

Notice of Modification

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

As delegate of the Minister for Planning, the Planning Assessment Commission modifies the project approval referred to in schedule 1, as set out in schedule 2.

Member of the Commission

Member of the Commission

Sydney

2014

SCHEDULE 1

The project approval for Stage1 of the Moolarben Coal Project (05_0117).

SCHEDULE 2

1. Replace the schedules 1 to 5 of the project approval with the following:

SCHEDULE 1

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

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DEFINITIONS

Annual review	The review required by condition 4 of schedule 5
ARTC	Australian Rail Track Corporation Ltd
BCA	Building Code of Australia
Blast misfire	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
CHPP	Coal Handling and Preparation Plant
Conditions of this approval	Conditions contained in schedules 1 to 5 inclusive
Council	Mid-Western Regional Council
CPI	Australian Bureau of Statistics Consumer Price Index
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning & Infrastructure
DPI	Department of Primary Industries
DRE	Division of Resources and Energy within the Department of Trade and Investment, Regional Infrastructure and Services
Director-General	Director-General of the Department, or nominee
EA	The report titled <i>Moolarben Coal Project Environmental Assessment, Volumes 1-5</i> , dated September 2006, as modified by the Preferred Project Report submitted to the Department in December 2006 and the response to submissions.
EA (MOD 1)	The <i>Application to Make Modifications to the Project Approval for the Moolarben Coal Project</i> , prepared by Wells Environmental Services and dated August 2008.
EA (MOD 2)	The <i>Environmental Assessment - Section 75W Modification Application</i> , prepared by Coffey Natural Systems and dated December 2008.
EA (MOD 3)	Environmental assessment titled <i>Moolarben Coal Project Stage 2 Environmental Assessment Report</i> (6 volumes), dated March 2009 as modified by the preferred project report, dated January 2012; the response to submissions dated June 2012; the Residual Matters Report dated August 2012; and the following supplementary information: <ul style="list-style-type: none"> • Groundwater Accounting and Water Sharing Plan prepared by RPS Aquaterra Pty Ltd and 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 and dated December 2012; • <i>Water Licensing Report – Wollar Creek Water Source</i> prepared by Dundon Consulting Pty Ltd (dated 11 June 13).
EA (MOD 4)	The <i>Documentation in Support of the Balloon Loop Modification</i> , prepared by Wells Environmental Services and dated April 2009.
EA (MOD 5)	The <i>Environmental Assessment - Section 75W Modification Application</i> , prepared by Coffey Natural Systems and dated July 2009, associated response to submissions dated August 2009, and supplementary information dated September 2009.
EA (MOD 6)	The <i>Environmental Assessment - Section 75W Modification Application</i> , prepared by Coffey Natural Systems and dated December 2009.
EA (MOD 7)	The <i>Environmental Assessment – Section 75W Modification Application</i> , prepared by Coffey Natural Systems Pty Ltd and dated March 2010, and associated response to submissions dated June 2010, and supplementary information dated 2 November 2010 and 6 December 2010.
EA (MOD 8)	The <i>Environmental Assessment – Section 75W Modification Application</i> , prepared by Moolarben Coal Operations Pty Ltd and dated April 2010.

EA (MOD 9)	The <i>Environmental Assessment for the Moolarben Coal Project Stage 1 Optimisation Modification</i> prepared by EMGA Mitchell McLennan Pty Limited and dated May 2013, and associated response to submissions dated September 2013, and supplementary information dated 2 October 2013, 14 October 2013 and 15 October 2013.
EEC	Endangered ecological community, as defined under the TSC 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	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPBC Act	Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPL	Environment Protection Licence issued under the POEO Act
Evening	The period from 6pm to 10pm
Executive Director Mineral Resources	Executive Director of Mineral Resources within DRE, or equivalent position
Feasible	Feasible relates to engineering considerations and what is practical to build or implement
Heritage item	An item as defined under the <i>Heritage Act 1977</i> and/or an Aboriginal Object or Aboriginal Place as defined under the <i>National Parks and Wildlife Act 1974</i>
Incident	A set of circumstances that: <ul style="list-style-type: none"> • 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 4 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 on site
Minister	Minister for Planning & Infrastructure, 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 within the area marked in blue on the figure in Appendix 2A
Moolarben Stage 1 mine surface infrastructure area	The approved surface infrastructure area, including the coal handling and preparation plant and the rail loop, as indicated on the figures in Appendix 2A
Moolarben Stage 2 mine	The approved mining operations and associated development within the area marked in red on the figure in Appendix 2B
NP&W Act	<i>National Parks & Wildlife Act 1974</i>
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
NOW	NSW Office of Water within DPI
OEH	Office of Environment and Heritage within the Department of Premier and Cabinet
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
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 subsequently 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
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
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
Site	The land referred to in Appendix 1
Statement of commitments	The Proponent's commitments in Appendix 3
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
TSC Act	<i>Threatened Species Conservation Act 1995</i>
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 generally in accordance with the:

- (a) EA;
- (b) EA (MOD 1);
- (c) EA (MOD 2);
- (d) EA (MOD 3);
- (e) EA (MOD 4);
- (f) EA (MOD 5);
- (g) EA (MOD 6);
- (h) EA (MOD 7);
- (i) EA (MOD 8);
- (k) EA (MOD 9);
- (h) statement of commitments; and
- (i) conditions of this approval.

Notes:

- *The general layout of the project is shown in Appendix 2A 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 Director-General arising from the Department's assessment of:
 - (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this approval; and
 - (b) 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 site until the 31 December 2037.

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

Coal Extraction

6. The Proponent shall not extract more than:
 - (a) 8 million tonnes of ROM coal from the open-cut mining operations of the project in any calendar year; or
 - (b) 13 million tonnes of ROM coal from the open-cut mining operations of the Moolarben mine complex in any calendar year; and
 - (c) 4 million tonnes of ROM coal from the underground mining operations of the Moolarben mine complex in any calendar year.

Coal Production

7. The Proponent shall not export more than 17 million tonnes of coal from the site in any calendar year.

Coal Transport

8. The Proponent shall only transport coal from the site by rail.

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 Director-General, the Proponent may submit any strategy, plan or program required by this approval on a progressive basis. :

Notes:

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

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

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

Table 1: Noise impact assessment criteria dB(A)

Land Number	Day	Evening	Night	
	$L_{Aeq}(15min)$	$L_{Aeq}(15min)$	$L_{Aeq}(15min)$	$L_{A1}(1min)$
30, 63	39	39	39	45
70	37	37	37	45
75	36	36	36	45
31	36	35	35	45
All other privately-owned land	35	35	35	45
Ulan Primary School	35 (internal) when in use			-
Ulan Anglican Church Ulan Catholic Church	35 (internal) when in use			-
Goulburn River National Park Munghorn Gap Nature Reserve	50			-

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

Noise generated by the **Moolarben mine complex** is to be measured in accordance with the relevant requirements of the *NSW Industrial Noise Policy*. Appendix 6 sets out the meteorological conditions under which these criteria apply, and the requirements for evaluating compliance with these criteria.

However, these 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.

Mitigation Upon Request

- Upon receiving a written request from the owner of the residence on the land listed in Table 2, the Proponent shall implement additional noise mitigation measures (such as double-glazing, insulation and/or air conditioning) at the residence in consultation with the landowner. These measures must be reasonable and feasible, and directed towards reducing the noise impacts of the project on the residence.

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

Table 2: Land subject to additional noise mitigation upon request

Receiver ID
30, 31, 63, 70 and 75

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

Operating Conditions

- The Proponent shall:
 - implement best management practice to minimise the operational, road and rail noise of the project;
 - 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;
 - 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 the 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 Director-General.

Noise Management Plan

4. The Proponent shall prepare and implement a Noise Management Plan for the **Moolarben mine complex** to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with the EPA;
 - (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:
 - evaluates and reports on:
 - the effectiveness of the on-site 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

5. The Proponent shall ensure that blasting on site does not cause exceedances of the criteria in Table 3.

Table 3: 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 <i>(or a limit determined by the structural design methodology in AS 2187.2-2006, or its latest version, or other alternative limit for public infrastructure, to the satisfaction of the Director-General)</i>	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

6. 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 Director-General.

Blasting Frequency

7. 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

8. 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 Director-General for resolution.

Property Investigations

9. 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 Director-General.

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 Director-General for resolution.

Operating Conditions

10. 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) 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 **at the Moolarben mine complex** with the timing of blasting at the Ulan and Wilpinjong mines to minimise cumulative blasting impacts, to the satisfaction of the Director-General.
11. 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 Director-General 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

11. The Proponent shall prepare and implement a Blast Management Plan for the **Moolarben mine complex** prior to undertaking any blasting on site to the satisfaction of the Director-General. This plan must:
- be prepared in consultation with the EPA;
 - describe the measures that would be implemented to ensure compliance with the blast criteria and operating conditions of this approval;
 - propose and justify any alternative ground vibration limits for public infrastructure in the vicinity of the site (if relevant); and
 - include a monitoring program for evaluating compliance with the blasting criteria and operating conditions of this approval.

AIR QUALITY

Odour

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

Air Quality Criteria

14. 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 4, 5 and 6 at any residence on privately-owned land.

Table 4: 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 30 µg/m ³

Table 5: 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

Table 6: 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 4-6:

^a Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources);

^b Incremental impact (i.e. incremental increase in concentrations due to the development on its own);

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

^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any other activity agreed by the Director-General.

Mine-owned Land

15. 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 7, 8 and 9 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) has 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 and landowner (if the residence is owned by another mining company);
 - (d) air quality monitoring is regularly undertaken to inform the tenant and 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 in making informed decisions on the health risks associated with occupying the property,
- to the satisfaction of the Director-General.

Air Quality Acquisition Criteria

16. If particulate matter emissions generated by the **Moolarben mine complex** exceed the criteria, or contribute to the exceedance of the relevant cumulative criteria, in Tables 7, 8 and 9 at any residence on privately-owned land then upon receiving a written request for acquisition from the landowner, the Proponent shall acquire the land in accordance with the procedures in conditions 5-6 of schedule 4.

Table 7: Long term land acquisition criteria for particulate matter

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

Table 8: Short term land acquisition criteria for particulate matter

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

Table 9: 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 7-9:

^a Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources);

^b Incremental impact (i.e. incremental increase in concentrations due to the development on its own);

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

^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any other activity agreed by the Director-General.

Operating Conditions

17. The Proponent shall:
- (a) implement best management practice to minimise the off-site odour, fume and dust 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 9); 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 Director-General.

Air Quality Management Plan

18. The Proponent shall prepare and implement an Air Quality Management Plan for the **Moolarben mine complex** to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with the EPA;
 - (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:
 - adequately supports the air quality management system;
 - evaluates and reports on:
 - the effectiveness of the air quality management system;
 - compliance with the air quality criteria; and
 - 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.

METEOROLOGICAL MONITORING

19. 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 Industrial Noise Policy*, unless a suitable alternative is approved by the Director-General following consultation with the EPA.

WATER

Water Supply

20. The Proponent shall ensure that 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.

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 development.

Compensatory Water Supply

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

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 Director-General 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 Director-General.

