

# Project Approval

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

As delegate of the Minister for Planning and Infrastructure under delegation executed on 14 September 2011, the Planning Assessment Commission approves the modification of the project approval referred to in Schedule 1, as set out in Schedule 2, Schedule 3 and Schedule 4.



Mr Paul Forward  
**Chair of the Commission**



Mr Joe Woodward PSM  
**Member of the Commission**

These conditions are required to:

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

Sydney

26 September 2014

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### **SCHEDULE 1**

<b>Application Number:</b>	09_0062
<b>Proponent:</b>	Hunter Valley Energy Coal Pty Ltd
<b>Approval Authority:</b>	Minister for Planning
<b>Land:</b>	See Appendix 1
<b>Project:</b>	Mt Arthur Coal Mine – Open Cut Consolidation Project

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## DEFINITIONS

Annual review	The review required by condition 3 of schedule 5
ARTC	The Australian Rail Track Corporation Ltd
BCA	Building Code of Australia
Biodiversity offset strategy	The conservation and enhancement program described in the EA, and shown in Appendix 7
Blast misfire	The failure of one or more holes in a blast pattern to initiate
CCC	Community Consultative Committee
Conditions of this approval	Conditions contained in schedules 1 to 5
Council	Muswellbrook Shire Council
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	The NSW Department of Planning and Environment
DRE	Division of Resources and Energy, within the Department of Trade and Investment, Regional Infrastructure and Services.
EA	(a) the Environmental Assessment titled <i>Mt Arthur Coal Consolidation Project Environmental Assessment</i> (6 volumes), prepared by Hansen Bailey and dated November 2009, including the Response to Submissions dated February 2010; and (b) the Environmental Assessment titled <i>Mt Arthur Coal Open Cut Modification - Environmental Assessment</i> (2 volumes), prepared by Resource Strategies Pty Ltd and dated April 2013, including the Response to Submissions dated September 2013
EPA	Environmental Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence issued under the POEO Act
Evening	The period from 6pm to 10pm
Feasible	Feasible relates to engineering considerations and what is practical to build or implement
Heritage Branch Incident	Heritage Branch of OEH A set of circumstances that: <ul style="list-style-type: none"> <li>• causes, or threatens to cause, material harm to the environment; and/or</li> <li>• breaches or exceeds the limits or performance measures/criteria in this approval</li> </ul>
Land	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 of this approval 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	Harm to the environment is material if it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Mining operations	Includes the removal of overburden and all coal extraction, processing, handling, storage and transportation activities carried out on site
Minister	Minister for Planning, or delegate
Mitigation	Activities associated with reducing the impacts of the project, prior to or during those impacts occurring
MSB	Mine Subsidence Board
Mt Arthur mine complex	The combined operations of the project (including the former Mt Arthur North mine, Bayswater No. 2 mine, Bayswater No. 3 mine and the South Pit Extension Project), and the Mt Arthur Underground Project
Mt Arthur Underground Project	The underground mining operations approved under MP 06_0091
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
NOW	NSW Office of Water
OEH	NSW Office of Environment and Heritage
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Previous EAs	The previous environmental impact assessments for open cut operations at the Mt Arthur mine complex, as listed in Appendix 3
Privately-owned land	Land that is not owned by a public agency or a mining company (or its subsidiary)
Project	The development as described in the project application and EA, and to the extent not covered by these, the Previous EAs
Proponent	Hunter Valley Energy Coal Pty Limited, or its successors in title
Public Infrastructure	Any infrastructure that provides services to the general public, such as roads, railways, water supply, drainage, sewerage, gas supply, electricity, telephone, telecommunications, etc.
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements

Rehabilitation	The treatment or management of land disturbed by the project for the purpose of establishing a safe, stable and non-polluting environment
RFS	Rural Fire Services
RMS	Roads and Maritime Services
ROM	Run of Mine
Secretary	Secretary of the Department, or nominee
Site	The land referred to in schedule 1, and listed in Appendix 1

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## SCHEDULE 2 ADMINISTRATIVE CONDITIONS

### OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

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

### TERMS OF APPROVAL

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

*Note: The general layout of the project is shown in Appendix 2.*

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

### LIMITS ON APPROVAL

5. Mining operations for the project may take place until 30 June 2026.

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

6. The Proponent shall not extract more than:
  - (a) 32 million tonnes of ROM coal from the open cut mining operations on the site in a financial year; and
  - (b) 36 million tonnes of ROM coal from the Mt Arthur mine complex in a financial year.
7. The Proponent shall:
  - (a) not transport coal from the site by road (except in an emergency situation and with the prior approval of the Secretary in consultation with Council); and
  - (b) restrict coal transport on the Antiene rail spur to a maximum of:
    - 27 million tonnes of product coal in a financial year; and
    - 30 train movements a day,for the Mt Arthur mine complex, except under an agreement with the Drayton Mine to use some of its approved capacity, and where a copy of this agreement has been provided to the Secretary.

*Note: For the avoidance of doubt, each train entering and exiting the site is classified as 2 train movements, and a day refers to the 24 hours from midnight to midnight the next day.*

### SURRENDER OF CONSENTS

8. By the end of September 2011, or as otherwise agreed by the Secretary, the Proponent shall surrender all existing development consents/approvals for the project in accordance with sections 75YA and 104A of the EP&A Act, and to the satisfaction of the Secretary.

