

# Project Approval

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

I approve the project applications referred to in Schedule 1, subject to the preamble in Schedule 1 and the conditions in Schedules 2 to 5.

These conditions are required to:

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

The Hon Tony Kelly MLC  
**Minister for Planning MP**

Sydney

2010

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### SCHEDULE 1

<b>Application Numbers:</b>	08_0102
<b>Proponent:</b>	Bloomfield Collieries Pty Limited
<b>Approval Authority:</b>	Minister for Planning
<b>Land:</b>	See Appendix 1
<b>Project 08_0102:</b>	Rix's Creek North Open Cut Project

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(Schedules 1 – 5 updated in entirety during Modification 6, dated 23 August 2016)

Red type represents Modification 7, dated 1 September 2017

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## DEFINITIONS

Annual review	The review required by condition 10 of Schedule 5
Approved mine plans	The plan for open cut mining depicted in the figure in Appendix 3
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 predicted and/or designated ranges
ARTC	Australian Rail Track Corporation
Ashton	Ashton coal mine
BCA	Building Code of Australia
Biodiversity offset strategy	The biodiversity enhancement program described in the EA Mod 4 and shown conceptually in the figures in Appendix 8
Blast	A single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the project
Blast misfire	The failure of one or more holes in a blast pattern to initiate
Built features	Includes any building or work erected or constructed on land, and includes dwellings and infrastructure such as any formed road, street, path, walk or driveway, any pipeline, water, sewer, telephone, gas or other service main
CCC	Community Consultative Committee required by condition 7 of Schedule 5
CHPP	Coal Handling and Preparation Plant
Conditions of this approval	Conditions contained in Schedules 2 to 5 inclusive
Council	Singleton Shire 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 and Environment
DRG	<b>Division of Resources and Geoscience, within the Department</b>
DPI Water	Department of Primary Industries - Water
EA Mod 1	<i>Integra Mine Complex Modification 1 Environmental Assessment</i> , prepared by EMGA Mitchell McLennan, dated 2 December 2011
EA Mod 2	<i>Integra Mine Complex Modification 2 Environmental Assessment</i> , prepared by EMGA Mitchell McLennan, dated September 2012
EA Mod 4	<i>Integra Mine Complex Modification 4 Environmental Assessment</i> , prepared by EMGA Mitchell McLennan and dated 16 May 2014; and associated response to submissions titled <i>Integra Mine Complex Modification 4 Response to Submissions</i> , dated 9 July 2014
EA Mod 5	<i>Environmental Assessment for Proposed Modifications to Rix's Creek DA 49/94 N90/00356 (Mod 7) and Integra Open Cut Project 08_0102 (Mod 5)</i> , prepared by Bloomfield Collieries Pty Ltd, dated 4 February 2016
EA Mod 6	<i>Application to Modify Project Approval for Integra Underground Project (MP 08_0101) and Integra Open Cut Project (MP 08_0102)</i> , prepared by HV Coking Coal Pty Limited and Bloomfield Collieries Pty Limited, dated February 2016; and associated additional information provided by the Proponent in a letter titled <i>PA 08_0101 and PA 08_0102 – Modifications to Integra Underground and Integra Open Cut Coal Projects</i> , dated 4 July 2016
EA Mod 7	<b><i>Environmental Assessment for Proposed Modifications to Rix's Creek DA 49/94 N90/00356 (Mod 9) and Rix's Creek North Open Cut Project 08_0102 (Mod 7)</i>, and associated response to submissions titled <i>Rix's Creek – (DA 49/94 Mod 9) and Rix's Creek North (DA 08_0102 Mod 7) Response to Submissions</i></b>
EEC	Endangered Ecological Community as defined under the NSW <i>Threatened Species Conservation Act 1995</i>
Environmental consequences	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; development of iron bacterial mats; rock falls; damage to Aboriginal heritage sites; impacts on aquatic ecology; and ponding
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPA	Environment Protection Authority
EPL	Environment Protection Licence issued under the POEO Act
Evening	The period from 6pm to 10pm
Exploration drilling program	<b>The exploration drilling activities as described in EA (Mod 7)</b>
Feasible	Feasible relates to engineering considerations and what is practical to build or carry out
Heritage Division	Heritage Division of OEH
IEA	Independent environmental audit required by condition 11 of Schedule 5

Incident	A set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in this approval
INP	<i>NSW Industrial Noise Policy</i> , or its latest version as replacement
Integra Underground Land	All land to which project approval 08_0101 applies 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 approval
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Minister	Minister for Planning, or delegate
Mitigation	Activities associated with reducing the impacts of the project
Mount Owen Complex	Includes Glendell, Mt Owen and Ravensworth East coal mines
MSB	NSW Mine Subsidence Board
NAG	Noise assessment group, see the figures in Appendix 5 for more detail
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
Northern mining area	The area outlined with a solid white line on the figure in Appendix 3 titled "open cut project area"
OEH	Office of Environment and Heritage
Open cut mining operations	Includes overburden removal and the extraction, processing, handling, storage and transportation of coal within the project area
Open cut project EA	Environmental assessment titled <i>Integra Open Cut Project</i> , dated June 2009, and the associated response to submissions titled <i>Submissions Report</i> , dated March 2010
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Previous EAs	Previous environmental impact assessments or environmental impact statements for the project, as listed in Appendix 2
Privately-owned land	Land that is not owned by a public agency, or a mining company (or its subsidiary)
Project	The open cut project as described in the documents listed in condition 2 of Schedule 2, including the implementation of any development associated with the previous EAs
Project area	All land within the solid maroon line on the figure in Appendix 3
Proponent	Bloomfield Collieries Pty Limited, or its successors
Public infrastructure	Linear and related infrastructure that provides services to the general public, such as roads, railways, water supply, gas supply, drainage, sewerage, telephony, telecommunications etc
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Rehabilitation	The 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
Rix's Creek	Rix's Creek coal mine
RMS	Roads and Maritime Services
ROM coal	Run-of-mine coal
Safe, serviceable and repairable	Safe means no danger to users, serviceable means available for its intended purpose, and repairable means damaged components can be repaired economically
Secretary	Secretary of the Department, or nominee
Site	The land listed in Appendix 1
Statement of Commitments	The Proponent's commitments in Appendix 9
Underground project EA	Environmental assessment titled <i>Proposed Integra Underground Coal Project</i> , dated July 2009, and the associated response to submissions, titled <i>Integra Underground Project Collated Response to Submissions</i> , dated March 2010
Western mining area	The area outlined with a solid light blue line on the figure in Appendix 3 titled "open cut project area"

## SCHEDULE 2 ADMINISTRATIVE CONDITIONS

### OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance criteria established under this project approval, the Proponent 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 APPROVAL

2. The Proponent must carry out the project generally in accordance with the:
  - (a) previous EAs;
  - (b) open cut project EA;
  - (c) EA Mod 1;
  - (d) EA Mod 2;
  - (e) EA Mod 4;
  - (f) EA Mod 5;
  - (g) EA Mod 6;
  - (h) EA Mod 7; and
  - (i) project layout plan.
3. The Proponent must carry out the project in accordance with the:
  - (a) Statement of Commitments; and
  - (b) conditions of this approval.

#### *Notes to conditions 2 and 3:*

- Previous EAs for the project are listed in Appendix 2;
- The project layout plan is shown in Appendix 3;
- The Statement of Commitments is reproduced in Appendix 9; and
- This project approval is intended to regulate all existing and approved development on site.

4. If there is any inconsistency between the above documents then the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.
5. The Proponent must comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:
  - (a) any reports, strategies, plans, programs, reviews, audits, or correspondence that are submitted in accordance with the conditions of this approval;
  - (b) any reviews, reports or audits undertaken or commissioned by the Department regarding compliance with the conditions of this approval; and
  - (c) the implementation of any actions or measures contained in these documents.

### LIMITS OF APPROVAL

#### Mining Operations

6. The Proponent may carry out open cut mining operations on site until 31 December 2035.

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

#### Coal Production

7. The Proponent must not extract more than:
  - (a) 1.5 million tonnes of ROM coal from the open cut mining operations in the northern mining area in a calendar year; and
  - (b) 4.5 million tonnes of ROM coal from the open cut mining operations in the western mining area in a calendar year.

#### Coal Transport

8. The Proponent must not:
  - (a) export more than 7.3 million tonnes of coal from the site in a calendar year;
  - (b) dispatch more than 7 trains a day from the site; and

(c) dispatch more than 3 trains a day from the site, when averaged over each calendar year.

9. The Proponent must not transport coal from the site by public road, except in an emergency situation and with the prior approval of the Secretary.

#### Hours of Operation

10. The Proponent must only carry out:
- (a) open cut mining operations in the northern mining area from 7am to 10pm, seven days a week (including public holidays); and
  - (b) vegetation clearing and topsoil stripping on site between 7am and 6pm.

#### SURRENDER OF CONSENTS AND APPROVALS

11. By the end of June 2017, or as otherwise agreed by the Secretary, the Proponent must surrender all existing development consents and project approvals for the site (other than this approval and the development consent for the Glennies Creek to Ashton Water Pipeline granted by Council on 13 February 2004) in accordance with Sections 75YA and 104A of the EP&A Act.

*Note: This requirement does not extend to the surrender of construction and occupation certificates for existing and proposed building works under Part 4A of the EP&A Act. Surrender of a consent or approval should not be understood as implying that works legally constructed under a valid consent or approval can no longer be legally maintained or used.*

12. Prior to the surrender of these consents and/or approvals, the conditions of this approval (including any notes) shall prevail to the extent of any inconsistency with the conditions of these consents and/or approvals.

#### STRUCTURAL ADEQUACY

13. The Proponent 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 Proponent is required to obtain construction and occupation certificates for the proposed building works;
- Part 8 of the EP&A Regulation sets out the requirements for the certification of the project; and
- The project is located in the Patrick Plains Mine Subsidence District. Under Section 15 of the Mine Subsidence Compensation Act 1961, the Proponent is required to obtain the MSB's approval before constructing or relocating any improvements on site.

#### DEMOLITION

14. The Proponent 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.

#### INFRASTRUCTURE

##### Protection of Public Infrastructure

15. Unless the Proponent and the applicable authority agree otherwise, the Proponent must:
- (a) repair or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and
  - (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the project,
- except where impacts to such works have otherwise been fully compensated through the compensation provisions of the *Mining Act 1992*.

#### OPERATION OF PLANT AND EQUIPMENT

16. The Proponent 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.

#### COMPLIANCE

17. The Proponent must ensure that all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.

## SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS

### ACQUISITION UPON REQUEST

- Upon receiving a written request for acquisition from an owner of the land containing a residential receiver listed in Table 1, the Proponent must acquire the land in accordance with the procedures in conditions 6 and 7 of Schedule 4.

Table 1: Land subject to acquisition upon request

<b>Residential Receiver No.</b>	<b>Acquisition Basis</b>
11 – F Ferraro	Noise
64 – W & A Gardner	Noise
87 – B & R Richards	Noise
106 – B & R Richards	Noise
111 – T Burgess	Noise
153 – R & D Hall	Noise and Air Quality
351 – Andrews	Noise
352 – Andrews	Noise

For the purposes of acquisition under this condition, parcels of land that are in close proximity and operated as a single agricultural enterprise by the owner of a listed residential receiver should be included as part of the land to be acquired. Where the Proponent and the owner(s) cannot agree whether non-contiguous parcels of land should be included, either party may refer the matter to the Secretary for resolution. The Secretary's decision as to the lands to be included for acquisition under the procedures in conditions 7 and 8 of Schedule 4 shall be final.

*Note: To interpret the locations referred to in Table 1, see the applicable figures in Appendix 4.*

### NOISE

#### Noise Criteria

- Except for the land referred to in Table 1 for which the acquisition basis is noise, the Proponent 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.

Table 2: Noise criteria dB(A)

<b>Location</b>		<b>Day</b>	<b>Evening</b>	<b>Night</b>	
		<b>L<sub>Aeq</sub>(15min)</b>	<b>L<sub>Aeq</sub>(15min)</b>	<b>L<sub>Aeq</sub>(15min)</b>	<b>L<sub>A1</sub>(1min)</b>
NAG 1	All privately-owned land	38	38	36	46
NAG 2	All privately-owned land	39	39	37	47
NAG 3	All privately-owned land	40	40	39	49
NAG 4	99, 100	39	39	39	47
	88, 91, 95	40	40	40	47
	105, 161	41	41	41	47
	All other privately-owned land	42	42	37	47
NAG 5	104	35	35	35	52
	139	36	36	36	52
	103	37	37	37	52
	121	40	40	40	52
	118, 154	43	43	43	52
	Deleted	45	45	45	52
	Deleted	47	47	47	52
	All other privately-owned land	50	46	42	52
NAG 6	137	35	35	35	48
	133	37	37	37	48

	132	38	38	38	48
	All other privately-owned land	41	41	38	48
NAG 7	All privately-owned land	45	42	39	49
NAG 8	142	35	35	35	45
	All other privately-owned land	42	42	35	45
NAG 9	146, 148, 149	35	35	35	48
	143, 144, 145, 147, 150, 151, 152	36	36	36	48
	2	37	37	37	48
	3, 4	39	39	39	48
	All other privately-owned land	40	40	38	48
NAG 10	5	40	40	40	47
	6, 11	41	41	41	47
	8	42	42	42	47
	All other privately-owned land	39	39	37	47
NAG 11	18	35	35	35	49
	20, 21	37	37	36	49
	19	37	37	37	49
	17	38	38	38	49
	7	39	39	39	49
	12, 15	40	40	40	49
	14, 16	42	42	42	49
	All other privately-owned land	41	41	39	49
NAG 12	52, 55	35	35	35	45
	51, 56	37	37	37	45
	53, 57	38	38	38	45
	50, 54	39	39	39	45
	62	40	40	40	45
	All other privately-owned land	38	38	35	45
NAG A	24, 25, 26, 27, 28, 29, 30, 36, 37, 38, 39, 40, 41	35	35	35	46
	31	36	36	35	46
	42, 43	36	36	36	46
	32	37	37	35	46
	22, 23	37	37	37	46
	34	39	39	36	46
	35	39	39	35	46
	All other privately-owned land	39	39	36	46
NAG B	All privately-owned land	37	37	35	45
NAG C	47	39	39	39	45
	63	40	40	40	45
	All other privately-owned land	37	37	35	45
NAG D	44, 48	36	36	36	48
	49	39	39	39	48
	All other privately-owned land	40	40	38	48
NAG F	65, 66	39	39	39	50
	67	40	40	40	50
	68	42	42	42	50
	All other privately-owned land	40	40	40	50
NAG G	All privately-owned land	41	41	39	50
	All other privately-owned land	35	35	35	45



However, these criteria do not apply if the Proponent, or another mining company, has acquired the land or if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.

Noise generated by the project is to be measured in accordance with the relevant requirements of the INP. Appendix 5 sets out the requirements for evaluating compliance with these criteria.

*Note: To interpret the locations referred to in Table 2, see the applicable figures in Appendix 4.*

### Noise Acquisition Criteria

3. If 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 owner, the Proponent must acquire the land in accordance with the procedures in conditions 7 and 8 of Schedule 4.

