# **Project Approval**

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

The Land and Environment Court of New South Wales approves the Project Application referred to in Schedule 1, subject to the conditions in Schedules 2 to 5.

	SCHEDULE 1	
Application Number:	08_0184	
Applicant:	Ulan Coal Mines Pty Limited	
Land:	See Appendix 1	
Project:	Ulan Continued Operations Project	
		-

The Department has prepared a consolidated version of the consent which is intended to include all modifications to the original determination instrument.

The consolidated version of the consent has been prepared by the Department with all due care. This consolidated version is intended to aid the consent holder by combining all consents relating to the original determination instrument but it does not relieve a consent holder of its obligation to be aware of and fully comply with all consent obligations as they are set out in the legal instruments, including the original determination instrument and all subsequent modification instruments.

## SUMMARY OF MODIFICATIONS

Application Number	Determination Date	Decider	Modification Description
MP08_0184	Consent upheld 24 November 2011	Land and Environment Court	Conditions modified by Land and Environment Court orders issued 10 April 2012
MP08_0184 MOD 1	7 December 2011	Director General	Mine plan modifications and concrete batching plant
MP08_0184 MOD 2	29 May 2012	Director Mining and Industry	Remove restrictions on blasting and mine plan modifications
MP08_0184 MOD 3	14 March 2016	Executive Director Resource Assessment and Business Systems	Revision to the length and layout of longwall panels to extract a further 13Mt and minor changes to surface facilities
MP08_0184 MOD 4	17 July 2019	Independent Planning Commission of NSW	Revisions to the longwall layout to extract a further 6.4Mt and minor changes to surface facilities
MP08_0184 MOD 5	7 August 2020	Director Resource Assessments	Modification to correct minor misdescription in figures
MP08_0184 MOD 6	22 May 2025	Executive Director Energy, Resource and Industry Assessments	Extension and widening of longwall panels and minor changes to surface infrastructure
MP08_0184 MOD 7	23 March 2022	Director Resource Assessments	Alternative biodiversity offset site

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## DEFINITIONS

Adaptive management	Adaptive management includes monitoring subsidence effects and impacts and, based on the results, modifying the mine plan as mining proceeds to ensure that the effects, impacts and/or associated environmental consequences remain within the predicted and/or designated ranges
Annual review	The review required by Condition 3 of Schedule 5
Applicant	Ulan Coal Mines Pty Limited, or its successors
Approved mine plan	The mine plan depicted in the figure in Appendix 2
Area 1 preferred infrastructure layout	The preferred surface infrastructure layout for Area 1 as described in the EA for Modification 6 and depicted in Figure 1 of Appendix 10
Area 1 contingency infrastructure options	The nine Area 1 contingency infrastructure options (Stages A to I) as described in the EA for Modification 6 and depicted in Figure 2 of Appendix 10
ARTC	Australian Rail Track Corporation
BCA	Building Code of Australia
BC Act	Biodiversity Conservation Act 2016
CPHR	Conservation Programs, Heritage and Regulation of NSW Department of Climate Change, Energy, the Environment and Water
BCT	NSW Biodiversity Conservation Trust
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; and pipeline, water, sewer, telephone, gas or other service main
ССС	Community Consultative Committee
CEEC	Critically endangered ecological community as defined under the <i>Threatened Species Conservation Act 1995</i>
Cliff	Continuous rock face, including overhangs, having a minimum height of 10 metres and a slope greater than $66^{\circ}$
Conditions of this consent	Conditions contained in Schedules 2 to 5 inclusive
Construction blast	Blast associated with the construction of ancillary infrastructure, such as a ventilation shaft
Council	Mid-Western Regional Council
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning, Housing and Infrastructure
DCCEEW Water	Water Group within the NSW Department of Climate Change, Energy, the Environment and Water
EA	<ul> <li>Ulan Coal Continued Operations Environmental Assessment, dated October 2009, as modified by the Response to Submissions dated February 2010 and correspondence to the Department dated 13 April 2010, 14 May 2010, 8 September 2010 and 20 March 2012;</li> <li>Modification of Ulan Coal Continued Operations – North 1 Underground Mining Area, Minor Modification to Ulan No. 3 &amp; Ulan West Mine Plans &amp; Proposed Concrete Batching Plant, dated July 2011 (MOD 1), as modified by the Response to Submissions dated September 2011;</li> <li>Modification to Ulan Coal Continued Operations – Ulan West Mine Plan (Approved Panels 1-4) and Construction Blasting, dated May 2012 (MOD 2):</li> </ul>

dated May 2012 (MOD 2);
Ulan West Modification (2 volumes), dated March 2015 (MOD 3), as modified by the Response to Submissions dated August 2015, Ulan Coal Mines Ltd – Offset Area Calculations, dated 17

December 2015 and correspondence to the Department dated 4 March 2016;

- Ulan Continued Operations Project Modification 4 Longwall Optimisation Project, dated January 2018 (MOD 4), as modified by the Response to Submissions dated August 2018;
- Project Approval 08\_0184 Minor Modification to Correct Misdescription (MOD 5), dated 21 July 2020;
- Ulan Coal Mine Alternative Offset Site Modification (Modification 7) consolidated Modification Report, dated 2 December 2021; and
- Ulan Coal Modification 6 Underground Mining Extension, dated November 2022, associated Submissions Report, dated August 2023, Amendment Report, dated May 2024 and additional information provided by the Applicant to support the modification application and included in Appendix A of the Department's assessment report on Modification 6.

Endangered ecological community as defined under the *Threatened Species Conservation Act* 1995

The environmental consequences of subsidence impacts, including: damage to built features; loss of surface water 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

Environment Protection Authority

Environmental Planning and Assessment Act 1979

Environmental Planning and Assessment Regulation 2000

Environment Protection Licence issued under POEO Act

The period from 6pm to 10pm

Feasible relates to engineering considerations and what is practical to build or carry out

Development of the main headings and gateroads in the underground mining area

### Heritage NSW as delegate for the NSW Heritage Council

A set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in this consent

In general, the definition of land is consistent with the definition in the EP&A Act. However, in relation to the noise and air quality conditions in Schedules 3 and 4 it means 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 consent

### Is harm that:

- involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial; or
- results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment)

This definition excludes "harm" that is authorised under either this consent or any other statutory approval

Water that accumulates within active mining areas, coal reject emplacement areas, tailings dams and infrastructure areas, synonymous with dirty water

Includes the removal of overburden and the extraction, processing, handling, storage and transportation of coal

EEC

Environmental consequences

## EPA

EP&A Act EP&A Regulation

EPL

Evening

Feasible

First workings

### Heritage NSW

Incident

Land

### Material harm to the environment

Mine water

Mining operations

Minister	Minister for Planning and Public Spaces, or delegate
Minor	Small in quantity, size and degree
Mitigation	Activities associated with reducing the impacts of the project prior to or during those impacts occurring
Modification 4	The development as described in <i>Ulan Continued Operations Project</i> – <i>Modification 4 Longwall Optimisation Project</i> , dated January 2018 (MOD 4), as modified by the Response to Submissions dated August 2018
Modification 6	The development as described in the EA for Ulan Coal Modification 6
Modification 6 Extension Area	The longwall extension area as described in the EA for Modification 6 and depicted in Appendix 12 as the 'Revised MOD6 longwall extension areas'
Modification 7	The development as described in Ulan Coal Mine Alternative Offset Site Modification (Modification 7) consolidated Modification Report, dated 2 December 2021
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
Offset strategy	The biodiversity conservation and enhancement program described in the EA, and depicted generally in Appendix 4
Operational blast	Blast associated with mining activities, including blasts at the quarry on site, overburden blasts and coal blasts
POEO Act	Protection of the Environment Operations Act 1997
Privately-owned land	Land that is not owned by a public agency or a mining company (or its subsidiary)
Project	The development described in the EA
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 Applicant for obtaining independent experts to review the adequacy of any aspects of an extraction plan
Rehabilitation	The treatment or management of land disturbed by the project for the purpose of establishing a safe, stable and non-polluting environment, and includes remediation
Remediation	Activities associated with partially or fully repairing the impacts and/or environmental consequences of the project
Resources Regulator	Resources Regulator within the Department of Regional NSW
ROM	Run-of-mine
Safe, serviceable & repairable	Safe means no danger to users, serviceable means available for its intended use, and repairable means damaged components can be repaired economically
Second workings	Extraction of coal from longwall panels, mini-wall panels or pillar extraction
Secretary	Planning Secretary under the EP&A Act, or nominee
Site	The land to which the project application applies, as listed in Appendix 1
SMP	Subsidence Management Plan
Statement of commitments	The Applicant's commitments in Appendix 9
Steep slopes	An area of land having a natural gradient of between $33^\circ$ and $66^\circ$

Subsidence	The totality of subsidence effects and impacts and their associated environmental consequences
Subsidence effects	Deformation of the ground mass due to mining, including all mining- induced ground movements, including both 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
TfNSW	Transport for NSW

## **SCHEDULE 2**

## **ADMINISTRATIVE CONDITIONS**

## **OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT**

1. The Applicant must 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 CONSENT**

- 2. The Applicant must carry out the project:
  - (a) generally in accordance with the EA;
  - (b) in accordance with the statement of commitments; and
  - (c) in accordance with the conditions of this consent.

#### Notes:

- The general layout of the project is shown in Appendix 2; and
- The statement of commitments is reproduced in Appendix 9.
- 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 consent shall prevail to the extent of any inconsistency.
- 4. The Applicant must comply with any reasonable requirement/s of the Secretary arising from:
  - (a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this consent;
  - (b) any reports, reviews or audits commissioned by the Department regarding compliance with this consent; and
  - (c) the implementation of any actions or measures contained in these documents.

## LIMITS ON CONSENT

5. The Applicant may carry out mining operations on the site until 30 August 2035.

Note: Under this consent, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of either the Secretary or Resources Regulator. Consequently, this consent 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.

- 6. The Applicant must not:
  - (a) extract more than 4.1 million tonnes of ROM coal from the open cut mining operations on site in a calendar year; and
  - (b) export more than 20 million tonnes of coal from the site in a calendar year.
- 7. The Applicant must ensure that:
  - (a) all product coal is transported from the site by rail;
  - (b) no product coal is transported to the west of the site on the Tallawang to Wallerawang rail corridor; and
  - (c) no more than 10 laden trains leave the site each day.

## SURRENDER OF CONSENTS

- 8. By the end of June 2012, or as otherwise agreed by the Secretary, the Applicant must surrender all existing development consents for the site (apart from DA 113-12-98) in accordance with Section 104A of the EP&A Act.
- 9. Within 3 months of the completion of longwalls 26, West 2, and West 3, or as otherwise agreed by the Secretary, the Applicant must surrender DA 113-12-98 in accordance with Section 104A of the EP&A Act.

Note: To identify the longwalls referred to in this condition, see the figures in Appendix 2.

10. Prior to the surrender of the consents referred to in Conditions 8 and 9 above, the conditions of this consent shall prevail to the extent of any inconsistency with the conditions of these consents.

### STRUCTURAL ADEQUACY

- 11. The Applicant must 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 Applicant is required to obtain construction and occupation certificates for the proposed building works.

### DEMOLITION

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

### **OPERATION OF PLANT AND EQUIPMENT**

- 13. The Applicant must ensure that all the plant and equipment used on site, or to transport coal from the site, is:
  - (a) maintained in a proper and efficient condition; and
  - (b) operated in a proper and efficient manner.

### **UPDATING & STAGING STRATEGIES, PLANS OR PROGRAMS**

14. With the approval of the Secretary, the Applicant may submit any strategy, plan or program required by this consent on a progressive basis.

To ensure these strategies, plans or programs are updated on a regular basis, the Applicant may at any time submit revised strategies, plans or programs to the Secretary for approval.

With the agreement of the Secretary, the Applicant may prepare any revised strategy, plan or program without undertaking consultation with all parties under the applicable condition of this consent.

Notes:

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

## 15. Deleted.

## PLANNING AGREEMENT

- 16. By the end of June 2011, unless otherwise agreed by the Secretary, the Applicant must 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 Applicant's offer dated 11 November 2010, which is summarised in the Table in Appendix 8.

## **AREA 1 SURFACE INFRASTRUCTURE MODIFICATION 6**

- 17. The Applicant may construct either:
  - (a) the Area 1 preferred infrastructure layout as presented in Figure 1 of Appendix 10; or
  - (b) one of the nine Area 1 contingency infrastructure options (Stages A to I) as depicted in Figure 2 of Appendix 10.
- 18. Prior to the construction of any of the Area 1 contingency infrastructure options, the Applicant must:
  - (a) consult with CPHR on the chosen option; and
  - (b) provide a report to the Secretary nominating the option chosen for construction, including justification on why the option has been selected.

## **SCHEDULE 3**

## ENVIRONMENTAL PERFORMANCE CONDITIONS

### ACQUISITION UPON REQUEST

1. Upon receiving a written request for acquisition from an owner of the land listed in Table 1, the Applicant must acquire the land in accordance with the procedures in Conditions 6 - 7 of Schedule 4.

Table 1: Land subject to acquisition upon request

Noise
93 - Rostherine Pty Ltd
274 - North-Eastern Wiradjuri Community Fund Ltd

Note: To interpret the locations referred to in Table 1, see the figure in Appendix 3.

The acquisition requirements in this condition do not apply to any of the land in the first column of Table 1 if it is subsequently rezoned for industrial development.

## NOISE

### **Noise Criteria**

2. Except for the noise-affected land referred to in Table 1, the Applicant must ensure that the noise generated by the project does not exceed the criteria in Table 2 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

Location	Day Evening Nigh		ht	
	LAeq (15 min)	LAeq (15 min)	LAeq (15 min)	LA1 (1 min)
254	38	38	37	45
All privately-owned land	35	35	35	45
Ulan Public School	35 (internal) When in use			-

Table 2: Noise Criteria dB(A)

Notes:

- To identify the locations referred to in Table 2, see figure in Appendix 3; and
- Noise generated by the project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.