*Notes:*

- *This approval will apply to all components of the Mt Arthur mine complex's open cut operations from the date of approval. The existing management and monitoring plans/strategies/programs/protocols/committees for the project will continue to apply until the approval of the comparable plan/strategy/program/protocol/committee under this approval;*
- *The existing approvals are identified in Appendix 3.*

### STRUCTURAL ADEQUACY

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

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;
- The project is located in the Muswellbrook 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 any improvements on the site.

## DEMOLITION

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

## PROTECTION OF PUBLIC INFRASTRUCTURE

11. Unless the Proponent and the applicable authority agree otherwise, the Proponent shall:
  - (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and
  - (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the project,except where such works have been compensated through the *Mining Act 1992* or the planning agreement referred to in condition 14 below.

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

## OPERATION OF PLANT AND EQUIPMENT

12. The Proponent shall ensure that all plant and equipment used at the site, and equipment used offsite to monitor the performance of the Mt Arthur mine complex, is:
  - (a) maintained in a proper and efficient condition; and
  - (b) operated in a proper and efficient manner.

## STAGED SUBMISSION OF STRATEGIES, PLANS AND PROGRAMS

13. With the approval of the Secretary, the Proponent may:
  - (a) submit any strategy, plan or program required by this approval on a progressive basis; and
  - (b) combine any strategy, plan or program required by this approval with any similar strategy, plan or program for the Mt Arthur Underground Project.

*Note: For the avoidance of doubt, existing approved management plans, strategies or monitoring programs for the open cut operations of the Mt Arthur mine complex will continue to apply until the approval of a similar plan, strategy or program under this approval, or until the surrender of existing approvals (see condition 8 above).*

## PLANNING AGREEMENT

14. The Proponent shall comply with the planning agreement with Council executed on 24 June 2011 for the life of the Mt Arthur mine complex, as summarised in Appendix 9. If there is any dispute between the Proponent and Council about the implementation of the planning agreement, then either of the parties may refer the matter to the Secretary for resolution.

## ACCESS TO LAND

15. If any mining company in the area is investigating the potential to use infrastructure associated with the project, such as the Antiene rail spur, on commercial terms in order to avoid the costs and environmental impacts of constructing new infrastructure for its project, the Proponent shall consult with the company about the potential to reach a mutually acceptable agreement to the satisfaction of the Secretary.

## SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS

### ACQUISITION UPON REQUEST

- Upon receiving a written request for acquisition from an owner of the land listed in Table 1, the Proponent shall acquire the land in accordance with the procedures in conditions 7-8 of schedule 4.

*Table 1: Land subject to acquisition upon request*

<b>Receiver No.<sup>1</sup></b>	<b>Receiver</b>	<b>Acquisition Basis</b>
6	Private landholder	<b>Air quality</b>
28 <sup>2</sup>	Private landholder	Air quality
29 <sup>2</sup>	Private landholder	Air quality
101 <sup>3</sup>	Private landholder	Noise
102	Private landholder	Noise
203, 204	Private landholder	Air quality
206	Private landholder	Air quality
209, 210, 211	Private landholder	Air quality, Noise
226	Private landholder	Air quality
241	Private landholder	Air quality
264 <sup>4</sup>	Private landholder	Air quality

*Notes:*

- To interpret the locations referred to in Table 1, see the applicable figure in Appendix 4.*
- These receivers shall maintain their rights to acquisition upon request until 31 December 2016, when the EA predicts that the project will comply with the relevant acquisition criteria at these properties.*
- The Proponent is only required to acquire this property if acquisition is no longer reasonably achievable under the approval for the Drayton mine.*
- The Proponent is only required to acquire this property if acquisition is not reasonably achievable under a separate approval for the Bengalla mine.*

### NOISE

#### Impact Assessment Criteria

- The Proponent shall ensure that the noise generated by the Mt Arthur mine complex does not exceed the criteria in Table 2 at any residence on privately-owned land, except where such exceedances were predicted in the EA.

*Table 2: Noise Impact Assessment Criteria dB(A)*

<b>Location</b>	<b>Day</b> ( <i>L<sub>Aeq</sub></i> (15min))	<b>Evening</b> ( <i>L<sub>Aeq</sub></i> (15min))	<b>Night</b> ( <i>L<sub>Aeq</sub></i> (15min))	<b>Night</b> ( <i>L<sub>A1</sub></i> (1 min))
A – Antiene Estate	37	40	38	45
B – Skellatar Stock Route, Thomas Mitchell Drive, Denman Road East	39	38	37	45
C – Racecourse Road	41	40	39	45
D – Denman Road North-west, Roxburgh Vineyard (north-east), Roxburgh Road	37	36	35	45
E – South Muswellbrook	39	39	39	45
F – Denman Road West, Roxburgh Vineyard (west)	37	36	35	45
G – East Antiene	41	40	39	45
H – South of Mine	35	35	35	45

*Note: To interpret the locations referred to Table 2, see the applicable figures in Appendix 4 and Appendix 5.*

Noise generated by the Mt Arthur mine complex is to be measured in accordance with the relevant requirements of the *NSW Industrial Noise Policy*. Appendix 10 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.