Water Pollution

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

Water Management Performance Measures

23. The Proponent shall comply with the performance measures in Table 10 to the satisfaction of the Director-General.

Table 10: Water Management Performance Measures

Feature	Performance Measure
Water Management – General	<ul style="list-style-type: none"> Minimise cumulative water impacts with the other mines in the region Maximise water sharing with the other mines in the region Minimise the use of clean water on site
The Drip	<ul style="list-style-type: none"> No more than negligible impact on the water supply to the Drip
Construction and operation of linear infrastructure	<ul style="list-style-type: none"> Design, install and maintain erosion and sediment controls generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction</i> including <i>Volume 1</i>, <i>Volume 2A – Installation of Services</i> and <i>Volume 2C – Unsealed Roads</i> Design, install and maintain the infrastructure within 40 m of watercourses generally in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land (DPI 2007)</i>, or its latest version Design, installation and maintenance of creek crossings generally in accordance with the <i>Policy and Guidelines for Fish Friendly Waterway Crossings</i> (NSW Fisheries, 2003) and <i>Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings</i> (NSW Fisheries 2003), or their latest versions
Mine Sediment Dams	<ul style="list-style-type: none"> Design, install and maintain the dams generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction – Volume 1 and Volume 2E Mines and Quarries</i>
Clean water diversion & storage infrastructure	<ul style="list-style-type: none"> Use best endeavours to upgrade the existing clean water systems to capture and convey the 100 year ARI flood Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on site
Mine water storages	<ul style="list-style-type: none"> Mine water storage infrastructure is designed to store a 50 year ARI 72 hour storm event On-site storages (including tailings dams, mine infrastructure dams, groundwater storage and treatment dams) are suitably lined to comply with a permeability standard of $< 1 \times 10^{-9}$ m/s
The Ulan Seam sub-crop line of the most northerly final void	<ul style="list-style-type: none"> Suitably lined to comply with a permeability standard of $< 1 \times 10^{-9}$ m/s
In-pit emplacement of tailings, acid forming and potentially acid forming materials	<ul style="list-style-type: none"> Emplacement, encapsulation and capping to prevent or minimise the migration of pollutants beyond the pit shell of seepage from out of pit emplacement areas Adequate freeboard within the pit void to minimise the risk of discharge to surface waters
Chemical and hydrocarbon storage	<ul style="list-style-type: none"> Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standard
Aquatic and riparian ecosystem, including the relevant sections of Moolarben Creek, Bora Creek and the Goulburn River	<ul style="list-style-type: none"> Maintain or improve baseline channel stability Develop site-specific in-stream water quality objectives in accordance with ANZECC 2000 and <i>Using the ANZECC Guidelines and Water Quality Objectives in NSW procedures</i> (DECC 2006), or its latest version

Water Management Plan

24. The Proponent shall prepare and implement a Water Management Plan for the **Moolarben mine complex** to the satisfaction of the Director-General. This plan must:
- be prepared in consultation with NOW and the EPA, by suitably qualified and experienced persons whose appointment has been approved by the Director-General;

- (b) 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:
 - in-pit emplacement areas for tailings, acid forming and potentially acid forming materials;
 - final voids (see the Rehabilitation Objectives in Table 12);
 - detailed performance criteria for the following, including trigger levels for investigating any potentially adverse impacts associated with the project:
 - the water management system;
 - downstream surface water quality;
 - downstream flooding impacts and
 - stream and riparian vegetation health for Moolarben Creek, Bora Creek, and the Goulburn River;
 - a program to monitor and report on:
 - the effectiveness of the water management system; and
 - surface water flows and quality, stream and riparian vegetation health in the watercourses that could be affected by the project; and
 - downstream flooding impacts;
 - reporting procedures for the results of the monitoring program; and
 - a plan to respond to any exceedances of the performance criteria, and mitigate any adverse surface water impacts of the project;
- (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;
 - 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 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 monitoring programs as far as practicable;
 - undertake joint investigations/studies in relation to complaints/exceedances of trigger levels where cumulative impacts are considered likely; and
 - co-ordinate modelling programs for validation, re-calibration and re-running of groundwater models.

BIODIVERSITY

Biodiversity Offset Strategy

25. The Proponent shall implement the biodiversity offset strategy summarised in Table 11, and shown conceptually in Appendix 8 to the satisfaction of the Director-General.

Table 11: Summary of Biodiversity Offset Strategy

Area	Offset Type	Minimum Size Hectares
Redhills Property 14	Enhance existing vegetation: <ul style="list-style-type: none"> • 135 ha of EEC 	135
Area 3 Property 6	Conserve: <ul style="list-style-type: none"> • 6 ha of existing EEC Enhance and conserve: <ul style="list-style-type: none"> • 2.6 ha of regenerating EEC 	8.6
Areas 1, 2 and 3 Properties 6, 10, 12, 13, 14 and 15	Enhance existing vegetation: <ul style="list-style-type: none"> • 1282 ha of native vegetation Revegetate: <ul style="list-style-type: none"> • 48 ha of existing disturbed land to EEC 	1330
Area 1 Properties 12, 13, 14 and 15	Revegetate: <ul style="list-style-type: none"> • 153 ha of cleared land to native vegetation 	153
Clark	Enhance existing vegetation: <ul style="list-style-type: none"> • 300 ha of existing native vegetation • 32 ha of EEC 	332
Clifford	Enhance existing vegetation: <ul style="list-style-type: none"> • 19 ha of native vegetation • 62 ha of EEC 	81
Elward	Enhance existing vegetation: <ul style="list-style-type: none"> • 146 ha of native vegetation • 24 ha of EEC 	170
Property 5	Enhance existing vegetation: <ul style="list-style-type: none"> • 40 ha of native vegetation • 25 ha of EEC 	65
Properties 24 and 25	Enhance existing vegetation: <ul style="list-style-type: none"> • 59 ha of native vegetation • 4 ha of EEC 	63
Bobadeen	Enhance existing vegetation: <ul style="list-style-type: none"> • 8 ha of native vegetation • 159 ha of EEC 	167
Moolarmoo	Enhance existing vegetation: <ul style="list-style-type: none"> • 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 TSC Act and White Box Yellow Box Blakely's Red Gum Grassy Woodland as defined under the EPBC Act.

Long Term Security of Offset

26. By the 30 June 2015, unless otherwise agreed by the Director-General, the Proponent shall make suitable arrangements to provide appropriate long-term security for the offset areas in Table 11, to the satisfaction of the Director-General.

Note: The preferred mechanism for the provision of long-term conservation security is via the transfer of the offset areas to the National Park Estate. Any conservation agreement shall remain in force in perpetuity.

Biodiversity Management Plan

27. The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Director-General. This plan must:
- be prepared in consultation with OEH;
 - describe the short, medium, and long term measures that would be implemented to:

- manage the remnant vegetation and fauna habitat on the site and in the offset areas;
 - implement the biodiversity offset strategy; and
 - 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 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 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 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;
 - 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 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

28. By the 30 June 2015, unless otherwise agreed by the Director-General, 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 Director-General.

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

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

Notes:

- Existing bonds which have been paid for the Redhills, Area 1, Area 2 and Area 3 biodiversity offset areas remain current and are satisfactory to fulfill the requirements of this condition for those areas;
- Alternative funding arrangements for long-term management of the Biodiversity Offset Strategy, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement or transfer to conservation reserve estate can be used to reduce the liability of the conservation and biodiversity bond, and
- The sum of the bond may be reviewed in conjunction with any revision to the biodiversity offset strategy.

HERITAGE

Protection of Aboriginal Heritage Items

29. 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 Aboriginals heritage items are listed in Appendix 9.

Heritage Management Plan

30. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Director-General. This plan must:
- be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Director-General;
 - be prepared in consultation with OEH and the Aboriginal stakeholders (in relation to the management of Aboriginal heritage values);
 - 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;
 - 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;
 - 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.

TRANSPORT

Road Works

31. 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.
32. 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 RMS or Austroads standards, and signposted and lit in accordance AS 1742 – Manual of Uniform Traffic Control Devices and AS/NZS 1158: 2005 – Lighting for Roads and Public Spaces.

Ulan Road Strategy

33. The Proponent shall:
- (a) work with Council and the owners of the Ulan and Wilpinjong mines to agree 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 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 Director-General for resolution.

Traffic Management

34. The Proponent shall:
- (a) schedule the shift changes on site to occur outside of school bus hours; and
 - (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.

Rail Transport – West

35. The Proponent shall not transport any coal west of the site through Gulgong and Mudgee without the written approval of the Director-General. In seeking this approval, the Proponent shall submit a report to the Director-General 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

36. 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

37. 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 of 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 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) take all practical measures to shield views of mining operations from users of public roads and privately-owned residences;
 - (f) implement screening in the form of foreground and mid-ground tree and shrub planting:
 - along the southern edge of Cope Road, in consultation with Council;
 - at properties on Ridge Road that have direct views to the mining operations, and where the owner has provided a written request to the Proponent,
- to the satisfaction of the Director-General.

If within 3 months of receiving a request from a property owner for screen planting on their property, the Proponent and the owner cannot agree on the nature of the planting to be implemented, or there is a dispute about the implementation of planting, then either party may refer the matter to the Director-General for resolution.

BUSHFIRE MANAGEMENT

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

WASTE

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

REHABILITATION

Rehabilitation Objectives

40. The Proponent shall rehabilitate the site to the satisfaction of the Executive Director Mineral Resources. This rehabilitation must be generally consistent with the proposed rehabilitation described in the EA (and depicted conceptually in the figures in Appendix 10), and comply with the objectives in Table 12.

Table 12: Rehabilitation Objectives

Feature	Objective
Mine site (as a whole)	<ul style="list-style-type: none"> Safe, stable and non-polluting; Constructed landforms are to drain to the natural environment (excluding the final voids); Final landforms are to be consistent with the surrounding topography of the area, taking into account relief patterns and principles; and Minimise visual impact of final landforms as far as is reasonable and feasible.
Final Voids	<ul style="list-style-type: none"> Minimise the size and depth of final voids so far as is reasonable and feasible, subject to meeting the objectives below; Minimise the drainage catchment of the final void so far as is reasonable and feasible; Negligible high wall instability risk; The size and depth of the final voids must be designed having regard to their function as long-term groundwater sinks, to ensure that groundwater flows across the back-filled pit towards the final void; and Minimise risk of flood interaction for all flood events up to and including the Probable Maximum Flood level.
Surface infrastructure	<ul style="list-style-type: none"> To be decommissioned and removed, unless the Executive Director, Mineral Resources agrees otherwise.
Agricultural land	<ul style="list-style-type: none"> Establish agricultural land in areas indicated in the figure in Appendix 8 to a similar agricultural suitability to that existing prior to mining.
Other Land	<ul style="list-style-type: none"> Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of: <ul style="list-style-type: none"> native forests and woodland, including EECs; habitat for threatened fauna species; and wildlife corridors (as indicated in the figure in Appendix 8).
Community	<ul style="list-style-type: none"> Ensure public safety; and Minimise the adverse socio-economic effects associated with mine closure.

Progressive Rehabilitation

41. 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.