*Table 3: Noise acquisition criteria dB(A)*

<b>Location</b>	<b>Day</b>	<b>Evening</b>	<b>Night</b>
	<b><i>L<sub>Aeq</sub>(15min)</i></b>	<b><i>L<sub>Aeq</sub>(15min)</i></b>	<b><i>L<sub>Aeq</sub>(15min)</i></b>
All privately-owned land in NAG 1	44	44	42
All privately-owned land in NAG 2	45	45	43
All privately-owned land in NAG 3	46	46	45
All privately-owned land in NAG 4	48	48	43
All privately-owned land in NAG 5	56	52	48
All privately-owned land in NAG 6	47	47	44
All privately-owned land in NAG 7	51	48	45
All privately-owned land in NAG 8	48	48	41
All privately-owned land in NAG 9	46	46	44
All privately-owned land in NAG 10	45	45	43
All privately-owned land in NAG 11	47	47	45
All privately-owned land in NAG 12	44	44	41
All privately-owned land in NAG A	45	45	42
All privately-owned land in NAG B	43	43	41
All privately-owned land in NAG C	43	43	41
All privately-owned land in NAG D	46	46	44
All privately-owned land in NAG F	46	46	46
All privately-owned land in NAG G	47	47	45
All other privately-owned land	41	41	41

Noise generated by the project is to be measured in accordance with the relevant requirements of the INP. Appendix 5 sets out the requirements for evaluating compliance with these criteria.

*Notes:*

- To interpret the locations referred to in Table 3, see the applicable figures in Appendix 4; and
- For this condition to apply, the exceedances of the criteria must be systemic.

### Cumulative Noise Criteria

4. The Proponent 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 vicinity 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 (except for the residential receivers in Table 1 for which the acquisition basis is noise). The Proponent must share the costs associated with implementing these measures on as equitable basis as possible with the relevant mines.

*Table 4: Cumulative noise criteria dB(A)  $L_{Aeq}$  (period)*

<b>Location</b>	<b>Day</b>	<b>Evening</b>	<b>Night</b>
NAGs 4, 5, 8 and 9	55	45	40

All other privately-owned land	50	45	40
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Cumulative noise is to be measured in accordance with the relevant requirements of the INP. Appendix 5 sets out the requirements for evaluating compliance with these criteria.

For the purposes of this condition, 'reasonable and feasible avoidance and mitigation measures' includes, but is not limited to, the requirements in conditions 9 and 10 to develop and implement a real-time noise management system that ensures effective operational response to the risk of exceedance of the criteria.

*Note: To identify the locations referred to in Table 4, see the figures in Appendix 4.*

### Cumulative Noise Acquisition Criteria

5. If the noise generated by the project combined with the noise generated by other mines in the vicinity exceeds the criteria in Table 5 at any residence on privately-owned land or on more than 25 percent of privately-owned land (except for the residential receivers in Table 1 for which the acquisition basis is noise), then upon receiving a written request for acquisition from the landowner, the Proponent must acquire the land on as equitable basis as possible with the relevant mines in accordance with the procedures in conditions 7 and 8 of Schedule 4.

*Table 5: Cumulative noise acquisition criteria dB(A)  $L_{Aeq}$  (period)*

Location	Day	Evening	Night
NAGs 4, 5, 8 and 9	60	50	45
All other privately-owned land	55	50	45

Cumulative noise is to be measured in accordance with the relevant requirements of the INP. Appendix 5 sets out the requirements for evaluating compliance with these criteria.

*Notes:*

- To interpret the locations referred to in Table 5, see the applicable figures in Appendix 4; 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 Table 1 for which the acquisition basis is noise; or
  - (b) on land listed in Table 6; or
  - (c) on privately-owned land where subsequent noise monitoring shows the noise generated by the project is greater than or equal to the criteria in Table 7,
 the Proponent must implement additional noise mitigation measures (such as double-glazing, insulation, and/or air conditioning) at the residence in consultation with the landowner.

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

*Table 6: Land where additional noise mitigation measures are available on request*

5 – D P Cox	6 – W G Cox
8 – DK Geelan	16 – A Lambkin
14 – M Hoggan	31 – C Craven
20 – Mr Garvie	48 – G Cheetham
32 – M Langdon	50 – D & M Bridge
47 – B & R Cherry	54 – G Holmes
53 – K & J Badior	63 – J & M Moore
62 – D Moran	95 – J & T Clarke
91 – T & D Olofsson	161 – V Lopes
105 – J & G McInerney	363 – D & L Bynon

*Note: To interpret the locations referred to in Table 6, see the applicable figures in Appendix 4.*

Table 7: Additional noise mitigation criteria dB(A)

Location	Day	Evening	Night
	<i>L<sub>Aeq</sub>(15min)</i>	<i>L<sub>Aeq</sub>(15min)</i>	<i>L<sub>Aeq</sub>(15min)</i>
All privately-owned land in NAG 1	41	41	39
All privately-owned land in NAG 2	42	42	40
All privately-owned land in NAG 3	43	43	42
All privately-owned land in NAG 4	45	45	40
All privately-owned land in NAG 5	53	49	45
All privately-owned land in NAG 6	44	44	41
All privately-owned land in NAG 7	48	45	42
All privately-owned land in NAG 8	45	45	38
All privately-owned land in NAG 9	43	43	41
All privately-owned land in NAG 10	42	42	40
All privately-owned land in NAG 11	44	44	42
All privately-owned land in NAG 12	41	41	38
All privately-owned land in NAG A	42	42	39
All privately-owned land in NAG B	40	40	38
All privately-owned land in NAG C	40	40	38
All privately-owned land in NAG D	43	43	41
All privately-owned land in NAG F	43	43	43
All privately-owned land in NAG G	44	44	42
All other privately-owned land	38	38	38

Cumulative noise is to be measured in accordance with the relevant requirements of the INP. Appendix 5 sets out the requirements for evaluating compliance with these criteria.

Notes:

- To interpret the locations referred to in Table 7, see the applicable figures in Appendix 4; and
- For this condition to apply, the exceedances of the criteria must be systemic.

7. If the cumulative noise generated by the project combined with the noise generated by other mines in the vicinity exceeds the criteria at any residence on the land referred to in Table 8, then upon receiving a written request from the owner, the Proponent must implement additional noise mitigation measures (such as double-glazing, insulation, and/or air conditioning) at the residence in consultation with the landowner. The Proponent must share the costs associated with implementing these measures on an equitable basis as possible with the relevant mines.

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

Table 8: Cumulative noise mitigation criteria dB(A) *L<sub>Aeq</sub> (period)*

Location	Day	Evening	Night
NAGs 4, 5, 8 and 9	57	47	42
All other privately owned land	52	47	42

Cumulative noise is to be measured in accordance with the relevant requirements of the INP. Appendix 5 sets out the requirements for evaluating compliance with these criteria.

Notes:

- To interpret the locations referred to in Table 8, see the applicable figures in Appendix 4; and
- For this condition to apply, the exceedances of the criteria must be systemic.

## Rail Noise

8. The Proponent 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

9. The Proponent must:
- implement best practice noise management, including all reasonable and feasible noise mitigation measures, to minimise the operational, low frequency, and rail noise generated by the project at all times, including during temperature inversions;
  - operate a comprehensive noise management system that uses a combination of predicted meteorological forecasting and real-time noise monitoring data to guide the day-to-day planning of mining operations and the implementation of both proactive and reactive mitigation measures to ensure compliance with the relevant conditions of this approval;
  - maintain or improve the effectiveness of noise suppression equipment on plant at all times and ensure defective plant is not used operationally until fully repaired;
  - ensure that noise attenuated plant is deployed preferentially in locations relevant to sensitive receivers;
  - minimise the noise impacts of the project during meteorological conditions under which data is to be excluded for the purposes of assessing compliance with these conditions (see Appendix 5); and
  - co-ordinate the noise management on site with noise management at nearby mines (including Integra Underground, Ashton, Rix's Creek and the Mount Owen Complex) to minimise cumulative noise impacts,
- to the satisfaction of the Secretary.

## Noise Management Plan

10. The Proponent must prepare a Noise Management Plan for the project to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with the EPA, and then submitted to the Secretary for approval;
  - describe the measures that would be implemented to ensure:
    - compliance with the noise criteria and operating conditions of this approval; and
    - best management practice is being employed;
  - describe the noise management system in detail;
  - include a noise monitoring program that:
    - uses a combination of real-time and supplementary attended monitoring measures to evaluate the performance of the project;
    - includes a protocol for determining exceedances of the relevant conditions in this approval;
    - evaluates and reports on the effectiveness of the noise management system and the best practice noise management measures; and
  - includes a protocol that has been prepared in consultation with the owners of nearby mines (including Integra Underground, Ashton, Rix's Creek and the Mount Owen Complex) to minimise the cumulative noise impacts of the mines.

The Proponent must implement the approved management plan as approved from time to time by the Secretary.

## BLASTING

### Blasting Criteria

11. The Proponent must ensure that the blasting on site does not cause exceedances of the criteria in Table 9.

Table 9: Blasting criteria

<b>Receiver</b>	<b>Airblast Overpressure (dB(Lin Peak))</b>	<b>Ground Vibration (ppv(mm/s))</b>	<b>Allowable Exceedance</b>
Residence on privately-owned land	115	5	5% of the total number of blasts over a period of 12 months
	120	10	0%
Main Northern Railway culverts and bridges	-	25	0%
All public infrastructure	-	50	0%

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

## **Blasting Hours**

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

## **Blasting Frequency**

13. The Proponent must not carry out more than:
- (a) 1 blast a day in the northern mining area unless an additional blast is required following a blast misfire;
  - (b) 2 blasts a day in the existing Camberwell south pit, and then 1 blast a day when the mining moves from this pit into the western mining area unless an additional blast is required following a blast misfire; and
  - (c) 10 blasts a week on site, averaged over any 12 month period.

## **Property Inspections**

14. If the Proponent receives a written request from the owner of any privately-owned land within 2 kilometres of the approved open cut mining pits on site for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection report updated, then within 2 months of receiving this request the Proponent 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**

15. If any landowner of privately-owned land within 2 kilometres of any approved open cut mining pit on site 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 request the Proponent 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 Proponent must repair the damages to the satisfaction of the Secretary.

If the Proponent 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**

16. The Proponent must:
- (a) implement best blasting management practice on site to:
    - protect the safety of people and livestock in the surrounding area;
    - protect private or public property in the surrounding area;
    - minimise the dust and fume emissions of the blasting; and
  - (b) co-ordinate the blasting on site with the blasting at nearby mines (including Ashton, Rix's Creek and the Mount Owen Complex) to minimise cumulative blasting impacts;
  - (c) co-ordinate the blasting on site with nearby underground mines (including Integra Underground) to minimise operational disturbance and to ensure the safety of underground personnel; and
  - (d) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site, to the satisfaction of the Secretary.
17. The Proponent must not undertake blasting within 500 metres of:
- (a) Middle Falbrook Road or Stony Creek Road without the approval of Council;
  - (b) the New England Highway without the approval of the RMS; and
  - (c) the Main Northern Railway without the approval of the ARTC.
18. The Proponent must not carry out blasting in the northern or western mining areas that is within 500 metres of any privately-owned land or land not owned by the Proponent unless:

- (a) the Proponent has a written agreement with the relevant landowner to allow blasting to be carried out closer to the land, and the Proponent has advised the Department in writing of the terms of this agreement; or
- (b) the Proponent has:
  - demonstrated to the satisfaction of the Secretary that the blasting can be carried out without compromising the safety of the people or livestock on the land, or damaging the buildings and/or structures on the land; and
  - updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the land.

### Blast Management Plan

19. The Proponent must prepare a Blast Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with OEH, and then submitted to the Secretary for approval;
  - (b) describe the blast mitigation measures that would be implemented to ensure compliance with the relevant condition of this approval;
  - (c) describe the measures that would be implemented to ensure that the public can get up-to-date information on the proposed blasting schedule on site;
  - (d) include an agreed strategy for the management of potential blast interactions with Integra Underground, including details of agreed:
    - systems for the prior and timely notification of scheduled blasting and subsidence activities;
    - personnel evacuation and safety protocols for specific blast events; and
    - procedures and protocols for managing the interaction of the two mines; and
  - (e) include a blast monitoring program to evaluate the performance of the project; and
  - (f) include a protocol that has been prepared in consultation with the owners of the nearby mines (including Ashton, Rix's Creek and the Mount Owen Complex) for minimising and managing the cumulative blasting impacts of the mines.

The Proponent must implement the approved management plan as approved from time to time by the Secretary.

## AIR QUALITY & GREENHOUSE GAS

### Odour

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

### Greenhouse Gas Emissions

21. The Proponent must implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site to the satisfaction of the Secretary.

### Air Quality Criteria

22. Except for the land referred to in Table 1 for which the acquisition basis is air quality, the Proponent must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that the project does not or contribute to exceedance of the criteria listed in Table 10 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

Table 10: Air quality criteria

<b>Pollutant</b>	<b>Averaging Period</b>	<b>Criterion<sup>d</sup></b>	
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	<sup>a</sup> 30 µg/m <sup>3</sup>	
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>a</sup> 50 µg/m <sup>3</sup>	
Total suspended particulates (TSP)	Annual	<sup>a</sup> 90 µg/m <sup>3</sup>	
<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a</sup> 4 g/m <sup>2</sup> /month

Notes to Table 10:

- <sup>a</sup> Cumulative impact (i.e. increase in concentrations due to the project plus background concentrations due to all other sources);

- <sup>b</sup> Incremental impact (i.e. incremental increase in concentrations due to the project on its own);
- <sup>c</sup> Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and
- <sup>d</sup> Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity which has been endorsed by the EPA and then agreed to by the Secretary.

For the purposes of this condition, 'reasonable and feasible avoidance and mitigation measures' includes, but is not limited to, the requirements in conditions 26 and 27 to develop and implement a real-time air quality management system that ensures effective operational response to the risk of exceedance of the criteria.

### Air Quality Acquisition Criteria

23. If particulate matter emissions generated by the project cause or contribute to exceedance of the cumulative criteria in Table 11 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 Proponent must acquire the land in accordance with the procedures in condition 7 and 8 of Schedule 4.

Table 11: Air quality acquisition criteria

Pollutant	Averaging Period	Criterion <sup>d</sup>	
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	<sup>a</sup> 30 µg/m <sup>3</sup>	
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>b</sup> 50 µg/m <sup>3</sup>	
Total suspended particulates (TSP)	Annual	<sup>a</sup> 90 µg/m <sup>3</sup>	
<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a</sup> 4 g/m <sup>2</sup> /month

Notes to Tables 11:

- <sup>a</sup> Cumulative impact (i.e. increase in concentrations due to the project plus background concentrations due to all other sources);
- <sup>b</sup> Incremental impact (i.e. incremental increase in concentrations due to the project on its own);
- <sup>c</sup> Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and
- <sup>d</sup> Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity which has been endorsed by the EPA and then agreed to by the Secretary.

### Additional Dust Mitigation Measures

24. Upon receiving a written request from the owner of any residence:
- on the land listed in Table 1 for which the acquisition basis is air quality;
  - on the land listed in Table 12; or
  - on privately-owned land where subsequent air quality monitoring shows the dust generated by the project exceeds the air quality limits in Table 10,
- the Proponent must implement additional reasonable and feasible dust mitigation measures (such as a first flush roof system, internal or external air filters, and/or air conditioning) at the residence in consultation with the owner.

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

Table 12: Land subject to dust mitigation on request

88 – M & T De Jong	106 – B & R Richards
112 – S & C Ernst	111 – T Burgess

*Notes:*

- *To interpret the locations referred to in Table 12, see the applicable figures in Appendix 4; and*
- *For this condition to apply, the exceedances of the criteria must be systemic.*

### **Mine-owned Land**

25. The Proponent must ensure that particulate matter emissions generated by the project do not exceed the criteria in Table 10 at any occupied residence on any mine-owned land (including land owned by adjacent mines), unless:
- (a) the tenant and/or landowner has been notified of any health risks in accordance with the notification requirements under Schedule 4 of this approval;
  - (b) the tenant on land owned by the Proponent can terminate the tenancy agreement without penalty, subject to giving reasonable notice, and the Proponent uses its best endeavours to provide assistance with relocation and sourcing of alternative accommodation;
  - (c) air mitigation measures such as air filters, a first flush roof water drainage system and/or air conditioning) are installed at the residence, if requested by the tenant and landowner (where owned by another mine other than the Proponent);
  - (d) particulate matter air quality monitoring is undertaken to inform the tenant and landowner (where owned by a mine other than the Proponent) of potential health risks; and
  - (e) monitoring data is presented to the tenant in an appropriate format, for a medical practitioner to assist the tenant in making an informed decision on the health risks associated with occupying the property, to the satisfaction of the Secretary.