However, these criteria do not apply if the Proponent has an agreement with the owner/s of the relevant residence or land to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.

3. Deleted
4. Deleted
5. Deleted

### Traffic Noise Criteria

6. The Proponent shall take all reasonable and feasible measures to ensure that the traffic noise generated by the Mt Arthur mine complex does not exceed the traffic noise impact assessment criteria in Table 3.

*Table 3: Traffic noise criteria dB(A)*

<b>Road</b>	<b>Day/Evening</b> <i>L<sub>Aeq</sub> (1 hour)</i>	<b>Night</b> <i>L<sub>Aeq</sub> (1 hour)</i>
Thomas Mitchell Drive, Denman Road (east of Thomas Mitchell Drive)	60	55
Denman Road (west of Thomas Mitchell Drive)	55	50

*Note: Traffic noise generated by the Mt Arthur mine complex is to be measured in accordance with the relevant procedures in the EPA's Road Noise Policy (2011), or its latest version.*

### Additional Noise Mitigation Measures

7. Upon receiving a written request from the owner of any residence:
  - (a) on the noise affected land listed in Table 1 (unless the landowner has requested acquisition under this approval); and
  - (b) on the land listed in Table 4,
 the Proponent shall implement reasonable and feasible noise mitigation measures (such as double glazing, insulation, and/or air conditioning) at any residence in consultation with the owner.

If within 3 months of receiving this request from the landowner, 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.

*Table 4: Land subject to additional noise mitigation upon request*

<b>Receiver No.<sup>1</sup></b>	<b>Receiver</b>
6 <sup>2</sup>	Private landholder
94	Private landholder
97 <sup>2</sup>	Private landholder
98 <sup>2</sup>	Private landholder
99 <sup>2</sup>	Private landholder (2 residences)
100	Private landholder
204	Private landholder
206	Private landholder
226	Private landholder

Notes:

- 1 To interpret the locations referred to in Table 4, see the applicable figure in Appendix 4.
- 2 These receivers shall maintain their rights to mitigation upon request until 31 December 2016, when the EA predicts that the project will comply with the relevant criteria at these properties.



## Operating Conditions

8. The Proponent shall:
- implement best noise management practice, which includes implementing all reasonable and feasible noise mitigation measures to minimise the operational, road and rail noise of the Mt Arthur mine complex;
  - operate a comprehensive noise management system on site that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations, and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this approval;
  - minimise the noise impacts of the project during meteorological conditions when the noise limits in this approval do not apply (see Appendix 10);
  - co-ordinate noise management at the Mt Arthur mine complex with the noise management at the Drayton and Bengalla mines to minimise cumulative noise impacts; and
  - carry out monthly attended monitoring in accordance with Appendix 10 (unless otherwise agreed with the Secretary), to determine whether the Mt Arthur mine complex is complying with the relevant conditions of this approval, to the satisfaction of the Secretary.

## Noise Management Plan

9. The Proponent shall prepare and implement a Noise Management Plan for the Mt Arthur mine complex to the satisfaction of the Secretary. This plan must:
- describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions in this approval;
  - describe the proposed noise management system in detail; and
  - include a monitoring program that:
    - evaluates and reports on:
      - the effectiveness of the noise management system;
      - compliance against the noise criteria in this approval; and
      - compliance against the noise operating conditions;
    - includes a program to calibrate and validate the real-time noise monitoring results with the attended monitoring results over time (so the real-time noise monitoring program can be used as a better indicator of compliance with the noise criteria in this approval and trigger for further attended monitoring); and
    - defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.

## BLASTING

### Impact Assessment Criteria

10. The Proponent shall ensure that blasts on site do not cause exceedances of the criteria in Table 5.

Table 5: Blasting impact assessment criteria

<b>Location</b>	<b>Airblast overpressure (dB(Lin Peak))</b>	<b>Ground vibration (mm/s)</b>	<b>Allowable exceedance</b>
Residence on privately owned land	120	10	0%
	115	5	5% of the total number of blasts in a financial year
Public infrastructure	-	50	0%

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

*Note: An alternative limit for public infrastructure may be determined by the Secretary in accordance with the structural design methodology in AS 2187.2-2006, or another methodology acceptable to the Secretary.*

### Blasting Hours

11. The Proponent shall only carry out blasting on site between 8am 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

12. The Proponent may carry out a maximum of:
- (a) 3 blasts a day;
  - (b) 4 blasts a day, on a maximum of 12 days each financial year; and
  - (c) 12 blasts a week, averaged over a financial year, on the site.

This condition does not apply to blasts that generate ground vibration of 0.5 mm/s or less at any residence on privately-owned land, blast misfires or blasts required to ensure the safety of the mine, its workers or the general public.

### Notes:

- For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine.
- For the avoidance of doubt, should an additional blast be required after a blast misfire, this additional blast and the blast misfire are counted as a single blast.
- In circumstances of recurring unfavourable weather conditions (following planned but not completed blast events), to avoid excess explosive sleep times and minimise any potential environmental impacts, the Proponent may seek agreement from the Secretary for additional blasts to be fired on a given day.