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

Rehabilitation Management Plan

43. The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Executive Director, Mineral Resources. This plan must:
- (a) be prepared in consultation with the Department, NOW, OEH, Council and the CCC;
 - (b) be submitted to the Executive Director, Mineral Resources;
 - (c) be prepared in accordance with any relevant DRE guideline;
 - (d) describe how the rehabilitation of the site would be integrated with the implementation the biodiversity offset strategy;
 - (e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);
 - (f) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, and address all aspects of rehabilitation including mine closure, final landform, and final land use;
 - (g) include interim rehabilitation where necessary to minimise the area exposed for dust generation;
 - (h) include a program to monitor, independently audit and report on the effectiveness of the measures, and progress against the detailed performance and completion criteria; and
 - (i) build to the maximum extent practicable on the other management plans required under this approval.
-

**SCHEDULE 3A
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 13 to the satisfaction of the Director-General.

Table 13: Subsidence Impact Performance Measures

Water Resources	
The Drip, Goulburn River Gorge and the bed of the Goulburn River	Negligible subsidence impacts or environmental consequences
Land	
Cliff Line 3	No greater subsidence impacts or environmental consequences than predicted in the EA
Heritage Items	
Aboriginal heritage items 264, 280, 282, 283, 286 and 287	No greater subsidence impacts or environmental consequences than predicted in the EA
Historic heritage items	No greater subsidence impacts or environmental consequences than predicted in the EA
Mine workings	
First workings under an approved Extraction Plan beneath any feature where performance measures in this table require negligible subsidence impacts or negligible environmental consequences	To remain long-term stable and non-subsiding.
Second workings	To be carried out only within the longwall mining domains, only in accordance with an approved Extraction Plan.

Notes:

- *The locations of the features referred to in Table 13 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 Director-General 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 13 and the Director-General 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 Director-General.

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 14, to the satisfaction of the Director-General.

Table 14: Subsidence Impact Performance Measures

Built Features	
Key public infrastructure: Gulgong-Sandy Hollow Railway Line	Always safe and serviceable.
Wollar-Wellington 330kV Transmission Line	Damage that does not affect safety or serviceability must be fully repairable, and must be fully repaired.
Public infrastructure:	
Roads, other built features and improvements, including fences	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.
Public Safety	
Public safety	Negligible additional risk

Notes:

- 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 Director-General 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 14 is to be settled by the Director-General, following consultation with the Executive Director Mineral Resources. Any decision by the Director-General 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 Director-General. Each extraction plan must:
- be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Director-General;
 - be approved by the Director-General before the Proponent carries out any of the second workings covered by the plan;
 - include detailed plans of existing and proposed first and second workings and any associated surface development;
 - include detailed performance indicators for each of the performance measures in Tables 13 and 14;
 - 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;
 - describe the measures that would be implemented to ensure compliance with the performance measures in Tables 12 and 13, and manage or remediate any impacts and/or environmental consequences;
 - include a Built Features Management Plan, which has been prepared in consultation with DRE and the owners of affected public infrastructure, to manage the potential subsidence impacts and/or environmental consequences of the proposed second workings, and which:
 - 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 NOW, 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; 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 includes all requirements under conditions 29-30 of Schedule 3;
- (l) include a Public Safety Management Plan, which has been prepared in consultation with DRE, to ensure public safety in the mining area;
- (m) include a subsidence monitoring program, which has been prepared in consultation with DRE, to:
 - 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 13 and 14, or where any such exceedance appears likely;
- (o) proposes appropriate revisions to the Rehabilitation Management Plan required under condition 43 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 2A.*

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 DRE is satisfied that the first workings are designed to remain long-term stable and non-subsiding, except insofar as they may be impacted by approved second workings.

Note: The intent of this condition is not to require an additional approval for first workings, but to ensure that first workings are built to geotechnical standards sufficient to ensure long term stability, with zero resulting subsidence impacts.

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.

SCHEDULE 4 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS/TENANTS

1. By the end of April 2014, the Proponent shall:
 - (a) notify in writing the owners of:
 - any residence on the land listed in Table 2 of schedule 3 that they have the right to request the Proponent to ask 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 2 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 Director-General.
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 Director-General in writing for an independent review of the impacts of the project on his/her land.

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

- (a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Director-General, 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 Director-General 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 and/or air quality mitigation measures in condition 1 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 Director-General; 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 Director-General for resolution.

Upon receiving such a request, the Director-General 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 Director-General for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Director-General will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions.

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

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

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.
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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 Director-General. This strategy must:
 - (a) be submitted to the Director-General 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 Director-General, to the satisfaction of the Director-General.

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 Director-General, the Proponent shall review the environmental performance of the project to the satisfaction of the Director-General. 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 of annual review under condition 4 above;
 - (b) the submission of incident report under condition 7 below;
 - (c) the submission of 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 Director-General. 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 Director-General 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 project to the satisfaction of the Director-General. This CCC must be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version).

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 notify, at the earliest opportunity, the Director-General and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the project, the Proponent shall notify the Director-General and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

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 the 31 December 2015, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
- (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;
 - (b) include consultation with the relevant agencies;
 - (c) assess the environmental performance of the project and assess whether it is complying with the requirements in this approval, and any other relevant approvals, relevant EPL/s and/or Mining Lease (including any assessment, plan or program required under these approvals);
 - (d) 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 Director-General, the Proponent shall submit a copy of the audit report to the Director-General 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 Director-General; 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 Director-General.
-

**APPENDIX 1
SCHEDULE OF LAND**

Owner	Description	Parish	County	EA ID
Moolarben Coal Operations Pty Ltd	Lot 1 DP 817487	Lennox	Phillip	-
Moolarben Coal Operations Pty Ltd	Pt. Lot 102 DP 755442	Moolarben	Phillip	50
Moolarben Coal Operations Pty Ltd	Pt. Lot 157 DP 755442	Moolarben	Phillip	50
Moolarben Coal Operations Pty Ltd	Pt. Lot 6 DP 115031	Moolarben	Phillip	50
DJ & JG Stokes	Pt. Lot 208 DP 755442	Moolarben	Phillip	32
DJ & JG Stokes	Pt. Lot 4 DP 575167	Moolarben	Phillip	32
DJ & JG Stokes	Pt. Lot 65 DP 755442	Moolarben	Phillip	32
DJ & JG Stokes	Pt. Lot 88 DP 755442	Moolarben	Phillip	32
Moolarben Coal Operations Pty Ltd	Lot 1 DP 115031	Moolarben	Phillip	36
Moolarben Coal Operations Pty Ltd	Lot 2 DP 115031	Moolarben	Phillip	36
Moolarben Coal Operations Pty Ltd	Lot 89 DP 755442	Moolarben	Phillip	36
Moolarben Coal Operations Pty Ltd	Lot 98 DP 755442	Moolarben	Phillip	36
Moolarben Coal Operations Pty Ltd	Pt. Lot 140 DP 755442	Moolarben	Phillip	36
Moolarben Coal Operations Pty Ltd	Pt. Lot 218 DP 755442	Moolarben	Phillip	36
Moolarben Coal Operations Pty Ltd	Pt. Lot 238 DP 755442	Moolarben	Phillip	36
Moolarben Coal Operations Pty Ltd	Pt. Lot 260 DP 755442	Moolarben	Phillip	36
Moolarben Coal Operations Pty Ltd	Pt. Lot 261 DP 755442	Moolarben	Phillip	36
Moolarben Coal Operations Pty Ltd	Lot 107 DP 755442	Moolarben	Phillip	29
Moolarben Coal Operations Pty Ltd	Lot 108 DP 755442	Moolarben	Phillip	29
Moolarben Coal Operations Pty Ltd	Lot 145 DP 755442	Moolarben	Phillip	29
Moolarben Coal Operations Pty Ltd	Lot 16 DP 755442	Moolarben	Phillip	29
Moolarben Coal Operations Pty Ltd	Lot 17 DP 755442	Moolarben	Phillip	29
Moolarben Coal Operations Pty Ltd	Lot 18 DP 755442	Moolarben	Phillip	29
Moolarben Coal Operations Pty Ltd	Lot 19 DP 755442	Moolarben	Phillip	29
Moolarben Coal Operations Pty Ltd	Lot 248 DP 755442	Moolarben	Phillip	29
Moolarben Coal Operations Pty Ltd	Lot 40 DP 755442	Moolarben	Phillip	29
Moolarben Coal Operations Pty Ltd	Lot 45 DP 755442	Moolarben	Phillip	29
Moolarben Coal Operations Pty Ltd	Lot 50 DP 755442	Moolarben	Phillip	29
Moolarben Coal Operations Pty Ltd	Lot 51 DP 755442	Moolarben	Phillip	29A
Moolarben Coal Operations Pty Ltd	Lot 53 DP 755442	Moolarben	Phillip	29
Moolarben Coal Operations Pty Ltd	Lot 64 DP 755442	Moolarben	Phillip	29
Moolarben Coal Operations Pty Ltd	Pt. Lot 167 DP 755442	Moolarben	Phillip	29
Moolarben Coal Operations Pty Ltd	Pt. Lot 170 DP 755442	Moolarben	Phillip	29
Moolarben Coal Operations Pty Ltd	Pt. Lot 172 DP 755442	Moolarben	Phillip	29B
Moolarben Coal Operations Pty Ltd	Pt. Lot 183 DP 755442	Moolarben	Phillip	29
Moolarben Coal Operations Pty Ltd	Lot 146 DP 755442	Moolarben	Phillip	33
Moolarben Coal Operations Pty Ltd	Lot 52 DP 755442	Moolarben	Phillip	33
Moolarben Coal Operations Pty Ltd	Lot 63 DP 755442	Moolarben	Phillip	33
Moolarben Coal Operations Pty Ltd	Lot 99 DP 755442	Moolarben	Phillip	33
Moolarben Coal Operations Pty Ltd	Pt. Lot 205 DP 755442	Moolarben	Phillip	33
Moolarben Coal Operations Pty Ltd	Pt. Lot 289 DP 704098	Moolarben	Phillip	33
Moolarben Coal Operations Pty Ltd	Pt. Lot 93 DP 755442	Moolarben	Phillip	134
Moolarben Coal Operations Pty Ltd	Pt. Lot 93 DP 755454	Wilpinjong	Phillip	134
Moolarben Coal Operations Pty Ltd	Lot 119 DP 755442	Moolarben	Phillip	5
Moolarben Coal Operations Pty Ltd	Lot 44 DP 755442	Moolarben	Phillip	5
Moolarben Coal Operations Pty Ltd	Pt. Lot 1 DP 803204	Moolarben	Phillip	5
Moolarben Coal Operations Pty Ltd	Pt. Lot 192 DP 755442	Moolarben	Phillip	5
Moolarben Coal Operations Pty Ltd	Pt. Lot 193 DP 755442	Moolarben	Phillip	5
Moolarben Coal Operations Pty Ltd	Pt. Lot 37 DP 755442	Moolarben	Phillip	5
Moolarben Coal Operations Pty Ltd	Pt. Lot 60 DP 755442	Moolarben	Phillip	5
Moolarben Coal Operations Pty Ltd	Pt. Lot 61 DP 755442	Moolarben	Phillip	5

