281	Artefact Scatter	36-3-1353	S2MC206	Artefact Scatter
36-3-1096	S1MC282	Artefact Scatter	36-3-1354	S2MC207	Artefact Scatter
36-3-0098	S1MC283	Rock Shelter with Artefacts	36-3-1355	S2MC208	Artefact Scatter
36-3-1098	S1MC284	Rock Shelter with Artefacts	36-3-1356	S2MC209	Artefact Scatter
36-3-1099	S1MC285	Rock Shelter with Artefacts	36-3-1357	S2MC210	Artefact Scatter
36-3-1100	S1MC286	Rock Shelter with Artefacts	36-3-1358	S2MC211	Isolated Find
36-3-1101	S1MC287	Rock Shelter with Artefacts	36-3-1359	S2MC212	Artefact Scatter
36-3-1102	S1MC288	Rock Shelter with Artefacts	36-3-1360	S2MC213	Isolated Find
36-3-1103	S1MC289	Rock Shelter with Artefacts	36-3-1361	S2MC214	Isolated Find
36-3-1104	S1MC290	Rock Shelter with Artefacts	36-3-1362	S2MC215	Artefact Scatter
36-3-1105	S1MC291	Isolated Find	36-3-1363	S2MC216	Artefact Scatter
36-3-1106	S1MC292	Isolated Find	36-3-1364	S2MC217	Artefact Scatter
36-3-1107	S1MC293	Isolated Find	36-3-1365	S2MC218	Artefact Scatter
36-3-1108	S1MC294	Rock Shelter with Artefacts	36-3-1366	S2MC219	Artefact Scatter
36-3-1109	S1MC295	Isolated Find	36-3-1367	S2MC220	Artefact Scatter
36-3-1110	S1MC296	Rock Shelter with Artefacts	36-3-1368	S2MC221	Isolated Find
36-3-1111	S1MC297	Rock Shelter with Artefacts	36-3-1369	S2MC222	Artefact Scatter
36-3-0840	S1MC298	Artefact Scatter	36-3-1370	S2MC223	Isolated Find
36-3-0841	S1MC299	Isolated Find	36-3-1371	S2MC224	Isolated Find
36-3-0842	S1MC300	Artefact Scatter	36-3-1372	S2MC225	Artefact Scatter
36-3-0843	S1MC301	Artefact Scatter	36-3-1373	S2MC226	Artefact Scatter
36-3-0844	S1MC302	Artefact Scatter	36-3-1374	S2MC227	Artefact Scatter
36-3-1140	S1MC303	Artefact Scatter	36-3-1375	S2MC228	Artefact Scatter
36-3-1141	S1MC304	Artefact Scatter	36-3-1376	S2MC229	Rock Shelter with Artefacts
36-3-1142	S1MC305	Artefact Scatter	36-3-1377	S2MC230	Isolated Find
36-3-1143	S1MC306	Isolated Find	36-3-1378	S2MC231	Rock Shelter with Artefacts
36-3-1144	S1MC307	Isolated Find	36-3-1379	S2MC232	Rock Shelter with Artefacts
36-3-1145	S1MC308	Artefact Scatter and PAD	36-3-1380	S2MC233	Rock Shelter with Artefacts

AHIMS	Site Name	Site Type	AHIMS	Site Name	Site Type
36-3-1146	S1MC309	Isolated Find	36-3-1381	S2MC234	Artefact Scatter
36-3-1137	S1MC310	Isolated Find	36-3-0016 & 36-3-0134	S2MC236	Rock Shelters with Art and Artefacts
36-3-1138	S1MC311	Isolated Find	36-3-1382	S2MC237	Isolated Find
36-3-1149	S1MC312	Isolated Find	36-3-1383	S2MC238	Artefact Scatter
36-3-1407	S1MC313 (NB1)	Artefact Scatter	36-3-1384	S2MC239	Artefact Scatter
36-3-1408	S1MC314 (NB2)	Artefact Scatter and PAD	36-3-1385	S2MC240	Artefact Scatter
36-3-1409	S1MC315 (NB3)	Isolated Find	36-3-1386	S2MC241	Artefact Scatter
36-3-1410	S1MC316 (NB4)	Artefact Scatter	36-3-1387	S2MC242	Isolated Find
36-3-1411	S1MC317 (NB5)	Isolated Find	36-3-1388	S2MC243	Isolated Find
36-3-1412	S1MC318 (NB6)	Isolated Find	36-3-1389	S2MC244	Isolated Find
36-3-1413	S1MC319 (NB7)	Isolated Find	36-3-1390	S2MC245	Isolated Find
36-3-1414	S1MC320 (NB8)	Isolated Find	36-3-1391	S2MC246	Isolated Find
36-3-1415	S1MC321 (NB9)	Isolated Find	36-3-1392	S2MC247	Artefact Scatter
36-3-1416	S1MC322 (NB10)	Artefact Scatter and PAD	36-3-1393	S2MC248	Artefact Scatter
36-3-1417	S1MC323 (NB11)	Isolated Find	36-3-1394	S2MC249	Artefact Scatter
36-3-2597	S1MC324 (NB12)	Isolated Find	36-3-1395	S2MC250	Artefact Scatter and PAD
36-3-2607	S1MC325	Isolated Find	36-3-1396	S2MC251	Artefact Scatter and PAD
36-3-2608	S1MC326	Rock shelter with PAD	36-3-1397	S2MC252	Isolated Find
36-3-2609	S1MC327	Rock shelter with PAD	36-3-1398	S2MC253	Isolated Find
36-3-2610	S1MC328	Isolated Find	36-3-1399	S2MC254	Isolated Find
36-3-2611	S1MC329	Rock shelter with PAD	36-3-1400	S2MC255	Isolated Find
36-3-2612	S1MC330	Rock shelter with PAD	36-3-1401	S2MC256	Artefact Scatter
36-3-2613	S1MC331	Rock shelter with artefacts	36-3-1402	S2MC257	Isolated Find
36-3-2614	S1MC332	Rock shelter with PAD	36-3-1403	S2MC258	Artefact Scatter and PAD
36-3-2615	S1MC333	Rock shelter with PAD	36-3-1404	S2MC259	Isolated Find
36-3-2616	S1MC334	Rock shelter with PAD	36-3-1405	S2MC260	Isolated Find
36-3-2617	S1MC335	Rock shelter with PAD	36-3-1406	S2MC261a	Grinding Grooves and Isolated Find
36-3-2618	S1MC336	Rock shelter with PAD	36-3-2602	S2MC262	Artefact Scatter
36-3-2619	S1MC337	Rock shelter with PAD	36-3-3222	S2MC404	Artefact Scatter
36-3-2620	S1MC338	Rock shelter with PAD	36-3-0720; 36-3-0287	WC1 - Wilpinjong Creek 1	Open Artefact Site