### **Operating Conditions**

26. The Proponent 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 spontaneous combustion;
  - (b) minimise any visible air pollution generated by the project;
  - (c) operate a comprehensive air quality management system on site that uses a combination of predictive meteorological forecasting and real-time air quality monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this approval;
  - (d) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see note d in conditions 22 and 23);
  - (e) minimise surface disturbance on the site; and
  - (f) co-ordinate the air quality management on site with the air quality management of nearby mines (including Integra Underground, Ashton, Rix's Creek and the Mount Owen Complex) to minimise cumulative air quality impacts,
- to the satisfaction of the Secretary.

### **Air Quality & Greenhouse Gas Management Plan**

27. The Proponent must prepare an 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 then submitted to the Secretary for approval;
  - (b) describe the measures that would be implemented to ensure:
    - compliance with the air quality criteria and operating conditions of this approval; and
    - best practice air quality management is being employed;
  - (c) describe the air quality management system in detail;
  - (d) include an air quality monitoring program that:
    - uses a combination of real-time monitors and supplementary monitors to evaluate the performance of the project;
    - includes a protocol for determining any exceedances of the relevant conditions of this approval;
    - adequately supports the proactive and reactive air quality management system;
    - includes PM<sub>2.5</sub> monitoring (although this obligation could be satisfied by the regional air quality monitoring network if sufficient justification is provided);
    - evaluates and reports on the effectiveness of the air quality management system and the best practice air quality management measures; and
  - (e) include a protocol that has been prepared in consultation with the owners of nearby mines (including Integra Underground, Ashton, Rix's Creek and the Mount Owen Complex) to minimise the cumulative air quality impacts of the mines.

The Proponent must implement the approved management plan as approved from time to time by the Secretary.



## METEOROLOGICAL MONITORING

28. For the life of the project, the Proponent must ensure that there is a meteorological station in the vicinity of the site that:
- (a) complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline; and
  - (b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the *NSW Industrial Noise Policy* or as otherwise approved by the EPA.

## SOIL & WATER

### Water Supply

29. The Proponent must obtain all necessary water licences for the project under the *Water Act 1912* or the *Water Management Act 2000*.
30. The Proponent must ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of mining operations to match its available water supply, to the satisfaction of the Secretary.

### Baseflow Offsets

31. The Proponent must offset the loss of any baseflow to the surrounding watercourses and/or associated creeks caused by the project to the satisfaction of the Secretary.

#### Notes:

- *This condition does not apply in the case of losses of baseflow which are negligible.*
- *Offsets should be provided via the retirement of adequate water entitlements to account for the loss attributable to the project.*
- *The Proponent is not required to provide additional baseflow offsets where such offsets have already been provided under previous consents or approvals for the project. These existing offsets are to be described and evaluated in the Surface and Ground Water Response Plan (see below).*

### Compensatory Water Supply

32. The Proponent must provide compensatory water supply to any landowner of privately-owned land whose water entitlements are impacted (other than an impact that is negligible) as a result of the project, in consultation with DPI Water, and to the satisfaction of the Secretary.

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) as soon as practicable after the loss being identified.

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

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

### Surface Water Discharges

33. The Proponent must ensure that all surface water discharges from the site comply with the:
- (a) discharge limits (both volume and quality) set for the project in any EPL; or
  - (b) relevant provisions of the POEO Act or *Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002*.

### Glennies Creek and Station Creek Alluvial Aquifers

34. The Proponent must not undertake any open cut mining operations within 150 metres of the Glennies Creek alluvial aquifer or Station Creek alluvial aquifer without the prior written approval of the Secretary. In seeking this approval, the Proponent must consult with DPI Water and demonstrate to the satisfaction of the Secretary that adequate safeguards have been incorporated into the Surface and Groundwater Response Plan (see below) to minimise, prevent and/or adequately offset groundwater leakage from the alluvial aquifers.

*Notes: The alluvial aquifers and 150 metre buffer zones are shown conceptually on the figure in Appendix 6. This condition does not restrict the Proponent's right to construct and use water management works, access tracks, environmental bunds, remediation works and other similar works.*

## Water Management Performance Measures

35. The Proponent must comply with the performance measures in Table 13 to the satisfaction of the Secretary.

Table 13: Water management performance measures

<b>Feature</b>	<b>Performance Measure</b>
Water management – General	<ul style="list-style-type: none"> <li>• Maximise water sharing with the other mines in the region</li> <li>• Minimise the use of clean water on site</li> <li>• Minimise the need for supplementary water from external supplies</li> </ul>
Glennies Creek and Station Creek alluvial aquifers	<ul style="list-style-type: none"> <li>• Negligible environmental consequences to the alluvial aquifer beyond those predicted in the documents referred to in conditions 2 and 3 of Schedule 2, including: <ul style="list-style-type: none"> <li>○ negligible change in groundwater levels;</li> <li>○ negligible change in groundwater quality; and</li> <li>○ negligible impact to other groundwater users</li> </ul> </li> </ul>
Construction and operation of infrastructure	<ul style="list-style-type: none"> <li>• Design, install and maintain erosion and sediment controls generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction</i> including <i>Volume 1</i>, <i>Volume 2A – Installation of Services</i> and <i>Volume 2C – Unsealed Roads</i></li> <li>• Design, install and maintain all new infrastructure within 40 m of watercourses generally in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land (DPI 2007)</i>, or its latest version</li> <li>• Design, install and maintain creek crossings generally in accordance with the <i>Policy and Guidelines for Fish Friendly Waterway Crossings</i> (NSW Fisheries, 2003) and <i>Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings</i> (NSW Fisheries 2003), or their latest versions</li> </ul>
Mine sediment dams	<ul style="list-style-type: none"> <li>• Design, install and maintain the dams generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction – Volume 1</i> and <i>Volume 2E Mines and Quarries</i></li> <li>• Design, install and maintain dams to capture site runoff and minimise any sediment and salt loads from entering nearby watercourses</li> </ul>
Clean water diversion & storage infrastructure	<ul style="list-style-type: none"> <li>• Design, install and maintain the clean water system to capture and convey the 100 year ARI flood</li> <li>• Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on site</li> </ul>
Mine water storages	<ul style="list-style-type: none"> <li>• Design, install and maintain mine water storage infrastructure to store a 100 year ARI 72 hour storm event</li> <li>• Design, install and maintain on-site storages (including tailings dams, mine infrastructure dams, groundwater storage and treatment dams) to ensure they are suitably lined to minimise permeability</li> <li>• Ensure adequate freeboard within all pit voids to minimise the risk of discharge to surface waters</li> </ul>
Tailings storage	<ul style="list-style-type: none"> <li>• Design and maintain tailings storage areas to encapsulate and prevent the movement of tailings seepage/leachate offsite</li> </ul>
Overburden emplacement	<ul style="list-style-type: none"> <li>• Design, install and maintain emplacements to encapsulate and prevent migration of tailings, acid forming and potentially acid forming materials, and saline and sodic material</li> </ul>

	<ul style="list-style-type: none"> <li>• Design, install and maintain emplacements to prevent and/or manage long term saline groundwater seepage</li> </ul>
Chemical and hydrocarbon storage	<ul style="list-style-type: none"> <li>• Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standards</li> </ul>
Aquatic and riparian ecosystems	<ul style="list-style-type: none"> <li>• Maintain or improve baseline channel stability</li> <li>• Develop site-specific in-stream water quality objectives in accordance with ANZECC 2000 and <i>Using the ANZECC Guidelines and Water Quality Objectives in NSW</i> procedures (DECC 2006), or its latest version</li> </ul>

## Water Management Plan

36. The Proponent must prepare a Water Management Plan for the project to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with OEH, EPA, DRG and Council, and be endorsed by DPI Water and then submitted to the Secretary for approval;
  - include detailed performance criteria and describe measures to ensure that the Proponent complies with the Water Management Performance Measures (see Table 13);
  - include a Site Water Balance, which must:
    - include details of:
      - sources and security of water supply;
      - water use on site;
      - water management on site; and
      - any off-site water transfers, and
    - describe what measures would be implemented to minimise clean water use on site;
  - include an Erosion and Sediment Control Plan, which must:
    - identify activities that could cause soil erosion and generate sediment;
    - describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters, and manage flood risk;
    - describe the location, function and capacity of erosion and sediment control structures and flood management structures; and
    - describe what measures would be implemented to maintain the structures over time;
  - include a Surface Water Management Plan, which must include:
    - detailed baseline data on surface water flows and quality in creeks and other waterbodies that could potentially be affected by the project;
    - surface water and stream health impact assessment criteria including trigger levels for investigating any potentially adverse surface water impacts from the project (for existing creeks and reinstated/rehabilitated creeks);
    - a program to monitor and assess:
      - surface water flows and quality;
      - impacts on water users;
      - stream health; and
      - channel stability.
  - Include a Groundwater Management Plan, which must include:
    - detailed baseline data of groundwater levels, yield and quality in the region, particularly for privately-owned groundwater bores that could be affected by the project;
    - groundwater impact assessment criteria including trigger levels for investigating any potentially adverse groundwater water impacts; and
    - a program to monitor and assess:
      - groundwater inflows to the mining operations;
      - impacts on regional aquifers;
      - impacts on the groundwater supply of potentially affected landowners;
      - impacts on the Glennies Creek and Station Creek; and
      - impacts on groundwater dependent ecosystems and riparian vegetation;
  - a Surface and Groundwater Response Plan, which must include:
    - a response protocol for any exceedances of the surface water and groundwater assessment criteria, including provisions for independent investigation by a suitable qualified hydrogeologist whose appointment has been approved by the Secretary;
    - measures to offset the loss of any baseflow to watercourses caused by the project;
    - measures to compensate landowners of privately-owned land whose water supply is adversely affected by the project; and

- measures to mitigate and/or offset any adverse impacts on groundwater dependent ecosystems or riparian vegetation.

The Proponent must implement the approved management plan as approved from time to time by the Secretary.

## BIODIVERSITY

### Biodiversity Offset

37. The Proponent must implement the biodiversity offset strategy summarised in Table 14, described in the open cut and underground project EAs (as amended by EA Mod 4), and shown conceptually in the figures in Appendix 8 to the satisfaction of the Secretary.

Table 14: Biodiversity offset strategy

Area	Offset Type	Minimum Size (hectares)
Northern Biodiversity Offset Area	Existing vegetation to be enhanced and restored to re-establish functioning ecosystems, and additional vegetation to be established, including regeneration of a minimum of 87 hectares of Derived Grassland/Native Pasture to vegetation communities representative of the Central Hunter Ironbark-Spotted Gum-Grey Box Forest EEC.	88
Southern Biodiversity Offset Area		30
Bridgeman Biodiversity Offset Area		86
Martins Creek Biodiversity Offset Area		194
Appletree Flat Biodiversity Offset Area	Existing vegetation to be enhanced and restored to re-establish functioning ecosystems.	216
<b>TOTAL</b>		614

38. The biodiversity offset strategy must:
- ensure provision of at least 140 hectares of Narrow-leaved Ironbark-Spotted Gum-Forest Red Gum Forest (or a suitable equivalent) to further offset the impact of the open cut project;
  - include an additional 6 hectares of Central Hunter Swamp Oak Forest (or a suitable equivalent) to offset the impacts from Integra Underground on the Glendell Biodiversity Offset Area; and
  - include an offer to transfer the Appletree Flat Biodiversity Offset Area to OEH for long term conservation purposes. This offer must include sufficient funding for the ongoing management of the Appletree Flat Biodiversity Offset Area to the satisfaction of the Secretary.

### Long Term Security of Offsets

39. By 31 October 2016, or as otherwise agreed by the Secretary, the Proponent must make suitable arrangements to provide appropriate long term security for all the areas in the biodiversity offset strategy to the satisfaction of the Secretary.

### Biodiversity Management Plan

40. The Proponent must prepare a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with OEH and then submitted to the Secretary for approval;
  - describe how the implementation of the biodiversity offset strategy would be integrated with the overall rehabilitation of the site;
  - include:
    - a description of the short, medium, and long term measures that would be implemented to:
      - implement the biodiversity offset strategy; and
      - manage the remnant vegetation and habitat, both on site and in the biodiversity offset areas;
    - detailed performance and completion criteria for the implementation of the biodiversity offset strategy;
    - a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:
      - enhancing the quality of existing vegetation and fauna habitat in the biodiversity offset areas with ecological functions that are comparable with similar, undisturbed ecosystems;

- restoring native vegetation and fauna habitat in the biodiversity offset areas through focusing on assisted natural regeneration;
  - targeting vegetation establishment including a program for active revegetation of 87.2 ha of Central Hunter Ironbark-Spotted Gum-Grey Box Forest EEC on the site and the timeframe in which this will be achieved;
  - introducing naturally scarce elements of fauna habitat (where practicable);
  - acquiring quantitative baseline data for existing ecosystems in the Appletree Flat Biodiversity Offset Area and on the site, including the Northern, Southern, Bridgeman and Martins Creek Biodiversity Offset areas – these must include habitat, flora and fauna baseline data;
  - maximising salvage and beneficial use of resources in areas that are to be impacted, including vegetative, soil and cultural heritage resources;
  - protecting vegetation and soil outside the areas that are to be impacted;
  - managing salinity;
  - conserving and reusing topsoil;
  - undertaking pre-clearance surveys;
  - managing impacts on fauna;
  - landscaping the site to minimise visual impacts;
  - collecting and propagating seed;
  - salvaging and reusing material from the site for habitat enhancement;
  - controlling weeds and feral pests, including terrestrial and aquatic species;
  - managing grazing and agriculture on site and in the biodiversity offset areas;
  - controlling access;
  - bushfire management; and
  - managing potential conflicts between the biodiversity offset areas and Aboriginal cultural heritage values;
- a description of the potential risks to the successful implementation of the biodiversity offset strategy, and a description of the contingency measures that would be implemented to mitigate these risks;
  - a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria; and
  - details of who would be responsible for monitoring, reviewing, and implementing the plan.

The Proponent must implement the approved management plan as approved from time to time by the Secretary.

41. The Proponent must commission a suitably qualified, experienced and independent person approved by the Secretary to conduct an audit by 31 December 2020, and a second audit 5 years thereafter, of all biodiversity areas subject to regeneration, restoration and/or protection as Central Hunter Ironbark-Spotted Gum-Grey Box Forest EEC, as referred to in condition 37. A report on each audit is to be submitted to the Secretary within 6 months of completing the audit for approval.

Each report must, for each area of Derived Grassland/Native Pasture proposed for regeneration and restoration as Central Hunter Ironbark-Spotted Gum-Grey Box Forest EEC and for each existing area of Central Hunter Ironbark-Spotted Gum-Grey Box Forest EEC:

- (a) report all relevant baseline data (as at the date of project approval) concerning flora and fauna, ecosystem condition and ecosystem function;
- (b) report all relevant current data (as at the time of the audit) concerning flora and fauna, ecosystem condition and ecosystem function;
- (c) provide a scientifically-valid comparison of the baseline data with the current data;
- (d) provide a scientifically-valid comparison of the current data with the data from the first audit and including the baseline data (in the case of the second audit);
- (e) report on any works and/or other disturbance that has taken place in the areas since project approval;
- (f) describe the management measures undertaken to regenerate and/or restore the areas, including the dates and/or periods during which those measures were implemented;
- (g) evaluate the effectiveness of the management measures undertaken; and
- (h) recommend any additional management measures to regenerate, restore and/or protect the EEC and provide a schedule for their implementation.