Owner	Description	Parish	County	EA ID
Moolarben Coal Operations Pty Ltd	Pt. Lot 62 DP 755442	Moolarben	Phillip	5
Moolarben Coal Operations Pty Ltd	Pt. Lot 95 DP 755442	Moolarben	Phillip	4
Moolarben Coal Operations Pty Ltd	Lot 109 DP 755442	Moolarben	Phillip	4
Moolarben Coal Operations Pty Ltd	Lot 110 DP 755442	Moolarben	Phillip	4
Moolarben Coal Operations Pty Ltd	Lot 223 DP 755442	Moolarben	Phillip	4
Moolarben Coal Operations Pty Ltd	Lot 234 DP 755442	Moolarben	Phillip	4
Moolarben Coal Operations Pty Ltd	Pt. Lot 112 DP 755454	Wilpinjong	Phillip	4
Moolarben Coal Operations Pty Ltd	Pt. Lot 113 DP 755454	Wilpinjong	Phillip	4
Moolarben Coal Operations Pty Ltd	Pt. Lot 228 DP 755442	Moolarben	Phillip	4
Moolarben Coal Operations Pty Ltd	Pt. Lot 229 DP 755442	Moolarben	Phillip	4
Moolarben Coal Operations Pty Ltd	Pt. Lot 96 DP 755454	Wilpinjong	Phillip	4
RB Cox	Pt. Lot 125 DP 755442	Moolarben	Phillip	30
Moolarben Coal Operations Pty Ltd	Pt. Lot 2 DP 878678	Wilpinjong	Phillip	13
Moolarben Coal Operations Pty Ltd	Pt. Lot 262 DP 755442	Moolarben	Phillip	7
Moolarben Coal Operations Pty Ltd	Pt. Lot 30 DP 755439	Lennox	Phillip	10
Moolarben Coal Operations Pty Ltd	Pt. Lot 7 DP 878678	Wilpinjong	Phillip	19
Moolarben Coal Operations Pty Ltd	Pt. Lot 97 DP 755454	Wilpinjong	Phillip	1
Moolarben Coal Operations Pty Ltd	Pt. Lot 6 DP 878678	Wilpinjong	Phillip	18
Moolarben Coal Operations Pty Ltd	Pt. Lot 3 DP 878678	Wilpinjong	Phillip	15
Moolarben Coal Operations Pty Ltd	Pt. Lot 11 DP 1152406	Wilpinjong/Lennox	Phillip	12
Ulan Coal Mines Ltd.	Lot 1 DP 722881	Moolarben	Phillip	46
Ulan Coal Mines Ltd.	Lot 178 DP 755442	Moolarben	Phillip	46
Ulan Coal Mines Ltd.	Lot 179 DP 755442	Moolarben	Phillip	46
Ulan Coal Mines Ltd.	Lot 2 DP 722882	Lennox	Phillip	46
Ulan Coal Mines Ltd.	Lot 272 DP 755442	Moolarben	Phillip	46
Ulan Coal Mines Ltd.	Lot 277 DP 755442	Moolarben	Phillip	46
Ulan Coal Mines Ltd.	Lot 3 DP 722882	Lennox	Phillip	46
Ulan Coal Mines Ltd.	Lot 45 DP 736630	Lennox	Phillip	46
Ulan Coal Mines Ltd.	Lot 18 DP 1140073	Lennox	Phillip	46
Ulan Coal Mines Ltd.	Pt. Lot 1 DP 1089166	Moolarben	Phillip	46
Ulan Coal Mines Ltd.	Pt. Lot 1 DP 1099037	Moolarben	Phillip	46
Ulan Coal Mines Ltd.	Pt. Lot 1 DP 720332	Ulan	Phillip	46
Ulan Coal Mines Ltd.	Pt. Lot 14 DP 755442	Moolarben	Phillip	46
Ulan Coal Mines Ltd.	Pt. Lot 20 DP 755439	Lennox	Phillip	46
Ulan Coal Mines Ltd.	Pt. Lot 242 DP 755442	Moolarben	Phillip	46
Ulan Coal Mines Ltd.	Pt. Lot 253 DP 755442	Moolarben	Phillip	46
Ulan Coal Mines Ltd.	Pt. Lot 44 DP 736630	Lennox/Ulan	Phillip	46
Ulan Coal Mines Ltd.	Pt. Lot 46 DP 736630	Lennox	Phillip	46
Ulan Coal Mines Ltd.	Pt. Lot 47 DP 736630	Lennox	Phillip	46
Ulan Coal Mines Ltd.	Pt. Lot 48 DP 736630	Lennox	Phillip	46
Ulan Coal Mines Ltd.	Pt. Lot 50 DP 736630	Lennox	Phillip	46
Ulan Coal Mines Ltd.	Pt. Lot 75 DP 750773	Ulan	Phillip	46
Ulan Coal Mines Ltd.	Pt. Lot 91 DP 755442	Moolarben	Phillip	46
Ulan Coal Mines Ltd.	Pt. Lot 92 DP 755442	Moolarben	Phillip	46
Ulan Coal Mines Ltd.	Pt. Lot 13 DP 1152406	Lennox	Phillip	46
Ulan Coal Mines Ltd.	Pt. Lot 14 DP 1152046	Lennox	Phillip	46
Mid-Western Regional Council	Lot 16 DP 1140073	Lennox	Phillip	-
Mid-Western Regional Council	Lot 17 DP 1140073	Lennox	Phillip	-
Mid-Western Regional Council	Lot 20 DP 1140073	Lennox	Phillip	-
Crown	Carrs Gap Road	Moolarben	Phillip	-
Crown	Moolarben Road	Moolarben	Phillip	-
Crown	Saddlers Creek Road			-
Crown	Ulan Road			-
Crown	Ulan-Wollar Road			-

Owner	Description	Parish	County	EA ID
Crown	Lot 152 DP 755442 Reserve for Public School	Moolarben	Phillip	-
Crown	Lot 176 DP 755442 Reserve for future public requirements R65457	Moolarben	Phillip	-
Crown	Pt. Lot 204 DP 755442 Reserve for future public requirements R65457	Moolarben	Phillip	-
Crown	Pt. Lot 290 DP 704098 Reserve for Access	Moolarben	Phillip	-
Crown	Pt. Lot 7009 DP 1025321 Vacant Crown Land	Moolarben	Phillip	-
Crown	Pt. Lot 31 DP 755439 Vacant Crown Land	Lennox	Phillip	-
Crown	Pt. Lot 7010 DP 1025345 Vacant Crown Land	Moolarben	Phillip	-
Crown	Pt. Lot 7302 DP 1143562 Reserve for Resting Place R.82539	Lennox	Phillip	-
Crown	Lot 33 DP 755439	Lennox	Phillip	-
Crown	Lot 34 DP 755439	Lennox	Phillip	-
Crown	Lot 55 DP 722794	Lennox	Phillip	-
Crown	Lot 56 DP 722795	Lennox	Phillip	-
Crown	Pt. Lot 43 DP 736630	Lennox/Ulan	Phillip	-
Crown	Unidentified Crown (Refer Plan Road - No 10 0857C)	Moolarben	Phillip	-
Crown	Unidentified Crown (Refer Plan Road - No 11 0857C)	Wilpinjong	Phillip	-
Crown	Unidentified Crown (Refer Plan Road - No 12 0857C)	Moolarben	Phillip	-
Crown	Unidentified Crown (Refer Plan Road - No 13 0857C)	Wilpinjong	Phillip	-
Crown	Unidentified Crown (Refer Plan Road - No 14 0857C)	Moolarben	Phillip	-
Crown	Unidentified Crown (Refer Plan Road - No 15 0857C)	Moolarben	Phillip	-
Crown	Unidentified Crown (Refer Plan Road - No 16 0857C)	Moolarben	Phillip	-
Crown	Unidentified Crown (Refer Plan Road - No 17 0857C)	Moolarben	Phillip	-
Crown	Unidentified Crown (Refer Plan Road - No 18 0857C)	Moolarben	Phillip	-
Crown	Unidentified Crown (Refer Plan Road - No 19 0857C)	Moolarben	Phillip	-
Crown	Unidentified Crown (Refer Plan Road - No 20 0857C)	Moolarben	Phillip	-
Crown	Unidentified Crown (Refer Plan Road - No 21 0857C)	Moolarben	Phillip	-
Crown	Unidentified Crown (Refer Plan Road - No 22 0857C)	Moolarben	Phillip	-
Crown	Unidentified Crown (Refer Plan Road - No 6 0857C)	Lennox	Phillip	-
Crown	Unidentified Crown (Refer Plan Road - No 7 0857C)	Lennox	Phillip	-
Crown	Unidentified Crown (Refer Plan Road - No 8 0857C)	Lennox	Phillip	-
Crown	Unidentified Crown (Refer Plan Road - No 9 0857C)	Moolarben	Phillip	-
Crown	Lot 7303 DP 1143562 Vacant Crown Land	Lennox	Phillip	-
Crown	Lot 7005 DP 1096180 Vacant Crown Land	Lennox	Phillip	-

Owner	Description	Parish	County	EA ID
Crown	Vacant Crown Land (Refer Plan - No 5 0857C)	Lennox	Phillip	-
State Rail Authority	Sandy Hollow–Gulgong Railway			-