APPENDIX 9
NON-ABORIGINAL HERITAGE

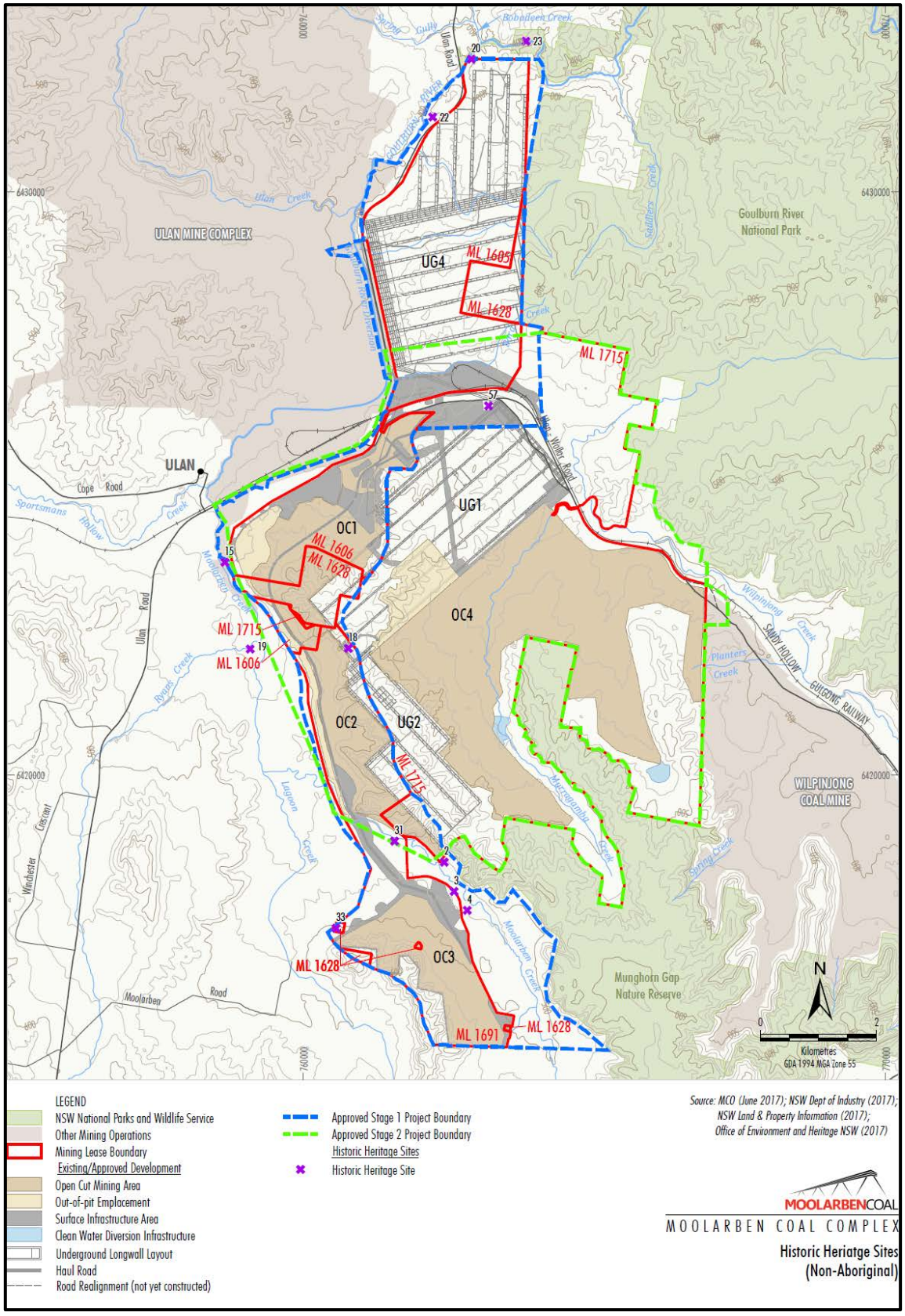


Figure 9.1: Historic Heritage Sites

Table 9.1

Item #	Item Name	Significance	Impact Status	Recommendation
8	Murrugamba School Site	Local – moderate	High - within Open Cut 4	Archival Record Archaeological Assessment
9	Farm Site	Local – high	High – within Open Cut 4	Historical Research Archival Record
11	Farm Site	Local – moderate	High - on boundary of Open Cut 4	Historical Research Archival Record Archaeological Assessment
18	Carr's Gap Road stone wall	Local – moderate	High - on boundary of Open Cut 4 and Underground 1	Historical Research Archival Record
35	House Site[5]	Local – intrusive	High - on boundary of Open Cut 4	No further action
36a	House Site	Local – high	High - within Open Cut 4	Historical Research Archival Record Archaeological Assessment
36b	Burial	Local – high	High - within Open Cut 4	Historical Research Archival Record Archaeological Assessment
37	House Site	Local – moderate	High - within Open Cut 4	Historical Research Archival Record
55	Water Trough and Spring Fed Well	Not assessed, but noted as an item of interest	Low/nil - outside area of Open Cut 4 – possible indirect impact by draining of water	Archival Record
56	Water Trough and Spring Fed Well	Not assessed, but noted as an item of interest	Low/nil - outside area of Open Cut 4 – possible indirect impact by draining of water	Archival Record
57	Feed Trough	Not assessed, but noted as an item of interest	High – adjacent to road re-alignments	Historical Research Archival Record Ex situ Conservation