### Conservation Bond

42. Within 6 months of the approval of the Biodiversity Management Plan (see above), the Proponent must lodge a conservation bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan.

The sum of the bond must be determined by:

- (a) calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and
- (b) employing a suitably qualified quantity surveyor to verify the calculated costs, to the satisfaction of the Secretary.

The calculation of the conservation bond must be submitted to the Department for approval at least 1 month prior to lodgement of the final bond.

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

*Notes:*

- *Alternative funding arrangements for long term management of the biodiversity offset strategy, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement or transfer to conservation reserve estate (or any other mechanism agreed with OEH) can be used to reduce the liability of the conservation bond.*
- *The sum of the bond may be reviewed in conjunction with any revision to the biodiversity offset strategy or the completion of major milestones within the approved plan.*

### Targeted Survey

- 42A. Prior to the commencement of the exploration drilling program, the Proponent must:
- a) conduct a targeted survey for *Diuris tricolor* during its known flowering time (mid-September to mid-October) within the area of disturbance of each proposed borehole, in consultation with OEH.
  - b) prepare a report, to the satisfaction of the Secretary, detailing:
    - the results of the survey;
    - whether the proposed exploration activities would harm *Diuris tricolor*;
    - what measures would be implemented to avoid impacts on *Diuris tricolor* and other threatened species, populations or their habitats; and
    - suitable offset arrangements in accordance with the *NSW Biodiversity Offsets Policy for Major Projects*, if the survey concludes that *Diuris tricolor* would be harmed by the proposed boreholes.

The Proponent must implement the findings of the report, to the satisfaction of the Secretary.

## HERITAGE

### Further Archaeological Investigation

43. Prior to carrying out any development in the parts of the site outlined in purple on the figure in Appendix 8, unless the Secretary agrees otherwise, the Proponent must carry out further archaeological testing and investigation within the broader area outlined in purple on the figure in Appendix 7 to the satisfaction of the Secretary.

### Heritage Management Plan

44. The Proponent must prepare a Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;
  - (b) be prepared in consultation with OEH, the Aboriginal community, the Heritage Division, Council, local historical organisations and any relevant landowners;
  - (c) be submitted to the Secretary for approval;
  - (d) include the following for the management of Aboriginal cultural heritage on site:
    - recording, salvaging and/or managing all Aboriginal sites, objects and deposits that are to be destroyed within the open cut project area;
    - conserving, managing and monitoring all Aboriginal sites, objects and deposits that are to be protected within the open cut project area, including the 3 scarred trees identified within the western mining area;
    - maintaining and managing access to Aboriginal sites, objects and deposits by the Aboriginal community, including provision of an appropriate Keeping Place;
    - managing the discovery of any new Aboriginal objects or skeletal remains identified during the project; and

- ongoing consultation and involvement of the Aboriginal community in the conservation and management of Aboriginal cultural heritage values on the site.
- (e) include programs/ procedures for the following, in accordance with the applicable guidelines of the Heritage Division:
- further historical investigation of the area outlined in purple on the figure in Appendix 7 to identify the potential archaeological resources within the area;
  - archaeological testing of the potential archaeological resources within the area outlined in purple on the figure in Appendix 7;
  - further archaeological investigation of any areas where the archaeological testing (referred to above) identifies significant archaeological deposits;
  - archaeological excavation of the known grave on site, identified as the James Halliday Glennie grave site;
  - detailed archival recording of the Dulwich property if it is to be mined, or the preparation of a detailed conservation management plan for the Dulwich property if it is not to be mined (subject to the agreement of the landowner);
  - archival recording of any other heritage items to be destroyed by the project;
  - conserving, managing, monitoring, and where appropriate, relocating any non-Aboriginal sites, objects and deposits on the site;
  - interpreting the findings of the additional heritage or archaeological investigations carried out on the site; and
  - managing the discovery of any new non-Aboriginal objects or skeletal remains identified during the project.

The Proponent must implement the approved management plan as approved from time to time by the Secretary.

## TRANSPORT

### Monitoring of Coal Transport

45. The Proponent must:
- (a) keep accurate records of:
    - amount of coal transported from the site (on a monthly basis);
    - 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.

## VISUAL

### Visual Amenity and Lighting

46. The Proponent must:
- (a) implement all reasonable and feasible measures to mitigate visual and off-site lighting impacts of the project;
  - (b) ensure no unshielded outdoor lights shine above the horizontal; 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*, or its latest version, to the satisfaction of the Secretary.

### Additional Visual Mitigation Measures

47. Upon receiving a written request from the owner of any residence on privately-owned land which has significant direct views of the open cut mining operations on site, the Proponent must implement additional visual mitigation measures (such as landscaping treatments or vegetation screens) on the land in consultation with the landowner. These measures must be reasonable and feasible, and directed towards minimising the visibility of the mining operations from the residence.

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

## WASTE

48. The Proponent must:
- (a) minimise and monitor the waste generated by the project; and
  - (b) ensure that the waste generated by the project is appropriately stored, handled, and disposed of;
  - (c) manage on-site sewage treatment and disposal in accordance with the requirements of Council; and

- (d) report on waste management and minimisation in the annual review, to the satisfaction of the Secretary.

## BUSHFIRE MANAGEMENT

49. The Proponent must:
- ensure that the project is suitably equipped to respond to fires on site; and
  - assist the Rural Fire Service and emergency services as much as possible if there is a fire in the vicinity of the site.

## REHABILITATION

### Rehabilitation Objectives

50. The Proponent must rehabilitate the site in a manner that is generally consistent with the rehabilitation strategy described in the documents referred to in conditions 2 and 3 of Schedule 2 – and depicted conceptually in the figure in Appendix 8 – and the objectives in Table 15.

Table 15: Rehabilitation objectives

Area/Domain	Rehabilitation Objectives
Site (as a whole)	<ul style="list-style-type: none"> <li>Safe, stable &amp; non-polluting</li> <li>Final landforms designed to incorporate micro-relief and integrate with surrounding natural landforms</li> <li>Constructed landforms maximise surface water drainage to the natural environment (excluding final void catchments)</li> <li>Minimise long term groundwater seepage zones</li> <li>Minimise visual impact of final landforms as far as is reasonable and feasible</li> </ul>
Final voids	<ul style="list-style-type: none"> <li>Safe, stable &amp; non-polluting</li> <li>Minimise the size and depth of the final void as far as is reasonable and feasible</li> <li>Minimise the drainage catchment of the final void as far as is reasonable and feasible</li> <li>Minimise the risk of flood interaction for all flood events up to and including the Probable Maximum Flood</li> <li>Negligible high wall instability risk</li> </ul>
Surface infrastructure	To be decommissioned and removed, unless DRG agrees otherwise
Historic underground workings	Safe, stable & non-polluting
Other land affected by the project	Restore ecosystem function, including maintaining or establishing self-sustaining eco-systems comprised of: <ul style="list-style-type: none"> <li>local native plant species (unless DRG agrees otherwise); and</li> <li>a landform consistent with the surrounding environment</li> </ul>
Community	<ul style="list-style-type: none"> <li>Ensure public safety</li> <li>Minimise the adverse socio-economic effects associated with mine closure</li> </ul>

### Progressive Rehabilitation

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

### Rehabilitation Management Plan

52. The Proponent must prepare a Rehabilitation Management Plan for the project to the satisfaction of DRG. This plan must:
- be prepared in consultation with the Department, OEH, DPI Water, Council and the CCC;
  - be submitted to the DRG for approval;
  - be prepared in accordance with any relevant DRG guideline, and be consistent with the rehabilitation objectives in Table 15 and in the documents referred to in conditions 2 and 3 of Schedule 2;
  - build, to the maximum extent practicable, on the other management plans required under this approval; and
  - address all aspects of rehabilitation and mine closure, including final land use assessment, rehabilitation objectives, domain objectives, completion criteria and rehabilitation monitoring.



The Proponent must implement the approved management plan as approved from time to time by the Secretary.

53. Within 12 months of the completion of the exploration drilling program, the Proponent shall plant 2 trees for every established tree removed during the exploration drilling program. The replacement trees must be of like-for-like species, planted in the same area from which they were removed, and be maintained until established.

*Note: An established tree is considered to be two metres or greater in height.*

54. Rehabilitation of all areas disturbed by the exploration drilling program is to be undertaken in accordance with an approved Mining Operations Plan / Rehabilitation Management Plan, to the satisfaction of DRG.
-

## **SCHEDULE 4 ADDITIONAL PROCEDURES**

### **NOTIFICATION OF LANDOWNERS**

1. By the end of December 2010, the Proponent must:
  - (a) notify in writing the owners of:
    - the land listed in Table 1 of Schedule 3 that they have the right to require the Proponent to acquire their land at certain stages during the project;
    - any residence on the land listed in Table 1, for which the acquisition basis is noise, or Table 6 of Schedule 3 that they are entitled to ask for additional noise mitigation to be installed at their residence at certain stages during the project;
    - any residence on the land listed in Table 1, for which the acquisition basis is air quality, or Table 12 of Schedule 3 that they are entitled to ask for additional air quality mitigation measures to be installed at their residence at certain stages of the project; and
    - any privately-owned land within 2 kilometres of any 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; and
  - (b) send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the owners and/or existing tenants of any land (including mine-owned land) where the predictions in the open cut project EAs identify that dust emissions from the project are likely to be greater than the relevant air quality criteria in Schedule 3 at any time during the life of the project.
2. Prior to entering into any tenancy agreement for any land owned by the Proponent that is predicted to experience exceedances of the relevant noise criteria or dust criteria in Schedule 3, the Proponent must:
  - (a) advise the prospective tenants of the potential health and amenity impacts associated with living on the land and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time); and
  - (b) advise the prospective tenants of the rights they would have under this approval, to the satisfaction of the Secretary.
3. As soon as practicable after obtaining monitoring results showing:
  - (a) an exceedance of any relevant criteria in Schedule 3, the Proponent must notify the affected landowner and/or tenants in writing of the exceedance, and provide regular monitoring results to each of these parties until the project is again complying with the relevant criteria;
  - (b) an exceedance of any relevant criteria in conditions 6(c) or 7 of Schedule 3, the Proponent must notify the applicable owner in writing that they are entitled to ask for additional noise mitigation to be installed at their residence;
  - (c) an exceedance of any relevant criteria in condition 22 or 23 of Schedule 3, the Proponent must send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land); and
  - (d) an exceedance of the relevant criteria in condition 24(c) of Schedule 3, the Proponent must notify the applicable owner of any residences on the land that they are entitled to ask for additional air quality mitigation measures to be installed at their residence.

### **INDEPENDENT REVIEW**

4. 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 impact of the project on his/her land.

If the Secretary is not satisfied that an independent review is warranted, the Secretary will notify the landowner in writing of that decision, and the reasons for that decision, within 60 days of the request for a review.

If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision the Proponent 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.
5. If the independent review determines that the project is complying with the relevant criteria in Schedule 3, then the Proponent 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 criteria in Schedule 3, and that the project is primarily responsible for this non-compliance, then the Proponent 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 to allow the 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 Proponent must acquire all or part of the landowner's land in accordance with the procedures in conditions 8 to 9 below.
6. 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 Proponent 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 to allow exceedances of the relevant criteria, to the satisfaction of the Secretary.
- If the independent review determines that relevant acquisition criteria in Schedule 3 are being exceeded, but that more than one mine is responsible for the exceedance, then upon receiving a written request from the landowner, the Proponent 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 7 to 8 below.

## LAND ACQUISITION

7. Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent 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 mitigation measures required under conditions 6, 7 or 24 of Schedule 3;
  - (b) the reasonable costs associated with:
    - relocating within the Singleton or Muswellbrook local government areas, or to any other local government area determined by the Secretary; and
    - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and
  - (c) reasonable compensation for any disturbance caused by the land acquisition process.

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

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

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

Within 14 days of receiving the independent valuer's report, the Proponent 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 Proponent 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 Proponent's binding written offer under this condition within 6 months of the offer being made, then the Proponent's obligations to acquire the land shall cease, unless the Secretary determines otherwise.

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

### **ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING**

#### **ENVIRONMENTAL MANAGEMENT**

##### **Environmental Management Strategy**

1. If the Secretary requires, the Proponent 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;
  - (b) provide the strategic framework for the 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; and
    - respond to emergencies; and
  - (f) include:
    - copies of any strategies, plans and programs approved under the conditions of this approval; and
    - a clear plan depicting all the monitoring required to be carried out under the conditions of this approval.

The Proponent must implement the approved strategy as approved from time to time by the Secretary.

##### **Evidence of Consultation**

- 1A. Where consultation with any public authority is required by the conditions of this approval, the Proponent must:
  - (a) consult with the relevant public authority prior to submitting the required document to the Secretary for approval;
  - (b) submit evidence of this consultation as part of the relevant document;
  - (c) describe how matters raised by the authority have been addressed and any matters not resolved; and
  - (d) include details of any outstanding issues raised by the authority and an explanation of disagreement between any public authority and the Proponent.

##### **Management Plan Requirements**

2. The Proponent must ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:
  - (a) detailed baseline data;
  - (b) a description of:
    - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
    - any relevant limits or performance measures/criteria; and
    - 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; and
    - effectiveness of any management measures (see (c) above);
  - (e) a contingency plan to manage any unpredicted impacts and their consequences;
  - (f) a program to investigate and implement ways to improve the environmental performance of the project over time;
  - (g) a program to regularly review management practices to align with contemporary best practice industry standards;
  - (h) a protocol for managing and reporting any:
    - incidents;
    - complaints;
    - non-compliances with the conditions of this approval and statutory requirements; and
    - exceedances of the impact assessment criteria and/or performance criteria; and

- (i) 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.*

### **Preparation of Management Plans**

3. Prior to approval of management plans required under Schedule 3, all existing management plans, monitoring programs, strategies, programs, protocols, etc approved as at the date of approval of Modification 6 shall continue to have full force and effect, and may be revised under the requirements of condition 5 below as if subject to the conditions of this approval that applied prior to the approval of Modification 6, or otherwise with the approval of the Secretary.

### **Relationships between Management Plans**

4. With the agreement of the Secretary, the Proponent may combine any strategy, plan or program required by this approval with any similar strategy, plan or program required for Rix's Creek.

### **Revision of Strategies, Plans & Programs**

5. Within 3 months of:
- (a) the submission of an incident report under condition 8 below;
  - (b) the submission of an annual review under condition 10 below;
  - (c) the submission of an audit report under condition 11 below, or
  - (d) any modification of the conditions of this approval (unless the conditions require otherwise),
- the Proponent must review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary. **The Proponent must notify the Department in writing of any such review being undertaken. Where this review leads to revisions in any such document, then within 6 weeks of the review the revised document must be submitted for the approval of the Secretary.**

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

### **Updating & Staging Submissions of Strategies, Plans or Programs**

6. The Proponent must regularly review the strategies, plans and programs required under this approval and ensure that these documents are updated to incorporate measures to improve the environmental performance of the project and reflect current best practice in the mining industry. To facilitate these updates, the Proponent may at any time submit revised strategies, plans or programs for the approval of the Secretary. With the agreement of the Secretary, the Proponent may also submit any strategy, plan or program required by this approval on a staged basis.

**The Secretary may approve a revised strategy, plan or program required under this approval, or the staged submission of any of these documents, at any time.** With the agreement of the Secretary, the Proponent may revise any strategy, plan or program approved under this approval without consulting with all the parties nominated under the applicable conditions of approval.