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

## Noise Criteria – Modification 4 Surface Facilities Activities

2A. The Applicant must ensure that noise generated during the construction of surface infrastructure construction activities as outlined in Modification 4 does not exceed the limits shown in Table 2A.

#### Table 2A: Noise criteria dB(A)

Location*	Day	Evening	Night	
	L <sub>Aeq(15 min)</sub>	L <sub>Aeq(15 min)</sub>	L <sub>Aeq(15 min)</sub>	LA1 (1 min)
R39 and R40	41	38	38	52
All other privately-owned land	40	35	35	52

\*To identify the locations R39 and R40 see the figure in Appendix 3.

However, this criterion does not apply if the Applicant has a written agreement with the relevant landowner to exceed the criteria, and the Applicant has advised the Department in writing of the terms of this agreement.

#### Note:

• The noise acquisition criteria specified in Schedule 3 Condition 3 do not apply for surface infrastructure construction activities outlined in Modification 4.

#### **Noise Acquisition Criteria**

3. If the noise generated by the project exceeds the criteria in Table 3 at any residence on privately-owned land or on more than 25 percent of any privately-owned land, then upon receiving a written request for acquisition from the landowner, the Applicant must acquire the land in accordance with the procedures in Conditions 6 - 7 of Schedule 4.

### Table 3: Noise acquisition criteria dB(A) LAeq (15min)

Location	Day	Evening	Night
All privately-owned land	40	40	40

Notes:

- Noise generated by the project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.
- For this condition to apply, the exceedances of the criteria must be systemic.

#### **Cumulative Noise Criteria**

4. Except for the noise-affected land referred to in Table 1, the Applicant must implement all reasonable and feasible measures to ensure that the noise generated by the project combined with the noise generated by other mines in the area does not exceed the criteria in Table 4 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

Table 4: Cumulative noise criteria dB(A) LAeq (period)			
Location	Day	Evening	
All privately-owned land	50	45	

Note: Cumulative noise is to be measured in accordance with the relevant requirements, and exemptions (including certain meteorological conditions), of the NSW Industrial Noise Policy.

### **Cumulative Noise Acquisition Criteria**

5. If the noise generated by the project combined with the noise generated by other mines in the area exceeds the criteria in Table 5 at any residence on privately-owned land or on more than 25 percent of any privatelyowned land, then upon receiving a written request for acquisition from the landowner, the Applicant must acquire the land on as equitable basis as possible with the relevant mines in accordance with the procedures in Conditions 6-7 of Schedule 4.

Night

Table 5: Cumulative noise land acquisition criteria dB(A) L<sub>Aea (period)</sub>

Location	Day	Evening	Night
All privately-owned land	55	50	45

Note:

- Cumulative noise is to be measured in accordance with the relevant requirements, and exemptions (including certain meteorological conditions), of the NSW Industrial Noise Policy; and
- For this condition to apply, the exceedances of the criteria must be systemic.

#### **Additional Noise Mitigation Measures**

- 6. Upon receiving a written request from the owner of any residence:
  - (a) on the land listed in Tables 1 or 6; or
  - (b) on privately-owned land where subsequent noise monitoring shows that the noise generated by the project is greater than or equal to LAeq (15 minute) 38 dB(A) on a systemic basis,

the Applicant must implement additional noise mitigation measures (such as double glazing, insulation, and/or air conditioning) at the residence in consultation with the owner. These measures must be reasonable and feasible.

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

Table 6: Land where additional noise mitigation is available at the residence upon request

Location	Receiver
254	Geoffrey Mitchell & Mary Mitchell

Note: To identify the locations referred to in Table 6, see the figure in Appendix 3.

### **Rail Noise**

 The Applicant must seek to ensure that its rail spur is only accessed by locomotives that are approved to operate on the NSW rail network in accordance with noise limits L6.1 to L6.4 in RailCorp's EPL (No. 12208) and ARTC's EPL (No. 3142) or a Pollution Control Approval issued under the former *Pollution Control Act* 1970.

### **Operating Conditions**

- 8. The Applicant must:
  - (a) implement best practice noise management, including all reasonable and feasible noise mitigation measures to minimise the operational, construction, low frequency, rail, and road traffic noise generated by the project;
  - (b) regularly assess the real-time noise monitoring and meteorological forecasting data and relocate, modify, and/or stop operations on site to ensure compliance with the relevant conditions of this consent; and
  - (c) co-ordinate the noise management on site with the noise management at Moolarben and Wilpinjong mines to minimise the cumulative noise impacts of the mines.

### Noise Management Plan

- 9. The Applicant must prepare a Noise Management Plan for the project to the satisfaction of the Secretary. This plan must:
  - be prepared in consultation with EPA and Council, and submitted to the Secretary for approval within 3 months of the date of final Orders being made by the Land and Environment Court in proceedings No. 10998 of 2010;
  - (b) describe the noise mitigation measures that would be implemented to ensure compliance with conditions 2-8 of this schedule, including a real-time noise management system that employs both reactive and proactive mitigation measures;
  - (c) include a noise monitoring program that:
    - uses a combination of real-time and supplementary attended monitoring to evaluate the performance of the project; and
    - includes a protocol for determining exceedances of the relevant conditions of this consent;
  - (d) include a protocol that has been prepared in consultation with the owners of the Moolarben and Wilpinjong mines for minimising and managing the cumulative noise impacts of the mines.

The Applicant must implement the plan as approved by the Secretary.

Note: The effectiveness of the Noise Management Plan is to be reviewed and audited in accordance with the requirements in Schedule 5. Following these reviews and audits, the plan is to be revised to ensure it remains up to date (see Condition 4 of Schedule 5).

### BLASTING

#### **Operational Blasting Criteria**

10. The Applicant must ensure that operational blasting on site does not cause exceedances of the criteria in Table 7.

Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance
Residence on privately- owned land	115	5	5% of the total number of blasts over a period of 12 months
	120	10	0%

Table 7: Operational blast impact criteria

10A The Applicant must ensure that operational blasting and construction blasting on the site does not damage Heritage Sites on site. Heritage Sites can be identified in Appendix 7 of this consent.

### **Operational Blasting Hours**

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

### **Operational Blasting Frequency**

12. The Applicant must not carry out more than 1 operational blast a day on site, unless an additional operational blast is required following a blast misfire.

Note: A blast may involve a number of explosions within a short period, typically less than two minutes.

### **Construction Blasting Hours and Frequency**

12A. The Applicant must only carry out construction blasting on site between 7am and 7pm daily where the Applicant confirms by design and prediction prior to construction blasting that the overpressure and vibration levels will be less than 95dB(A) and 1mm/sec, respectively at all private buildings.

### **Property Inspections**

- 13. If the Applicant receives a written request from the owner of any privately-owned land within 2 kilometres of the approved open cut mining pit on site for a property inspection to establish the baseline condition of any buildings and/or structures on their land, or to have a previous property inspection report updated, then within 2 months of receiving this request the Applicant must:
  - (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:
    - establish the baseline condition of the buildings and/or structures on the land or update the previous property inspection report; and
    - identify any measures that should be implemented to minimise the potential blasting impacts of the project on these buildings and/or structures; and
  - (b) give the landowner a copy of the new or updated property inspection report.

#### **Property Investigations**

- 14. If the owner of any privately-owned land claims that the buildings and/or structures on his/her land have been damaged as a result of blasting on site, then within 2 months of receiving this claim the Applicant must:
  - (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, 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 Applicant must repair the damages to the satisfaction of the Secretary.

If the Applicant or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.

### **Operating Conditions**

(a)

#### 15. The Applicant must

- implement best blasting management practice on site to:
  - protect the safety of people and livestock in the surrounding area;
  - protect public or private property in the surrounding area; and
  - minimise the dust and fume emissions of the blasting;
- (b) co-ordinate the blasting on site with the of blasting at the Moolarben and Wilpinjong mines to minimise the cumulative blasting impacts of the mines; and
- (c) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site.

### **Blast Management Plan**

- 16. The Applicant must prepare a Blast Management Plan for the project to the satisfaction of the Secretary. This plan must:
  - be prepared in consultation with EPA and Council, and submitted to the Secretary for approval within 3 months of the date of final Orders being made by the Land and Environment Court in proceedings No. 10998 of 2010;
  - (b) describe the blast mitigation measures that would be implemented to ensure compliance with conditions 10-15 of this schedule;
  - (c) describe the measures that would be implemented to ensure the public can get up-to-date information on the proposed blasting schedule on site;

- (d) include a blast monitoring program to evaluate the performance of the project; and
- (e) include a protocol that has been prepared in consultation with the owners of the Moolarben and Wilpinjong mines for minimising and managing the cumulative blasting impacts of the mines.

The Applicant must implement the plan as approved by the Secretary.

Note: The effectiveness of the Blast Management Plan is to be reviewed and audited in accordance with the requirements in Schedule 5. Following these reviews and audits, the plan is to be revised to ensure it remains up to date (see Condition 4 of Schedule 5).

## **AIR QUALITY & GREENHOUSE GAS**

### Odour

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

#### **Greenhouse Gas Emissions**

18. The Applicant must implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site including the release of Scope 2 greenhouse gas emissions attributable to operations at the site and which are under the control of the Applicant.

### **Air Quality Criteria**

19. The Applicant must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that the particulate emissions generated by the project do not exceed the criteria listed in Tables 8 and 9 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

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

Table 8: Long term criteria for particulate matter

Table 9: Short term criterion for particulate matter

Pollutant	Averaging period	<sup>d</sup> Criterion	
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>ь</sup> 50 μg/m <sup>3</sup>	

#### Notes:

- \* Total impact (i.e. incremental increase in concentrations due to the project plus background concentrations due to
  other sources);
- <sup>b</sup> Incremental impact (i.e. incremental increase in concentrations due to the project on its own); and
- <sup>d</sup> Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agree to by the Secretary in consultation with EPA.

#### Air Quality Acquisition Criteria

20. If the particulate matter emissions generated by the project exceed the criteria in Tables 11 and 12 at any residence on privately-owned land or on more than 25 percent of any privately owned land, then upon receiving a written request for acquisition from the landowner the Applicant must acquire the land in accordance with the procedures in Conditions 6 - 7 of Schedule 4.

Table 11: Long term acquisition criteria for particulate matter

Pollutant	Averaging period	<sup>d</sup> Criterion				
Total suspended particulate (TSP) matter	Annual	<sup>a</sup> 90 µg/m <sup>3</sup>				
Particulate matter < 10 μm (PM <sub>10</sub> )	Annual	<sup>a</sup> 30 μg/m <sup>3</sup>				
Table 12: Short term acquisition criteria for particulate matter						
Pollutant Averaging period <sup>d</sup> Criterion						
Particulate matter < 10 μm (PM <sub>10</sub> )	24 hour	<sup>a</sup> 150 µg/m <sup>3</sup>				
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>ь</sup> 50 µg/m <sup>3</sup>				

Notes:

- <sup>a</sup>Total impact (i.e. incremental increase in concentrations due to the project plus background concentrations due to other sources);
- <sup>b</sup> Incremental impact (i.e. incremental increase in concentrations due to the project on its own); and
- <sup>d</sup> Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agree to by the Secretary in consultation with EPA.

### **Operating Conditions**

### 21. The Applicant must:

- (a) implement best practice air quality management on site, including all reasonable and feasible measures to minimise the off-site odour, fume and dust emissions generated by the project, including those generated by any spontaneous combustion on site,
- (b) minimise any visible air pollution generated by the project; and
- (c) regularly assess the real-time air quality monitoring and meteorological forecasting data, and relocate, modify and/or stop operations on site to ensure compliance with the relevant conditions of this consent; and
- (d) co-ordinate air quality management on site with the air quality management at the Moolarben and Wilpinjong mines to minimise the cumulative air quality impacts of the mines.

## Air Quality & Greenhouse Gas Management Plan

- 22. The Applicant must prepare a detailed Air Quality & Greenhouse Gas Management Plan for the project to the satisfaction of the Secretary. This plan must:
  - (a) be prepared in consultation with EPA and Council, and submitted to the Secretary for approval within 3 months of the date of final Orders being made by the Land and Environment Court in proceedings No. 10998 of 2010;
  - (b) describe the measures that would be implemented to ensure compliance with conditions 17-21 of this schedule, including a real-time air quality management system that employs reactive and proactive mitigation measures; and
  - (c) include an air quality monitoring program, that uses a combination of real-time monitors and high volume samplers to evaluate the performance of the project, and includes a protocol for determining exceedances with the relevant conditions of this consent.

The Applicant must implement the plan as approved by the Secretary.

#### Note:

The effectiveness of the Air Quality & Greenhouse Gas Management Plan is to be reviewed and audited in accordance with the requirements in Schedule 5. Following these reviews and audits, the plan is to be revised to ensure it remains up to date (see Condition 4 of Schedule 5).

22A. Within six months of the determination of Modification 6, unless otherwise agreed by the Secretary, the Applicant must prepare a Greenhouse Gas Mitigation Plan, in consultation with the EPA.

Notes:

- With the introduction of the EPA's Climate Change Policy and Climate Change Action Plan, the Applicant will be
  required to prepare and implement a Climate Change Mitigation and Adaptation Plan (or similar) in accordance with
  requirements provided by the EPA under the POEO Act.
- In accordance with its Climate Change Action Plan 2023-26, the NSW EPA is preparing guidance for the preparation and implementation of various climate change related guidelines.
- Once the Greenhouse Gas Mitigation Plan in condition 22A has been prepared and implemented, the greenhouse
  gas management components of the Air Quality & Greenhouse Gas Management Plan (condition 22 above) can be
  satisfied through this plan and EPA's regulatory framework.

## METEOROLOGICAL MONITORING

- 23. During the life of the project, the Applicant must ensure that there is a suitable meteorological station operating 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 meteorological conditions in accordance with the *NSW Industrial Noise Policy*.