APPENDIX 10
REHABILITATION PLAN

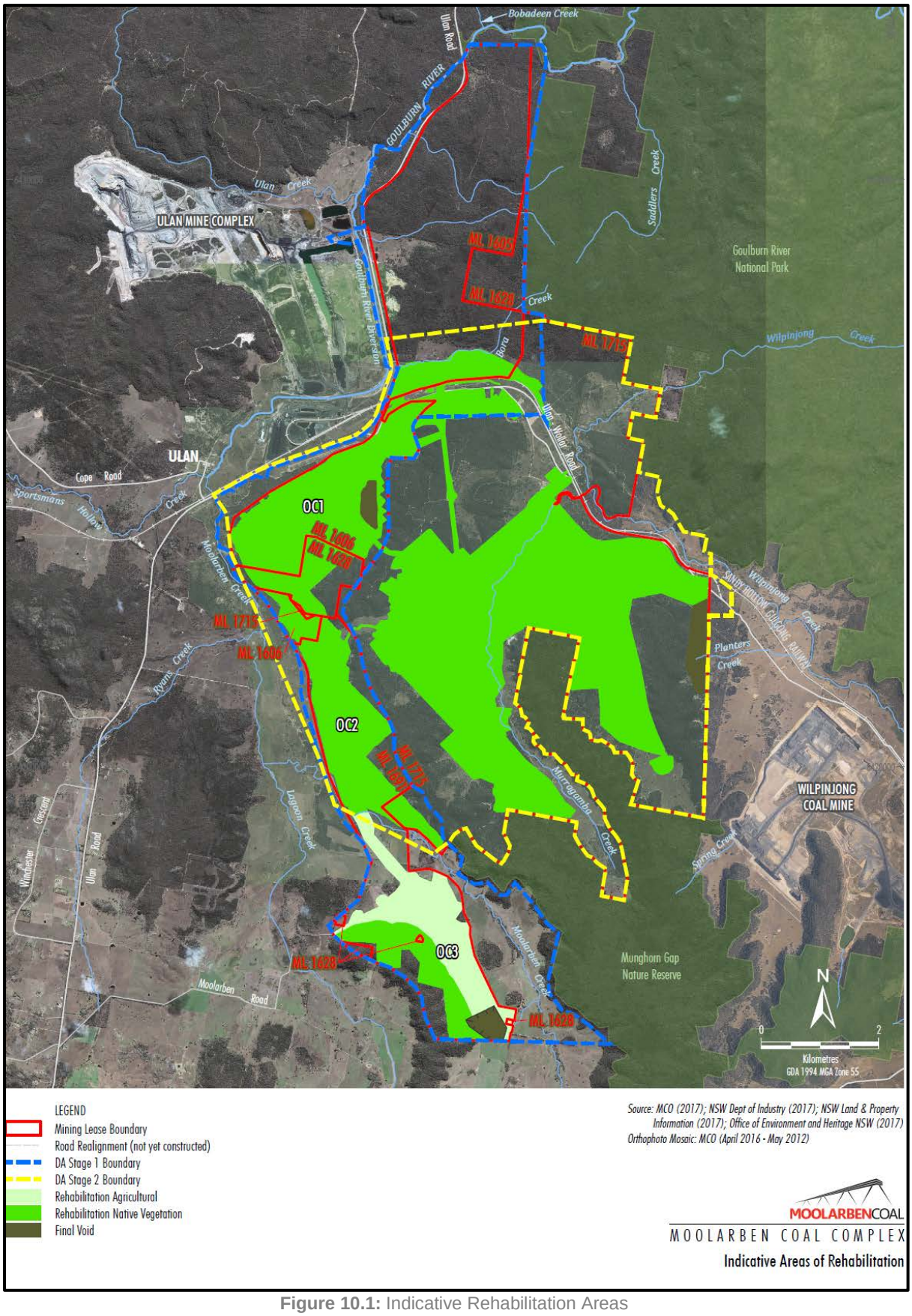
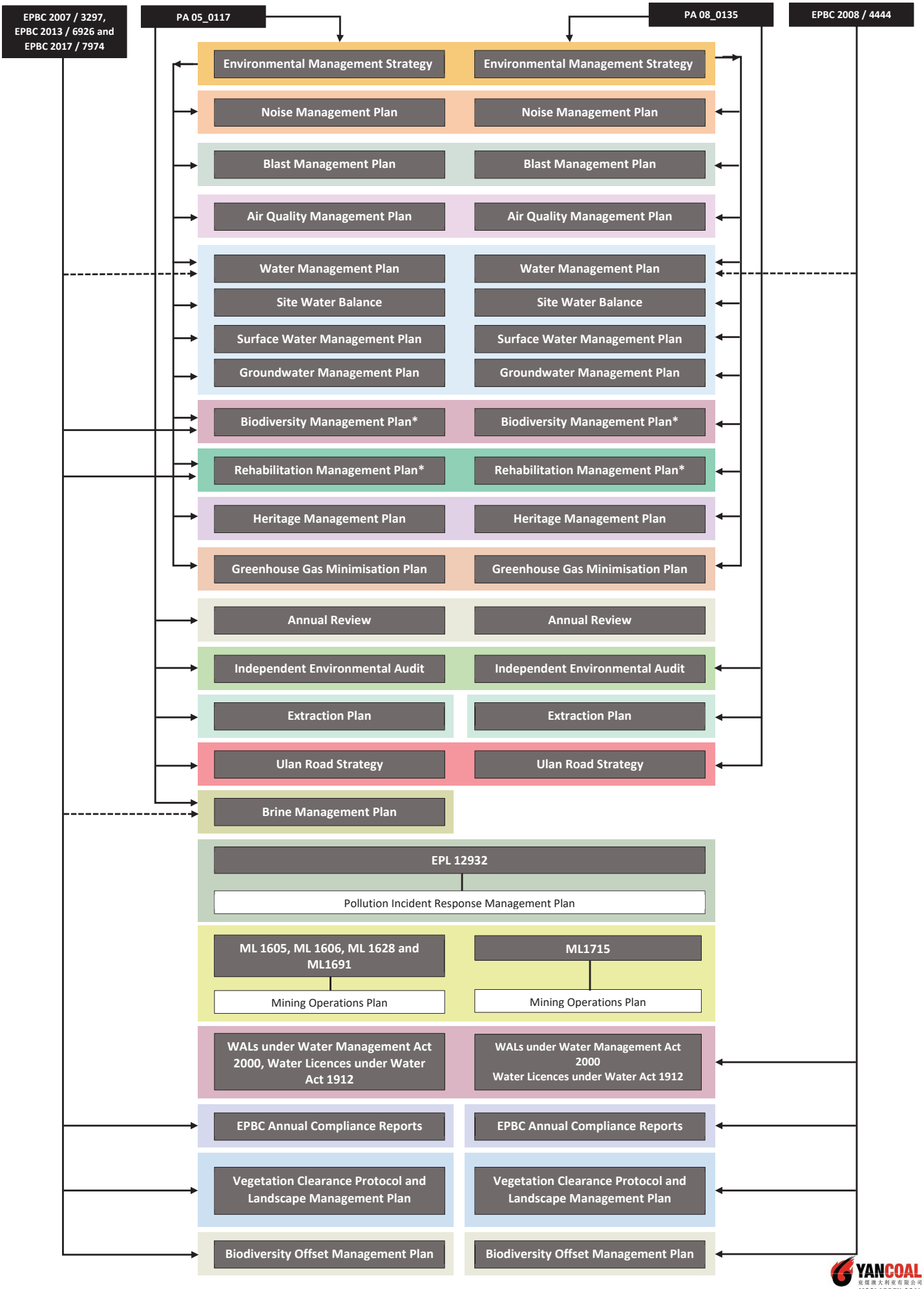