**While any strategy, plan or program may be submitted on a staged basis, the Proponent will need to ensure that the operations associated with the development 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/s of the development to which the strategy, plan or program applies; the relationship of this stage/s to any future stages; and the trigger for updating the strategy, plan or program.**

#### *Notes:*

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

### **Community Consultative Committee**

7. The Proponent must operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Secretary. This CCC must be operated in general accordance with the **Department's Community Consultative Committee Guidelines, November 2016 (or later version).**

*Notes:*

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval;*
- *In accordance with the guideline, the Committee should be comprised of an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community;*
- *The Proponent may, with the approval of the Secretary, combine the function of this CCC with the function of other CCCs in the area.*

## **REPORTING**

### **Incident Reporting**

8. The Proponent must immediately notify the Secretary (using the contact name, email address and phone number provided by the Department from time to time) and any other relevant agencies of any incident.
- 8A. Within 7 days of the date of the incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested. This report must include the time and date of the incident, details of the incident, measures implemented to prevent re-occurrence and must identify and non-compliance with this approval.

### **Regular Reporting**

9. The Proponent must provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any approved plans or programs of the conditions of this approval.

### **Annual Review**

10. By the end of March each year, or other timing as may be agreed by the Secretary, the Proponent must submit a report to the Department reviewing the environmental performance of the project to the satisfaction of the Secretary. This review must:
  - (a) describe the works (including any rehabilitation) that were carried out during the previous calendar year, and the works that are proposed to be carried out over the current calendar year;
  - (b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against the:
    - relevant statutory requirements, limits or performance measures/criteria;
    - monitoring results of previous years; and
    - relevant predictions in the documents referred to in condition 2 of Schedule 2;
  - (c) identify any non-compliance over the previous calendar 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 measure will be implemented over the current calendar year to improve the environmental performance of the project.

## **INDEPENDENT ENVIRONMENTAL AUDIT**

11. By the end of December 2011, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent must commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
  - (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
  - (b) include consultation with the relevant agencies;
  - (c) assess the environmental performance of the project and whether it is complying with the relevant requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);
  - (d) review the adequacy of any approved strategies, plans or programs required under these approvals, with particular reference to management practices to ensure that they align with contemporary best practice industry standards;
  - (e) recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, strategy, plan or program required under the abovementioned approvals; and
  - (f) be conducted and reported to the satisfaction of the Secretary.

*Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Secretary.*

12. Within 12 weeks of commissioning this audit, or as otherwise agreed by the Secretary, the Proponent must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report. **The Proponent must implement these recommendations, to the satisfaction of the Secretary.**

#### **ACCESS TO INFORMATION**

13. The Proponent must:
- (a) make copies of the following publicly available on its website:
    - the documents referred to in conditions 2 and 3 of Schedule 2;
    - all current statutory approvals for the project;
    - all approved strategies, plans and programs required under the conditions of this approval;
    - the monitoring results of the project, reported in accordance with the specifications in any conditions of this approval, or any approved plans or programs;
    - a complaints register, which is to be updated on a monthly basis;
    - minutes of CCC meetings;
    - the annual reviews over the life of the project;
    - any independent environmental audit, and the Proponent's response to the recommendations in any audit; and
    - any other matter required by the Secretary;
  - (b) keep this information up-to-date, to the satisfaction of the Secretary.
-



# APPENDIX 1: SCHEDULE OF LAND

<i>Lot Number</i>	<i>Deposited Plan Number</i>	<i>Lot Number</i>	<i>Deposited Plan Number</i>
G	37613	73	752455
6	113538	74	752455
7	113538	75	752455
1	113540	76	752455
2	113540	77	752455
3	113540	78	752455
4	113540	81	752455
5	113540	86	752455
1	212284	95	752455
2	212284	98	752455
3	212284	136	752455
1	246434	13	753776
2	246434	14	753776
4	246434	70	777661
5	246434	71	777661
6	246434	1	783398
8	246434	1	802596
8	251618	2	802596
5	264089	221	809958
51	551899	1	810309
791	580967	2	810309
792	586255	1	823098
1	597205	231	829334
2	597205	233	829334
4	606344	240	829334
710	624852	2391	829334
1	628652	12	855251
2	628652	1	873260
100	633743	2	873260
1	725247	123	1067863
174	729917	7	1075078
91	752442	1	1083482
92	752442	2	1083482
93	752442	1	1111102
2	752450	2	1111102
6	752450	3	1111102
10	752450	4	1111102
119	752450	6	1111104
120	752450	2372	1171745
30	752455	221	1171746
31	752455	222	1171746
32	752455	2351	1171747
43	752455	2352	1171747
44	752455	2391	1171750
45	752455	2	1183034

## APPENDIX 2: PREVIOUS EAS

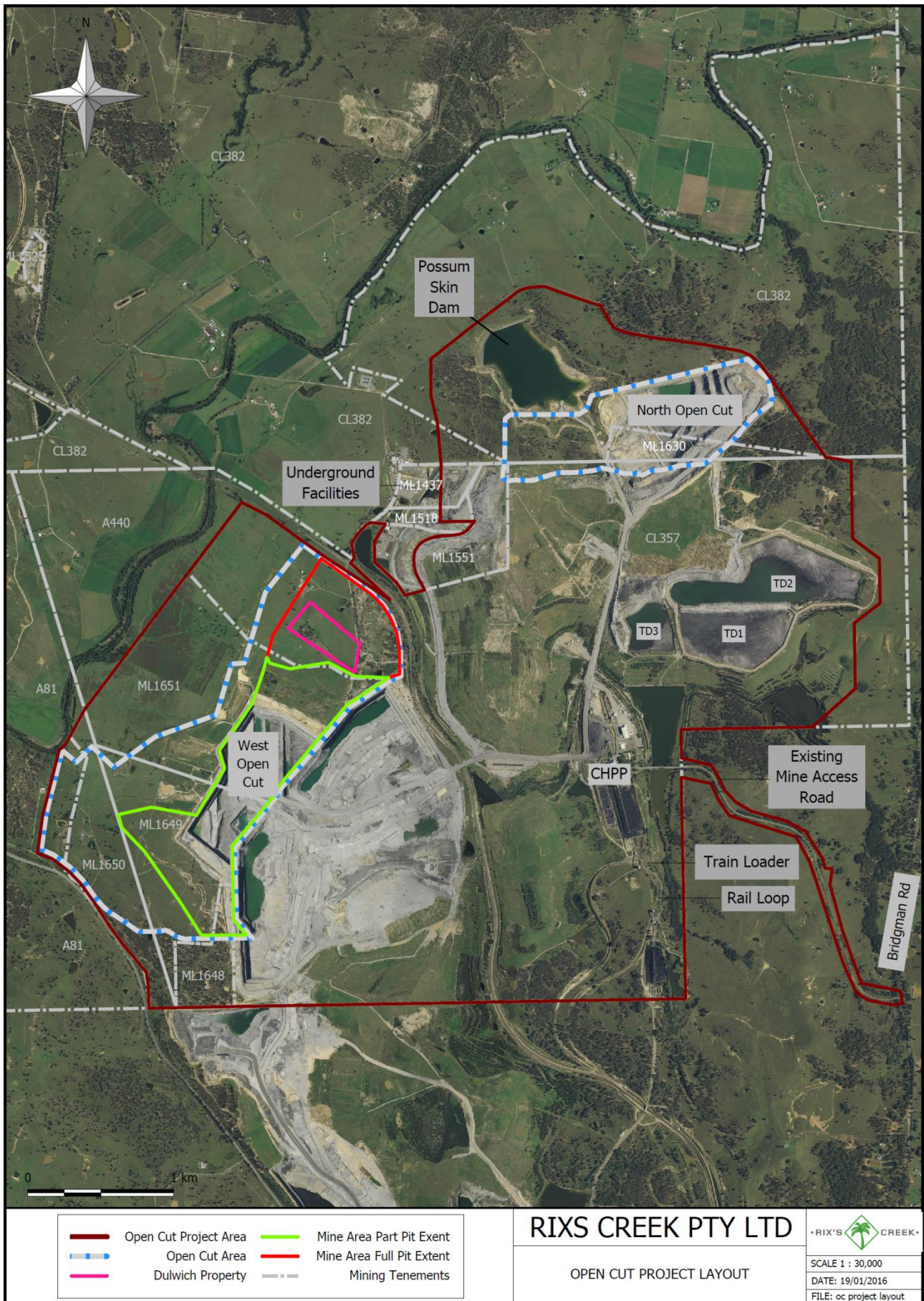
### **Camberwell Coal Project (86/2889)**

- Camberwell Coal Project, Glennies Creek - Environmental Impact Statement, dated October, 1989, as modified by the works set out in figures 1 and 2 attached to the April 1992 Notice of Amendment;
- Camberwell Coal Pty Limited to the Singleton Shire Council letter dated 21 December, 1989 advising on rail facilities;
- Letter from Camberwell Coal Pty Limited to the Singleton Shire Council, dated 29 January, 5 February, 6 February, 1990;
- Responses to letters of objection submitted to Council by Camberwell Coal Pty Limited dated 25 January, 1990;
- Responses by Camberwell Coal Pty Limited to comments submitted by government bodies, dated 5 February, 1990;
- Statement of Environmental Effects in support of a Section 96(2) application for the Camberwell Coal Mine, dated 2 July 2001, prepared by HLA-Envirosciences Pty Ltd;
- Additional information provided by PJ Murray in response to submissions received on the proposal in a letter dated 29 August 2001;
- Information provided by Camberwell coal Pty Limited accompanying the application to modify development consent received 20 November 2003;
- Statement of Environmental Effects in support of a Section 96(2) application for the Camberwell Coal Mine, dated July 2004, prepared by David Lane Associates;
- Statement of Environmental Effects Coal Handling and Preparation Plant Upgrade Camberwell Coal Mine, dated 31 March 2005, prepared by HLA Envirosciences Pty Limited;
- Statement of Environmental Effects Coal Handling and Preparation Plant Workshop, dated 31 July 2006, prepared by Camberwell Coal Pty Limited;
- Environmental Assessment for the Proposed Modification of Development Consent DA 86/2889 Integra Open Cut Increase in Annual ROM (ROM) Coal Production from 3.8Mt to 4.5Mt, dated 29 February 2008, prepared by Integra Coal Operations Pty Ltd; and
- Statement of Environmental Effects titled Relocation of Explosives Magazine Compound and Reload Facilities, dated 22 March 2010, prepared by Integra Coal Operations Pty Limited.

### **Glennies Creek Open Cut Coal Project (06\_0073)**

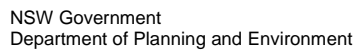
- Environmental Assessment titled Environmental Assessment Glennies Creek Open Cut Coal Mine, Volumes 1-3, dated October 2007, and the associated responses to submissions, titled Response to Government Agency Submissions Glennies Creek Open Cut Coal Mine, dated February 2008 and Supplementary Response to Government Agency Submissions Glennies Creek Open Cut Coal Mine, dated June 2008 prepared by RW Corkery & Co Pty Ltd.