**APPENDIX 2A
GENERAL LAYOUT OF PROJECT**

APPENDIX 2B
GENERAL LAYOUT OF THE STAGE 1 AND STAGE 2 PROJECTS

**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 Director-General 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 Director-General 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	<ul style="list-style-type: none"> • Management and monitoring of air quality will continue to be undertaken in accordance with the best management practices set out in an approved Air Quality Management Plan. • Dust control measures will be used on internal haul roads. • Raw coal transfer and rejects conveyors will be partially enclosed. • Dust sprays will be fitted to the dump hopper. • Water carts will be used to minimise dust generation from unsealed access tracks and construction areas, where required. • A TEOM will be located to the southwest of the project to enable pro-active dust management and compliance monitoring for private residences to the south of the project prior to mining in Open Cut 2. • Use of a TEOM located to the northeast of the project for measuring background dust levels. • MCO will continue to report annually in the AEMR, the total amount of greenhouse gas emissions from the MCP and the effectiveness of measures implemented to achieve energy savings.
Noise	<ul style="list-style-type: none"> • Management and monitoring of noise will continue to be undertaken in accordance with an approved Noise Management Plan, including proactive and reactive management. • MCO further commits to: <ul style="list-style-type: none"> - Limiting northern borefield construction hours from 7am to 6pm Monday to Friday (inclusive). - Limiting surface water management infrastructure upgrade construction hours from 7:00am to 5:00pm Monday to Saturday (inclusive). - Fitting haul trucks with noise attenuation equipment to meet sound power levels assumed in the Stage 1 EA and subsequent noise Impact assessments - Specifying sound power levels in supply contracts for mobile plant and equipment , where appropriate. - 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	<ul style="list-style-type: none"> • Management and monitoring of ecology will continue to be undertaken in accordance with an approved Landscape Management Plan (or equivalent), which will be reviewed and updated as required to incorporate the Open Cut 1 and Open Cut 2 extension areas. • Where possible, construction works in areas of known and potential threatened woodland species habitat will be avoided during their breeding cycle. • Pre-clearing fauna surveys will be undertaken prior to ground clearing disturbance. • One of two hollow bearing trees within the rail loop alignment will be retained (where possible). • Tree hollows and other habitat features will be salvaged for use as compensatory habitat, in rehabilitation areas. • The cleared area along the mining lease boundary will be rehabilitated and revegetated to enable cleared EEC to re-establish. • Disturbed areas not required for ongoing access and maintenance will be rehabilitated. Endemic species will be used to supplement natural vegetation regeneration, where required. • Groundcover will be maintained to minimise the risk of soil erosion, wherever practicable. Feral animals, weeds and pests will be controlled. • MCO further commits to: <ul style="list-style-type: none"> - 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 <i>Diuris Tricolor</i> in potential habitat areas within Open Cut 1 and Open Cut 2 extension areas. Where <i>Diuris Tricolor</i> 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	<ul style="list-style-type: none"> • Cultural heritage sites will be monitored and managed according to the measures described in an approved Aboriginal Cultural Heritage Management Plan. • Cultural heritage sites adjacent to and outside construction, mining and general disturbance areas will have appropriate controls in place to prevent potential disturbance. • • Cultural heritage monitoring and salvage will be undertaken by a qualified archaeologist and members of the Aboriginal Stakeholder community groups (Mudgee Local Aboriginal Land Council based in Mudgee; North-East Wiradjuri Pty Ltd, based in Ulan; Murong Gialinga Aboriginal and Torres Strait Islander Corporation, based in Mudgee; and Warrabinga Native Title Claimants Aboriginal Corporation, based in Kandos). • Where additional cultural heritage sites are identified, these sites will be managed in accordance with the measures described in the Aboriginal Cultural Heritage Management Plan. • Local Aboriginal community representatives will be involved in the recording, salvaging and storing of cultural heritage objects impacted by site works. • The Aboriginal Cultural Heritage Management Plan will be updated to include: <ul style="list-style-type: none"> - Additional registered parties as necessary. - Sub-surface testing and potential salvage of S1MC343-345 and S1MC352 where blasting is assessed to adversely impact these sites. - Test excavation and potential salvage of S1MC331 and S1MC334.
Water	<ul style="list-style-type: none"> • Erosion and sediment control measures detailed in an approved Erosion and Sediment Control Plan (or equivalent) will be implemented. • Water pressure will be monitored at the inlet and outlet of the water sharing and 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	<ul style="list-style-type: none"> • Soils will be stockpiled and used to rehabilitate areas not required for ongoing operations. • MCO is committed to progressively rehabilitating mined areas as soon as practical following disturbance, in accordance with an approved Landscape Management Plan (or equivalent Rehabilitation Plan), including returning areas disturbed by mining to their pre-mining land use (unless otherwise agreed with relevant stakeholders). The plan will be updated, as required, to include the Open Cut 1 and Open Cut 2 extension areas. The plan will consider use of terrestrial riparian buffers. • The majority of the Open Cut 1 and Open Cut 2 extension areas will be rehabilitated for biodiversity outcomes. • The 15.7 ha area of Class 3 agricultural land directly impacted by the Open Cut 1 and Open Cut 2 extension areas will be reinstated for agricultural purposes post mining.
Traffic	<ul style="list-style-type: none"> • Appropriate traffic management will be implemented for Ulan Road for construction vehicles entering and leaving the site to Ulan Road and along Saddlers Creek Road, where required. • MCO is committed to participate in the Ulan Road Strategy and will continue to consult with MWRC in relation to local road strategies.

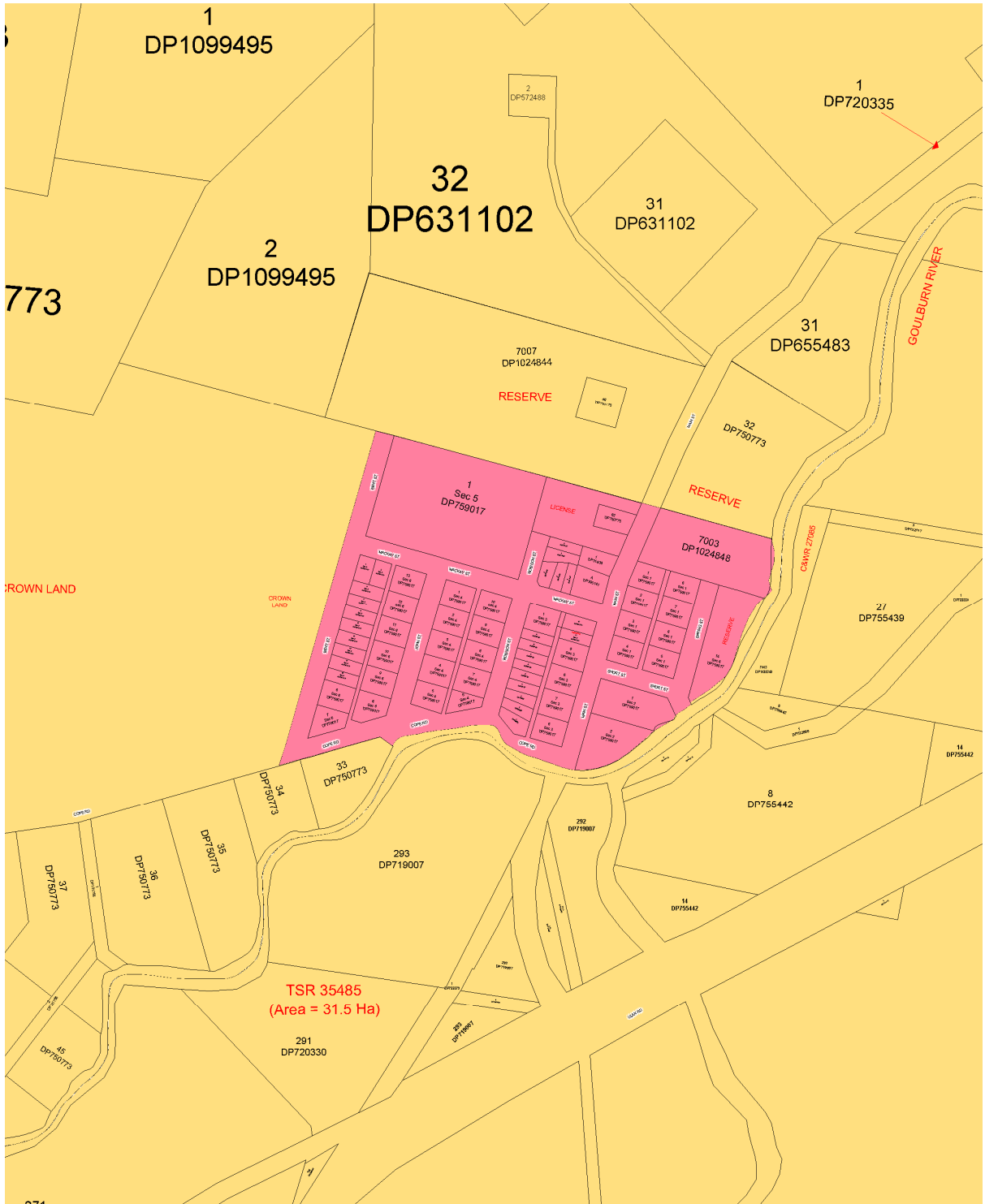
Environmental Aspect	Management and Mitigation Commitments
Visual	<ul style="list-style-type: none"> • <i>Trees and shrubs will be planted to provide a visual screen:</i> <ul style="list-style-type: none"> - <i>To the switch and bore pads located adjacent to Saddlers Creek Road, where required.</i> - <i>Along the southern edge of Cope Road, where views of Open Cut 1 extension areas will be possible, subject to landowner consent.</i> • <i>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:</i> <ul style="list-style-type: none"> - <i>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.</i> - <i>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.</i> - <i>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.</i> - <i>Seeding and grassing embankment outer faces visually exposed to private residents as soon as practically possible to soften the view.</i> - <i>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.</i> - <i>Use of operational screening measures such as landform re-establishment sequencing and lighting management.</i> - <i>Progressive rehabilitation.</i> • <i>As far as practically possible, and where mine safety allows, management protocols will be established and implemented to:</i> <ul style="list-style-type: none"> - <i>Locate mobile lighting plant to be directed away from private residences.</i> - <i>Direct stationary lighting sources below the horizontal to minimise potential light spill.</i> - <i>Design lighting systems that minimise light spillage.</i> - <i>Avoid lighting of light coloured surfaces that have greater reflectivity.</i>
Social	<ul style="list-style-type: none"> • <i>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.</i>

**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.

**APPENDIX 5
PROPERTY NUMBERS AND LAND OWNERSHIP**



No.	NAME	No.	NAME	No.	NAME
1	Moolarben Coal Mine Owned/Controlled Land	82	S.C. Hungerford & M.C. Clemens	164	Moolarben Coal Mine Owned/Controlled Land
2	Moolarben Coal Mine Owned/Controlled Land	83	C.F. & C.R. Wall	165	Moolarben Coal Mine Owned/Controlled Land
3	Moolarben Coal Mine Owned/Controlled Land	84	D.S. Sebelic	166	Moolarben Coal Mine Owned/Controlled Land
4	Moolarben Coal Mine Owned/Controlled Land	85	J. & Z. Nikolovski	167	Moolarben Coal Mine Owned/Controlled Land
5	Moolarben Coal Mine Owned/Controlled Land	86	N.W. Harris	168	PJL Construction Complete Mining Services & Solutions P/L
6	Moolarben Coal Mine Owned/Controlled Land	87	B.J. & K. Howe	169	Moolarben Coal Mine Owned/Controlled Land
7	Moolarben Coal Mine Owned/Controlled Land	88	B.C. Meyers	170	Moolarben Coal Mine Owned/Controlled Land
8	Moolarben Coal Mine Owned/Controlled Land	89	M.V. & H.M. Glover & E. & B.J. Tomlinson	171	J.M. McGregor
9	I.C.I. Australia Operations	90	S.A. Powell	172	Moolarben Coal Mine Owned/Controlled Land
10a,b	Moolarben Coal Mine Owned/Controlled Land	91	H.M. Graham	173	Moolarben Coal Mine Owned/Controlled Land
11	J. Mullins & C. Imrie	92	V.A. Pulicino, J. Bonnici, S. Bonnici & G. Bonnici	174	Moolarben Coal Mine Owned/Controlled Land
12	Moolarben Coal Mine Owned/Controlled Land	93	F. & M. Fenech	175	Moolarben Coal Mine Owned/Controlled Land
13	Moolarben Coal Mine Owned/Controlled Land	94	L.K. Mittermayer	176	Moolarben Coal Mine Owned/Controlled Land
14a	Moolarben Coal Mine Owned/Controlled Land	95	B.J. Wittington	177	Moolarben Coal Mine Owned/Controlled Land
14b	The Minister for National Parks	96	D. Lazicic	178	P. Stone
15	Moolarben Coal Mine Owned/Controlled Land	97	D.J. & M.D. Smith	179	Moolarben Coal Mine Owned/Controlled Land
16	Moolarben Coal Mine Owned/Controlled Land	98	J.P. & M.E. Piper	180	C. & L. Barrett
17	Moolarben Coal Mine Owned/Controlled Land	99	D.E. Jenner & W.B. Jensen	181	S. Forster
18	Moolarben Coal Mine Owned/Controlled Land	100	O. & A. Kapista	182	J. Dutoitcook
19	Moolarben Coal Mine Owned/Controlled Land	101	R.D. & D.M.Z. Hull	183	R. & E. Steines
20	Moolarben Coal Mine Owned/Controlled Land	101a	P.J. Kearns	184	L. Stevenson
21	Moolarben Coal Mine Owned/Controlled Land	102	K.A. Roberts	185	L. Stevenson
22	Moolarben Coal Mine Owned/Controlled Land	103	S.B. Burnett & S.L. Grant	186	R. & I. Adamson
23	Moolarben Coal Mine Owned/Controlled Land	104	R.A. & L.A. Deeben	187	B. & K. Feeney
24	Moolarben Coal Mine Owned/Controlled Land	105	D.J. & N. Katsikaris	188	K. & T. Fielding
25	Moolarben Coal Mine Owned/Controlled Land	106	T.B. & J.H. Reid	189	M,M,D & A Goggin & J.A,P & R Hyde
26	Forty North Pty Limited	107	Z.J. & M. & A.A. Raso, B. Poplasen	190	T. & L. Sahyoun
27	Moolarben Coal Mine Owned/Controlled Land	108	R. Varga	191	B. & T. Lasham
28	Moolarben Coal Mine Owned/Controlled Land	109	D.A. & V.M. Evans	192	R. & J. Williams
29a,b	Moolarben Coal Mine Owned/Controlled Land	110	J.T. Thompson & H.T. Evans	193	D.J. Moloney