### SUBSIDENCE

### Performance Measures

24. The Applicant must ensure that the project does not cause any exceedances of the performance measures in Table 14.

Table 14: Subsidence Performance Measures	;
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Water				
Ulan, Mona & Cockabutta Creeks	No greater environmental consequences than predicted in the EA			
Biodiversity				
Threatened species, populations or ecological communities	Negligible impact			
Land				

Cliffs in the Brokenback Conservation Area	Nil environmental consequences		
Other cliffs	Minor environmental consequences		
Heritage			
Aboriginal sites	Nil impact in the Brokenback Conservation Area, Grinding Groove Conservation Areas; and on Mona Creek <mark>/Cockabutta Creek</mark> Rock Shelter Sites		
Talbragar Fish Fossil Reserve	Negligible impact		
Other Heritage Sites	No greater impact than predicted in the EA		
Built Features			
All built features	Safe, serviceable and repairable unless the owner agrees otherwise in writing		
Public Safety			
Public Safety	No additional risk due to mining		

Notes:

- The Applicant will be required to define more detailed performance indicators for each of these performance measures in the various management plans that are required under this consent;
- For reference purposes, the heritage sites referred to in Table 14 are depicted in the figures in Appendices 6 & 7.
- The features referred to in Table 14 exclude features subject to impacts from the Modification 6 extension area which are subject to separate performance measures listed in Table 14A below.
- 24A. For the Modification 6 Extension Area, the Applicant must ensure that the project does not cause any exceedances of the performance measures in Table 14A.

Table 14A: Subsidence Impact Performance Measures - Modification 6 Extension Area

Water			
Mona Creek & Talbragar River	No greater environmental consequences than predicted in the EA		
Biodiversity			
Threatened species, populations or ecological communities	Negligible impact		
Known maternity cave or significant single- sex roosting cave for Large-eared Pied Bat, Eastern Cave Bat and Large Bent-Winged Bat	Negligible subsidence impacts <sup>1</sup> and environmental consequences		
Land			
Cliffs	No greater subsidence impacts than predicted in the EA		
Heritage			
Aboriginal heritage sites	Nil subsidence impact on Mona Creek Rock Shelter Sites		
	No greater subsidence impacts than predicted in the EA		
Built Features	F		
All built features	Safe, serviceable and repairable unless the owner agrees otherwise in writing		
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		
Public Safety			
Public Safety	No additional risk due to mining		

<sup>1</sup> Negligible subsidence impacts are defined as an impact which does not result in loss of, or change to the characteristics of, a maternity roost (breeding habitat) or single-sex roosting colony.

Notes:

- Heritage and surface features referred to in Table 14A are shown in Appendix 6 and Figures 1 and 2 of Appendix 12, but only relate to those features within the Modification 6 Extension Area.
- The Applicant will be required to define more detailed performance indicators (including impact assessment criteria) for each of these performance measures in the various management plans that are required under this approval.
- Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using
  generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located.
  These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of
  proposed methods, the Secretary will be the final arbiter.
- The requirements of this condition only apply to the impacts and consequences of mining operations, construction or demolition undertaken following the date of approval of Modification 6.

### **First Workings**

25. The Applicant must not carry out any first workings on site that are inconsistent with the approved mine plan without the written approval of the Secretary.

### **Extraction Plan**

- 26. The Applicant must prepare an Extraction Plan for all second workings on site to the satisfaction of the Secretary. These plans must:
  - (a) be prepared by a team of suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;
  - (b) be prepared in consultation with the Resources Regulator, DCCEEW Water, CPHR and Heritage NSW;
  - (c) include detailed plans of the existing and proposed first and second workings, overlying surface features and any associated surface development;
  - (d) include detailed performance indicators for each of the performance measures in Tables 14 and 14A;
  - (e) provide revised predictions of the potential subsidence effects, subsidence impacts and environmental consequences of the proposed second workings, incorporating any relevant information obtained since this consent;
  - (f) describe the measures that would be implemented to ensure compliance with the performance measures in Tables 14 and 14A, and manage or remediate any impacts and/or environmental consequences to meet the rehabilitation objectives in condition 55 of Schedule 3;
     (r) include set
  - (g) include a:

ii)

- i) **Subsidence Monitoring Program**, which has been prepared in consultation with Resources Regulator, to:
  - describe the on-going subsidence monitoring program;
  - provide data to assist with the management of the risks associated with subsidence;
  - validate the subsidence predictions;
  - analyse the relationship between the predicted and resulting subsidence effects and predicted and resulting subsidence impacts under the plan and any ensuing environmental consequences; and
  - inform the contingency plan and adaptive management process;
  - monitor the subsidence impacts of the project to ensure compliance with the performance measures in Tables 14 and 14A, including an appropriate trigger action response plan to ensure early detection of and response to potential exceedances of the performance measures;
  - monitor non-conventional subsidence impacts on the Mona Creek Rock Shelter Sites, including a trigger action response plan that enables early detection of any adverse or excessive non-conventional behaviour;
  - **Built Features Management Plan**, which has been prepared in consultation with Resources Regulator and the owner/s of any relevant features, 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;
    - describes the predicted impacts of mining on relevant built features;
    - 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;
- iii) **Public Safety Management Plan**, which has been prepared in consultation with Resources Regulator, to ensure public safety in the mining area;

- iv) **Water Management Plan**, which has been prepared in consultation with DCCEEW Water, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on watercourses and aquifers, including:
  - detailed baseline data on:
  - watercourses and/or waterbodies that could be affected by subsidence;
  - groundwater levels, yield and quality in overlying strata and the region;
  - 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 privatelyowned land;
- v) **Biodiversity Management Plan**, which has been prepared in consultation with CPHR, and:
  - establishes baseline data for existing habitat, including vegetation condition and threatened species habitat;
  - provides for the management of potential impacts and/or environmental consequences of second workings on terrestrial flora and fauna, with a specific focus on threatened species, populations and endangered ecological communities; and
  - includes impact assessment criteria to ensure compliance with the relevant performance measures in Tables 14 and 14A;
  - includes a monitoring program designed to detect and monitor maternity / breeding caves and significant single-sex roosting caves for threatened microbats within the Modification 6 extension area;
- vi) Heritage Management Plan, which has been prepared in consultation with Heritage NSW 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, having regard to the subsidence impact performance measures in Tables 14 and 14A;
- vii) Land Management Plan that has been prepared in consultation with relevant landowners, which provides for the management and remediation of the potential impacts and/or environmental consequences of the proposed second workings on land in general; and
- viii) a contingency plan that expressly provides for adaptive management where monitoring indicates that there has been an exceedance of any performance measure in Tables 14 and 14A, or where any such exceedance appears likely;
- ix) program to collect sufficient baseline data for future Extraction Plans;
- 26A. The Applicant must not undertake second workings until the relevant Extraction Plan is approved by the Secretary.
- 26B. The Applicant must implement the plan as approved by the Secretary.

#### Notes:

- To identify the longwall mining domains, see the relevant figure in Appendix 2.
- This condition does not apply to second workings previously approved under an Extraction Plan or Subsidence Management Plan.

### **Payment of Reasonable Costs**

27. The Applicant must pay all reasonable costs incurred by the Department to engage suitably qualified, experienced and independent persons to review the adequacy of any aspect of the Extraction Plan.

### SOIL & WATER

#### Water Licences

28. The Applicant must obtain all necessary water licences for the project under the Water Act 1912 or the Water Management Act 2000.

#### **Baseflow Offsets**

29. The Applicant must offset the loss of any baseflow to the Goulburn and Talbragar Rivers caused by the project to the satisfaction of the Secretary. The offset should be effected by the retirement of water entitlements within the catchments of the Goulburn and Talbragar Rivers unless the Applicant can provide alternative means of offsetting baseflow to the satisfaction of the Secretary, in which case the Applicant may offset any losses by those alternative means.

Note: As at the date of this consent, baseflow losses for the Goulburn River and Talbragar River are modelled as 0.05 *ML/day* and 0.13 *ML/day* respectively. Improved or additional hydrological data may lead to amendments to these modelled losses.

## **Compensatory Water Supply**

30. The Applicant must provide a compensatory water supply to any owner of privately-owned land whose supply is adversely impacted (other than an impact that is negligible) as a result of the project, in consultation with DCCEEW Water, and to the satisfaction of the Secretary.

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

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

If the Applicant is unable to provide an alternative long-term supply of water, then the Applicant must provide alternative compensation to the satisfaction of the Secretary.

### **Surface Water Discharges**

31. The Applicant must ensure that all surface water discharges from the site comply with the discharge limits (both volume and quality) set for the project in any EPL.

#### **Remediation of the Goulbourn River Diversion**

32. The Applicant must remediate the Goulburn River Diversion to the satisfaction of the Secretary, in general accordance with the proposed strategy in the EA.

### Water Supply to "The Drip"

33. The Applicant must ensure that the project has no impact on the water supply to the "Drip".

### Water Management Plan

- 34. The Applicant must prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must:
  - (a) be prepared in consultation with EPA, DCCEEW Water, Resources Regulator and Council by suitably gualified and experienced persons whose appointment has been approved by the Secretary;
  - (b) be submitted to the Secretary for approval within 3 months of the date of final Orders being made by the Land and Environment Court in proceedings No. 10998 of 2010); and
  - (c) include:
    - a Site Water Balance;
    - the Goulburn River Diversion Remediation Plan;
    - an Erosion and Sediment Control Plan;
    - a Surface Water Monitoring Program;
    - a Groundwater Monitoring Program; and
    - a Surface and Ground Water Response Plan.

The Applicant must implement the plan as approved by the Secretary.

Note: The effectiveness of the Water Management Plan is to be reviewed and audited in accordance with the

requirements in Schedule 5. Following these reviews and audits, the plan is to be revised to ensure it remains up to date (see Condition 4 of Schedule 5).

## 35. The Site Water Balance must:

- (a) include details of:
  - sources and security of water supply;
  - water use on site;
  - water management on site;
  - off-site water transfers; and
- (b) describe what measures would be implemented to minimise potable water use on site.

### 36. Goulburn River Diversion Remediation Plan must include:

- (a) geomorphic and geotechnical assessment of the existing diversion;
- (b) assessment of flood hydraulics of the existing diversion;
- (c) staging and timing of remediation works;
- (d) detailed design of bed and bank remediation works;
- (e) revegetation and rehabilitation methods;
- (f) a program to monitor surface water flows, quality, stream health and channel stability; and
- (g) an implementation program.
- 37. The Erosion and Sediment Control Plan must:
  - (a) be consistent with the requirements of the *Managing Urban Stormwater: Soils and Construction Manual* (Landcom 2004, or its latest version);
  - (b) identify activities that could cause soil erosion and generate sediment;
  - (c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;
  - (d) describe the location, function, and capacity of erosion and sediment control structures; and
  - (e) describe what measures would be implemented to maintain the structures over time.
- 38. The Surface Water Monitoring Program must include:
  - (a) detailed baseline data on surface water flows and quality in creeks and other waterbodies that could be affected by the project (including the Goulburn River, Talbragar River, Spring Gully, Ulan Creek, Bobadeen Creek, Curra Creek, Mona Creek and Cockabutta Creek);
  - (b) a program to augment the baseline data over the life of the project;
  - (c) surface water quality and stream health assessment criteria, including trigger levels for investigating any potentially adverse surface water impacts; and
  - (d) a program to monitor:
    - surface water flows, quality, and impacts on water users;
      - stream health; and
      - channel stability,

in the Goulburn River, Talbragar River, Spring Gully, Ulan Creek, Bobadeen Creek, Curra Creek, Mona Creek and Cockabutta Creek.

- 39. The Groundwater Monitoring Program must include:
  - (a) detailed baseline data of groundwater levels, yield and quality in the region, and particularly any groundwater bores, springs and seeps (including spring and seep fed dams) that may be affected by mining operations on site;
  - (b) a program to augment the baseline data over the life of the project;
  - (c) groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts;
  - (d) a program to monitor and/or validate
    - groundwater inflows to the open cut and underground mining operations;
    - the impacts of the project on:
      - the alluvial, Jurassic, Triassic, coal seam and interburden aquifers;
      - base flows to the Goulburn and Talbragar Rivers and associated creeks;
      - any groundwater bores, springs and seeps on privately-owned land;
      - the "Drip"; and
      - riparian vegetation along the Goulburn and Talbragar Rivers and associated creeks; and
    - the seepage/leachate from any tailings dams, water storages or backfilled voids on site; and
  - (e) a program to calibrate and validate the groundwater model for the project, and calibrate it to site specific conditions.

Note: The program to monitor and/or validate the impacts of the project on the "Drip" will need to be prepared and implemented in collaboration with the owners of the Moolarben coal mine.

- 40. The Surface and Ground Water Response Plan must describe what measures and/or procedures would be implemented to:
  - (a) respond to any exceedances of the surface water, stream health, and groundwater assessment criteria;
  - (b) offset the loss of any base flow to the Goulburn and/or Talbragar Rivers and/or associated creeks caused by the project;
  - (c) compensate landowners of privately-owned land whose water supply is adversely affected by the project; and
  - (d) mitigate and/or offset any adverse impacts on riparian vegetation.

### BIODIVERSITY

### **Biodiversity Offset**

41. The Applicant must implement the offset strategy outlined in Table 15, described in the EA, and shown conceptually in the figure in Appendix 4 to the satisfaction of the Secretary.

	Clearing, Removal		Spring Gully Cliffline	Offset Areas			
		and/or Disturbance	Disturbance	Conservation	Bobadeen Vegetation Offset Area and Bobadeen East Corridor	Bobadeen East Offset Area	Bobadeen West Vegetation Offset Area
	Native Vegetation (ha)	411	273	48	1,125	229	22
	EEC/CEEC (ha)	69	-	-	278	169	-
	Cliffline (km)	12.9	9	2.2	-	-	0.9

Table 15: Biodiversity Offset Strategy

41A. The Applicant must ensure that the offset areas contain suitable habitat for any significant and/or threatened species identified in the areas to be cleared, removed and/or disturbed.