### APPENDIX 3: PROJECT LAYOUT PLAN

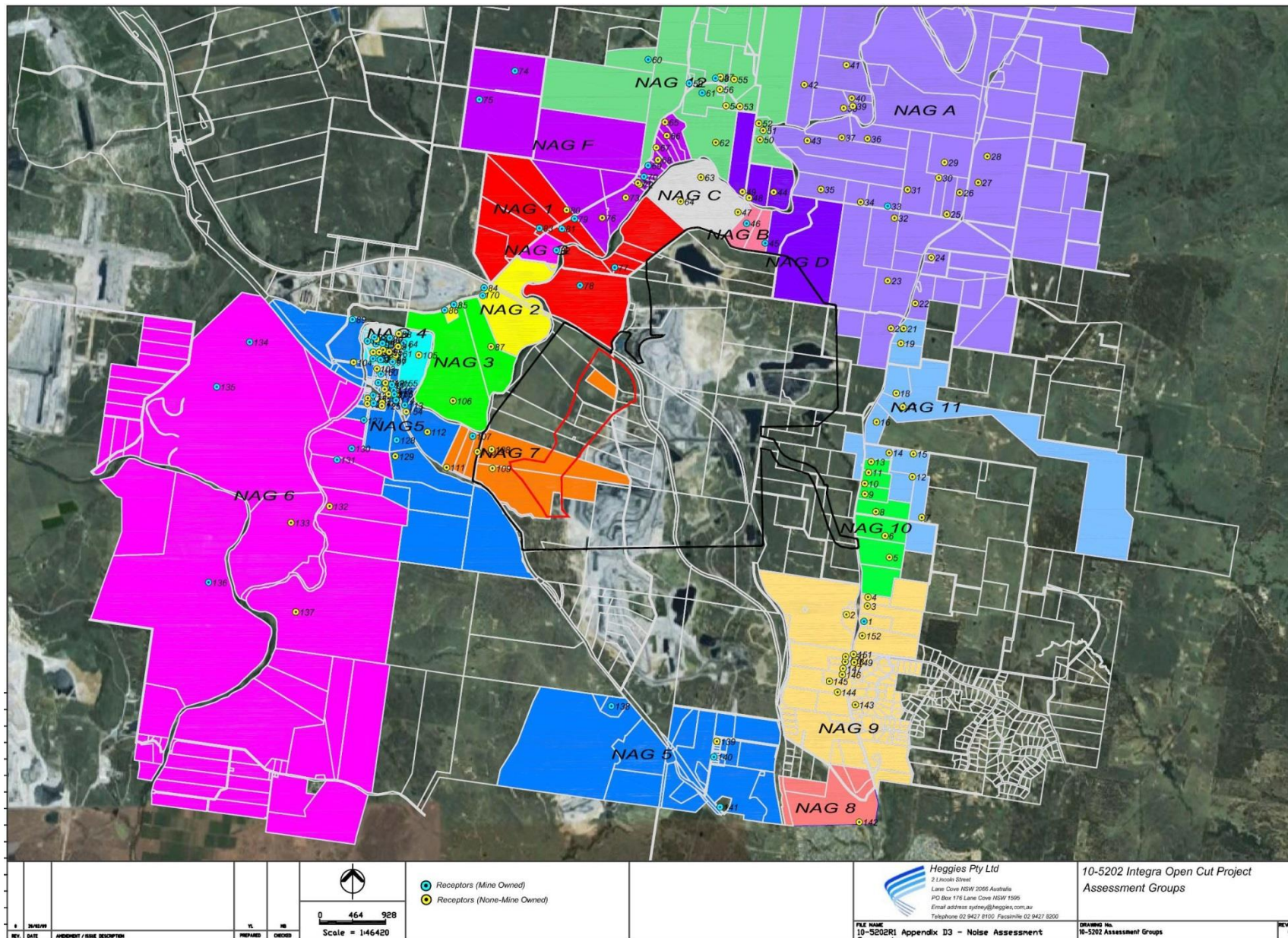




### Open Cut Project Land Ownership (at time of EA Mod 6 Production)

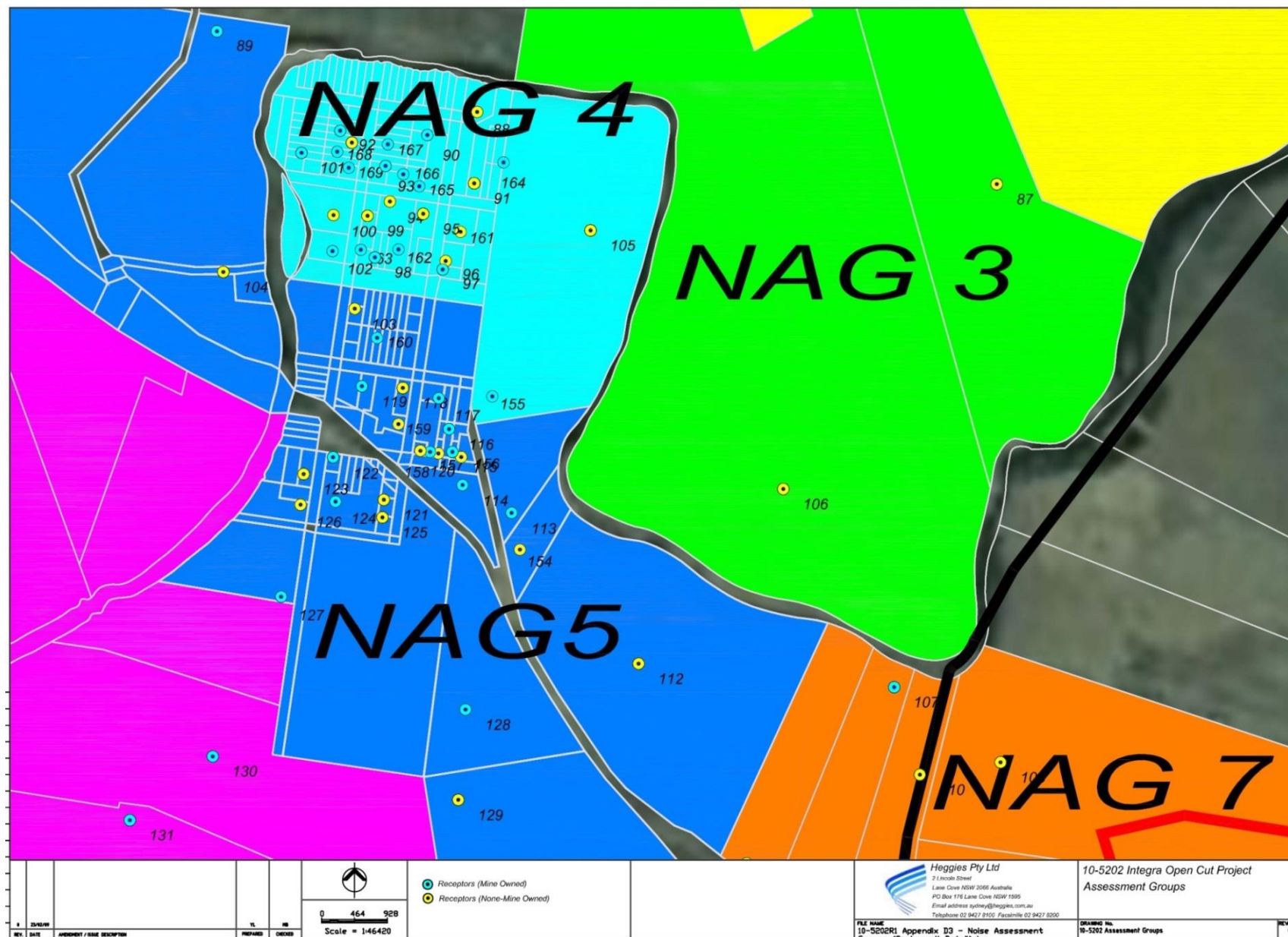






**Residential Receivers**





Residential Receivers in Camberwell Village

## APPENDIX 5: NOISE COMPLIANCE ASSESSMENT

### Compliance Monitoring

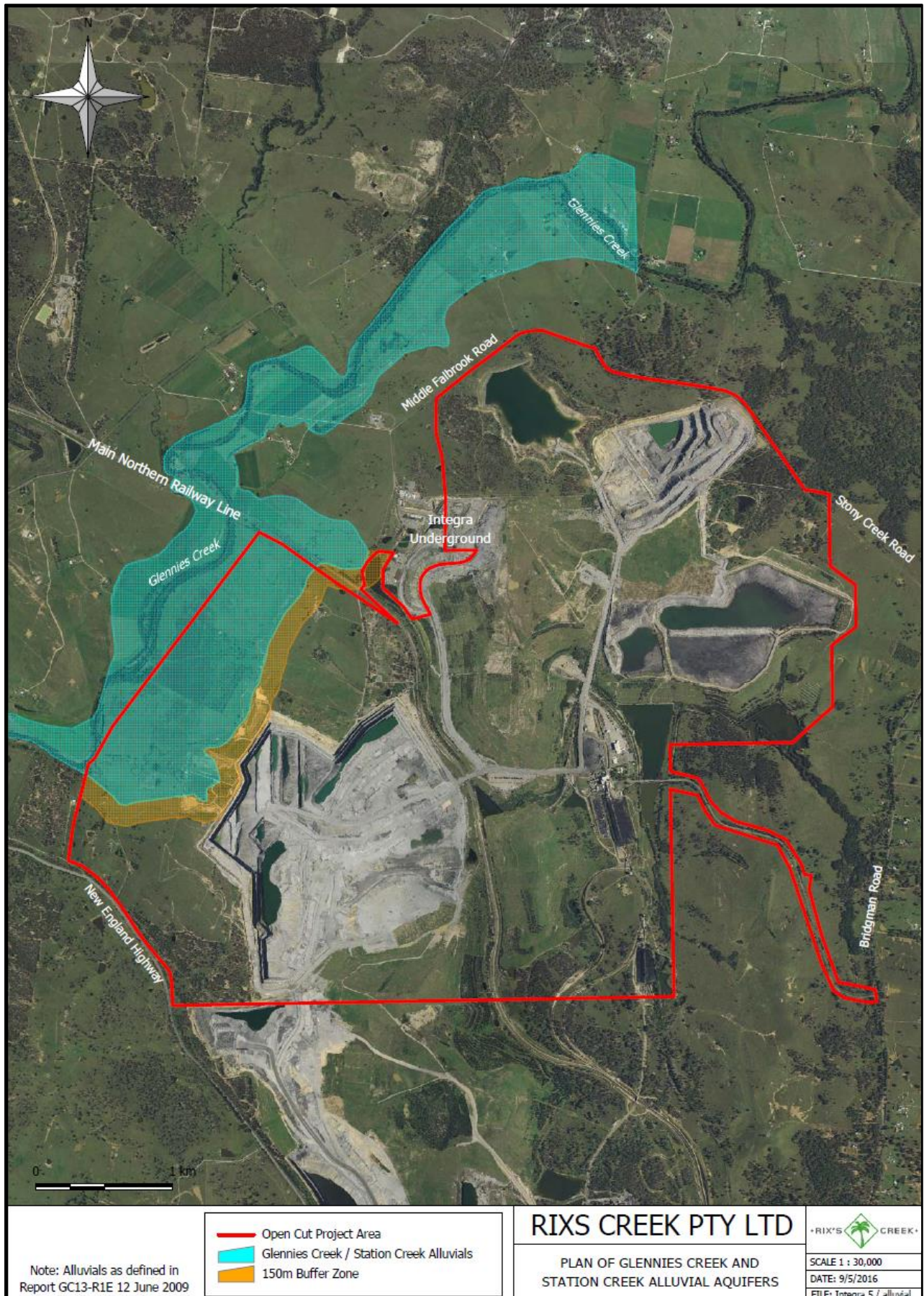
1. Attended monitoring is to be used to evaluate compliance with the relevant conditions of this approval.
2. Data collected for the purposes of determining compliance with the relevant conditions of this approval is to be excluded under the following meteorological conditions:
  - a) during periods of rain or hail;
  - b) average wind speed at microphone height exceeds 5 m/s;
  - c) wind speeds greater than 3 m/s measures at 10 m above ground level; and
  - d) temperature inversion conditions greater than 3°C/100m.
3. Unless otherwise agreed with the Secretary, this monitoring is to be carried out in accordance with the relevant requirements relating for reviewing performance set out in the *NSW Industrial Noise Policy* (as amended from time to time), in particular the requirements relating to:
  - a) monitoring locations for the collection of representative noise data;
  - b) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and
  - c) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.
4. To the extent that there is any inconsistency between the *NSW Industrial Noise Policy* and the requirements set out in this Appendix, the Appendix prevails to the extent of the inconsistency.

### Determination of Meteorological Conditions

5. Except for wind speed at microphone height, the data to be used for determining meteorological conditions shall be that recorded by the meteorological station located on the site (as required by condition 28 of Schedule 3).