Figure 10.1: Indicative Rehabilitation Areas

Appendix C – Interaction of Project Approvals, Environmental Management Plans and Licences



* To replace Landscape Management Plan

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MOOLARBEN COAL COMPLEX
Environmental Management System
Structure Summary

Appendix D – YAL Environment and Community Relations Policy

YANCOAL POLICY – Environment and Community Relations

Objective

Yancoal is committed to operating as an environmentally and socially responsible corporate entity. We will strive to be a valued and respected member of the communities in which we operate.

Scope

This policy applies to all Yancoal business units and operations.

Statement

Yancoal accepts its responsibility to conduct its operation in a lawful and environmentally sound manner and to work in consultation with the community and other stakeholders.

We will:

- Identify, understand, assess and manage potential environmental impacts and community issues.
- Implement, validate and maintain an effective documented environment and community relations management system.
- Strive for continual improvement in environmental performance.
- Provide the resources and training to our employees necessary to achieve our objectives.
- Deliver outcomes that meet or exceed our environmental licences and approvals, and bring a positive benefit to the communities in which we operate.
- Comply with applicable legislation and regulations.
- Foster positive relationships with regulatory agencies and community stakeholders.
- Be accountable for our actions.
- We will strive for excellence in environmental management and in the establishment of strong, trusting and sustainable community relationships.

Signed: _____ Date: 14 July 2020

David Moult
Yancoal Chief Executive Officer

YANCOAL
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Appendix E – Site Environmental Management – Roles and Responsibilities

Table E1: Site Environmental Management – Roles and Responsibilities

Environmental Management Team Member(s)	Role and Responsibility
General Manager	• perform in an overview role to provide strategic direction; • provide adequate resources to implement and support the requirements of the EMS; • responsible for ensuring overall compliance of MCO's operations with legislation and approvals; and • provide support for the development of strategies, systems and plans to address all legal requirements associated with MCO's operations.
Department Managers	• maintain and support commitment to the EMS; • assess environmental aspects and impacts of the operation during mine planning process and during the risk assessment process; • coordinate activities under their supervision in accordance with this EMS and related sub-plans, procedures, and programs; • consider past environmental performance when engaging contractors; and • participate in reviews of the EMS.
Supervisors	• coordinate activities under their supervision in accordance with this EMS and related sub-plans, procedures, and programs; and, • report environment and community incidents to Environment & Community coordinator.
Environment & Community Manager	• manage the implementation of EMPs, approvals, licences and permits; • manage internal auditing and regulatory reporting (including the Annual Review); • support staff environmental training; • manage external government and community consultation; • responsible for obtaining necessary environmental approvals; • manage communications with Ulan Coal Mine and Wilpinjong Coal Mine; • develop corrective action management plans for any non-compliance in consultation with the relevant area manager; and
Environment & Community Superintendent	• Oversee the implementation of EMPs, approvals, licences and permits; • manage and drive progressive rehabilitation planning, development and reporting; • Oversee the site environmental monitoring; • provide support and advice to the operation including department managers, supervisors, general staff and contractors; • support staff environmental training; • Oversee the implementation of corrective actions arising from environmental incidents and audit; • coordinate the development, communication, implementation and maintenance of management plans and environmental monitoring programs and regularly review environmental monitoring data for compliance with relevant criteria.

Environmental Management Team Member(s)	Role and Responsibility
Environment & Community Coordinator(s)	• responsible for site environmental monitoring; • responsible for implementation and compliance with EMPs; • provide support and advice to the operation including department managers, supervisors, general staff and contractors; • undertake regular site inspections and audits to maintain compliance with the EMPs and Legislative requirements relating to MCO; • oversee activities undertaken at MCO to assist in managing environmental aspects in accordance with MCO management and legislative requirements; • implementation of corrective actions arising from environmental incidents and audit; • coordinate the activities of specialist sub-consultants and project personnel for environmental assessment/monitoring/auditing responsibilities in accordance with MCO Management Systems; and • respond to complaints within 24 hours.
Health, Safety and Training Manager	• maintain and implement the Emergency Response System including the Emergency Response Team. • implement requirements from Environmental Training Needs Analysis.
General Employees and Contractors	• all general employees trained in environmental procedures and protocols as part of the induction process and regular site meetings; • all general employees responsible for immediately reporting environmental incidents; and • all general employees responsible for undertaking works in an environmentally sound manner and in accordance with EMPs and site commitments.