- 42. The Applicant must ensure that at least 244 hectares within the Bobadeen Vegetation Offset Area and 169 hectares within the Bobadeen East Offset Area includes the re-establishment and/or improvement of:
  - (a) significant and/or threatened plant communities, including:
    - White Box Woodland;
    - Blakely's Red Gum Open Forest; and
  - (b) significant and/or threatened plant communities; and:
  - (c) habitat for significant and/or threatened animal species.

### Long Term Security of Offset

- 43. Within 1 year of the date of final Orders being made by the Land and Environment Court in proceedings No. 10998 of 2010, the Applicant must make suitable arrangements to provide appropriate long term security for the Bobadeen Vegetation Offset Area, the Bobadeen East Offset Area, the Brokenback Conservation Area, the stand of Acacia ausfeldii along the eastern side of Highett Road and the Spring Gully Cliffline Management Area to the satisfaction of the Secretary.
- 43AA. Unless otherwise agreed by the Secretary, the Applicant must make suitable arrangements to provide appropriate long term security for the Bobadeen West Vegetation Offset Area to the satisfaction of the Secretary by 30 June 2023.

#### **Additional Offset Requirements**

- 43A. Within 12 months of determination of Modification 4, unless otherwise agreed by the Secretary, the Applicant must retire 61 ecosystem credits of Plant Community Type (PCT) 478 and calculate and retire species credits to offset the biodiversity impacts of Modification 4. The retirement of credits must be carried out in consultation with CPHR and in accordance with the Biodiversity Offsets Scheme of the BC Act.
  - Note: The credits to be calculated in accordance with Framework for Biodiversity Assessment of the NSW Biodiversity Offset Policy for Major Projects (BCS, 2014) may need to be converted to reasonably equivalent 'biodiversity credits', within the meaning of the BC Act, if the credits are to be retired in accordance with the Biodiversity Offsets Scheme of the BC Act.

### Area 1 Surface Infrastructure – Modification 6

43B. If the Applicant selects the Area 1 preferred infrastructure layout (refer to condition 17(a) of Schedule 2), then prior to commencing native vegetation clearing in that area, the Applicant must retire the corresponding biodiversity credits as specified in Table 15A. The biodiversity credits must be in accordance with the Biodiversity Offsets Scheme of the BC Act, including the application of any ancillary rules published under Section 6.5 of the *Biodiversity Conservation Regulation 2017*. Written evidence of the retirement of these credits must be provided to the Department prior to commencing native vegetation clearing.

 Table 15A: Biodiversity Credit Requirements – Area 1 preferred infrastructure layout

Area	Area 1		
Offset Stage	1a	1b	1c
Ecosystem credits			
476 Narrow-leaved Wattle low open forest / very tall shrubland on ridges in northern NSW South-Western Slopes Bioregion and southern Brigalow Belt South Bioregion	56	30	17
478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow- leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion	32	-	-
Species credits			
Commersonia procumbens	118	40	23
Monotaxis macrophylla	118	40	23

Note: To identify the surface disturbance areas associated with Areas 1a, 1b and 1c, refer to Figure 1 in Appendix 10.

- 43C. If the Applicant selects to construct one of the Area 1 contingency infrastructure options (as per condition 18 of Schedule 2), then prior to commencing native vegetation clearing in that option, the Applicant must retire the corresponding biodiversity credits as specified in Table 1 of Appendix 11. The biodiversity credits must be retired in accordance with the Biodiversity Offsets Scheme of the BC Act, including the application of any ancillary rules published under Section 6.5 of the *Biodiversity Conservation Regulation 2017*. Written evidence of the retirement of these credits must be provided to the Department prior to commencing native vegetation clearing.
- 43D. The area and type of native vegetation cleared for all surface infrastructure associated with Modification 6 must not exceed the areas specified in Table 15B.

Table 15B: Maximum area and type of native vegetation clearance - Area 1 surface infrastructure

Plant community type (PCT)	Area cleared (ha)
All PCTs	17.4
476 Narrow-leaved Wattle low open forest / very tall shrubland on ridges in northern NSW South-Western Slopes Bioregion and southern Brigalow Belt South Bioregion	4.8
478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion	8.3
479 Narrow-leaved Ironbark- Black Cypress Pine – stringybark +/- Grey Gum +/- Narrow-leaved Wattle shrubby open forest on sandstone hills in the southern Brigalow Belt South Bioregion and Sydney Basin Bioregion	6.0
481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region - Intact	5.6
481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region - Regeneration	1.4

Note: The Area 1 preferred infrastructure layout and contingency options are presented in Figure 1 and 2 of Appendix 10.

### **Other Modification 6 Offset Requirements**

43E. The Applicant must retire biodiversity credits for Modification 6 surface infrastructure Areas 2 and 3 as specified in Table 15D below, prior to commencing native vegetation clearing in those areas. The retirement of credits must be carried out in accordance with the Biodiversity Offsets Scheme of the BC Act including the application of any ancillary rules published under Section 6.5 of the *Biodiversity Conservation Regulation 2017*. Written evidence of the retirement of these credits must be provided to the Department prior to commencing native vegetation clearing.

Table 15D: Biodiversity Credit Requirements – Modification 6 Surface Infrastructure Areas 2 and 3

Credit Type	Area 2	Area 3
Ecosystem Credits		
478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion	81	-
479 Narrow-leaved Ironbark- Black Cypress Pine – stringybark +/- Grey Gum +/- Narrow-leaved Wattle shrubby open forest on sandstone hills in the southern Brigalow Belt South Bioregion and Sydney Basin Bioregion	-	124
481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region	62	-
Species Credits		
Commersonia procumbens	191	165
Monotaxis macrophylla	191	165

Note: To identify the surface disturbance areas associated with Areas 2 and 3, refer to Figure 1 in Appendix 10.

43F. Prior to the commencement of secondary workings within the Modification 6 Extension Area, the Applicant must retire the biodiversity credits specified in Table 15E below. The biodiversity credits must be retired in accordance with the Biodiversity Offsets Scheme of the BC Act, including the application of any ancillary rules published under Section 6.5 of the *Biodiversity Conservation Regulation 2017*. Written evidence of the retirement of these credits must be provided to the Department prior to commencing secondary workings.

Table 15E: Prescribed Impacts Species Credit liability	
Species	Species Credits
Large-eared Pied Bat	15
Large Bent-wing Bat	15

### **Biodiversity Management Plan**

- 44. The Applicant must prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:
  - (a) be prepared in consultation with CPHR and Council by suitably qualified and experienced persons;
  - (b) be submitted to the Secretary for approval by the end of June 2012;
  - (c) describe how the implementation of the offset strategy would be integrated with the overall rehabilitation of the site (see below);
  - (d) include:
    - a description of the short, medium, and long term measures that would be implemented to:
       implement the offset strategy; and
      - manage the remnant vegetation and habitat, both on site and in the offset areas;
    - detailed completion criteria as well as performance criteria for measuring the short, medium and long term success of the offset strategy, including annual indicators and trigger values for the regeneration/revegetation of both the Box-Gum Woodland and Acacia ausfeldii, and the provision of suitable habitat for threatened woodland birds;
    - a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:
      - implementing revegetation and regeneration within the offset areas, including the establishment of canopy, sub-canopy (if relevant), understorey and ground strata;
      - protecting vegetation and soil outside the disturbance areas;
      - rehabilitating creeks and drainage lines on the site (both inside and outside the disturbance areas), to ensure no net loss of stream length and aquatic habitat;
      - managing any potential conflicts between the proposed restoration works in the biodiversity areas and any Aboriginal heritage values (both cultural and archaeological);
      - managing salinity;
      - undertaking pre-clearance surveys;
      - managing impacts on fauna;
      - minimising the impacts on fauna, including providing important habitat features (e.g. hollows) during the period of revegetation and rehabilitation;
      - landscaping the site, and particularly the land adjoining public roads, to minimise visual and lighting impacts;
      - collecting and propagating seed;
      - salvaging and reusing material from the site for habitat enhancement;
      - propagating threatened flora and native grassland (including Acacia ausfeldii);
      - protecting and managing Acacia ausfeldii;
      - controlling weeds and feral pests;
      - managing grazing and agriculture on site;
      - controlling access; and
      - bushfire management;
    - a program to monitor and report on the effectiveness of these measures and the performance of the offset strategy, with summary reporting to be carried out annually and comprehensive reporting every three years following the independent environmental audit (see condition 8 of schedule 5);
    - a description of the contingency measures that would be implemented to improve the performance of the offset strategy if the detailed performance criteria above are not being met in any given year; and
    - details of who would be responsible for monitoring, reviewing, and implementing the plan.

The Applicant must implement the plan as approved by the Secretary.

Note: The effectiveness of the Biodiversity Management Plan is to be reviewed and audited in accordance with the requirements in Schedule 5. Following these reviews and audits, the plan is to be revised to ensure it remains up to date (see Condition 4 of Schedule 5).

### **Conservation Bond**

45. Within 6 months of the approval of the Biodiversity Management Plan (see above), the Applicant must lodge a conservation bond with the Department to ensure that the offset strategy is implemented in accordance

with the performance and completion criteria of the Biodiversity Management Plan. The sum of the bond must be determined by:

- (a) calculating the full cost of implementing the offset strategy; and
- (b) employing a suitably qualified quantity surveyor to verify the calculated costs,

to the satisfaction of the Secretary.

If the offset strategy is implemented to the satisfaction of the Secretary, the Secretary will release the conservation bond.

If the offset strategy is not implemented to the satisfaction of the Secretary, the Secretary will call in all or part of the conservation bond, and arrange for the satisfactory implementation of the offset strategy.

### HERITAGE

#### Long Term Security of Proposed Conservation Areas

46. Within 1 year of the date of final Orders being made by the Land and Environment Court in proceedings No. 10998 of 2010, the Applicant must make suitable arrangements to provide appropriate long term security for the two Grinding Groove Conservation Areas to the satisfaction of the Secretary.

Note: For reference purposes, these areas are depicted in the figure in Appendix 6.

### Heritage Management Plan

- 47. The Applicant must prepare and implement Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
  - (a) be prepared in consultation with Heritage NSW, the Aboriginal community, the Heritage Council of NSW, Council, any local historical organisations and relevant landowners;
  - (b) be submitted to the Secretary for approval within 3 months of the date of final Orders being made by the Land and Environment Court in proceedings No. 10998 of 2010;
  - (c) include the following in relation to Aboriginal heritage management on site:
    - a detailed plan of management for the Brokenback Conservation Area, the two Grinding Groove Conservation Areas;
    - program/procedures for:
      - recording, salvaging, excavating and/or managing the Aboriginal sites and potential archaeological deposits within the project disturbance area;
      - conserving, managing, and monitoring the Aboriginal sites outside the project disturbance area, including the 7 rock shelters located adjacent to Mona Creek, 27 rock shelter within the Brokenback Conservation Area, 4 groove sites within the two Grinding Groove Conservation Areas;
        - managing subsidence impacts at the Ochre Quarry site #807;
      - managing the discovery of any new Aboriginal objects or skeletal remains during the project;
      - maintaining and managing access to archaeological sites by the Aboriginal community;
      - ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage on the site; and
      - a Salvage Research and Impact Mitigation Strategy for Cockabutta Creek cultural heritage sites, which:
        - includes a suitable research program to develop site investigation and salvage protocols;
        - proposes measures to minimise and mitigate subsidence impacts at rockshelter sites;
        - describes how subsidence impacts at the sites would be monitored, managed, mitigated, and/or remediated; and
        - includes suitable up-front supplementary compensation measures for subsidence impacts to the sites and a program of implementation for the supplementary measures;
  - (d) include the following for the management of other heritage on site:
    - conservation management plans for the Old Ulan Village and Bobadeen Homestead;
    - program/procedures for:
      - photographic and archival recording of potentially affected heritage items;
      - making the conservation management plans and photographic and archival recording publicly available once they are completed;
      - protection and monitoring of heritage items outside the project disturbance area;

- baseline dilapidation surveys of all heritage items potentially affected by subsidence and/or blasting;
- monitoring, notifying and managing the effects of subsidence and/or blasting on potentially affected heritage items; and
- additional archaeological excavation and/or recording of any significant heritage items requiring demolition.

The Applicant must implement the plan as approved by the Secretary.

Note: The effectiveness of the Heritage Management Plan is to be reviewed and audited in accordance with the requirements in Schedule 5. Following these reviews and audits, the plan is to be revised to ensure it remains up to date (see Condition 4 of Schedule 5).

### TRANSPORT

#### **Monitoring of Coal Transport**

- 48. The Applicant must:
  - (a) keep accurate records of the:
    - amount of coal transported from the site (on a monthly basis); and
    - the date and time of each train movement from the site; and
  - (b) make these records publicly available on its website at the end of each calendar year.

## **Operating Conditions**

- 49. The Applicant must:
  - (a) reasonable and feasible measures to minimise the project's contribution to the traffic on Ulan Road. schedule shift changes on site to occur outside the school bus hours;
  - (b) notify Council of any changes to the shifts on site;
  - (c) co-ordinate the shift changes on site with the shift changes of the adjoining Moolarben and Wilpinjong mines to minimise the cumulative traffic impacts of the three mines; and
  - (d) implement all

### **Ulan Road Strategy**

50. By the end of December 2011, unless the Secretary directs otherwise, the Applicant must prepare to the satisfaction of the Secretary a strategy for the upgrade and maintenance of Ulan Road between Mudgee and the entrance to the underground surface facilities at the Ulan mine over the next 21 years.

This strategy must be prepared in conjunction with the owners of both the Moolarben and Wilpinjong mines, and the cost of preparing the strategy should be shared equally between the Applicant and the owners of these mines.