No.	NAME	No.	NAME	No.	NAME
30	R. Cox	111	G.J. & N.J. McEwan	194	P. & K. Potts
31	M. Cox	112	M.J. & L.M. Croft	195	R. Cottam
32	D. & J. Stokes	113	C.P.G. Ratcliff	196	F. Saxberg & F. Weir
33	Moolarben Coal Mine Owned/Controlled Land	114	T.F. & K. Holland	197	P. Gorm & I. Neilsen
34	J. Asztalos	115	A.K. & B.H. Quinn	198	G.R. & M.E. Metcalfe
35	P. Johnson, M. & G. Thompson, P. & F. Debreczeny	116	D.J. & S.M. Reid	199	P. Gorm & I. Neilsen
36	Moolarben Coal Mine Owned/Controlled Land	117	J.M. Dick	200	V.K. Grimshaw
37	J. Szymkarczuk	118	A. Scott	201	K. & G. Towerton
38	State of NSW	119	P.J. Kearns	202	H. & V. Butler
39	R. & D. Sprigg	120	P.S. & D.R. Ord	203	D. Miller
40	J. Devenish	121	E.J. Cullen	204	R. & J. Donnan
41a,c	Moolarben Coal Mine Owned/Controlled Land	122	W.F. Wirth	205	D. Sparrow
41b	P. Libertis	123	N.D. Sullivan	206	C. Marshall & R.Vella
42	C. & L. Schmidt	124	W.J. & H.E. Bailey	207	A. & D. Smith
43	Moolarben Coal Mine Owned/Controlled Land	125	D.B. McBride	208	S. & C. Hasaart
44	Moolarben Coal Mine Owned/Controlled Land	126	M.P. Julian	209	F. Mawson
45	NSW Elec. Trans. Auth	127	B.K.T. & S.A. Bracken	210	J. & A. Tebbutt
46a,c,d,f,g	Ulan Coal Mines Ltd.	128	A. Sims	211	S. McGregor & W. Gray
46b	North Eastern Wiradjuri Wilpinjong Community Fund Limited	129	M. Yelds	212	E. & M. Lepik
47	S.F. & M.R. Andrews	130	G. McEwen	213	D. & J. Parsonage
48	Moolarben Coal Mine Owned/Controlled Land	131	G.R. & R.A. King	214	R. & E. O'Neil
49	Moolarben Coal Mine Owned/Controlled Land	132	N. Atkins	215	S. & P. Green
50	Moolarben Coal Mine Owned/Controlled Land	133	J.M. & T.E. Tynan	216	G. Holland & F. Handicott
51	Moolarben Coal Mine Owned/Controlled Land	134	Moolarben Coal Mine Owned/Controlled Land	217	R.P. & J.L. Patterson
52	Moolarben Coal Mine Owned/Controlled Land	136	Cumbo Land Pty Ltd	218	G. & G. Soady
53	W.D. & M.S. Bryant	137	Cumbo Land Pty Ltd	219	T. & S. Riger
54	M. A. & C. Harris	138	Cumbo Land Pty Ltd	220	S. Rusten & N. Smith
55	M.J. Cundy	139	Ulan Coal Mines Ltd.	221	State of NSW
56	M.J. & V Cundy	140	Cumbo Land Pty Ltd	222	B. Purtell
57	M.J. Cundy	141	Wilpinjong Coal Pty. Limited ¹⁴¹	223	E. Palmer & J. Stewart
58	Moolarben Coal Mine Owned/Controlled Land	142	Cumbo Land Pty Ltd	224	R. & P. Dupond
59	G. & G. M. Szymkarczuk	143	Cumbo Land Pty Ltd	225	G. & R.F. Doulates
60	C.L. Rayner & D.M. Munday	144	J.T. & Y.R Jones	226	L. & F. Muscat
61	M.A. Miller	145	Cumbo Land Pty Ltd	227	W. & J. Hughes
62	R. C. Menchin	146	Cumbo Land Pty Ltd	228	P. Libertis
63	B. F. & B. Whiticker	147	Cumbo Land Pty Ltd	229	J. & B. Lowe
64	Moolarben Coal Mine Owned/Controlled Land	148	Moolarben Coal Mine Owned/Controlled Land	230	D. Rawlinson & D. Hoole
65	Cumbo Land Pty Ltd	149	Mid Western Regional Council	231	T. Morrison & S. Benny
66	Rostherne Pty Ltd	150	Ulan Coal Mines Ltd	232	L. & J. Haaring
68	Cumbo Land Pty Ltd	151	A.I. Cunningham (Land entrusted to Catholic Church)	233	K. & D. Boal
69	Moolarben Coal Mine	152	Moolarben Coal Mine	234	D. & L. Gaw

No.	NAME	No.	NAME	No.	NAME
	Owned/Controlled Land		Owned/Controlled Land		
70	D.J. & A. Coventry	153	Moolarben Coal Mine Owned/Controlled Land	235	L. & R. Wilson
71	Council of the Shire of Mudgee	154	Moolarben Coal Mine Owned/Controlled Land	236	R. & C. Donovan
72	Ulan Electricity	155	Moolarben Coal Mine Owned/Controlled Land	237	A. Puskaric
73	Moolarben Coal Mine Owned/Controlled Land	156	Moolarben Coal Mine Owned/Controlled Land	238	B. Powell
74	Moolarben Coal Mine Owned/Controlled Land	157	Moolarben Coal Mine Owned/Controlled Land	239	J. Delarue
75	P. Ban	158	Moolarben Coal Mine Owned/Controlled Land	240	G.J. & D.M. Hartley
76	S.R & P.C Carbone	159	Moolarben Coal Mine Owned/Controlled Land	241	Moolarben Coal Mine Owned/Controlled Land
77	Moolarben Coal Mine Owned/Controlled Land	160	Minister for Education & Training	242	Mid Western Regional Council
78	Moolarben Coal Mine Owned/Controlled Land	160b	Moolarben Coal Mine Owned/Controlled Land	243	R.J. Hopper & T.H. Thompson
79	P. T.J. & S.E. Nagle	161	Moolarben Coal Mine Owned/Controlled Land	244	Y.R. Jones
80	W. & D.I. Sebelic	162	D.M. Harrison	245	M.P. & K.L.E. Cresham
81	Moolarben Coal Mine Owned/Controlled Land	163	Moolarben Coal Mine Owned/Controlled Land	246	A.W. & L.M. Murray
247	J. & H. & K. Batshon	258	P.M. & C.D. Elias	308	N.A. Dower
248	G. Boustani	259	State Rail Authority of NSW	309	G.S. Maher
249	C.J. & J.I. Eldridge	299	Country Energy	310	K.I. Death
250	G.C. Eldridge	300	C.M. Collins & C.Y. Marshall	311	B.J. & L.C. Williamson
251	N.F. Potter & C.E. Selley	301	Moolarben Coal Mine Owned/Controlled Land	312	M.S. & J.J. Ioannou
252	G.A. & R.M. Johnston	302	Moolarben Coal Mine Owned/Controlled Land	313	N.J. & B.D.E. Pracy
253	Ulan Coal Mines Ltd	303	H.J. Ungaro	314	S.L. Ford
254	Ulan Coal Mines Ltd	304	G. Balajan	315	W.J. Richards & B.J. Uzelac
255	H.J. & H. Schmitz	305	L. Barisic & M. Aul	316	C.R. Vassel & C.M. Williams
256	R.C. Campbell	306	E. Armstrong	317	R.J. Hore & V. Bingham
257	Ulan Coal Mines Ltd	307	M. Chant & N.K. Young	320	Moolarben Coal Mine Owned/Controlled Land

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) during periods of rain or hail;
 - (b) average wind speed at microphone height exceeds 5 m/s;
 - (c) wind speeds greater than 3 m/s measured at 10 m above ground level; or
 - (d) temperature inversion conditions greater than 3°C/100 m.

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 approval.
4. This monitoring must be carried out at least 12 times a year, unless the Director-General directs otherwise.
5. Unless the Director-General agrees otherwise, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the *NSW Industrial Noise Policy* (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**