## Property Inspections

13. Deleted
14. If the Proponent receives a written request from the owner of any privately-owned land within 3 kilometres of any approved open cut mining pit on site for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection updated, then within 2 months of receiving this request the Proponent shall:
- (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to:
    - establish the baseline condition of any buildings and other structures on the land, or update the previous property inspection report; and
    - identify measures that should be implemented to minimise the potential blasting impacts of the project on these buildings and/or structures; and
  - (b) give the landowner a copy of the new or updated property inspection report.

If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Proponent or the landowner disagrees with the findings of the property inspection report, either party may refer the matter to the Secretary for resolution.

## Property Investigations

15. If any landowner of privately-owned land within 3 kilometres of any approved open cut mining pit on site (including the whole of the Racecourse Road area and the area southwest of Skellatar Stock Route), or on any other land where the Secretary agrees that a property inspection is warranted claims that buildings and/or structures on his/her land have been damaged as a result of blasting on the site, then the Proponent shall within 3 months of receiving this claim:
- (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties, to investigate the claim; and
  - (b) give the landowner a copy of the property investigation report.

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

If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Proponent or the landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.

## Operating Conditions

16. During mining operations on site, the Proponent shall:
- (a) implement best blasting practice to:
    - protect the safety of people and livestock in the area surrounding blasting operations;
    - protect public or private infrastructure/property in the area surrounding blasting operations from blasting damage; and
    - minimise the dust and fume emissions from blasting at the Mt Arthur mine complex;
  - (b) ensure that blasting on the site does not damage heritage sites, including Edinglassie, Rous Lench, and Balmoral;
  - (c) co-ordinate the timing of blasting on site with the timing of blasting at the Drayton and Bengalla coal mines to minimise the potential cumulative blasting impacts of the three mines; and

(d) operate a suitable system to enable the general public and surrounding landowners and tenants to get up-to-date information on the proposed blasting schedule on site, to the satisfaction of the Secretary.

- 16A. The Proponent shall not undertake blasting on site within 500 metres of any public road or any land outside the site not owned by the Proponent unless the Proponent has:
- demonstrated to the satisfaction of the Secretary that the blasting can be carried out closer to the infrastructure or land without compromising the safety of people or livestock or damaging the infrastructure and/or other buildings and structures; and
  - updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the infrastructure or land; or
  - a written agreement with the relevant infrastructure owner or landowner to allow blasting to be carried out closer to the infrastructure or land, and the Proponent has advised the Department in writing of the terms of this agreement.

### Blast Management Plan

17. The Proponent shall prepare and implement a Blast Management Plan for the project to the satisfaction of the Secretary. This plan must:
- describe the measures that would be implemented to ensure compliance with the blast criteria and operating conditions of this approval, including:
    - detailed demonstration that blasting within the blast control area shown in Appendix 5 can be undertaken in a manner that will meet the blast impact assessment criteria in Table 5 at all times; and
    - a detailed blast fume management strategy to minimise and manage blast fumes;
  - include a road closure management plan, prepared in consultation with the applicable roads authority, that includes provisions for:
    - minimising the duration of closures, both on a per event basis and weekly basis;
    - avoiding peak traffic periods as far as practicable; and
    - coordinating with neighbouring mines to minimise the cumulative effect of road closures;
  - include a blast monitoring program for evaluating and reporting on compliance with the blasting criteria and operating conditions of this approval; and
  - Include the requirement for Mt Arthur Coal to actively participate in Muswellbrook Council's online blasting portal.

### AIR QUALITY

#### Odour

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

#### Impact Assessment Criteria

20. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not cause exceedances of the criteria listed in Tables 6, 7 and 8 at any residence on privately-owned land (except for air quality affected land listed in Table 1).

Table 6: Long term impact assessment criteria for particulate matter

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

Table 7: Short term impact assessment criterion for particulate matter

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

Table 8: Long term impact assessment criteria for deposited dust

<b>Pollutant</b>	<b>Averaging period</b>	<b>Maximum increase in deposited dust level</b>	<b>Maximum total deposited dust level</b>
<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 6-8:

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

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

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

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

## Air Quality Acquisition Criteria

21. If particulate matter emissions generated by the Mt Arthur mine complex exceed the criteria, or contribute to the exceedances of the relevant cumulative criteria, in Tables 9, 10 and 11 at any residence on privately-owned land then upon receiving a written request for acquisition from the landowner, the Proponent shall acquire the land in accordance with the procedures in conditions 7-8 of schedule 4.

Table 9: Long term land acquisition criteria for particulate matter

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

Table 10: Short term land acquisition criteria for particulate matter

Pollutant	Averaging period	<sup>d</sup> Criterion
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>a</sup> 150 µg/m <sup>3</sup>
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>b</sup> 50 µg/m <sup>3</sup>

Table 11: Long term land acquisition criteria for deposited dust

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
<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 9-11

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

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

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

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

If the air quality acquisition criteria in Tables 9, 10 and 11 are being exceeded, and more than one mine is responsible for this non-compliance, then the Proponent shall, together with the relevant mine/s acquire the land on as equitable a basis as possible with the relevant mine/s, in accordance with the procedures in conditions 7-8 of schedule 4.

If the Proponent cannot agree on the arrangements for the acquisition of the land with the relevant mine/s within 3 months of the written request from the landowner, then the Proponent must refer the matter to the Secretary for resolution.