The strategy must:

- (a) be prepared by a suitably qualified, experienced and independent person whose appointment has been endorsed by the Secretary;
- (b) be prepared in consultation with both the TfNSW and Council;
- (c) determine the design standard of the relevant section of road (and any associated intersections) to the satisfaction of the TfNSW (based on the relevant road design guideline(s));
- (d) identify the works required to upgrade the road to the designated design standard;
- (e) estimate the cost of these works and the likely annual costs for maintaining the upgraded road;
- (f) identify any measures that could be implemented to reduce the amount of mine traffic on the road, such as providing long-term parking in Mudgee to support increased car pooling, and the likely cost of implementing these measures;
- (g) identify any measures that could be implemented to minimise the traffic noise impacts of mine traffic on Ulan Road on adjoining residences, and the likely cost of implementing these measures;
- (h) include a detailed program for the proposed upgrade and maintenance of the road, implementation of traffic noise mitigation measures, and implementation of any works to support efforts to reduce the amount of mine traffic on the road;

- (i) calculate what each mine and the Council shall contribute towards the implementation of the detailed program outlined in (h) above, including consideration of:
  - the likely traffic generated by each mine as a proportion of the total traffic on the road;
  - any mine contributions that have been made towards the upgrading of the road in recent years; and
  - any relevant planning agreements that deal with the funding or maintenance of roads in the Mid-Western LGA; and
- (j) include a detailed contributions plan for the three mines and the Council to support the implementation of the detailed program described in (h) above.

If there is any dispute between the various parties involved in either the preparation or the implementation of the strategy, then any of the parties may refer the matter to the Secretary for resolution.

51. Once the Ulan Road Strategy has been approved by the Secretary, the Applicant must contribute towards the implementation of the strategy in accordance with the detailed contributions plan in the strategy.

## VISUAL

### **Visual Amenity and Lighting**

- 52. The Applicant must:
  - (a) minimise the visual impacts, and particularly the off-site lighting impacts, of the main infrastructure area and associated ancillary surface works;
  - (b) take all practicable measures to further mitigate off-site lighting impacts from the project; and
  - (c) ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1995 Control of Obtrusive Effects of Outdoor Lighting.

### WASTE

- 53. The Applicant must:
  - (a) minimise the waste (including coal reject) generated by the project; and
  - (b) ensure that the waste generated by the project is appropriately stored, handled and disposed of.
- 54. The Applicant must prepare a Waste Management Plan for the project to the satisfaction of the Secretary. This plan must describe the measures that would be implemented to ensure compliance with condition 53 above and be submitted to the Secretary within 3 months of the date of final Orders being made by the Land and Environment Court in proceedings No. 10998 of 2010.

The Applicant must implement the plan as approved by the Secretary.

Note: The effectiveness of the Waste Management Plan is be reviewed and audited in accordance with the requirements in Schedule 5. Following these reviews and audits, the plan is to be revised to ensure it remains up to date (see Condition 4 of Schedule 5).

## REHABILITATION

### **Rehabilitation Objectives**

55. The Applicant must rehabilitate the site in accordance with the conditions imposed on the mining lease(s) associated with the development under the *Mining Act 1992*. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EA (and depicted conceptually in the figures in Appendix 5), and comply with the objectives in Table 16.

Table 16: Rehabilitation Objective

Feature	Objective
Mine site (as a whole)	Safe, stable & non-polluting
Surface infrastructure	To be decommissioned and removed, unless the Secretary agrees otherwise

Feature	Objective	
Watercourses to be undermined	Hydraulically and geomorphologically stable, with riparian vegetation that is the same or better than prior to mining	
Cliffs	No additional risk to public safety compared to prior to mining	
Other land affected by the project	<ul> <li>Restore ecosystem function, including maintaining or establishing self-sustaining eco-systems comprised of:</li> <li>local native plant species; and</li> <li>a landform consistent with the surrounding environment</li> </ul>	
Built features affected by subsidence	Repair to pre-mining condition or equivalent unless the owner agrees otherwise	
Community	Minimise the adverse socio-economic effects associated with mine closure	

### Progressive Rehabilitation

56. The Applicant must carry out the rehabilitation of the site progressively, that is, as soon as reasonably practicable following disturbance.

## **Rehabilitation Management Plan**

## 57. Deleted.

Note: The Applicant must prepare and implement a Rehabilitation Management Plan in accordance with the conditions imposed on the mining lease(s) associated with the development under the Mining Act 1992

## **SCHEDULE 4**

## ADDITIONAL PROCEDURES

### NOTIFICATION OF LANDOWNERS

- 1. Within 1 month of the date of final Orders being made by the Land and Environment Court proceedings No. 10998 of 2010, the Applicant must notify in writing the owners of:
  - (a) the land listed in Table 1 of Schedule 3 that they have the right to require the Applicant to acquire their land at any stage during the project;
  - (b) any residence on the land listed in Table 1 or Table 6 of Schedule 3 that they are entitled to ask for additional noise mitigation measures to be implemented at their residence at any stage during the project; and
  - (c) any privately-owned land within 2 kilometres of the approved open cut mining pit on site 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.
- 2. Within 2 weeks of obtaining monitoring results showing:
  - (a) exceedances of the relevant criteria in Schedule 3, the Applicant must notify the affected landowners and/or tenants in writing of the exceedance, and provide regular monitoring results to each of these parties until the project is complying with the relevant criteria again;
  - (b) exceedances of the relevant criteria in Condition 6(b) of Schedule 3, the Applicant must notify in writing the applicable owner that they are entitled to ask for additional noise mitigation measures to be installed at their residence; and
  - (c) exceedances of the relevant air quality criteria in Schedule 3, send the affected landowners and tenants (including the tenants of any mine-owned land) a copy of the NSW Health fact sheet entitled *"Mine Dust and You"* (as may be updated from time to time).

### INDEPENDENT REVIEW

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

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

- (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:
  - consult with the landowner to determine his/her concerns;
  - conduct monitoring to determine whether the project is complying with the relevant 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 towards the impact on the land;
    - identify the measures that could be implemented to ensure compliance with the relevant criteria; and
- (b) give the Secretary and landowner a copy of the independent review.
- 4. If the independent review determines that the project is complying with the relevant criteria in Schedule 3, then the Applicant may discontinue the independent review with the approval of the Secretary.

If the independent review determines that the project is not complying with the relevant impact assessment criteria in Schedule 3, and that the project is primarily responsible for this non-compliance, then the Applicant must:

- (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent person, and conduct further monitoring until the project complies with the relevant criteria; or
- (b) secure a written agreement with the landowner to allow exceedances of the relevant criteria,

to the satisfaction of the Secretary.

If the independent review determines that the project is not complying with the relevant acquisition criteria in Schedule 3, and that the project is primarily responsible for this non-compliance, then upon receiving a written request from the landowner, the Applicant must acquire all or part of the landowner's land in accordance with the procedures in Conditions 6-7 below.

- 5. If the independent review determines that the relevant criteria in Schedule 3 are being exceeded, but that more than one mine is responsible for this exceedance, then together with the relevant mine/s the Applicant must:
  - (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent person, and conduct further monitoring until there is compliance with the relevant criteria; or
  - (b) secure a written agreement with the landowner and other relevant mines to allow exceedances of the relevant criteria,

to the satisfaction of the Secretary.

If the independent review determines that the relevant acquisition criteria in Schedule 3 are being exceeded, but that more than one mine is responsible for this exceedance, then upon receiving a written request from the landowner, the Applicant must acquire all or part of the landowner's land on as equitable a basis as possible with the relevant mine/s in accordance with the procedures in Conditions 6-7 below.

## LAND ACQUISITION

- 6. Within 3 months of receiving a written request from a landowner with acquisition rights, the Applicant must 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 on the land 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 any additional noise mitigation measures under Condition 6 of Schedule 3;
  - (b) the reasonable costs associated with:
    - relocating within the Mid-Western Regional local government area, or to any other local government area determined by the Secretary; and
    - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and
  - (c) reasonable compensation for any disturbance caused by the land acquisition process.

However, if at the end of this period, the Applicant and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Secretary for resolution.

Upon receiving such a request, the Secretary will request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:

- consider submissions from both parties;
- determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above;
- prepare a detailed report setting out the reasons for any determination; and
- provide a copy of the report to both parties.

Within 14 days of receiving the independent valuer's report, the Applicant must make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.

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

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

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

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

## SCHEDULE 5

## ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

### ENVIRONMENTAL MANAGEMENT

### Environmental Management Strategy

- 1. The Applicant must prepare an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must:
  - (a) be submitted to the Secretary for approval within 3 months of the date of final Orders being made by the Land and Environment Court in proceedings No. 10998 of 2010;
  - (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 during the course of the project;
      - respond to any non-compliance;
      - respond to emergencies; and
  - (f) include:
    - references to any strategies, plans and programs approved under the conditions of this consent; and
    - a clear plan depicting all the monitoring required to be carried out under the conditions of this consent.

The Applicant must implement the strategy as approved by the Secretary.

### Management Plan Requirements

- 2. The Applicant must ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:
  - (a) a summary of baseline data;
  - (b) a description of:

(e)

- 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);
  - 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.

Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.

### **Annual Review**

- 3. By the end of March 2012, and annually thereafter, the Applicant must review the environmental performance of the project to the satisfaction of the Secretary. This review must:
  - (a) describe the development (including any rehabilitation) that was carried out in the past 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 past 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 past 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**

- 4. Within 3 months of:
  - (a) the submission of an annual review under Condition 3 above;
  - (b) the submission of an incident report under Condition 6 below;
  - (c) the submission of an audit report under Condition 8 below; and
  - (d) any modification to the conditions of this consent, (unless the conditions require otherwise),

the Applicant must review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Secretary.

Where this review leads to revisions in any such document, then within 4 weeks of the review, unless the Secretary agrees otherwise, the revised document must be submitted to the Secretary for approval.

Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.

### **Community Consultative Committee**

5. The Applicant must establish and operate a new Community Consultative Committee (CCC) for the projects within the Ulan mine complex in general accordance with the *Community Consultative Committee Guidelines: State Significant Projects (2016)*, and to the satisfaction of the Secretary. This CCC must be operating by the end of March 2011.

#### Notes:

- The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent; and
- In accordance with the guideline, the Committee should be comprised of an independent chair and appropriate representation from the Applicant, Council, recognised environmental groups and the local community.

### REPORTING

#### Incident Notification and Reporting

- 6. The Applicant must immediately notify the Department and any other relevant agencies after it becomes aware of an incident. The notification must be in writing to compliance@planning.nsw.gov.au and identify the project (including the project number and name) and set out the location and nature of the incident.
- 6A Within seven days of becoming aware of a non-compliance, the Applicant must notify the Department of the non-compliance. The notification must be in writing to compliance@planning.nsw.gov.au and identify the project (including the project number and name), set out the condition that the project is non-compliant with, why it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.

Note: A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

### **Regular Reporting**

7. The Applicant must 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 consent.

### INDEPENDENT ENVIRONMENTAL AUDIT

- By the end of June 2013, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
  - be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
  - (b) include consultation with the relevant agencies and CCC;
  - (c) assess the environmental performance of the project and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);
  - (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and
  - (e) recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under the abovementioned approvals.

Notes:

- 1. This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Secretary.
- The Department's "Independent Audit Post Approval Requirements, June 2016" (as updated from time to time) sets out the minimum requirements to be met when undertaking Independent Audits required by a project approval or conditions of consent.
- 9. Within 6 weeks of the completion of this audit, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.

### ACCESS TO INFORMATION

- 10. Within 1 month of the date of final Orders being made by the Land and Environment Court proceedings No. 10998 of 2010, the Applicant must:
  - (a) make copies of the following publicly available on its website:
    - the documents referred to in Condition 2 of Schedule 2;
      - all current statutory approvals for the project;
    - all approved strategies, plans and programs required under the conditions of this consent;
    - the monitoring results of the project, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
    - a complaints register, updated on a monthly basis;
    - minutes of CCC meetings;
    - the annual reviews of the project;
    - any independent environmental audit of the project, and the Applicant's response to the recommendations in any audit;
    - any other matter required by the Secretary; and
  - (b) keep this information up-to-date,

to the satisfaction of the Secretary.
#### APPENDIX 1 SCHEDULE OF LAND

Lot	DP	LotSecDP	Area (Ha)	Owner
1	182395	1//182395	0.64	Mine Owned (UCMPL)
1	206588	206588 1//206588		Mine Owned (UCMPL)
1	431692 1//431692		0.26	Transport for NSW
1	432146 1//432146		3.29	Transport for NSW
1	518563	1//518563	56.28	Mine Owned (UCMPL)
1	534014	1//534014	3.12	The State of NSW
1	552740	1//552740	0.37	Mine Owned (UCMPL)
1	572488	1//572488	2.06	Mine Owned (UCMPL)
1	661026	1//661026	0.76	Mine Owned (UCMPL)
1	701346	1//701346	596.85	Mine Owned (UCMPL)
1	720331	1//720331	7.95	Mine Owned (UCMPL)
1	720332	1//720332	9.16	Mine Owned (UCMPL)
1	720333	1//720333	7.53	Mine Owned (UCMPL)
1	720334	1//720334	0.25	Mine Owned (UCMPL)
1	720335	1//720335	10.35	Mine Owned (UCMPL)
1	722880	1//722880	3.26	Mine Owned (UCMPL)
1	722881	1//722881	3.03	Mine Owned (UCMPL)
1	722882	1//722882	1.25	Mine Owned (UCMPL)
1	750742	1//750742	364.76	Private
1	750773	1//750773	13.41	Mine Owned (UCMPL)
1	840034	1//840034	457.90	Mine Owned (UCMPL)
1	876943	1//876943	113.31	Mine Owned (UCMPL)
1	1069300	1//1069300	0.90	Mine Owned (UCMPL)
1	1099495	1//1099495	15.30	Mine Owned (UCMPL)
1	1191436	1//1191436	5.96	Private
2	182395	2//182395	0.06	Mine Owned (UCMPL)
2	206588	2//206588	3.05	Mine Owned (UCMPL)
2	432146	2//432146	0.00	Mine Owned (UCMPL)
2	518563	2//518563	0.38	Mine Owned (UCMPL)
2	534014	2//534014	62.81	Private
2	537477	2//537477	6.08	Mine Owned (UCMPL)
2	720334	2//720334	3.54	Crown Land Leased (UCMPL)
2	722880	2//722880	0.18	Mine Owned (UCMPL)
2	722882	2//722882	2.80	Mine Owned (UCMPL)
2	750735	2//750735	384.74	Crown Land Leased (UCMPL)
2	750736	2//750736	14.74	Mine Owned (UCMPL)
2	750773	2//750773	13.77	Mine Owned (UCMPL)
2	840034	2//840034	201.85	Mine Owned (UCMPL)
		3//132117	0.52	Mine Owned (UCMPL)