Appendix F – Environmental Management Plans Required Under the NSW Project Approvals

[Provided Separately]

Appendix G – Environmental Monitoring Plans

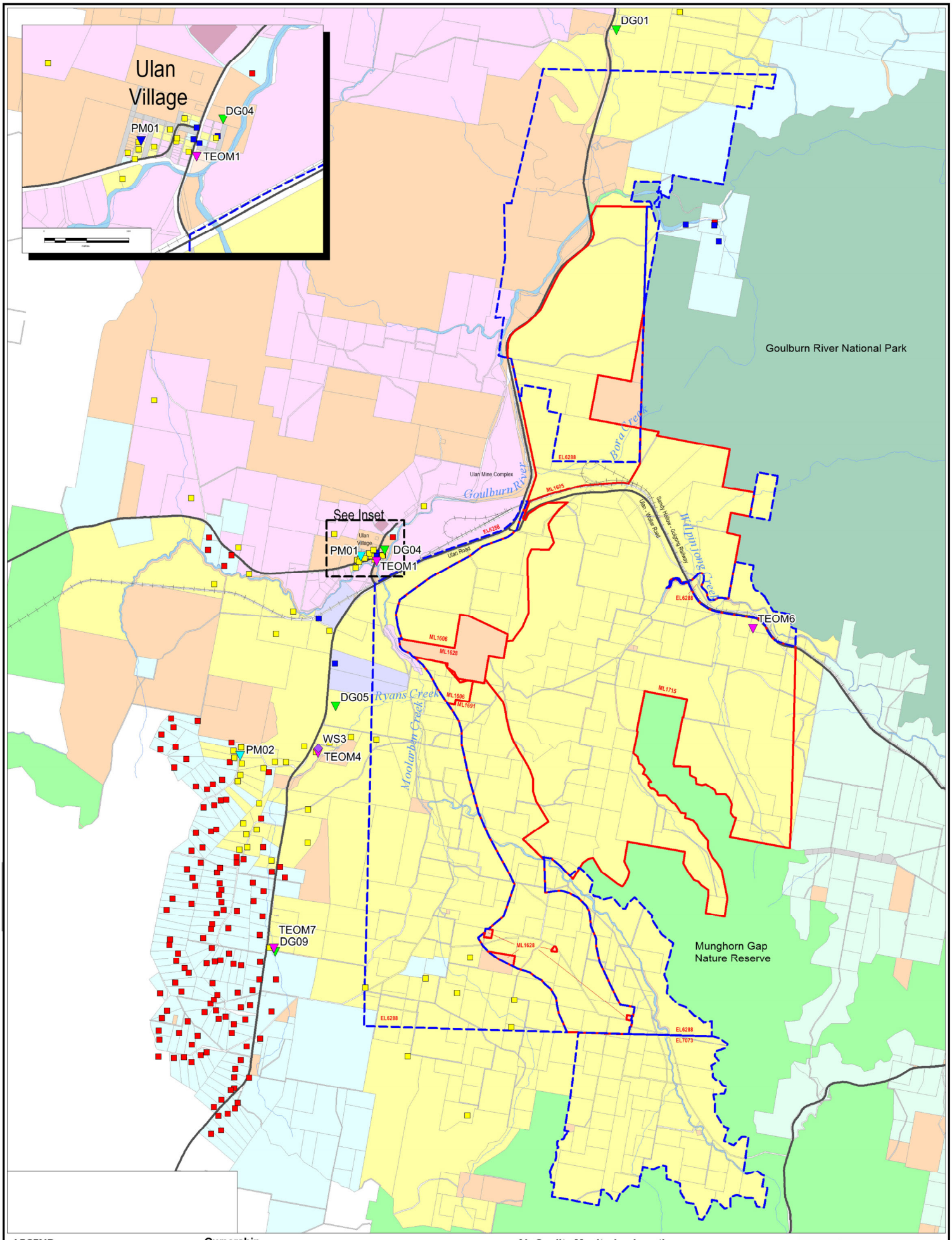


Figure 6
Air Quality Monitoring Sites

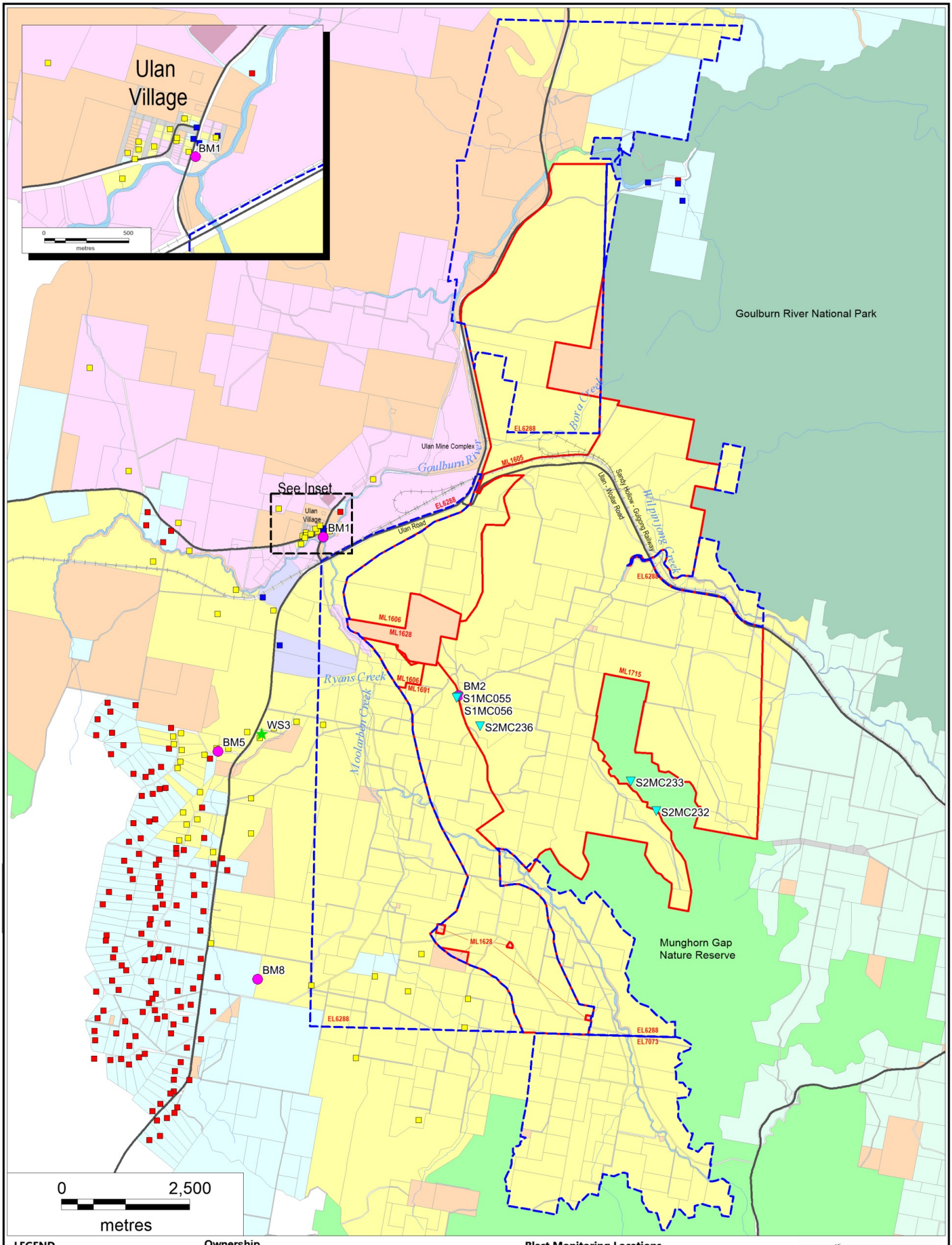


Figure 3
Blast Monitoring Sites