## Additional Air Quality Mitigation Measures

22. Upon receiving a written request from the owner of any residences:
- on the air quality affected land listed in Table 1; and
  - on the land listed in Table 12,
- the Proponent shall implement 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 additional air quality mitigation upon request

<b>Receiver No.<sup>1</sup></b>	<b>Receiver</b>
91 <sup>2</sup>	Private landholder
94 <sup>2</sup>	Private landholder
187	Private landholder
200	Private landholder
201	Private landholder

Notes:

- 1 To interpret the locations referred to in Table 12, see the applicable figure in Appendix 4.
- 2 These receivers shall maintain their rights to mitigation upon request until 31 December 2016, when the EA predicts that the project will comply with the relevant criteria at these properties.

### Mine-owned Land

22A. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the Mt Arthur mine complex do not cause exceedances of the criteria listed in Tables 9, 10 and 11 at any occupied residence on mine-owned land (including land owned by another mining company) unless:

- (a) the tenant and landowner (if the residence is owned by another mining company) have been notified of any health risks associated with such exceedances in accordance with the notification requirements under schedule 4 of this approval;
  - (b) the tenant of any land owned by the Proponent can terminate their tenancy agreement without penalty at any time, subject to giving reasonable notice and cause;
  - (c) air quality monitoring is regularly undertaken to inform the tenant or landowner (if the residence is owned by another mining company) of the particulate emissions at the residence; and
  - (d) data from this monitoring is presented to the tenant and landowner in an appropriate format for a medical practitioner to assist the tenant and landowner in making informed decisions on the health risks associated with occupying the property,
- to the satisfaction of the Secretary.

### Operating Conditions

23. The Proponent shall:

- (a) implement best practice air quality management, including all reasonable and feasible measures to minimise offsite odour, fume and dust emissions of the Mt Arthur mine complex;
  - (b) implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site;
  - (c) minimise any visible air pollution generated by the Mt Arthur mine complex;
  - (d) minimise the surface disturbance on the site;
  - (e) operate a comprehensive air quality management system that uses a combination of predictive meteorological forecasting and real-time air quality monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this approval;
  - (f) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see Note d above under Table 8); and
  - (g) co-ordinate air quality management at the Mt Arthur mine complex with air quality management at the Drayton, Mangoola and Bengalla mines to minimise cumulative air quality impacts,
- to the satisfaction of the Secretary.

### Air Quality Management Plan

24. The Proponent shall prepare and implement an Air Quality Management Plan for the Mt Arthur mine complex to the satisfaction of the Secretary. This plan must:

- (a) describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this approval;
- (b) describe the air quality management system;
- (c) include an air quality monitoring program that:
  - adequately supports the air quality management system;
  - evaluates and reports on the:
    - the effectiveness of the air quality management system;
    - compliance with the air quality criteria;
    - compliance with the air quality operating conditions; and
  - defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents.

## METEOROLOGICAL MONITORING

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

## SOIL AND WATER

### Water Supply

26. The Proponent shall 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.

*Note: The Proponent is required to obtain all necessary water licences and approvals for the project under the Water Act 1912 and/or Water Management Act 2000.*

### Water Pollution

27. Unless an EPL or the EPA authorises otherwise, the Proponent shall comply with Section 120 of the POEO Act and the *Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002*.

### Hunter River and Saddlers Creek Alluvials

28. The Proponent shall not undertake any open cut mining operations within 150 metres of the Hunter River alluvials and Saddlers Creek alluvials that has not been granted approval under previous consents/approvals for Mt Arthur mine complex without the prior written approval of the Secretary. In seeking this approval the Proponent shall demonstrate, to the satisfaction of the Secretary in consultation with NOW, that adequate safeguards have been incorporated into the Surface and Ground Water Response Plan (see condition 34 below) to minimise, prevent or offset groundwater leakage from the alluvial aquifers.

*Note: The alluvial aquifers and 150 metre buffers are shown conceptually in Appendix 6.*

### Site Water Management Plan

29. The Proponent shall prepare and implement a Water Management Plan for the Mt Arthur mine complex to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with NOW and the EPA; and
  - include a:
    - Site Water Balance;
    - Erosion and Sediment Control Plan;
    - Surface Water Monitoring Program;
    - Groundwater Monitoring Program; and
    - Surface and Ground Water Response Plan.
30. The Site Water Balance must:
- include details of:
    - sources and security of water supply;
    - water use on site;
    - water management on site;
    - any off-site water transfers;
    - reporting procedures; and
  - investigate and implement all reasonable and feasible measures to minimise water use by the Mt Arthur mine complex.
31. The Erosion and Sediment Control Plan must:
- be consistent with the requirements of *Managing Urban Stormwater: Soils and Construction, Volume 1, 4<sup>th</sup> Edition, 2004* (Landcom), or its latest version;
  - identify activities that could cause soil erosion, generate sediment or affect flooding;
  - 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.