3	182395	3//182395	0.70	Mine Owned (UCMPL)	
3	206588	3//206588	2.65	Mine Owned (UCMPL)	
3	534014	3//534014	97.03	Private	
3	701346	3//701346	180.20	Mine Owned (UCMPL)	
3	720334	3//720334	1.24	Crown Land Leased (UCMPL)	
3	722880	3//722880	0.14	Mine Owned (UCMPL)	-
3	750735	3//750735	98.58	Mine Owned (UCMPL)	
3	750773	3//750773	20.14	Mine Owned (UCMPL)	-
4	132117	4//132117	27.47	Mine Owned (UCMPL)	-
4	182395	4//182395	0.39	Mine Owned (UCMPL)	
4	206588	4//206588	1.57	Mine Owned (UCMPL)	
4	615702	4//615702	19.76	Mine Owned (UCMPL)	
4	701346	4//701346	449.75	Mine Owned (UCMPL)	
4	701340			Mine Owned (UCMPL)	
4	720334	4//720334 4//722880	2.51 0.76	Mine Owned (UCMPL)	
4	750735		120.14	Mine Owned (UCMPL)	-
5	206588	4//750735 5//206588	0.20	Mine Owned (UCMPL)	-
5	750735	5//750735	68.74	Crown Land Leased (UCMPL)	-
5	750773	5//750773	24.20	Mine Owned (UCMPL)	-
5	755439	5//755439	15.42	Mine Owned (UCMPL)	-
6	206588	6//206588	2.72	Mine Owned (UCMPL)	-
6	750735	6//750735	16.75	Mine Owned (UCMPL)	-
7	206588	7//206588	5.67	Mine Owned (UCMPL)	-
7	750735	7//750735	16.22	Mine Owned (UCMPL)	
8	206588	8//206588	0.50	Mine Owned (UCMPL)	
8	750735	8//750735	15.82	Mine Owned (UCMPL)	
9	750735	9//750735	16.23	Mine Owned (UCMPL)	
9	750773	9//750773	15.20	Mine Owned (UCMPL)	
10	750735	10//750735	16.75	Mine Owned (UCMPL)	
11	750735	11//750735	16.79	Mine Owned (UCMPL)	
11	750773	11//750773	22.02	Mine Owned (UCMPL)	
11	1152406	11//1152406	125.06	Moolarben Coal	
12	750735	12//750735	16.15	Mine Owned (UCMPL)	
13	750735	13//750735	16.99	Mine Owned (UCMPL)	
13	750773	13//750773	16.42	Crown Land Leased (UCMPL)	
13	755439	13//755439	16.77	Mine Owned (UCMPL)	
14	750773	14//750773	16.88	Crown Land Leased (UCMPL)	
14	755442	14//755442	250.06	Mine Owned (UCMPL)	
14	1152406	14//1152406	177.25	Mine Owned (UCMPL)	
15	750735	15//750735	931.26	Mine Owned (UCMPL)	
15	750773	15//750773	0.74	Crown Land Leased (UCMPL)	
16	750735	16//750735	33.28	Mine Owned (UCMPL)	
16	750773	16//750773	15.81	Crown Land Leased (UCMPL)	
16	1140073	16//1140073	2.68	Mine Owned (UCMPL)	
17	750735	17//750735	40.29	Mine Owned (UCMPL)	

17	750773	17//750773	16.51	Mine Owned (UCMPL)
18	750735	18//750735	64.91	Mine Owned (UCMPL)
18	750773	18//750773	15.69	Mine Owned (UCMPL)
19	132631	19//132631	56.34	Mine Owned (UCMPL)
19	750735	19//750735	192.77	Mine Owned (UCMPL)
19	750746	19//750746	119.79	Private
20	750735	20//750735	55.00	Mine Owned (UCMPL)
20	750773	20//750773	15.02	Mine Owned (UCMPL)
20	755439	20//755439	81.91	Mine Owned (UCMPL)
21	750773	21//750773	16.28	Mine Owned (UCMPL)
22	750735	22//750735	160.45	Private
23	750735	23//750735	31.91	Private
24	750735	24//750735	112.37	Mine Owned (UCMPL)
25	750773	25//750773	16.14	Private
27	750735	27//750735	19.02	Private
27	750773	27//750773	31.96	Mine Owned (UCMPL)
27	755439	27//755439	15.91	Mine Owned (UCMPL)
28	750735	28//750735	16.33	Private
28	750773	28//750773	97.29	Mine Owned (UCMPL)
29	750735	29//750735	38.40	Private
30	750735	30//750735	106.47	Mine Owned (UCMPL)
31	750735	31//750735	64.48	Mine Owned (UCMPL)
32	631102	32//631102	24.71	Mine Owned (UCMPL)
32	750735	32//750735	16.34	Private
33	750735	33//750735	42.95	Private
33	755439	33//755439	18.35	Crown Land Leased (UCMPL)
34	750735	34//750735	43.11	Private
35	750735	35//750735	78.78	Mine Owned (UCMPL)
36	750735	36//750735	15.88	Mine Owned (UCMPL)
37	750735	37//750735	48.72	Mine Owned (UCMPL)
38	750735	38//750735	63.59	Private
39	750735	39//750735	15.99	Mine Owned (UCMPL)
41	750735	41//750735	21.22	Crown Land Leased (UCMPL)
42	750735	42//750735	59.20	Crown Land Leased (UCMPL)
43	736630	43//736630	29.85	Crown Land Leased (UCMPL)
43	750735	43//750735	19.51	Crown Land Leased (UCMPL)
44	736630	44//736630	32.76	Mine Owned (UCMPL)
44	750735	44//750735	39.52	Mine Owned (UCMPL)
45	736630	45//736630	38.89	Mine Owned (UCMPL)
45	750735	45//750735	123.85	Mine Owned (UCMPL)
45	750736	45//750736	44.57	Mine Owned (UCMPL)
46	736630	46//736630	17.24	Mine Owned (UCMPL)
46	750735	46//750735	62.22	Mine Owned (UCMPL)
46	750736	46//750736	30.26	Mine Owned (UCMPL)
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47	750735	47//750735	251.15	Mine Owned (UCMPL)
48	736630	48//736630	51.74	Mine Owned (UCMPL)
48	750735	48//750735	35.46	Crown Land Leased (UCMPL)
49	736630	49//736630	18.18	Mine Owned (UCMPL)
49	750735	49//750735	40.55	The State of NSW
50	736630	50//736630	39.99	Mine Owned (UCMPL)
50	750735	50//750735	39.25	Mine Owned (UCMPL)
51	750735	51//750735	16.12	Mine Owned (UCMPL)
52	736630	52//736630	28.02	Mine Owned (UCMPL)
52	750735	52//750735	107.16	Mine Owned (UCMPL)
52	750773	52//750773	82.07	Crown Land Leased (UCMPL)
53	750735	53//750735	95.54	Mine Owned (UCMPL)
54	750735	54//750735	431.40	Mine Owned (UCMPL)
54	750736	54//750736	250.08	Mine Owned (UCMPL)
54	750773	54//750773	15.20	Mine Owned (UCMPL)
55	722794	55//722794	2.39	Crown Land Leased (UCMPL)
55	750735	55//750735	79.51	Mine Owned (UCMPL)
56	750735	56//750735	1089.64	Mine Owned (UCMPL)
56	750773	56//750773	62.84	Mine Owned (UCMPL)
57	155597	57//155597	0.75	Crown Land Leased (UCMPL)
57	750746	57//750746	287.54	Private
58	750773	58//750773	47.15	Mine Owned (UCMPL)
59	750759	59//750759	17.42	Private
59	750773	59//750773	57.19	Mine Owned (UCMPL)
60	750736	60//750736	52.81	Mine Owned (UCMPL)
60	750742	60//750742	32.88	Private
61	750736	61//750736	208.81	Mine Owned (UCMPL)
62	750742	62//750742	79.54	Private
63	750773	63//750773	27.36	Mine Owned (UCMPL)
64	750773	64//750773	83.64	Mine Owned (UCMPL)
65	750773	65//750773	60.11	Mine Owned (UCMPL)
66	750773	66//750773	181.34	Mine Owned (UCMPL)
68	750773	68//750773	46.03	Mine Owned (UCMPL)
70	750773	70//750773	47.53	Mine Owned (UCMPL)
71	750773	71//750773	143.03	Mine Owned (UCMPL)
72	750742	72//750742	333.75	Mine Owned (UCMPL)
72	750773	72//750773	57.13	Crown Land Leased (UCMPL)
73	750773	73//750773	65.79	Mine Owned (UCMPL)
74	750773	74//750773	45.30	Mine Owned (UCMPL)
74	750742	75//750742	18.95	Private
75	750773	75//750773	103.38	Mine Owned (UCMPL)
76	750773	76//750773	53.62	Crown Land Leased (UCMPL)
78	750773	78//750773	21.17	Mine Owned (UCMPL)
79	750773	79//750773	41.12	Mine Owned (UCMPL)
81	750742	81//750742	384.34	Private

83	704077	83//704077	320.70	Crown Land Leased (UCMPL)	
84	704077	84//704077	170.78	Moolarben Coal	
85	704094	85//704094	98.88	Mine Owned (UCMPL)	
92	755442	92//755442	98.38	Mine Owned (UCMPL)	
101	595015	101//595015	50.41	Mine Owned (UCMPL)	
151	595016	151//595016	31.26	Mine Owned (UCMPL)	
164	750748	164//750748	587.73	The State of NSW	
178	750735	178//750735	16.71	Mine Owned (UCMPL)	
179	750735	179//750735	16.49	Mine Owned (UCMPL)	
180	750735	180//750735	16.52	Mine Owned (UCMPL)	
211	750735	211//750735	16.07	Mine Owned (UCMPL)	
212	750735	212//750735	15.24	Mine Owned (UCMPL)	
800	1128041	800//1128041	9.68	Mine Owned (UCMPL)	
7003	1025349	7003//1025349	1.20	Crown Land Leased (UCMPL)	
7005	1028230	7005//1028230	8.09	Crown Land Leased (UCMPL)	
7008	1128119	7008//1128119	4064.43	Crown Land Leased (UCMPL)	
7301	1148421	7301//1148421	670.05	Crown Land Leased (UCMPL)	
7302	1148421	7302//1148421	15.39	Crown Land Leased (UCMPL)	
7303	1143562	7303//1143562	28.98	Crown Land Leased (UCMPL)	
7303	1148412	7303//1148412	202.90	Crown Land Leased (UCMPL)	
7305	1148985	7305//1148985	149.40	Crown Land Leased (UCMPL)	
7304	1148412	7304//1148412	106.25	Crown Land Leased (UCMPL)	
7306	1148985	7306//1148985	2.94	Crown Land Leased (UCMPL)	
В	408792	B//408792	1.46	Mine Owned (UCMPL)	
С	408792	C//408792	0.46	Mine Owned (UCMPL)	

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## APPENDIX 2 PROJECT LAYOUT PLANS



Figure 1 | Ulan Coal Complex



Figure 2 | Modification 6 Extended Mining Area



Figure 3 | Site Access Roads



Figure 4 | Water Management Infrastructure



Figure 5 | Power and Telecommunication Services

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# APPENDIX 3 LAND OWNERSHIP PLANS





#### APPENDIX 4 OFFSET STRATEGY





## APPENDIX 5 CONCEPTUAL REHABILITATION PLAN





#### APPENDIX 6 ABORIGINAL HERITAGE SITES



# APPENDIX 7 HERITAGE SITES



## **APPENDIX 8**

Investment Area	Proposed Planning Contribution	Contribution Amount	Instalment Schedule	Comment
Social	Community Infrastructure Fund	\$3.475 Million	<ul> <li>To be paid in 2 installments, with:</li> <li>\$2 Million to be paid within 30 days of the plannining agreement being made; and</li> <li>\$1.475 million to be paid within a year of the first payment.</li> </ul>	Funding arrangements to be subject to a set of governance arrangements agreed to by Council and the Applicant.
Roads & Traffic	Contribution towards the maintenance of Cope Road	\$ 1.15 Million (23 x \$50,000)	<ul> <li>To be paid annually, with the first installment being paid within 30 days of the planning agreement being made; and</li> <li>Payments to be adjusted annually for CPI.</li> </ul>	O
TOTAL	TOTAL			