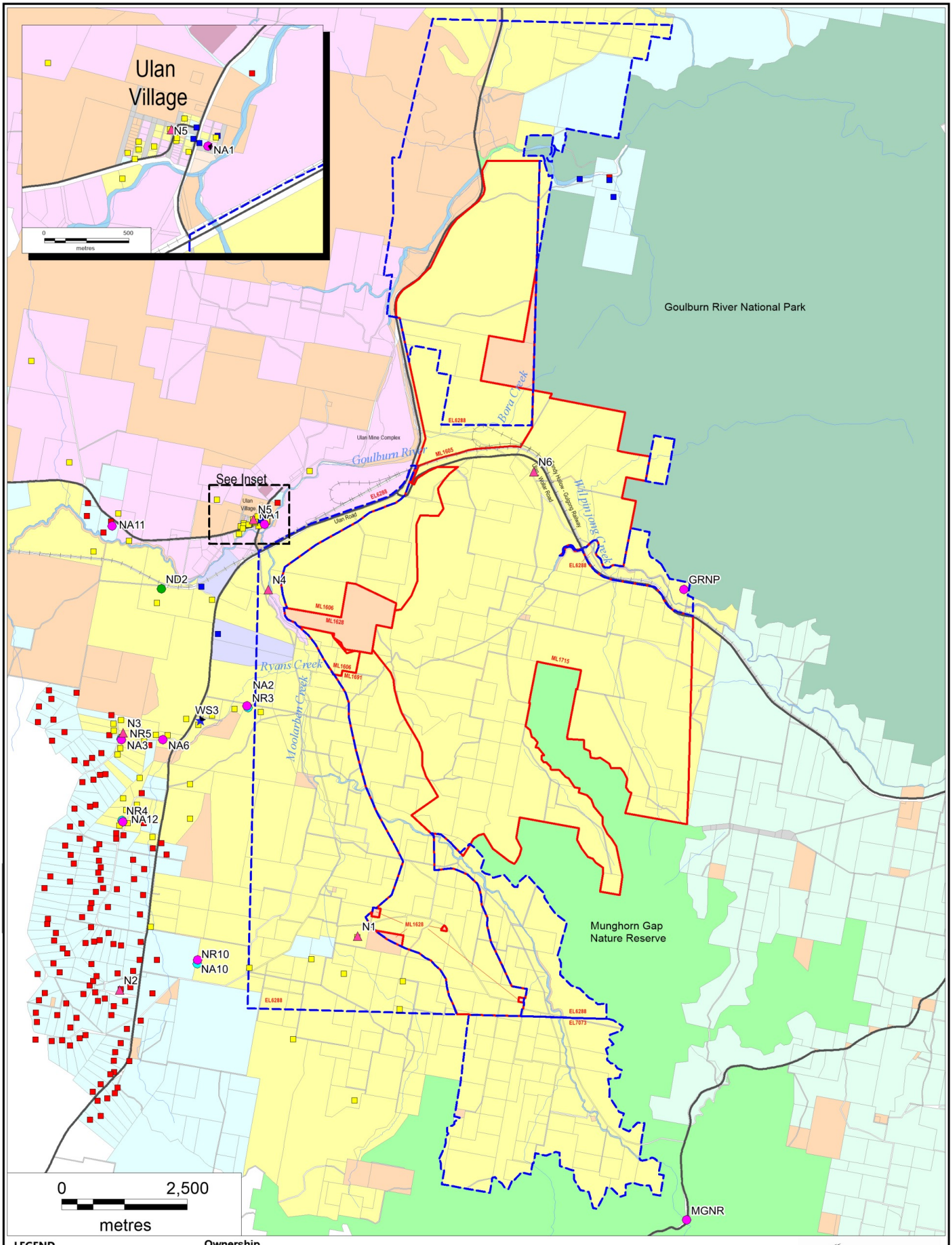


Figure 3
Noise Monitoring Sites

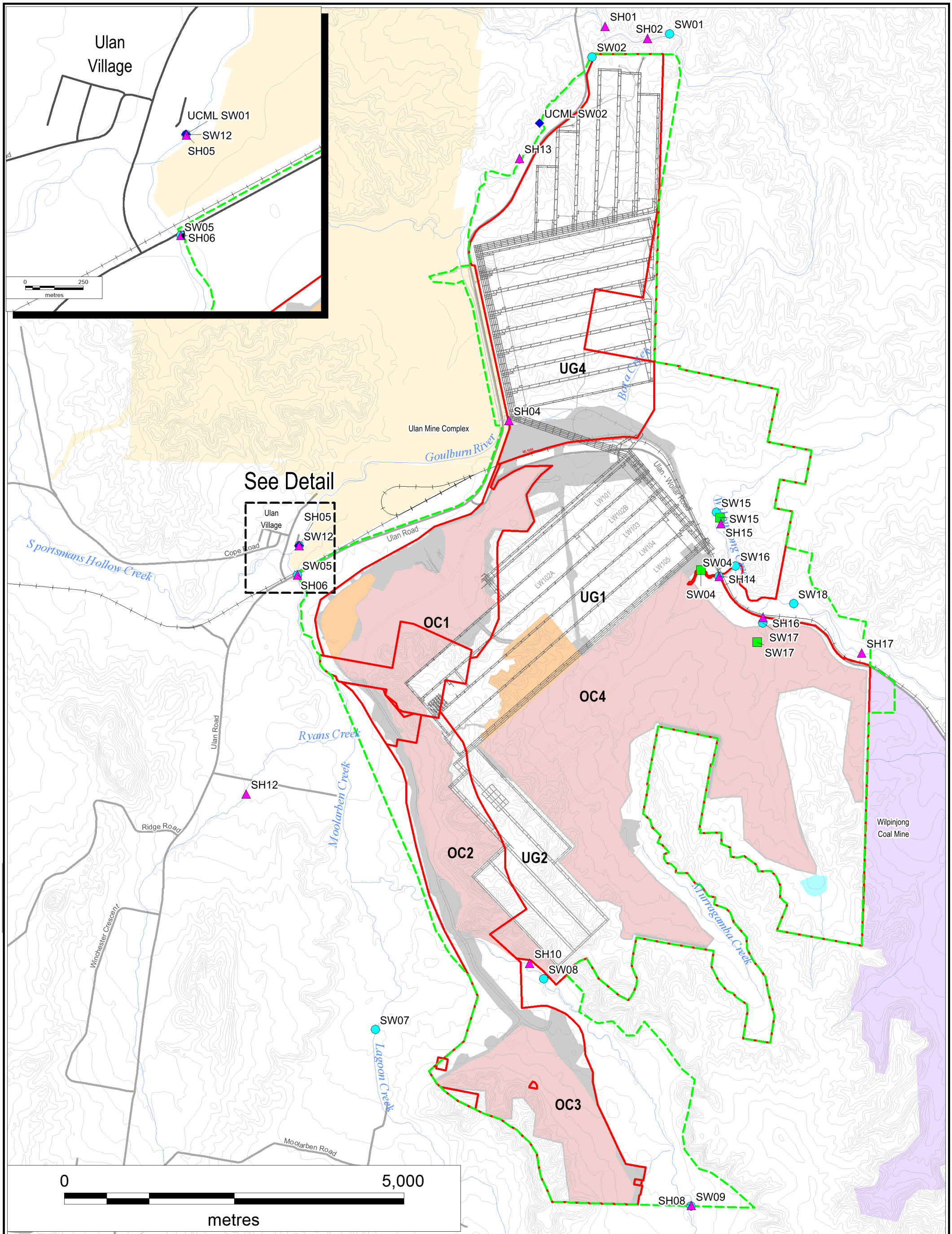
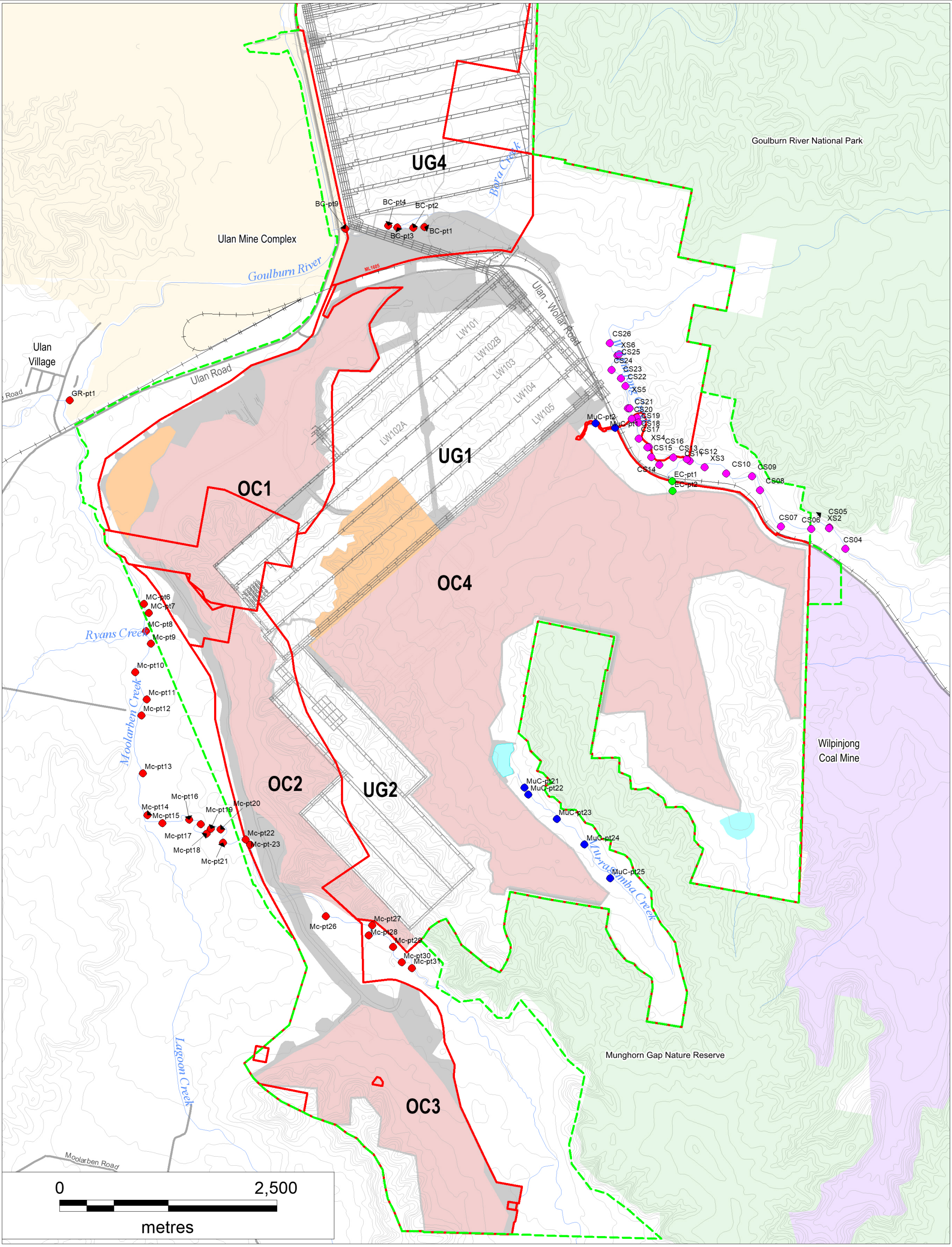