32. The Surface Water Monitoring Program must include:
- (a) detailed baseline data on surface water flows and quality in creeks and other waterbodies that could potentially be affected by the project;
  - (b) surface water and stream health impact assessment criteria;
  - (c) a program to monitor and assess:
    - surface water flows and quality;
    - impacts on water users;
    - stream health;
    - channel stability,
 in Quarry Creek, Fairford Creek, Whites Creek (and the Whites Creek diversion), Saddlers Creek, Ramrod Creek and other unnamed creeks; and
  - (d) reporting procedures for the results of the monitoring program.
33. The Groundwater Monitoring Program must include:
- (a) detailed baseline data of groundwater levels, yield and quality in the region, and privately-owned groundwater bores, that could be affected by the project;
  - (b) groundwater impact assessment criteria;
  - (c) a program to monitor:
    - groundwater inflows to the mining operations;
    - impacts on regional aquifers;
    - impacts on the groundwater supply of potentially affected landowners;
    - impacts on the Hunter River and Saddlers Creek alluvial aquifers; and
    - impacts on any groundwater dependent ecosystems and riparian vegetation;
  - (d) procedures for the verification of the groundwater model; and
  - (e) reporting procedures for the results of the monitoring program and model verification.
34. The Surface and Ground Water Response Plan must describe the measures and/or procedures that would be implemented to:
- (a) investigate, notify and mitigate any exceedances of the surface water, stream health and groundwater impact assessment criteria;
  - (b) compensate landowners of privately-owned land whose water supply is adversely affected by the project, including provision of an alternative supply of water to the affected landowner that is equivalent to the loss attributed to the project;
  - (c) minimise, prevent or offset potential groundwater leakage from the Hunter River and Saddlers Creek alluvial aquifers; and
  - (d) mitigate and/or offset any adverse impacts on groundwater dependent ecosystems or riparian vegetation.

### Site Contamination

35. The Proponent shall prepare and implement a Remedial Action Plan for the former Bayswater No. 2 infrastructure area to the satisfaction of the Secretary. The Remedial Action Plan shall be prepared by a suitably qualified consultant, in accordance with the *Contaminated Land Management Act 1997* and applicable EPA guidelines, and be submitted to the Secretary for approval prior to undertaking any overburden placement in this area.

### BIODIVERSITY

#### Biodiversity Offsets

36. The Proponent shall implement the biodiversity offset strategy as outlined in Table 13 and as generally described in the EA (and shown in Appendix 7), to the satisfaction of the Secretary.

Table 13: Biodiversity Offset Strategy

<b>Area</b>	<b>Offset Type</b>	<b>Minimum Size (hectares)</b>
Mt Arthur Conservation Area	Existing vegetation	105
Saddlers Creek Conservation Area	Existing vegetation and vegetation to be established	131
Thomas Mitchell Drive Off-site Offset Area	Existing vegetation and vegetation to be established	495
Thomas Mitchell Drive On-site Offset Area	Existing vegetation and vegetation to be established	222
Roxburgh Road 'Constable' Offset Area	Existing vegetation and vegetation to be established	110

Additional Off-site Offset Area <sup>1</sup>	Existing vegetation and vegetation to be established	250
Middle Deep Creek Offset Area	Existing vegetation and vegetation to be established	410
Rehabilitation Area <sup>2</sup>	Vegetation to be established	2,642
<b>Total<sup>3</sup></b>		<b>4,365</b>

<sup>1</sup> Refer to condition 37.

<sup>2</sup> Refer to the rehabilitation plan in Appendix 7.

<sup>3</sup> In accordance with Condition 13 of Schedule 2, the Proponent may manage the 4,365 ha of offsets for the Project, in conjunction with the 449 ha of additional offsets required under the separate Mt Arthur Underground Project.

37. By the end of 31 December 2014, unless otherwise agreed by the Secretary, the Proponent shall revise the offset strategy to identify the Additional Off-site Offset Area presented in Table 13 above. The revised strategy shall be prepared in consultation with OEH, and to the satisfaction of the Secretary.

*Note: The 250 hectare size for the Additional Off-site Offset Area identified in Table 13 above is to be taken as a minimum only. The actual size of the offset shall:*

- *be determined in consultation with OEH, and together with the other offset areas listed in Table 13, shall fully offset the biodiversity impacts of the project; and*
- *be adjusted to fully offset the biodiversity values that would be lost if any land within the biodiversity offset strategy identified in Table 13 is excised for the provision of public utilities or services, such as the Muswellbrook Sewage Treatment Plant.*

38. The Proponent shall ensure that the offset strategy and/or rehabilitation strategy is focused on the re-establishment of:

- (a) significant and/or threatened plant communities, including:
- Upper Hunter White Box – Ironbark Grassy Woodland;
  - Central Hunter Box – Ironbark Woodland;
  - Central Hunter Ironbark – Spotted Gum - Grey Box Forest;
  - Narrabeen Foothills Slaty Box Woodland;
  - Hunter Floodplain Red Gum Woodland Complex;
  - White Box Yellow Box Blakely's Red Gum Woodland;
  - Hunter Lowlands Red Gum Forest; and
- (b) significant and/or threatened plant species, including:
- River Red Gum (*Eucalyptus camaldulensis*);
  - Pine Donkey Orchid (*Diuris tricolor*);
  - Tiger Orchid (*Cymbidium canaliculatum*);
  - Weeping Myall (*Acacia pendula*); and
- (c) habitat for significant and/or threatened animal species.

### Long Term Security of Offsets

39. The Proponent shall make suitable arrangements to provide appropriate long term security for the:
- (a) biodiversity offset areas by 31 March 2015, unless otherwise agreed with the Secretary; and
- (b) re-established woodland in the Rehabilitation Area at least 2 years prior to the completion of open cut mining activities associated with the project,
- to the satisfaction of the Secretary and, with respect to the Thomas Mitchell Drive off-site offset area identified in Table 13 above, consult with Council.