### **GENERAL TERMS OF THE PLANNING AGREEMENT**

## **APPENDIX 9**

## STATEMENT OF COMMITMENTS

	Commitment
	Hours of Operation, Concept Mine Plan and Rail Haulage
Hours	of Operation
6.2.1	Mining and associated activities for the Project may be undertaken 24 hours a day, seven days a week.
6.2.2	Construction will generally be undertaken between 7.00 am and 7.00 pm daily. Construction activities may occur outside these hours when UCMPL is satisfied that such activities are inaudible at nearest private residences.
Refiner	ment of Mine Plan
6.2.3	Any refinements to the concept mine plan outlined in this EA report will be detailed and assessed as part of Extraction Plans required by the project approval or other relevant process.
6.2.4	The locations of ancillary surface infrastructure required to support underground mining will be documented and detailed within the operational approvals required for UCMPL to continue its mining and associated activities.
Rail Ha	ulage
6.2.5	The peak number of trains from UCMPL will be limited to a maximum of 10 per day i.e. 20 train movements.
6.2.6	No product coal will be transported from site by road transport except in an emergency situation with prior approval of the Director General.
6.2.7	Annual average and maximum daily train movements and tonnages will be reported in the Annual Environmental Management Report (refer to commitment 6.17.1).
	Subsidence
6.3.1	Deleted
	Groundwater
6.4.1	A groundwater monitoring program will be implemented for the Project as outlined in <b>Section 5.3</b> , or as otherwise agreed by the Director General, in accordance with the water management plan for the project. The groundwater monitoring program will include:
	• Continued measurement of groundwater levels, pressures and water quality within the existing regional network of monitoring bores and an expanded network as underground mining progresses to the north and west, specifically considering:
$\mathbf{X}$	<ul> <li>depressurisation monitoring of at least three multi level piezometer strings equipped with vibrating wire transducers (or equivalent) and distributed within the Permian- Triassic strata;</li> </ul>
	<ul> <li>strata hydraulic conductivity measurement on rock core obtained at these above noted piezometer locations;</li> </ul>
	<ul> <li>daily or more frequent monitoring of pore pressures and piezometric elevations by installed auto recorders in selected new piezometers.</li> </ul>
	Mine water seepage monitoring, including:
	<ul> <li>measurement of all water pumped underground and all mine water pumped to surface on a daily basis. Measurement will be undertaken using calibrated flow meters or other suitable gauging apparatus;</li> </ul>
	<ul> <li>routine monitoring of coal moisture content delivered from the working face, ventilation humidity and any build up of water storage in the goaf.</li> </ul>

	Groundwater monitoring will include:
	<ul> <li>monthly monitoring of basic water quality parameters pH and EC in pumped mine water.</li> </ul>
	<ul> <li>six monthly monitoring of pH and EC in the regional monitoring network.</li> </ul>
	<ul> <li>annual measurement of total dissolved solids (TDS) and speciation of water samples in selected piezometers to support identification of mixing of groundwater types.</li> </ul>
	<ul> <li>graphical plotting of basic water quality parameters and identification of trend lines and statistics including mean and standard deviation calculated quarterly. Comparison of trends with rainfall and any other identifiable processes that may influence such trends.</li> </ul>
	The monitoring network and monitoring programme will be reviewed on an annual basis to determine ongoing suitability and any proposed changes will be discussed in the annual review of monitoring results.
	Monitoring Review and Management Strategy
6.4.2	The results of groundwater monitoring and a comparison of measured and predicted impacts will be reported in the annual review required by project approval conditions.
6.4.3	Impacts on the privately owned licensed bores identified in <b>Section 5.3</b> as being potentially affected, will be assessed by monitoring and in the event that any utilised privately owned bore is significantly adversely affected, an alternative water supply will be provided by UCMPL until such time as the bore is re-established or replaced, or appropriate compensation established, in accordance with project approval requirements.
6.4.4	The groundwater monitoring results will be analysed (graphically and statistically) as new results become available i.e. quarterly or six monthly. In addition, a monitoring review and verification process will be established as part of the Water Management Plan process, to verify regional groundwater losses as necessary to refine groundwater mitigation strategies.
6.4.5	Identification of any changes or long term trends in groundwater outside the predicted impacts will result in an investigation to determine if the trend is a result of the Project operations and if so, identify management strategies to be implemented to address the identified issues as per UCMPL's Internal TARP process (T – trigger; A – Action; R – response; P – Plan).
6.4.6	Review of depressurisation of coal measures and comparison of responses with aquifer model predictions will be completed every two years. Expert review will be undertaken by a suitably qualified hydrogeologist, and reported in accordance with the process set out in the Water Management Plan.
	Surface Water
6.5.1	As described in <b>Section 5.4</b> , UCMPL will implement clean water divisions to minimise the volume of water to be handled within the mine water management system.
6.5.2	The staged remediation strategy for the Goulburn River Diversion will be implemented, generally as described in the Approved Goulburn River Diversion Remediation Plan.
6.5.3	In addition to the detailed mine water seepage monitoring outlined in Commitment 6.4.1, water usage, rainfall, dam volumes and discharges (including transfers) will be monitored to assist in the management of the mine water management system. This monitoring will be conducted in a manner that enables the detailed water balance to be maintained and updated at least annually for ongoing operations. The water balance will be used on an ongoing basis for

	operational management and will also be reported in annual review required by project approval conditions.
6.5.4	Subsidence monitoring will include pre and post mining within drainage lines. This will include monitoring of the presence of surface cracking, surface ponding or out of channel flows and remediation measures as appropriate (refer to <b>Section 5.4</b> ).
6.5.5	Water which is in excess of UCMPL operational needs will be managed in accordance with the following hierarchy: 1. water sharing;
	2. Bobadeen Irrigation; and
	3. offsite discharge.
6.5.6	UCMPL will undertake a research study on the Talbragar River commenced at least six months prior to any discharge into this waterway. The study is to require UCMPL to satisfy the following:
	1. Establish baseline ecological, hydrological and geomorphological conditions of the Talbragar River downstream of the discharge point.
	2. develop a flow release protocol at the discharge point to maintain the conditions identified in (1)
	<ol> <li>develop a monitoring program to review the effectiveness of the release protocols.</li> </ol>
	Ecology
6.6.1	Underground mining will not be undertaken within the Brokenback Conservation Area, as shown on <b>Figure 1.2</b> .
6.6.2	<b>UCMPL</b> will utilise existing disturbed ground areas, where practicable, for the placement of infrastructure associated with underground mining, to avoid impact on significant ecological features such as the White Box Woodland TEC.
6.6.3	Surface infrastructure, e.g. pipelines, power lines and roads, will be co-located, where practicable, to minimise ground disturbance.
6.6.4	UCMPL will rehabilitate and revegetate the open cut to self-sustaining native vegetation communities, being Grey Box Woodland and Ironbark Open Forest Complex on Sandstone communities which are characteristic of the pre-mining composition.
6.6.5	Revegetation works will use local provenance species, where possible.
6.6.6	The results of the ecological monitoring and management measures will be reviewed and reported annually, in accordance with project approval requirements. Management measures will be adapted, as required, on the basis of monitoring outcomes.
6.6.7	UCMPL proposes to provide for long term conservation of the Bobadeen Vegetation Offset Area. The appropriate mechanism for achieving this long term conservation security will be determined in accordance with project approval requirements.
6.6.8	A rehabilitation area within the post-mining open cut area will be established to trial the success of <i>Acacia ausfeldii</i> seed germination. Should this trial prove unsuccessful UCMPL will establish a suitable offset which is located outside any future mining area in consultation with DECCW and DoP.
6.6.9	The design and construction of water crossings will be undertaken in accordance with the NSW Fisheries guidelines for Fish Friendly Waterway Crossings and in liaison with NSW Fisheries.
	Aboriginal Archaeology

6.7.1	Impacts to the Mona Creek 23-30 rockshelter sites (ID# 180-187) will be avoided under this project.
6.7.2	Detailed recording of the stone arrangements (ID# 589, 603, 697 and 700) will be undertaken, prior to commencement of secondary extraction under these sites.
6.7.3	Archaeological survey of all potential impact areas that could not be accessed during the present investigation will be completed prior to any impact occurring in these areas.
	European and Natural Heritage
6.8.1	UCMPL will carry out archival recording of Old Ulan Village and Bobadeen Homestead to Heritage Council of NSW, Department of Planning standards prior to longwall mining within 100 metres of the structure.
6.8.2	A Conservation Management Plan or Strategy will be prepared for the site of Old Ulan Village, in accordance with project approval requirements, to ensure appropriate short and long term management strategies are determined. This will include a maintenance strategy for Old Ulan Village, to be developed prior to longwall mining within 100 metres of the structure.
6.8.3	The Talbragar Fish Fossil Reserve will be secured with appropriate fencing and suitable signage subject to landowner approval.
	Air Quality
6.9.1	Measures to minimise dust emissions from the operation will be included in the project design such as enclosures on top of overland conveyors and spray systems for permanent coal stockpiles where practicable.
6.9.2	The Project will minimise the total disturbance footprint and the area of untreated hardstand to the minimum practicable;
6.9.3	UCMPL will continue to implement existing dust controls, including:
	<ul> <li>watering of active mining areas, active spoil emplacement areas and haul roads that are subject to frequent vehicle movements;</li> </ul>
	<ul> <li>all drill rigs are equipped with dust control systems and are regularly maintained for effective use;</li> </ul>
	<ul> <li>automatic sprays fitted to dump hopper and crushing plant to minimise dust from coal processing activities;</li> </ul>
	<ul> <li>topsoil stripping is preferentially undertaken when there is sufficient moisture content in the soil;</li> </ul>
	<ul> <li>minimising the area of disturbance by restricting vegetation clearing ahead of mining operations, rehabilitating mine spoil dumps as soon as practicable after mining and using existing facilities and infrastructure where possible;</li> </ul>
	restricting blasting activities during adverse weather conditions
6.9.4	<b>UCMPL</b> will continue to implement the current spontaneous combustion management system to address the coal's susceptibility to spontaneous combustion, which includes procedures for identifying potential sources of carbonaceous material with spontaneous combustible properties and methods for handling and disposing of these materials.
	Noise and Vibration

6.10.1	UCMPL will implement all reasonable and feasible measure to minimise the noise impact from the Project at residences.
6.10.2	UCMPL will design and undertake blasts to ensure the relevant vibration and blast overpressure criteria are met at private residences, unless there is an agreement with these residents in relation to blast impacts above the relevant criteria.
6.10.3	UCMPL will consult with residents surrounding the project area prior to the first blast on site and identify those residents that may wish to be notified of blasting times on an ongoing basis.
6.10.4	UCMPL is committed to ameliorating any low frequency noise issues due to the Project in accordance with best practice guidelines and management practices, when the issue is identified.
6.10.5	Minor blasts such as that associated with small scale construction projects i.e. construction of ventilation shafts will not be limited in terms of frequency or require monitoring where UCMPL confirms by design and prediction prior to blasting that the overpressure and vibration levels will be less than 95dBL and 1 mm/sec at all private buildings or structures.
	Traffic and Transport
6.11.1	UCMPL will participate in the preparation and implementation of the Ulan Road Strategy, in accordance with project approval requirements.
	Visual
6.12.1	<b>UCMPL</b> will implement the following visual controls to screen or filter views of project infrastructure from residential and public road locations:
	<ul> <li>maintaining vegetation screening along Ulan Road;</li> </ul>
	<ul> <li>ensuring that all lighting associated with the Project complies with Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting;</li> </ul>
	<ul> <li>all buildings and infrastructure potentially visible to the public to be coloured in suitable natural tones, where practicable;</li> </ul>
	<ul> <li>directing light towards work areas and not towards private residences;</li> </ul>
	progressive rehabilitation of disturbed areas; and
	<ul> <li>revegetation will be progressively undertaken of the Goulburn River Diversion, as described in the Approved Goulburn River Diversion Remediation Plan.</li> </ul>
	Greenhouse Gas and Energy Assessment
6.13.1	UCMPL will continue to implement their existing greenhouse gas and energy management commitments, as described in <b>Section 5.12</b> .
6.13.2	UCMPL will investigate and implement where feasible GHG and energy management and mitigation initiatives during the design, operation and decommissioning of the Project.
6.13.3	<b>UCMPL</b> will continue to monitor and seek to improve its energy and greenhouse gas performance against performance targets.
6.13.4	UCMPL will report is greenhouse and energy performance via legislative reporting requirements.
	Decommissioning and Mine Closure
6.14.1	Within 12 months of project approval, UCMPL will revise the current conceptual mine closure plan. A detailed closure planning process will be undertaken for the Project five years prior to cessation of mining.
6.14.2	Decommissioning of the mining operations and surface facilities associated with the Project will occur progressively throughout the life of the Project, in accordance with conditions of the relevant mining titles. This will include progressive decommissioning of mine entries, ventilation fans, ventilation shafts, borehole facilities and associated surface facilities. A decommissioning plan will be prepared

	for each stage as part of the extraction plan and/or rehabilitation management plan process.
	Waste
6.15.1	The management of waste materials generated by the construction and operation of the Project will be managed through the design; procurement of construction materials and purchasing; identification and segregation of reusable and recyclable materials; processing materials for recycling; and considering environmental impacts for waste removal processes.
	Community
Econor	nic Development – Employment, Education and Training
6.16.1	UCMPL currently aims to maximise local employment and provide training and education opportunities through:
	<ul> <li>Advertising employment, apprenticeships and traineeships in local media;</li> </ul>
	<ul> <li>Providing an employment pack that allows local residents to register their interest in employment opportunities at the UCMPL office;</li> </ul>
	<ul> <li>Sharing information about mining careers at UCMPL and corporate entity with local schools;</li> </ul>
	Offering training opportunities through partnerships with local tertiary education providers;
	Participating in the corporate school scholarship program; and     Continued implementation of Contents and LICADI
	<ul> <li>Continued implementation of Corporate and UCMPL Corporate Social Involvement (CSI) programs.</li> </ul>
6.16.2	In addition to current practices, UCMPL proposes to:
	• Formalise a policy that gives local residents employment preference where they have the required skills and experience, and demonstrate a cultural fit with the organisation;
	• Provide access to the corporate careers centre via the UCMPL website so that local residents can easily register their interest in employment online; and
	<ul> <li>Develop partnerships with other local organisations, such as the Mudgee Regional Tourism Inc. Committee, to promote employment opportunities in non-mining related sectors to the families of UCMPL employees.</li> </ul>
Econor	nic Development –Business Opportunities
6.16.3	<b>UCMPL</b> will continue to implement the <u>Glencore</u> Procurement Policy giving preference to sourcing materials and services from local companies where all other commercial factors are equal.
Quality	of Life – Community Investment
6.16.4	<b>UCMPL</b> will review its social involvement program three yearly in consultation with key stakeholders such as the Community Consultative Committee and Mid- Western Regional Council to ensure the program's focus areas remain relevant and address issues of greatest community need/challenge.
6.16.5	UCMPL will continue to reduce the impacts of its workforce on local health services by continuing current activities such as:
	<ul> <li>Running an in-house annual influenza vaccination program;</li> </ul>
	<ul> <li>Providing in-house employee medical assessments every three years;</li> </ul>
	Offering First Aid training to employees;
	Delivering a health promotion program for UCMPL employees;
	• Encourage raising funds for health-related causes (e.g. hospital equipment, the Cancer Foundation etc) through staff volunteering and fund raising activities.