Figure 11
Surface Water Monitoring Programme



Legend

- Mining Lease Boundary
- Consolidated Project Approval Boundary
- Rail Line
- Contour
- Ulan Mine Complex
- Wilpinjong Coal Mine

Existing / Approved Development

- Open Cut Mining Area
- Underground Workings
- Out of Pit Emplacement
- Surface Infrastructure
- Clean Water Diversion Dam

Channel Stability Monitoring Locations

- Moolarben Creek
- Eastern Creek
- Murragamba Creek
- Wilpinjong Creek

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Figure 12
Channel Stability Monitoring Locations

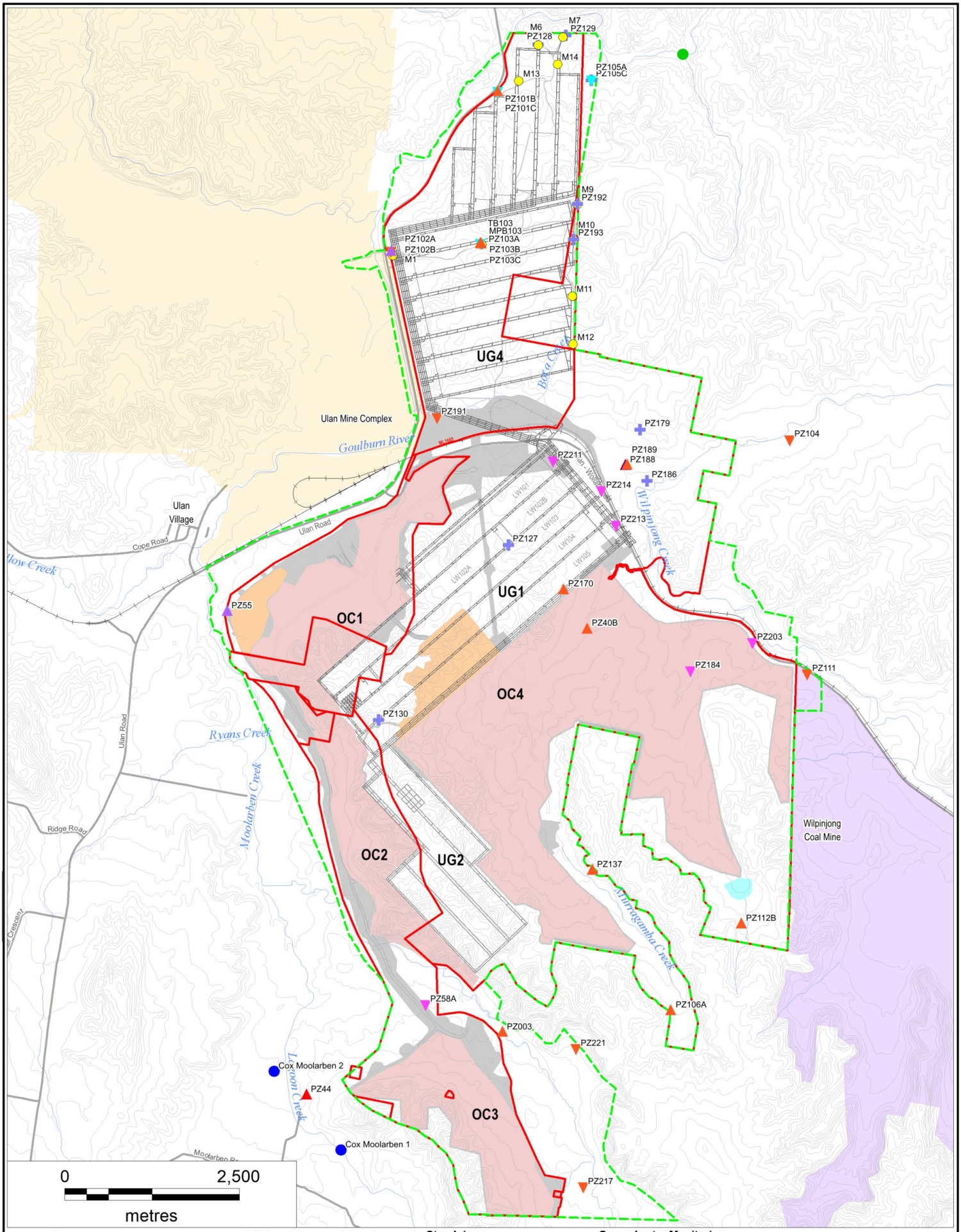

Figure 3
Groundwater Monitoring Network