### Biodiversity Management Plan

40. The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with OEH and Council, and be submitted to the Secretary for approval by the end of March 2015, unless otherwise agreed with the Secretary;
- (b) describe how the implementation of the offset strategy would be integrated with the overall rehabilitation of the site (see below);
- (c) include:
- (i) a description of the short, medium, and long term measures that would be implemented to:
- implement the offset strategy; and
  - manage the remnant vegetation and habitat on the site and in the offset areas;
- (ii) detailed performance and completion criteria for the implementation of the offset strategy;
- (iii) a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:



- implementing revegetation and regeneration within the disturbance areas and offset areas, including establishment of canopy, sub-canopy (if relevant), understorey and ground strata;
  - protecting vegetation and soil outside the disturbance areas;
  - rehabilitating creeks and drainage lines that occur on the site, both inside and outside the disturbance areas (such as the White's Creek Diversion), to ensure no net loss of aquatic habitat;
  - managing salinity;
  - conserving and reusing topsoil;
  - undertaking pre-clearance surveys;
  - managing impacts on fauna;
  - landscaping the site and along public roads (including Thomas Mitchell Drive, Denman Road, Edderton Road and Roxburgh Road) to minimise visual and lighting impacts;
  - collecting and propagating seed;
  - salvaging and reusing material from the site for habitat enhancement;
  - salvaging, transplanting and/or propagating threatened flora and native grassland, in accordance with the *Guidelines for the Translocation of Threatened Plants in Australia* (Vallee *et al.*, 2004);
  - controlling weeds and feral pests;
  - managing grazing and agriculture;
  - controlling access; and
  - bushfire management;
- (iv) a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria;
- (v) a description of the potential risks to successful revegetation, and a description of the contingency measures that would be implemented to mitigate these risks; and
- (vi) details of who would be responsible for monitoring, reviewing, and implementing the plan.

### Conservation Bond

41. Within 6 months of the approval of the Biodiversity Management Plan, the Proponent shall lodge a conservation and biodiversity bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan. The sum of the bond shall be determined by:
- (a) calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and
- (b) employing a suitably qualified quantity surveyor to verify the calculated costs, to the satisfaction of the Secretary.

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

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

#### Notes:

- *Alternative funding arrangements for long term management of the biodiversity offset strategy, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement or transfer to conservation reserve estate (or any other mechanism agreed with OEH) can be used to reduce the liability of the conservation and biodiversity 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.*

## REHABILITATION

### Rehabilitation Objectives

- 41A. The Proponent shall rehabilitate the site to the satisfaction of the DRE. The rehabilitation must comply with the objectives in Table 14, and be consistent with the rehabilitation plan shown in Appendix 7 and the final landform plan shown in Appendix 8.

Table 14: Rehabilitation Objectives

<b>Feature</b>	<b>Objective</b>
Mine site (as a whole)	<ul style="list-style-type: none"> <li>• Safe, stable and non-polluting</li> <li>• Final landforms designed to incorporate natural micro-relief and natural drainage lines to integrate with surrounding landforms</li> </ul>
Final voids	<ul style="list-style-type: none"> <li>• Designed as long term groundwater sinks and to maximise groundwater flows across back-filled pits to the final void</li> <li>• Minimise to the greatest extent practicable: <ul style="list-style-type: none"> <li>○ the size and depth of final voids</li> <li>○ the drainage catchment of final voids</li> <li>○ any high wall instability risk</li> <li>○ risk of flood interaction.</li> </ul> </li> </ul>
Agricultural land	<ul style="list-style-type: none"> <li>• Rehabilitate at least 33 hectares of Class II agricultural capability land in the area identified in the rehabilitation plan (see Appendix 7)</li> <li>• Rehabilitate other areas identified for agricultural use in the rehabilitation plan to sufficient agricultural capability to support grazing</li> </ul>
Revegetation areas	<ul style="list-style-type: none"> <li>• Restore at least 2,642 hectares of self-sustaining woodland ecosystems in accordance with the rehabilitation plan, including at least 500 hectares of White Box Yellow Box Blakely's Red Gum Woodland.</li> </ul>
Creek diversions and realignments	<ul style="list-style-type: none"> <li>• Flows to mimic pre-development flows for all flood events up to and including the 1 in 100 year ARI</li> <li>• Incorporate erosion control measures based on vegetation and engineering revetments</li> <li>• Incorporate structures for aquatic habitat</li> <li>• Revegetate with suitable native species</li> </ul>
Surface infrastructure	<ul style="list-style-type: none"> <li>• To be decommissioned and removed, unless DRE agrees otherwise.</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>

Note: The rehabilitation plan for the site is shown in Appendix 7.

### Rehabilitation Strategy

42. The Proponent shall prepare a revised Rehabilitation Strategy for the Mt Arthur mine complex to the satisfaction of the Secretary. This strategy must:
- be prepared in consultation with the DRE and Council, and be submitted to the Secretary for approval by the end of September 2015, unless otherwise agreed with the Secretary;
  - investigate options for:
    - increasing the area to be rehabilitated to woodland on the site;
    - reducing the size of final voids on site; and
    - beneficial future land use of disturbed areas, including voids;
  - describe and justify the proposed rehabilitation plan for the site, including the final landform and land use; and
  - include detailed rehabilitation objectives for the site that comply with and build on the objectives in Table 14.