**APPENDIX 8
REHABILITATION AND BIODIVERSITY OFFSET STRATEGY**

**APPENDIX 9
ABORIGINAL HERITAGE**

Site Name	Site Type	X Centre	Y Centre	Artefact Density	Management Recommendation
S1MC1	Scarred Tree	760670	6424444	1	Intensive scientific recording prior to disturbance.
S1MC2	Artefact Scatter	760840	6424339	14	Surface Collection
S1MC3	Isolated Find	760846	6424309	1	Surface Collection
S1MC4	Isolated Find	760866	6424307	1	Surface Collection
S1MC5	Artefact Scatter	760867	6424306	3	Surface Collection
S1MC6	Isolated Find	760890	6424301	1	Surface Collection
S1MC7	Isolated Find	760867	6424294	1	Surface Collection
S1MC8	Isolated Find	760548	6424002	1	Surface Collection
S1MC9	Isolated Find	760508	6424018	1	Surface Collection
S1MC10	Isolated Find	760645	6424004	1	Surface Collection
S1MC11	Artefact Scatter	760924	6423968	3	Surface Collection
S1MC12	Isolated Find	760933	6423948	1	Surface Collection
S1MC13	Isolated Find	761054	6423910	1	Surface Collection
S1MC14	Isolated Find	761050	6423907	1	Surface Collection
S1MC15	Isolated Find	761252	6425269	1	Surface Collection
S1MC16	Isolated Find	761168	6425107	1	Surface Collection
S1MC17	Isolated Find	760997	6425271	1	Surface Collection
S1MC18	Isolated Find	759777	6425026	1	Conservation
S1MC19	Isolated Find	759786	6425012	1	Conservation
S1MC20	Isolated Find	759816	6425028	1	Conservation
S1MC21	Isolated Find	760296	6425214	1	Conservation
S1MC 22	Isolated Find	760297	6425216	1	Conservation
S1MC 23	Isolated Find	760269	6425239	1	Conservation
S1MC24	Isolated Find	760514	6425250	1	Surface Collection
S1MC25	Isolated Find	761802	6425783	1	Surface Collection
S1MC26	Isolated Find	761766	6425183	1	Conservation
S1MC27	Isolated Find	761828	6425100	1	Conservation
S1MC28	Isolated Find	761627	6425002	1	Conservation
S1MC29	Isolated Find	761619	6424707	1	Conservation
S1MC30	Isolated Find	761135	6424559	1	Surface Collection
S1MC31	Isolated Find	761132	6424567	1	Surface Collection
S1MC32	Isolated Find	761124	6424585	1	Surface Collection
S1MC33	Isolated Find	761125	6424584	1	Surface Collection
S1MC34	Isolated Find	761128	6424583	1	Surface Collection
S1MC35	Isolated Find	761125	6424584	1	Surface Collection
S1MC36	Isolated Find	761255	6424616	1	Surface Collection
S1MC37	Isolated Find	761255	6424616	1	Surface Collection
S1MC38	Isolated Find	761279	6424617	1	Surface Collection
S1MC39	Isolated Find	761279	6424617	1	Surface Collection
PAD 1	Pad 1	761452	6424581	N/A	Conservation
PAD 2	Pad 2	761265	6423464	N/A	Conservation
PAD 3	Pad 3	761265	6423392	N/A	Conservation
S1MC40	Artefact Scatter	760441	6421958	12	Test Excavations and Salvage
S1MC41	Isolated Find	760384	6421732	1	Test Excavations and Salvage
S1MC42	Isolated Find	760408	6421838	1	Test Excavations and Salvage
S1MC43	Artefact Scatter	760558	6421874	9	Test Excavations and Salvage
S1MC44	Isolated Find	760550	6421657	1	Test Excavations and Salvage
S1MC45	Isolated Find	760582	6421721	1	Test Excavations and Salvage

Site Name	Site Type	X Centre	Y Centre	Artefact Density	Management Recommendation
S1MC46	Isolated Find	760547	6421941	1	Test Excavations and Salvage
S1MC47	Isolated Find	760637	6422033	1	Test Excavations and Salvage
S1MC48	Isolated Find	760569	6421916	1	Test Excavations and Salvage
S1MC49	Isolated Find	760543	6422069	1	Test Excavations and Salvage
S1MC50	Isolated Find	760340	6422126	1	Test Excavations and Salvage
S1MC51	Isolated Find	760434	6422195	1	Test Excavations and Salvage
S1MC52	Isolated Find	760422	6422175	1	Test Excavations and Salvage
S1MC53	Artefact Scatter	759942	6422062	39	Test Excavations and Salvage
S1MC54	Artefact Scatter	760966	6421764	3	Conservation
S1MC55	Rockshelter & Artefacts	760964	6421902	8	Conservation
S1MC56	Rockshelter & Artefacts	760936	6421882	1	Conservation
S1MC57	Artefact Scatter	760906	6421882	16	Conservation
S1MC58	Artefact Scatter	761241	6419040	10	Conservation
S1MC59	Artefact Scatter	761274	6419089	8	Conservation
S1MC60	Artefact Scatter	761555	6418906	12	Conservation
S1MC61	Isolated Find	761650	6418891	1	Conservation
S1MC62	Isolated Find	761503	6418958	1	Conservation
S1MC63	Isolated Find	761502	6418979	1	Conservation
S1MC64	Isolated Find	761502	6418979	1	Conservation
S1MC65	Isolated Find	761382	6418984	1	Conservation
S1MC66	Artefact Scatter	761345	6418974	24	Conservation
S1MC67	Artefact Scatter	761298	6418996	52	Conservation
S1MC68	Isolated Find	761300	6419026	1	Conservation
S1MC69	Isolated Find	761300	6419031	1	Conservation
S1MC70	Isolated Find	761427	6419023	1	Conservation
S1MC71	Isolated Find	761427	6419023	1	Conservation
S1MC72	Isolated Find	761421	6419023	1	Conservation
S1MC73	Isolated Find	761429	6419089	1	Conservation
S1MC74	Isolated Find	761687	6419730	1	Conservation
S1MC75	Isolated Find	761683	6419722	1	Conservation
S1MC76	Isolated Find	761683	6419722	1	Conservation
S1MC77	Isolated Find	761597	6419653	1	Unmitigated impact
PAD 4	Pad 4	761685	6419735	N/A	Conservation
PAD 5	Pad 5	761685	6419735	N/A	Conservation
PAD 6	Pad 6	761341	6420748	N/A	Conservation
36-3-0222	Artefact Scatter	760420	6420820	6	Intensive Recording and Salvage
36-3-0223	Isolated Find	760420	6420880	1	Intensive Recording and Salvage
S1MC78	Artefact Scatter	761628	6417183	12	Test Excavations and Salvage
S1MC79	Isolated Find	761592	6417154	1	Test Excavations and Salvage
S1MC80	Isolated Find	761535	6417281	1	Surface Collection
S1MC81	Isolated Find	761547	6417308	1	Surface Collection
S1MC82	Isolated Find	761563	6417309	1	Surface Collection
S1MC83	Isolated Find	761557	6417330	1	Surface Collection
S1MC84	Artefact Scatter	761580	6417360	6	Surface Collection
S1MC85	Isolated Find	761613	6417323	1	Surface Collection
S1MC86	Isolated Find	761612	6417508	1	Surface Collection
S1MC87	Isolated Find	761615	6417500	1	Surface Collection
S1MC88	Isolated Find	761608	6417465	1	Surface Collection
S1MC89	Isolated Find	761591	6417421	1	Surface Collection

Site Name	Site Type	X Centre	Y Centre	Artefact Density	Management Recommendation
S1MC90	Isolated Find	761579	6417403	1	Surface Collection
S1MC91	Isolated Find	761631	6417624	1	Surface Collection
S1MC92	Isolated Find	761659	6417596	1	Surface Collection
S1MC93	Isolated Find	761659	6417588	1	Surface Collection
S1MC94	Artefact Scatter	761638	6417728	3	Surface Collection
S1MC95	Isolated Find	762537	6415994	1	Surface Collection
S1MC96	Isolated Find	762530	6416009	1	Surface Collection
S1MC97	Isolated Find	762523	6416029	1	Surface Collection
S1MC98	Isolated Find	762475	6416038	1	Surface Collection
S1MC99	Isolated Find	762553	6416059	1	Surface Collection
S1MC100	Isolated Find	762414	6416282	1	Surface Collection
S1MC101	Isolated Find	762415	6416282	1	Surface Collection
S1MC102	Artefact Scatter	762379	6416477	3	Surface Collection
S1MC103a	Artefact Scatter	762693	6416081	2	Surface Collection
S1MC103	Artefact Scatter	763978	6415601	184	Conservation
S1MC104	Artefact Scatter	764042	6415564	4	Conservation
S1MC105	Isolated Find	763996	6415683	1	Conservation
S1MC106	Isolated Find	764013	6415735	1	Conservation
S1MC107	Isolated Find	766017	6415739	1	Conservation
S1MC108	Isolated Find	764026	6415756	1	Conservation
S1MC109	Isolated Find	764023	6416068	1	Conservation
S1MC110	Isolated Find	764118	6416246	1	Conservation
S1MC111	Isolated Find	764135	6416310	1	Conservation
S1MC112	Isolated Find	764136	6416312	1	Conservation
S1MC113	Isolated Find	764140	6416326	1	Conservation
S1MC114	Isolated Find	764148	6416337	1	Conservation
S1MC115	Isolated Find	764124	6416425	1	Conservation
S1MC116	Isolated Find	764114	6416357	1	Conservation
S1MC117	Isolated Find	764095	6416462	1	Conservation
S1MC118	Isolated Find	764026	6416575	1	Conservation
S1MC119	Isolated Find	764027	6416566	1	Conservation
S1MC120	Isolated Find	764095	6416601	1	Conservation
S1MC121	Isolated Find	764111	6416632	1	Conservation
S1MC122	Isolated Find	764066	6416619	1	Conservation
S1MC123	Isolated Find	764064	6416622	1	Conservation
S1MC124	Isolated Find	764070	6416630	1	Conservation
S1MC125	Isolated Find	764058	6416612	1	Conservation
S1MC126	Isolated Find	764056	6416612	1	Conservation
S1MC127	Isolated Find	764121	6416573	1	Conservation
S1MC128	Isolated Find	764161	6416333	1	Conservation
S1MC129	Isolated Find	764118	6416557	1	Conservation
S1MC130	Artefact Scatter	762600	6418163	23	Conservation
S1MC131	Isolated Find	762763	6418104	1	Conservation
S1MC132	Artefact Scatter	763451	6417107	33	Conservation
S1MC133	Artefact Scatter	763477	6417119	7	Conservation
S1MC134	Isolated Find	763507	6417086	1	Conservation
S1MC135	Artefact Scatter	763535	6417042	32	Conservation
S1MC136	Artefact Scatter	762737	6417948	5	Conservation
S1MC137	Isolated Find	762338	6418398	1	Conservation

Site Name	Site Type	X Centre	Y Centre	Artefact Density	Management Recommendation
S1MC138	Isolated Find	762315	6418451	1	Conservation
S1MC139	Artefact Scatter	762549	6417807	23	Test Excavations and Salvage
S1MC140	Artefact Scatter	761278	6416654	4	Conservation
S1MC141	Isolated Find	761409	6416796	1	Test Excavations and Salvage
S1MC142	Isolated Find	761479	6417036	2	Test Excavations and Salvage
S1MC143	Artefact Scatter	761535	6417066	3	Test Excavations and Salvage
S1MC144	Isolated Find	761519	6417142	1	Test Excavations and Salvage
PAD 8	Pad 8	761478	6421053	0	Conservation
PAD 9	Pad 9	761552	6421040	0	Conservation
PAD 10	Pad 10	761551	6421051	0	Conservation
PAD 11	Pad 11	761426	6420964	0	Conservation
PAD 12	Pad 12	761318	6420832	0	Unmitigated impact
S1MC213	Isolated Find	764196	6415322	1	Conservation
S1MC225	Isolated Find	761752	6425887	1	Test Excavations and Salvage
S1MC226	Isolated Find	761726	6426232	1	Test Excavations and Salvage
S1MC227	Isolated Find	761825	6426206	1	Test Excavations and Salvage
S1MC228	Artefact Scatter	762428	6426370	13	Test Excavations and Salvage
S1MC229	Isolated Find	762430	6426375	1	Test Excavations and Salvage
S1MC230	Artefact Scatter	761640	6426786	69	Test Excavations and Salvage
S1MC231	Isolated Find	761907	6426804	1	Test Excavations and Salvage
S1MC232	Isolated Find	761926	6426825	1	Test Excavations and Salvage
S1MC233	Artefact Scatter	761954	6426840	2	Test Excavations and Salvage
S1MC234	Isolated Find	761990	6426858	1	Test Excavations and Salvage
S1MC235	Isolated Find	762126	6426823	1	Test Excavations and Salvage
S1MC236	Artefact Scatter	762199	6426811	14	Test Excavations and Salvage
S1MC237	Isolated Find	762202	6426805	1	Test Excavations and Salvage
S1MC238	Isolated Find	762211	6426803	1	Test Excavations and Salvage
S1MC239	Isolated Find	762220	6426805	1	Test Excavations and Salvage
S1MC240	Artefact Scatter	762231	6426802	7	Test Excavations and Salvage
S1MC241	Artefact Scatter	762272	6426800	10	Test Excavations and Salvage
S1MC242	Isolated Find	762291	6426800	1	Test Excavations and Salvage
S1MC243	Isolated Find	762310	6426800	1	Test Excavations and Salvage
S1MC244	Artefact Scatter	762395	6426732	1	Test Excavations and Salvage
S1MC244a	Artefact Scatter	761552	6426828	30	Test Excavations and Salvage
S1MC245	Isolated Find	761747	6426767	1	Test Excavations and Salvage
S1MC246	Isolated Find	761820	6426775	1	Test Excavations and Salvage
S1MC247	Isolated Find	761831	6426745	1	Test Excavations and Salvage
S1MC248	Isolated Find	761863	6426758	1	Test Excavations and Salvage
S1MC249	Isolated Find	761863	6426771	1	Test Excavations and Salvage
S1MC250	Isolated Find	761860	6426773	1	Test Excavations and Salvage
S1MC252	Isolated Find	761867	6426779	1	Test Excavations and Salvage
S1MC253	Isolated Find	761870	6426772	1	Test Excavations and Salvage
S1MC254	Artefact Scatter	763332	6431357	2	Conservation
S1MC255	Isolated Find	763332	6431357	1	Test Excavations and Salvage
S1MC256	Artefact Scatter	762878	6429620	23	Monitor subsidence
S1MC257	Artefact Scatter	762850	6429600	4	Conservation
S1MC258	Artefact Scatter	762865	6429652	2	Conservation
S1MC259	Isolated Find	762889	6429671	1	Conservation
S1MC260	Isolated Find	762849	6429605	1	Conservation