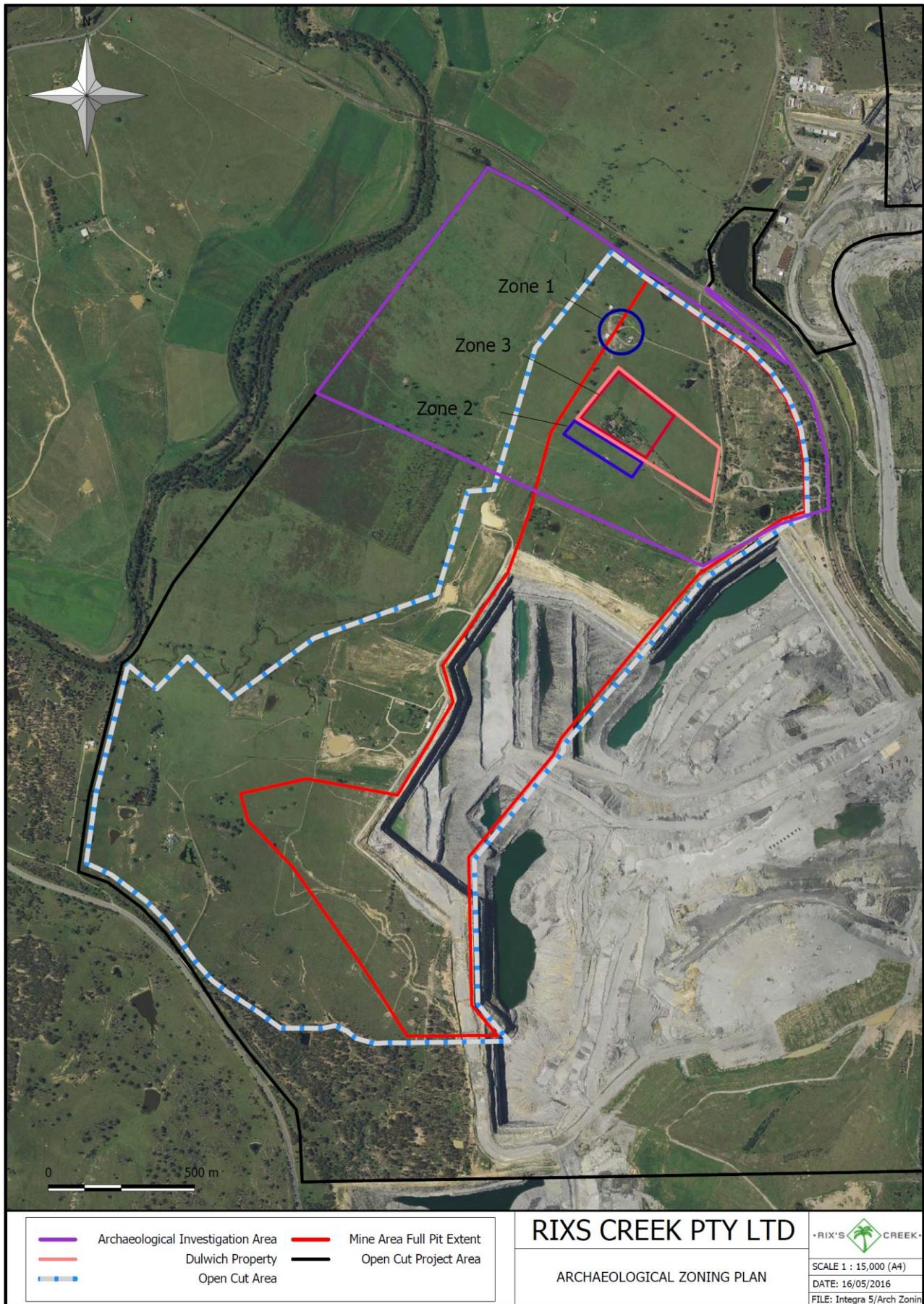


## APPENDIX 6: GLENNIES CREEK AND STATION CREEK ALLUVIAL AQUIFERS



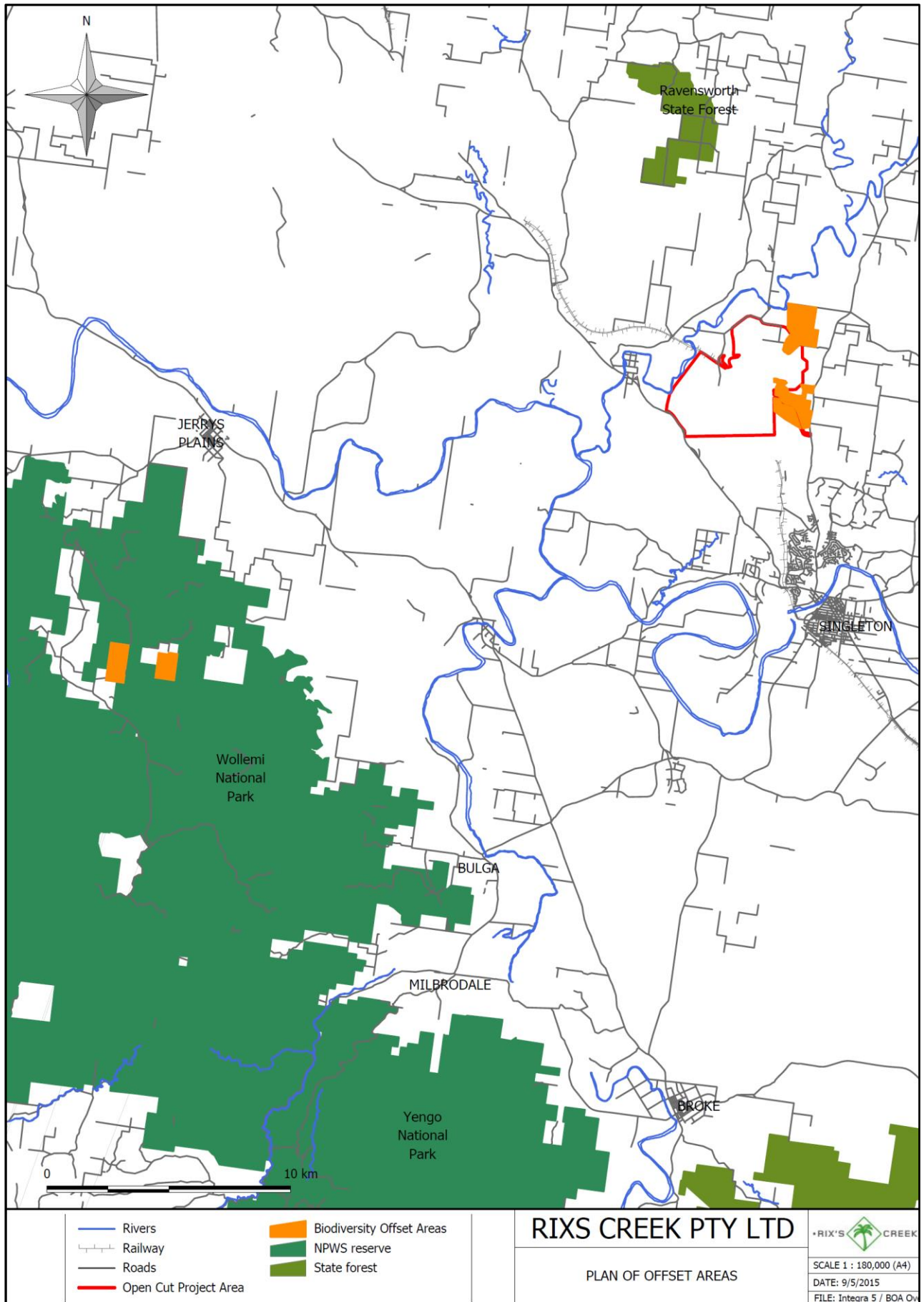


## APPENDIX 7: AREA FOR FURTHER ARCHAEOLOGICAL INVESTIGATION

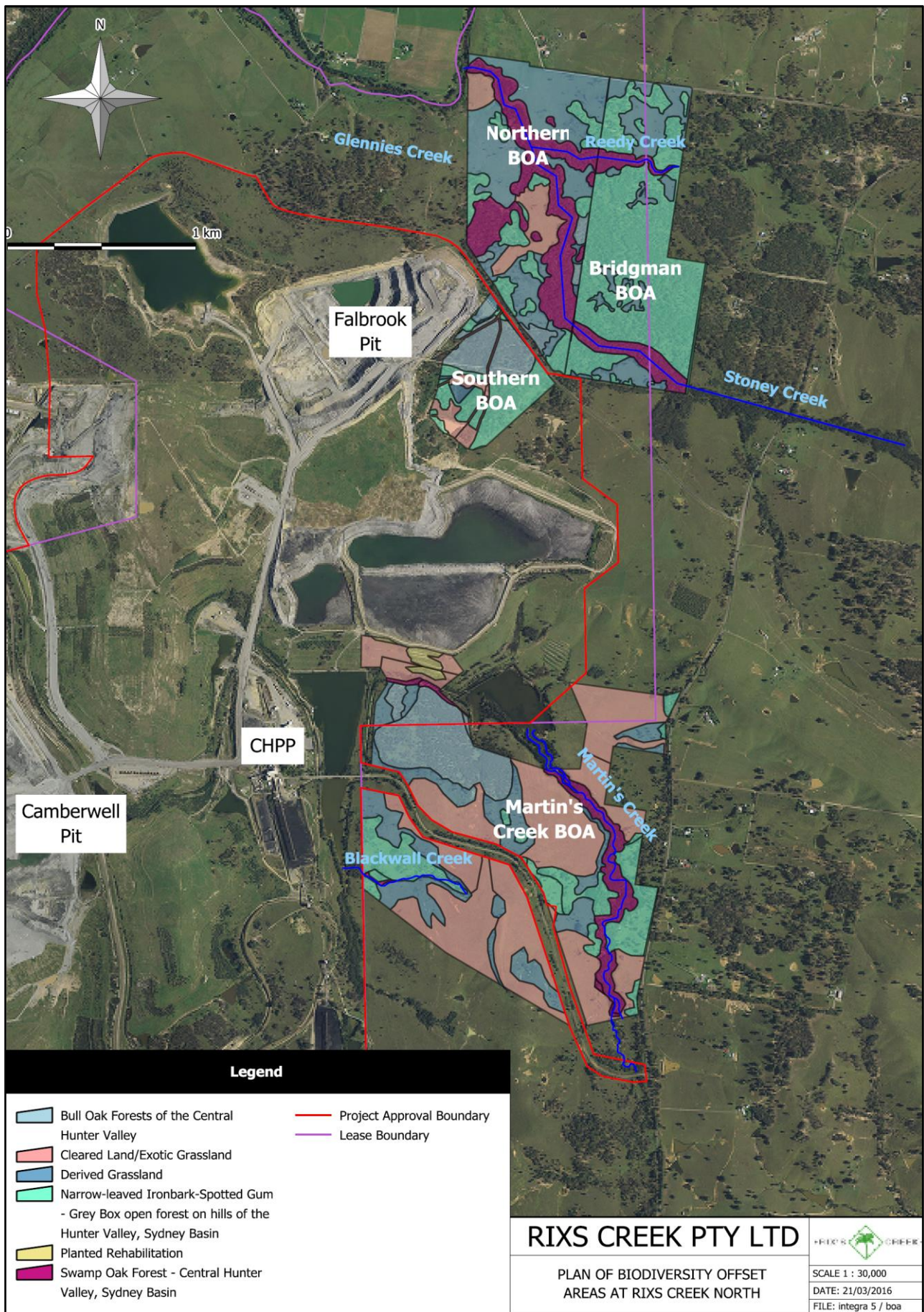




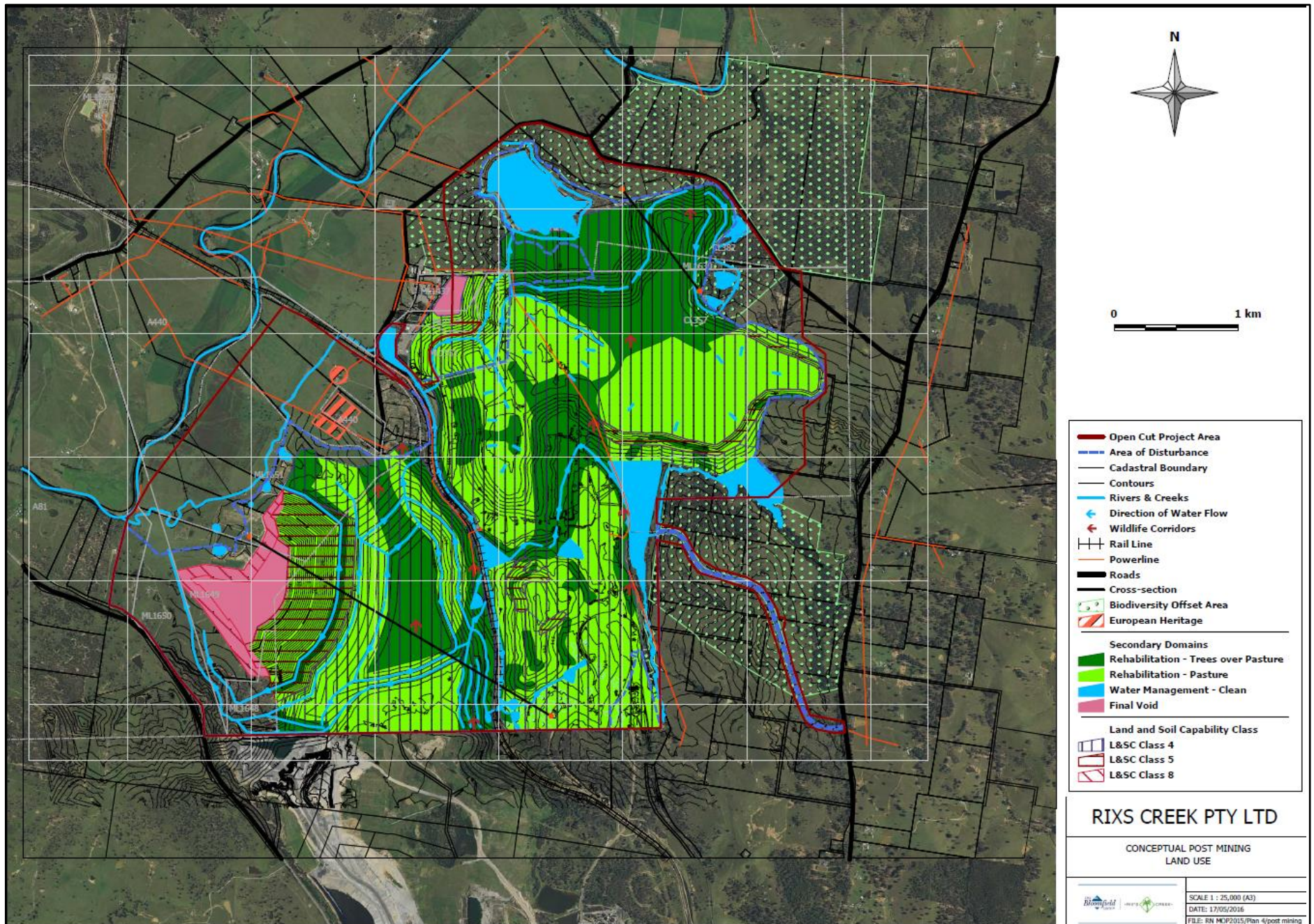
## APPENDIX 8: CONCEPTUAL FINAL LANDFORM AND OFFSETS













## APPENDIX 9: STATEMENT OF COMMITMENTS

### Open Cut Project Statement of Commitments

Item	Mitigation Measure and Commitment	Implementation
<b>General</b>		
A1	Bloomfield will comply with all conditional requirements in all approvals, licences and leases.	Throughout the life of the Project.
A2	Bloomfield will conduct all operations in accordance with all relevant documentation including: <ul style="list-style-type: none"> <li>• Mining Operations Plan;</li> <li>• environmental procedures; and</li> <li>• safety management plans and/or site specific documentation.</li> </ul>	Continuous as required
<b>Soils and Land Capability</b>		
B1	Strip material to the depths stated in <b>Table 6.3</b> .	Continuous during operations
B2	Material will not be stripped in either extremely wet or dry conditions.	Continuous during operations
B3	Stripped material will be used immediately (where practicable) to avoid the requirement for stockpiling.	Continuous during operations
B4	Tracking over previously laid soil will be avoided to minimise compression effects.	Continuous during operations
B5	The surface of soil stockpiles will be left in as a coarsely textured a condition as possible to promote rainfall infiltration and minimise erosion.	Continuous during operations
B6	A maximum stockpile height of 3m will be maintained where practicable.	Continuous during operations
B7	Stockpiles will be positioned away from drainage lines and/or upslope water diversion banks or similar controls will be installed.	Continuous during operations
B8	Downslope sedimentation controls will be installed until the soil stockpiles are appropriately stabilised.	Continuous during operations
B9	If long-term stockpiling is planned (i.e. greater than 3 months), stockpiles will be seeded and fertilised as soon as possible.	Continuous during operations
B10	Prior to re-spreading stockpiled topsoil onto reshaped overburden, it will be decided if individual stockpiles require herbicide application and / or 'scalping' of weed species prior to topsoil spreading.	As required
B11	An inventory of available soil will be maintained to ensure adequate topsoil materials are available for planned rehabilitation activities.	Continuous during operations
B12	Topsoil will be spread to a nominal depth of 0.10m.	Continuous during operations
<b>Groundwater</b>		
C1	Standing water levels and groundwater quality will be assessed in accordance with <b>Table 7.3</b> , <b>Table 7.4</b> and <b>Table 7.5</b> .	Continuous during and after operations
C2	All results will be reviewed and updated monitoring and remediation plans will be developed as required in consultation with DPI Water, DRG and OEH.	Continuous during and after operations
C3	If required, contingency measures will be developed to manage any adverse impacts identified by monitoring that may indicate unanticipated effects in the groundwater system's response to mining in the proposed Pit.	Continuous during and after operations
C4	If the impacts of mining on the alluvium and Foybrook Formation groundwater systems are demonstrated to be greater than anticipated, Bloomfield will: <ul style="list-style-type: none"> <li>• assess the significance of these impacts;</li> <li>• investigate measures to minimise these impacts; and</li> <li>• describe what measures will be implemented to reduce, minimise, mitigate or remediate these impacts in the future to the satisfaction of the Director-General.</li> </ul>	Continuous during and after operations
C5	Rehabilitation of groundwater dependent ecosystems will be incorporated as part of the Offset Strategy (refer Commitment E10). Trigger thresholds for the groundwater management response will be identified and included in the Rehabilitation Strategy.	Continuous during and after operations

<b>Item</b>	<b>Mitigation Measure and Commitment</b>	<b>Implementation</b>
C6	The amount of water pumped into or out of the proposed Pit will be monitored to assess the actual volume of water stored within the pit as well as to assess the groundwater inflows and evaporation effects.	Continuous during operations
C7	All new bores will be installed by suitably licensed drillers after obtaining the relevant license from DPI Water.	Continuous during and after operations
C8	If monitoring results indicate the agreed standard or performance indicators are not being achieved, remedial actions will be implemented as appropriate.	Continuous during and after operations
C9	An annual report will be prepared by a qualified hydrogeologist and include a statistical analysis of the results of the parameters measured, an interpretation of water quality and standing water level changes.	Annually during and after operations
C10	All relevant monitoring and management activities for each year will be reported in the Annual Review.	Annually
C11	ICO will adhere to the operating rules of the Hunter Regulated River Water Sharing Plan (HRRWSP) and the Hunter Unregulated River Water Sharing Plan (HURRWSP), thereby ensuring that the operation of the proposed extended Pit will protect Glennies Creek and its associated well connected alluvial water sources.	Continuous during and after operations
C12	Ongoing verification of the EA predictions and contingency measures will be attained by development and adherence to a surface water and groundwater monitoring and management plan (SW&GWMP) that will be prepared, in consultation with DPI Water. Cut off thresholds that relate to potential mining induced depressurisation impacts in the connected Glennies Creek Alluvium will be established and documented in the SW&GWMP.	Continuous during and after operations
C13	During excavation of the western periphery of the pit, geological mapping will be used to assess the potential southerly extension of a fault identified in the drift to Integra Underground and, if identified, its significance. If the fault is present in the pit, it will be investigated to assess whether it can provide a connective hydrological pathway between the pit and the Glennies Creek alluvium through re-activation of the fault. If appropriate, the hydrological significance of the fault will be assessed through incorporating its hydrological properties into the existing FEFLOW groundwater model.	Continuous during operations
<b>Surface Water</b>		
D1	Construct diversions to direct clean water away from areas of disturbance, to a standard suitable to contain an ARI 50 year rainfall event.	Prior to and progressively during operations.
D2	Construct dirty water diversions to collect stormwater runoff from disturbed areas and deliver this water to sedimentation basins.	Prior to and progressively during operations.
D3	Construct sedimentation basins to treat disturbed area runoff prior to discharge.	Prior to and progressively during operations.
D4	Continue and extend existing Water Management System.	Continuous during operations
D5	Continue the existing Surface Water Monitoring Program and extend to include: <ul style="list-style-type: none"> <li>collection of grab samples along ephemeral watercourses such as Station Creek, during or immediately after surface runoff events;</li> <li>monthly water quality sampling of water storages on the site; and</li> <li>regular collection of data on water quality, storage water levels (including the Portal Sump) and pumping volumes between storages.</li> </ul>	Continuous during operations
D6	All pumped inflows to dirty water storages will cease when the storage water level reaches a defined Maximum Operating Level.	Continuous during operations
D7	If the weather outlook indicates future significant rainfall, water will be pumped out of any dirty water storage (with the potential to discharge offsite) that is within 100 mm of spilling, provided that a suitable alternative storage location is available elsewhere on the site.	Continuous during operations
D8	In the event of a dirty water discharge offsite, water samples will be collected at the overflow from the spilling storage and at the surface water sampling locations along Station Creek (for spills within the Station Creek catchment). For a spill from Possum Skin Dam, a sample will be collected at the discharge point and at the point of inflow to Glennies Creek.	Continuous during operations
D9	If a spill occurs, an incident report will be prepared which documents the circumstances leading to the spill, the measures taken to prevent the spill, the estimated spill volume and duration, and the measured water quality results. Any spillage will be reported to EPA in accordance with the requirements of the site's Environment Protection Licence.	Continuous during operations