Quality	of Life – Road Safety
6.16.6	UCMPL will continue to promote safe driver practices in its internal newsletter and apply a driver fatigue policy to all employees
6.16.7	UCMPL will investigate the possibility of providing a bus to transport workers as part of the Ulan Road Strategy, required by project approval conditions.
Cumula	ative Impacts
6.16.8	UCMPL will continue to work with representatives from neighbouring mines to discuss and address issues of common concern in relation to management of cumulative impacts, in accordance with project approval requirements.
6.16.9	Ulan Coal Mines will participate in any working parties / forums which Council or government may establish to address the impact of regional development on health care, land availability, education and childcare services.
Reside	ntial Subdivision Commitments
6.16.10	UCMPL will develop the remaining 74 residential allotments required to complete the obligations outlined in the Deed of Agreement (1983) signed by the Minister, UCMPL and Council in relation to the development of 250 serviced residential lots, as part of the former approval of Ulan Colliery. This development will be completed in consultation with Mid Western Regional Council (MWRC) to stage the subdivision release to meet predicted residential demand in accordance with the MWRC Land Use Strategy.
Volunt	ary Planning Agreement
6.16.11	By the end of December 2011, UCMPL will seek to enter into a planning agreement with Council in accordance with Division 6 of Part 4 of the EP&A Act. This agreement will take into account the above mentioned commitments and any relevant contributions under previous consents for mining operations on the site, in order to provide for further reasonable contributions towards the provision of local infrastructure and services to meet the demand generated by the project in the Mid- Western Regional local government area. The agreement will also take into account the contributions made to development and maintenance of the public road system, in accordance with relevant project approval conditions.
	Environmental Management, Monitoring, Auditing and Reporting
Annua	l Review
6.17.1 require	UCMPL will prepare an Annual Review, in accordance with project approval ments.
Surren	der of Redundant Development Consents
6.17.2	UCMPL will surrender all other development consents that relate to activities that are adequately covered in the new project approval, in accordance with the new project approval conditions.
Indepe	ndent Environmental Audit
6.17.3	UCMPL will commission and pay the full cost of an Independent Environmental Audit of the Project in accordance with project approval conditions.



**APPENDIX 10 – SURFACE INFRASTRUCTURE MODIFICATION 6** 

Figure 1 | Area 1 Preferred Infrastructure Layout, Areas 2 and 3



Figure 2 | Area 1 Contingency Infrastructure Options (Stages A to I)

#### APPENDIX 11 – BIODIVERSITY CREDIT REQUIREMENTS - AREA 1 CONTINGENY INFRASTRUCTURE OPTIONS

Table 1: Biodiversity Credit Requirements for Alternative Options	
Contingency Option A (BAM C Stage A)	Credits
Ecosystem credits	
476 Narrow-leaved Wattle low open forest / very tall shrubland on ridges in northern NSW South- Western Slopes Bioregion and southern Brigalow Belt South Bioregion	47
478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion	100
Species credits	
Commersonia procumbens	196
Monotaxis macrophylla	196
Barking owl (Ninox connivens)	133
Koala (Phascolarctos cinereus)	
Contingency Option B (BAM C Stage B)	
Ecosystem credits	
478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion	156
Species credits	
Commersonia procumbens	209
Monotaxis macrophylla	209
Barking owl (Ninox connivens)	209
Koala (Phascolarctos cinereus)	209
Contingency Option C (BAM C Stage C)	
Ecosystem credits	
478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion	138
479 Narrow-leaved Ironbark- Black Cypress Pine – stringybark +/- Grey Gum +/- Narrow-leaved Wattle shrubby open forest on sandstone hills in the southern Brigalow Belt South Bioregion and Sydney Basin Bioregion	7
481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region	9
Species credits	
Commersonia procumbens	204
Monotaxis macrophylla	204
Tylophora linearis	9
Barking owl (Ninox connivens)	204
Koala (Phascolarctos cinereus)	204
Contingency Option D (BAM C Stage D)	
Ecosystem credits	
478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion	148
481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region	9
Species credits	
Commersonia procumbens	210
Monotaxis macrophylla	210
Barking owl (Ninox connivens)	210

Table 1: Biodiversity Credit Requirements for Alternative Options

Torest on sandstone in the Guigong – Mendooran region, southern Brigalow Belt South Bioregion         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum         sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper         Hunter region         Species credits         Commersonia procumbens         Monotaxis macrophylla         Barking owl (Ninox connivens)         Koala (Phascolarctos cinereus)         Contingency Option F (BAM C Stage F)         Ecosystem credits         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open         forest on sandstone in the Guigong – Mendooran region, southern Brigalow Belt South Bioregion         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum         sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper         Hunter region         Species credits         Commersonia procumbens         Quemersonia procumbens         Quemersonia procumbens         Monotaxis macrophylla         Species credits         Commersonia procumbens         Quemersonia procumbens         Quemersonia procumbens         Quemersonia procumbens         Monotaxis macrophylla         Barking owl (	135       21       208
478       Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         481       Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fem open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region         Species credits       2         Commersonia procumbens       2         Monotaxis macrophylla       2         Barking owl (Ninox connivens)       2         Koala (Phascolarctos cinereus)       2         Contingency Option F (BAM C Stage F)       2         Ecosystem credits       2         478< Red Ironbark – Alack Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         478       Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion sandstone riparian grass fem open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region         Species credits       2         Commersonia procumbens       2         Monotaxis macrophylla       2         Species credits       2         Commersonia procumbens       2         Monotaxis macrophylla       2	21 208 208 208 208 208 208
forest on sandstone in the Guigong – Mendooran region, southern Brigalow Belt South Bioregion         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum         sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper         Hunter region         Species credits         Commersonia procumbens       2         Monotaxis macrophylla       2         Barking owl (Ninox connivens)       2         Koala (Phascolarctos cinereus)       2         Contingency Option F (BAM C Stage F)       2         Ecosystem credits       2         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Guigong – Mendooran region, southern Brigalow Belt South Bioregion and Upper Hunter region         Species credits       2         Commersonia procumbens       2         Monotaxis macrophylla       2         Ecosystem credits       2         Contingency Option F (BAM C Stage F)       2         Ecosystem credits       2         Commersonia procumbens       2         Monotaxis macrophylla       2         Species credits       2         Commersonia procumbens       2         Monotaxis macrophylla       2         Barking owl (Ninox connivens)	21 208 208 208 208 208 208
sandstone riparian grass fem open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region Species credits Commersonia procumbens Commersonia procumbens Contingency Option F (BAM C Stage F) Ecosystem credits 478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion and Upper Hunter region Species credits Commersonia procumbens Contingency Option F (BAM C Stage F) Ecosystem credits 478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion A81 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fem open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region Species credits Commersonia procumbens Contingency Option G (BAM C Stage G) Ecosystem credits 478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – the southern Brigalow Belt South Bioregion and Upper Hunter region Species credits Commersonia procumbens 20 Contingency Option G (BAM C Stage G) Ecosystem credits 478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion 478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion 478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion 478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion 481 Rough-barked	208 208 208 208 208 94
Commersonia procumbens       2         Monotaxis macrophylla       2         Barking owl (Ninox connivens)       2         Koala (Phascolarctos cinereus)       2         Contingency Option F (BAM C Stage F)       2         Ecosystem credits       2         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion       48         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region       2         Species credits       2         Commersonia procumbens       2         Monotaxis macrophylla       2         Barking owl (Ninox connivens)       2         Koala (Phascolarctos cinereus)       2         Contingency Option G (BAM C Stage G)       2         Ecosystem credits       2         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone r	208 208 208 94
Monotaxis macrophylla       2         Barking owl (Ninox connivens)       2         Koala (Phascolarctos cinereus)       2         Contingency Option F (BAM C Stage F)       2         Ecosystem credits       2         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion       4         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fem open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region       5         Species credits       2         Commersonia procumbens       2         Monotaxis macrophylla       2         Barking owl (Ninox connivens)       2         Koala (Phascolarctos cinereus)       2         Contingency Option G (BAM C Stage G)       2         Ecosystem credits       2         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fem open forest on the southern Brigalow Belt South Bioregion	208 208 208 94
Barking owl (Ninox connivens)       2         Koala (Phascolarctos cinereus)       2         Contingency Option F (BAM C Stage F)       2         Ecosystem credits       4         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southerm Brigalow Belt South Bioregion       4         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fem open forest on the southerm Brigalow Belt South Bioregion and Upper Hunter region       5         Species credits       2         Commersonia procumbens       2         Monotaxis macrophylla       2         Barking owl (Ninox connivens)       2         Koala (Phascolarctos cinereus)       2         Contingency Option G (BAM C Stage G)       2         Ecosystem credits       2         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southerm Brigalow Belt South Bioregion         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southerm Brigalow Belt South Bioregion         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southerm Brigalow Belt South Bioregion         478 Red Ironbark – Black C	208 208 94
Koala (Phascolarctos cinereus)       2         Contingency Option F (BAM C Stage F)       2         Ecosystem credits       478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion       481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region         Species credits       2         Contingency Option G (BAM C Stage G)       2         Ecosystem credits       2         Monotaxis macrophylla       2         Barking owl (Ninox connivens)       2         Koala (Phascolarctos cinereus)       2         Contingency Option G (BAM C Stage G)       2         Ecosystem credits       2         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on	94
Contingency Option F (BAM C Stage F)         Ecosystem credits         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region         Species credits         Contingency Option G (BAM C Stage G)         Ecosystem credits         Anotaxis macrophylla         Barking owl (Ninox connivens)         Koala (Phascolarctos cinereus)         Contingency Option G (BAM C Stage G)         Ecosystem credits         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Stringybark +/- Grey Gum sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone rip	94
Ecosystem credits       478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region         Species credits       2         Commersonia procumbens       2         Monotaxis macrophylla       2         Barking owl (Ninox connivens)       2         Koala (Phascolarctos cinereus)       2         Contingency Option G (BAM C Stage G)       2         Ecosystem credits       478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region         Species credits       5	-
478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open         forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum         sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper         Hunter region         Species credits         Commersonia procumbens         Monotaxis macrophylla         Barking owl (Ninox connivens)         Koala (Phascolarctos cinereus)         Contingency Option G (BAM C Stage G)         Ecosystem credits         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open         forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open         forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum         sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper         Hunter region         Species credits	-
forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region         Species credits       2         Commersonia procumbens       2         Monotaxis macrophylla       2         Barking owl (Ninox connivens)       2         Koala (Phascolarctos cinereus)       2         Contingency Option G (BAM C Stage G)       2         Ecosystem credits       2         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion       1         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion       1         50 Species credits       5	-
sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region  Species credits  Commersonia procumbens  Monotaxis macrophylla  Barking owl (Ninox connivens)  Koala (Phascolarctos cinereus)  Contingency Option G (BAM C Stage G)  Ecosystem credits  478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion  481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region  Species credits  Species credits	58
Commersonia procumbens       2         Monotaxis macrophylla       2         Barking owl (Ninox connivens)       2         Koala (Phascolarctos cinereus)       2         Contingency Option G (BAM C Stage G)       2         Ecosystem credits       2         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion       4         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region       5         Species credits       4	
Commersonia procumbens       2         Monotaxis macrophylla       2         Barking owl (Ninox connivens)       2         Koala (Phascolarctos cinereus)       2         Contingency Option G (BAM C Stage G)       2         Ecosystem credits       2         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion       4         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region       5         Species credits       5	
Barking owl (Ninox connivens)       2         Barking owl (Ninox connivens)       2         Koala (Phascolarctos cinereus)       2         Contingency Option G (BAM C Stage G)       2         Ecosystem credits       2         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion       2         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region       5         Species credits       5	203
Koala (Phascolarctos cinereus)       2         Contingency Option G (BAM C Stage G)       2         Ecosystem credits       478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion       481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region         Species credits       2	203
Contingency Option G (BAM C Stage G)         Ecosystem credits         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region         Species credits	203
Ecosystem credits         478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open         forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion         481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum         sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper         Hunter region         Species credits	203
478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion 481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region Species credits	
forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion 481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region Species credits	
sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region Species credits	81
	67
Commersonia procumbens 1	197
Monotaxis macrophylla 1	197
Barking owl (Ninox connivens) 1	197
Koala (Phascolarctos cinereus) 1	197
Contingency Option H (BAM C Stage H)	
Ecosystem credits	
478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion	86
481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region	59
Species credits	
Commersonia procumbens 1	
Monotaxis macrophylla 1	194
Barking owl (Ninox connivens) 1	194 194
Koala (Phascolarctos cinereus)     1	

Ecosystem credits	
478 Red Ironbark – Black Cypress Pine – stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong – Mendooran region, southern Brigalow Belt South Bioregion	75
481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region - Intact	42
481 Rough-barked Apple – Blakely's Red Gum – Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on the southern Brigalow Belt South Bioregion and Upper Hunter region – Regeneration	53
Species credits	
Commersonia procumbens	226
Monotaxis macrophylla	226
Barking owl ( <i>Ninox connivens</i> )	226
Koala (Phascolarctos cinereus)	226

Note: To identify the location of Contingency Options A to I in Table 1, refer to Figure 2 in Appendix 10.



### **APPENDIX 12 – SURFACE FEATURES MODIFICATION 6**





Figure 2 | Location of Aboriginal cultural heritage sites in the vicinity of the Modification 6 Extension Area