Site Name	Site Type	X Centre	Y Centre	Artefact Density	Management Recommendation
S1MC261	Rockshelter & Artefact	762876	6429660	2	Conservation
S1MC262	Isolated Find	762876	6429676	1	Conservation
S1MC263	Isolated Find	762177	6430458	1	Conservation
S1MC264	Grinding Grooves & Artefacts	762010	6430705	78	Monitor subsidence: Intensive recording.
S1MC265	Artefact Scatter	762224	6430592	3	Conservation
S1MC266	Isolated Find	763000	6431393	1	Conservation
S1MC267	Rockshelter & Artefact	761945	6430063	10	Monitor subsidence
S1MC268	Isolated Find	761875	6430102	1	Conservation
S1MC269	Isolated Find	761882	6430110	1	Conservation
S1MC270	Isolated Find	762024	6430287	1	Monitor subsidence
S1MC271	Rockshelter & Artefacts	763749	6428829	8	Monitor subsidence
S1MC272	Artefact Scatter	763827	6428747	2	Conservation
S1MC273	Isolated Find	762660	642864	1	Conservation
S1MC274	Isolated Find	761580	6426932	1	Conservation
S1MC275	Isolated Find	761878	6426869	1	Conservation
S1MC276	Isolated Find	761877	6426917	1	Conservation
S1MC277	Isolated Find	761862	6426931	1	Conservation
S1MC278	Isolated Find	761688	6426940	1	Conservation
S1MC279	Isolated Find	761551	6426963	1	Conservation
S1MC280	Rockshelter & Artefacts	762822	6427883	45	Monitor subsidence: Intensive recording.
S1MC281	Artefact Scatter	762865	6432219	11	Monitor subsidence
S1MC282	Artefact Scatter	762851	6432207	65	Monitor subsidence
S1MC283	Rockshelter & Artefacts	762912	6432185	6	Monitor subsidence
S1MC284	Rockshelter & Artefacts	762877	6432127	8	Monitor subsidence
S1MC285	Rockshelter & Artefacts	762905	6431976	2	Monitor subsidence
S1MC286	Rockshelter & Artefacts	762868	6431969	28	Monitor subsidence
S1MC287	Rockshelter & Artefacts	763240	6430143	28	Monitor subsidence: Intensive recording.
S1MC288	Rockshelter & Artefacts	763336	6430223	1	Monitor subsidence: Intensive recording.
S1MC289	Rockshelter & Artefacts	763795	6429838	9	Monitor subsidence: Intensive recording.
S1MC290	Rockshelter & Artefacts	763739	6429835	5	Monitor subsidence: Intensive recording.
S1MC291	Isolated Find	763726	6429853	1	Monitor subsidence: Intensive recording.
S1MC292	Isolated Find	763406	6429904	1	Monitor subsidence: Intensive recording.
S1MC293	Isolated Find	763385	6429901	1	Monitor subsidence: Intensive recording.
S1MC294	Rockshelter & Artefacts	763673	6429849	2	Monitor subsidence: Intensive recording.
S1MC295	Isolated Find	763273	6429928	1	Monitor subsidence: Intensive recording.
S1MC296	Rockshelter & Artefacts	763503	6429961	12	Monitor subsidence: Intensive recording.
S1MC297	Rockshelter & Artefacts	763420	6430329	5	Monitor subsidence: Intensive recording.
PAD 7	Pad 7	763846	6428750	0	Conservation
S1MC298	Artefact Scatter	759258	6423654	75	Test Excavation & Salvage
S1MC299	Isolated Find	759331	6423850	1	Surface Collection
S1MC300	Artefact Scatter	759071	6423798	41	Intensive Recording & Surface Collection
S1MC301	Artefact Scatter	758997	6424100	10	Surface Collection
S1MC302	Artefact Scatter	758881	6423779	20	Surface Collection
S1MC303	Artefact Scatter and PAD	762029	6426950	249	Conservation
S1MC304	Artefact Scatter and PAD	762216	6426991	63	Conservation
S1MC305	Artefact Scatter and PAD	762474	6426945	143	Conservation
S1MC306	Isolated Find	763630	6426632	1	Surface Collection
S1MC307	Isolated Find	763714	6426587	1	Surface Collection
S1MC308	Artefact Scatter	763945	6426408	2 + PAD	Test Excavation & Salvage

Site Name	Site Type	X Centre	Y Centre	Artefact Density	Management Recommendation
S1MC309	Isolated Find	763991	6426357	1	Surface Collection
S1MC310	Isolated Find	761014	6428930	1	Surface Collection
S1MC311	Isolated Find	761232	6428099	1	Surface Collection
S1MC312	Isolated Find	761279	6427873	1	Surface Collection
S1MC313	Artefact Scatter	762188	6429182	2	Surface Collection
S1MC314	Artefact Scatter and PAD	761819	6429071	2	Test Excavation & Salvage
S1MC315	Isolated Find	761959	6429047	1	Surface Collection
S1MC316	Artefact Scatter	762039	6429072	2	Surface Collection
S1MC317	Isolated Find	762078	6429120	1	Surface Collection
S1MC318	Isolated Find	762107	6429141	1	Surface Collection
S1MC319	Isolated Find	761634	6429082	1	Surface Collection
S1MC320	Isolated Find	761047	6429251	1	Surface Collection
S1MC321	Isolated Find	763728	6427662	1	Surface Collection
S1MC322	Artefact Scatter and PAD	763693	6428813	3	Conservation
S1MC323	Isolated Find	763211	6432118	1	Surface Collection
S1MC324	Isolated Find	763245	6432104	1	Surface Collection
S1MC325	Isolated Find	760137	6423587	1	Unmitigated impact
S1MC326	Rock Shelter & PAD	759832	6422848	N/A	Unmitigated impact
S1MC327	Rock Shelter & PAD	759841	6422853	N/A	Unmitigated impact
S1MC328	Isolated Find	759847	6422847	1	Unmitigated impact
S1MC329	Rock Shelter & PAD	760119	6422761	N/A	Unmitigated impact
S1MC330	Rock Shelter & PAD	760097	6422739	N/A	Unmitigated impact
S1MC331	Rock Shelter & Artefacts	760843	6421283	10	Test excavation & salvage
S1MC332	Rock Shelter & PAD	762299	6418767	N/A	Unmitigated impact
S1MC333	Rock Shelter & PAD	762086	6418954	N/A	Unmitigated impact
S1MC334	Rock Shelter & PAD	761975	6418915	N/A	Unmitigated impact
S1MC335	Rock Shelter & PAD	761874	6419277	N/A	Unmitigated impact
S1MC336	Rock Shelter & PAD	761725	6418961	N/A	Unmitigated impact
S1MC337	Rock Shelter & PAD	761575	6419390	N/A	Unmitigated impact
S1MC338	Rock Shelter & PAD	761564	6419379	N/A	Unmitigated impact
S1MC339	Rock Shelter & PAD	761544	6419370	N/A	Unmitigated impact
S1MC340	Rock Shelter & PAD	761472	6419251	N/A	Unmitigated impact
S1MC341	Rock Shelter & PAD	761009	6420337	N/A	Unmitigated impact
S1MC342	Rock Shelter & PAD	761252	6420370	N/A	Unmitigated impact
S1MC343	Rock Shelter & PAD	761430	6420424	N/A	Monitor blasting: test excavation & salvage
S1MC344	Rock Shelter & Artefacts	761434	6420500	6	Monitor blasting: test excavation & salvage
S1MC345	Rock Shelter & PAD	761438	6420476	N/A	Unmitigated impact
S1MC346	Rock Shelter & PAD	761423	6420537	N/A	Unmitigated impact
S1MC347	Rock Shelter & PAD	760928	6420913	N/A	Unmitigated impact
S1MC348	Rock Shelter & PAD	760901	6420914	N/A	Unmitigated impact
S1MC349	Rock Shelter & PAD	760793	6420933	N/A	Unmitigated impact
S1MC350	Rock Shelter & PAD	760746	6420946	N/A	Unmitigated impact
S1MC351	Rock Shelter & PAD	761070	6421070	N/A	Unmitigated impact
S1MC352	Rock Shelter & PAD	761168	6421080	N/A	Unmitigated impact
S1MC353	Rock Shelter & PAD	761421	6420743	N/A	Unmitigated impact
S1MC354	Rock Shelter & PAD	761448	6420591	N/A	Unmitigated impact
S1MC355	Artefact Scatter	760344	6422239	2	Unmitigated impact

Site Name	Site Type	X Centre	Y Centre	Artefact Density	Management Recommendation
S1MC356	Artefact Scatter	763124	6426882	1	Salvage
S1MC357	Artefact Scatter	762882	6426983	1	Salvage
S2MC1	Isolated Find	763454	6426266	1	Surface collection
S2MC256	Artefact Scatter	763698	6426910	2	Conservation
S2MC257	Isolated Find	763567	6426991	1	Conservation
S2MC258	Artefact Scatter & PAD	763414	6427000	9	Conservation
S2MC259	Isolated Find	763374	6427039	1	Conservation
S2MC260	Isolated Find	765318	6426505	1	Surface collection

**APPENDIX 10
NON-ABORIGINAL HERITAGE**

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	Exhumation. Discussion to be held with related families.
4	House & burial site. Portion 63, Ph Moolarben	Impact by Open Cut 3 development	Local – moderate	Exhumation. Discussion to be held with related families.
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.