<i>Item</i>	<i>Mitigation Measure and Commitment</i>	<i>Implementation</i>
D10	After construction of drainage works is complete, disturbed areas will be topsoiled and revegetated using a combination of pasture grasses and cover crops to stabilise the ground surface.	During and following operations as appropriate.
D11	As part of the rehabilitation activities, above ground landforms will feature drainage provisions designed to effectively capture and divert surface water run-off to stable disposal areas prior to being discharged into surrounding watercourses.	During and following operations as appropriate.
<b>Biodiversity</b>		
E1	<p>A Flora and Fauna Management Plan will be developed and include measurements for the minimisation or avoidance of impacts on native flora and fauna. This will include:</p> <ul style="list-style-type: none"> <li>• pre-clearance surveys;</li> <li>• groundcover clearance protocol;</li> <li>• site management measures such as a temporary exclusion fencing, maximum vehicle speeds and reducing the use of lighting to decrease impacts on nocturnal fauna; and</li> <li>• limiting vehicular and personnel entry into retained vegetation through temporary exclusion fencing, locating access roads and tracks to avoid habitat and use of signage where necessary.</li> </ul>	Prior to commencement of operations.
E2	<p>Fauna management procedures will include:</p> <ul style="list-style-type: none"> <li>• monitoring of trees for fauna before and during clearing operations;</li> <li>• avoiding trees with resident fauna as much as practicable;</li> <li>• demarcation and avoidance of identified hollow bearing trees wherever possible;</li> <li>• carefully sawing and placing intact hollow-bearing trunks and branches into adjacent areas of native vegetation;</li> <li>• replacing habitat, such as nest boxes, where habitat trees are to be removed;</li> <li>• maintaining existing maximum vehicle speed limits within the Open Cut Project Area to reduce fauna road fatalities;</li> <li>• limiting vehicular and personnel entry into retained vegetation through temporary exclusion fencing; and</li> <li>• directing lighting at operating equipment to reduce light spill onto nocturnal fauna species in adjacent vegetation.</li> </ul>	Prior to and during operations.
E3	<p>Pre-clearance surveys will involve:</p> <ul style="list-style-type: none"> <li>• diurnal searches for birds, nests and roosts including targeted searches for communal nests of the Grey-crowned Babbler;</li> <li>• active searches for microbats, including checking under exfoliating bark; and</li> <li>• nocturnal surveys, including stag watching of identified habitat trees, specifically focusing on observing use of trees by microbats.</li> </ul>	Prior to clearing activities.
E4	If threatened species nests or nestlings are observed within or close to the Open Cut Area then clearing will be postponed until the nestlings have hatched and fully-fledged. If operational constraints mean that this delay is not practicable then OEH will be consulted to determine if relocating the species is acceptable.	Prior to and during clearing operations.
E5	<p>A groundcover clearance protocol will be implemented and involve:</p> <ul style="list-style-type: none"> <li>• removal of large woody debris using excavator grabs or raking if practicable;</li> <li>• placing of intact large woody debris within adjacent areas of intact vegetation;</li> <li>• stripping and stockpiling leaf litter and topsoil separately from deeper fill material; and</li> <li>• reusing leaf litter and topsoil in rehabilitation works.</li> </ul>	During clearing and soil stripping activities.
E6	Fencing will be implemented to exclude grazing by cattle within retained patches of remnant vegetation to improve habitat value and floral diversity.	Prior to, continuous, during and following operations.
E7	A weed and pest management plan will be prepared and implemented as part of management procedures in order to control feral animals and to limit the spread of weeds.	Prior to commencement of and during operations.
E8	Revegetation of suitable components of the Open Cut Area will be undertaken using species representative of the Ironbark Woodland.	During rehabilitation and revegetation programs.
E9	Subject to the receipt of all necessary approvals/permits, a creek rehabilitation program will be undertaken along Station and Glennies Creeks and will include:	Prior to, continuous during and following mining operations.

<b>Item</b>	<b>Mitigation Measure and Commitment</b>	<b>Implementation</b>
	<ul style="list-style-type: none"> <li>erosion control, rubbish removal, complementary planting, weed control, habitat enhancement and exclusion of grazing stock from riparian zones; and</li> <li>a monitoring and management program to identify and manage noxious weed infestations.</li> </ul>	
E10	<p>Bloomfield will implement a biodiversity offset package in consultation with OEH to compensate for the potential clearing of 19ha of remnant native vegetation and will include:</p> <ol style="list-style-type: none"> <li>1. Revegetation of suitable components of the Open Cut Area;</li> <li>2. Conservation and rehabilitation of the degraded riparian and forest habitat along Glennies and Station Creeks; and</li> <li>3. Identification and permanent conservation of a suitable woodland offset in the locality, a minimum of 30ha in size, in consultation with OEH.</li> </ol> <ul style="list-style-type: none"> <li>Pending the satisfaction of the 3 components above, Bloomfield will provide a bond or security to OEH which could be used in the event that Bloomfield does not identify a suitable offset in the specified timeframe.</li> </ul>	In accordance with Project Approval requirements.
<b>Traffic and Transportation</b>		
F1	Adhere to RMS and Council restrictions on transport hours and safety/warning requirements for transportation of oversize loads on local roads.	Continuous during operations.
F2	Minimise the duration of road closures on the southern end of Middle Falbrook Road during blasting.	When blasting within 500m of the open sections of Middle Falbrook Road.
F3	Blasting within 500m of the Main Northern Railway line will be controlled under the existing procedure (PRO_2029 Blasting Adjacent to the Main Northern Railway Line) that has been developed in consultation with ARTC.	When blasting within 500m of the Main Northern Railway Line.
F4	Provide notification on the morning prior to a blast of blast times to residents and others who request to be included on the blast notification list.	Prior to all blasts.
<b>Noise and Blasting</b>		
G1	Use noise mitigated mobile equipment to achieve the predicted noise emission levels at the identified receptors.	Continuous during operations
G2	Restrict evening and night-time mining operations, where practicable, to areas that minimise emission levels outside of the Project boundary.	Continuous during operations
G3	Undertake development activities such as tree clearing and soil stripping during day time operations only, where practicable.	Continuous during operations
G4	Refine on-site noise mitigation measures and operating procedures, i.e. based upon monitoring results.	Continuous during operations
G5	Initiate regular discussions with potentially affected residents to proactively identify noise-related issues of concern.	Continuous during operations
G6	Consider acoustic mitigation at residences where exceedances of the project specific criteria are substantiated by monitoring.	Continuous during operations
G7	Consider negotiated agreements with landowners where exceedances of the project specific criteria are substantiated by monitoring.	Continuous during operations
G8	Continued implementation of the existing Explosive Hazard Management Plan to ensure the safety of employees and the public during explosives handling and blasting operations.	Continuous during operations
G9	Restrict blasting to between the hours of 9.00am and 5.00pm Monday to Saturday, unless blasts outside this time are required for misfire re-blast, emergency or safety reasons.	Continuous during operations
G10	Blast design and implementation to be undertaken by a suitably qualified blasting engineer and/or experienced shot-firer to ensure ANZEC Guidelines are met at all non-project related residences surrounding the Open Cut Project Area.	Continuous during operations
G11	Refine blast mitigation measures and operating procedures as required, based on monitoring results.	Continuous during operations
G12	Provide notification on the morning prior to a blast of blast times to local residents and others who request to be included on the notification list.	Continuous during operations
G13	Use aggregate as the stemming material (not drill dust) in order to fully contain the explosives within the blasthole.	Continuous during operations
G14	In the case of the Part Pit Extent (i.e. Bloomfield is unable to acquire Residence 153 or negotiate an agreement with the owner), blasting will not be undertaken within a 500m Exclusion Zone surrounding the 'Dulwich' residence and 200m from the property boundary until such time that it can demonstrate to the Secretary that blasting can be undertaken without an unacceptable risk to the resident, residents, their stock or residence.	Continuous during operations



<i>Item</i>	<i>Mitigation Measure and Commitment</i>	<i>Implementation</i>
<b>Air Quality</b>		
H1	Only the minimum area required for the operation of the Open Cut Project will be disturbed. Reshaping, topsoil emplacement and rehabilitation of overburden emplacement areas will occur as soon as practicable after the completion of overburden emplacement.	Continuous during operations.
H2	Coal handling areas/stockpiles will be kept in a moist condition using water carts to minimise wind-blown and traffic-generated dust.	Continuous during operations.
H3	Water sprays will be available for use on ROM coal stockpiles as required to reduce airborne dust.	Continuous during operations.
H4	All roads and trafficked areas will be watered when required using water trucks.	Continuous during operations.
H5	All haul roads would be clearly defined, especially where they cross overburden emplacement areas.	Continuous during operations.
H6	Development of minor roads will be limited and the locations of these will be clearly defined.	Continuous during operations.
H7	Minor roads used regularly for access etc will be watered.	Continuous during operations.
H8	Obsolete roads will be ripped and re-vegetated.	Continuous during operations.
H9	Access tracks used by topsoil stripping equipment during their loading and unloading cycle will be watered.	Continuous during operations.
H10	Long term soil stockpiles (not used for over 3 months) will be revegetated.	Continuous during operations.
H11	Dust aprons, dust extraction systems or water injection will be used during drilling operations.	Continuous during operations.
H12	Adequate stemming will be used during blasting.	Continuous during operations.
H13	A real-time PM <sub>10</sub> monitor (TEOM) will be implemented at the location agreed with the EPA in accordance Conditions of Consent for North Open Cut (PA 06_0073). This will be located in the vicinity of Residence 48. Should the 24-hour average concentrations of PM <sub>10</sub> approach the cumulative assessment criteria 150 µg/m <sup>3</sup> , the Operations Manager (Open Cut) of the mine would review the current Open Cut operations and take remedial action to ensure the impact on the property is kept below the criteria. Should the criteria be reached, then all Open Cut operations will cease.	Continuous during operations.
H14	A real-time PM <sub>10</sub> (TEOM) will be located in the vicinity of Residences 108 to 112. Should the 24-hour average concentrations of PM <sub>10</sub> approach the cumulative assessment criteria 150 µg/m <sup>3</sup> , the Operations Manager (Open Cut) will review the current Open Cut operations and take remedial action to ensure the impact on the property is kept below the criteria. Should the criteria be reached, then all Open Cut operations will cease.	Continuous during operations.
H15	Rather than establish an additional monitor at Residence 87, Bloomfield will negotiate with Ashton mine the joint use of data from the existing real-time PM <sub>10</sub> (TEOM) monitor at this location (see TEOM No. 3 on <b>Figure 12-3</b> for location).	Continuous during operations.
H16	Bloomfield will negotiate with Ashton Coal for the joint use of data from the other sites in the Ashton mine monitoring network (see <b>Figure 12-3</b> for locations). This will enable real-time monitoring of the impacts of the operations to the west of the Open Cut Project Area.	Continuous during operations.
H17	The results from the dust monitoring program will be regularly reviewed to ensure the data being collected is meaningful. Where warranted, the program will be adjusted in consultation with EPA, with operating/management measures modified accordingly.	Continuous during operations.
H18	During Years 1 -3 of the Part Pit Extent (i.e. in the case that Bloomfield is unable to acquire Residence 153 or negotiate an agreement with the owner), additional controls will be implemented and will include: <ul style="list-style-type: none"> <li>• re-positioning of the main waste and coal haul routes to reduce impacts on Dulwich;</li> <li>• treatment of the main haul routes to achieve a level of dust control greater than 75%;</li> <li>• development of an Environmental Management Plan that will address environmental controls to be implemented as part of pre-operational phase soil removal activities;</li> <li>• control of emissions from drilling operations through the application of water; and</li> <li>• increasing the moisture content of the ROM coal in-pit.</li> </ul>	Prior to the commencement of operations and continuous during operations.
<b>Aboriginal Archaeology</b>		
I1	All actions and strategies for the management of cultural heritage values will be defined in an Aboriginal Cultural Heritage Management Plan developed in consultation with participating Aboriginal groups.	Prior to the commencement of operations.

<b>Item</b>	<b>Mitigation Measure and Commitment</b>	<b>Implementation</b>
I2	Prior to any soil disturbing activities, archaeological surveys will be conducted in those areas within the Open Cut Area to be impacted but which have not been surveyed to date. These areas include the Dulwich Property.	Prior to commencement of operations within potentially affected area not previously surveyed.
I3	Sites which will not be impacted by open cut mining will be identified on mine plans with the requirement not to disturb the ground in these areas. If there is risk of impact, temporary fencing will be erected and restrictions placed on access.	Prior to commencement of operations.
I4	Sites which may be directly or indirectly impacted by activities associated with mining will be identified on mine plans with development avoiding impact to these sites. Where development associated activities occur in close proximity to sites, temporary fencing will be constructed. Where direct impact is unavoidable the strategies outlined in I5 will be followed.	Prior to commencement of operations.
I5	Sites which will be directly impacted by open cut mining will be subject to: <ul style="list-style-type: none"> <li>collection and recording of surface artefacts and storage in accordance with the requirements of Aboriginal Groups; and</li> <li>targetted subsurface salvage excavation programs as determined in consultation with the Aboriginal stakeholders.</li> </ul>	Prior to disturbance.
I6	A 'Keeping Place' will be provided for the secure storage of cultural material collected. The Keeping Place will be determined and agreed in consultation with the Aboriginal Groups during the formulation of the Aboriginal Cultural Heritage Management Plan. The Keeping Place will be retained in perpetuity subject to the recommendations of the Aboriginal Groups with regard to the long-term positioning of the sites.	Prior to commencement of operations.
<b>European Heritage</b>		
J1	Work Method Statements for archaeological investigation will be prepared for Zone 1 and, dependant on the acquisition of Dulwich, for Zone 2 as identified in <b>Figure 14-2</b> .	Prior to commencement of operations within Zone 1 and/or 2.
J2	Project planning and timing will take into consideration any heritage management requirements.	Continuous during operations.
J3	If Dulwich is acquired, a WMS for heritage management and archaeological investigation will be prepared specifically for Zone 3 ( <b>Figure 14-2</b> ); or If Dulwich is not acquired, a Conservation Management Plan will be prepared to minimise and monitor project impacts on Dulwich.	Prior to commencement of mine operations in Zone 3.  Prior to commencement of activities which may impact on Zone 3.
J4	A forensic anthropologist will be engaged to prepare a detailed management plan for the excavation of the grave of James Glennie.	Prior to commencement of mine operations within 200m of European Heritage Zone 2.
J5	Should any other burial sites be exposed during surface scraping operations within the Mine Area, work will cease and appropriate personnel and authorities informed. If the remains are identified as historical in nature, management for skeletal remains will be undertaken by appropriate personnel and a report issued to the Coroner.	Continuous during operations.
J6	In the case of an intersection between European and Indigenous management strategies, or any other environmental management strategy, Bloomfield will co-ordinate appropriate consultation between the parties in order to develop and agreement on how to proceed.	Continuous during operations
J7	Copies of final excavation reports will be issued to local libraries, historical societies, the NSW Heritage Branch Library and State Library of NSW.	On completion of excavation reports.
<b>Visual</b>		
K1	To the extent practicable, reduce the potential visual impact through the construction of visual amenity bunds/screens or soil stockpiles to temporarily screen views towards the proposed Open Cut Area.	Continuous during operations
K2	To reduce lighting impacts to sensitive receptors, work programs will be arranged, where possible, so that some activities that may be visible from surrounding view locations, occur within daylight hours of operation.	Continuous during operations
K3	Floodlights within the Open Cut Extension Area will be positioned to minimise the potential for lighting to impact sensitive receptors.	Continuous during operations
K4	Where possible, haulage roads and overburden tipping areas will be configured to minimise the potential impact associated with headlights and flashing lights associated with vehicles travelling across the Open Cut Project Area.	Continuous during operations

<i>Item</i>	<i>Mitigation Measure and Commitment</i>	<i>Implementation</i>
K5	Bloomfield will consider any reasonable request by a residential receptor for assistance to establish a visual screen within their property through planting and/or landscape works, where such works would effectively reduce the visual impact of activities associated with the proposed Open Cut Extension.	Continuous during operations
<b>Rehabilitation</b>		
L1	Suitable species of vegetation will be planted and established to achieve the nominated post-mine land uses. The rehabilitation plan will clarify the project rehabilitation goals and outcomes and will confirm the monitoring and management proposals.	Continuous during operations
L2	The majority of the post-mine landform will be revegetated with a combination of native and improved pasture species with scattered tree lots and tree corridors linking the surrounding rehabilitated areas, proposed tree planting corridors and surrounding existing native vegetation.	Progressively during operations
L3	The final landform will be stable and not subject to slumping or excessive erosion which would result in the agreed post mining landform not being achieved.	Prior to completion of Project activities and lease relinquishment
L4	The outside facing slopes of the post-mine landform will generally be a maximum of 10° where they are above the natural land surface. The internal facing slopes and those below natural surface reporting to the final void (including the low wall areas) will generally be a maximum of 18°.	Progressively during operations