Note: The strategy should build on the rehabilitation plan in Appendix 7.

### Progressive Rehabilitation

43. The Proponent shall carry out rehabilitation progressively, that is, as soon as reasonably practicable following disturbance (particularly on the face of emplacements that are visible off-site). Interim stabilisation measures must be implemented where reasonable and feasible to control dust emissions in disturbed areas that are not active and which are not ready for final rehabilitation.

Note: It is accepted that parts of the site that are progressively rehabilitated may be subject to further disturbance in future.

### Rehabilitation Management Plan

44. The Proponent shall prepare and implement a Rehabilitation Management Plan for the Mt Arthur mine complex to the satisfaction of the DRE. This plan must:
- submitted to DRE for approval by 30 September 2015;
  - be prepared in consultation with the Department, NOW, OEH and Council;
  - be prepared in accordance with relevant DRE guidelines;

- (d) describe how the rehabilitation of the site would be integrated with the implementation of the biodiversity offset strategy;
- (e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);
- (f) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, and address all aspects of rehabilitation including mine closure, final landform including final voids, and final land use;
- (g) include interim rehabilitation where necessary to minimise the area exposed for dust generation;
- (h) include a research program that seeks to improve the understanding and application of rehabilitation techniques and methods in the Hunter Valley;
- (i) include a program to monitor, independently audit and report on the effectiveness of the measures, and progress against the detailed performance and completion criteria; and
- (j) build to the maximum extent practicable on other management plans required under this approval.

## HERITAGE

### Aboriginal Heritage Management Plan

45. The Proponent shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with OEH, the Aboriginal community, Council and relevant landowners;
  - (b) include the following for the management of Aboriginal heritage on-site:
    - a plan of management for the Thomas Mitchell Drive Offsite Offset Area (identified in Condition 36); and
    - a program/procedures for:
      - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
      - protection and monitoring of Aboriginal sites outside the project disturbance area, including the scarred trees and axe grinding grooves identified on the site;
      - managing the discovery of any new Aboriginal objects or skeletal remains during the project;
      - maintaining and managing access to archaeological sites by the Aboriginal community;
      - ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage on the site; and
      - management of the "Fairford 1" site in situ, including reasonable and feasible measures to mitigate impacts on this site, until an agreement can be reached with relevant Aboriginal stakeholders and OEH, for its salvage and relocation.

### Historic Heritage Management Plan

- 45A. The Proponent shall prepare and implement a Historic Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with the Heritage Branch, Council, local historical organisations and relevant landowners;
  - (b) include the following for the management of other historic heritage on site:
    - conservation management plans for the Edinglassie and Rous Lench homesteads;
    - a detailed plan for the relocation of the Beer Homestead, including provision for a landscape study to determine the most appropriate location and an architectural report to determine the most sympathetic method for relocation; and
    - a program/procedures for:
      - photographic and archival recording of potentially affected heritage items;
      - protection and monitoring of heritage items outside the project disturbance area;
      - monitoring, notifying and managing the effects of blasting on potentially affected heritage items; and
      - additional archaeological excavation and/or recording of any significant heritage items requiring demolition.

## TRANSPORT

### Monitoring of Coal Transport

46. The Proponent shall keep records of the:
- (a) amount of coal transported from the site in each financial year;
  - (b) number of coal haulage train movements generated by the Mt Arthur mine complex (on a daily basis); and
  - (c) make these records available on its website at the end of each financial year.

## Road Upgrades and Maintenance

47. The Proponent shall:
- (a) contribute to the upgrade and maintenance of Thomas Mitchell Drive, proportionate to its impact (based on usage) on that infrastructure, in accordance with the Contributions Study prepared by GHD titled, "*Thomas Mitchell Drive Contributions Study, June 2014*" (or its latest version), unless otherwise agreed by the Secretary;
  - (b) upgrade the Thomas Mitchell Drive/New England Highway intersection to the satisfaction of the applicable roads authority, by the end of June 2011 unless otherwise agreed by the roads authority;
  - (c) upgrade the Thomas Mitchell Drive/Denman Road intersection to the satisfaction of the applicable roads authority, by the end of December 2017, unless otherwise agreed by the Secretary;
  - (d) realign Edderton Road and its intersection with Denman Road prior to mining within 200 metres of the road, to the satisfaction of Council and the RMS;
  - (e) upgrade the intersection of Edderton Road and the secondary site access road to the satisfaction of Council prior to using this road for deliveries to the relocated explosives facility; and
  - (f) maintain reasonable access to the summit of Mt Arthur for emergency services and legitimate users on a 24 hour per day basis, except for temporary closures as required for blasting.

The road or intersection upgrades referred to in this condition may be satisfied through funding the required upgrades, subject to the agreement of the applicable roads authority, and subject to providing the funding such that the upgrades can be completed within the stated timeframe.

For Thomas Mitchell Drive, the contributions must:

- (a) be paid to Council within three months of the GHD contributions study being issued by the Department for the upgrade works; and
- (b) be paid to Council in accordance with the maintenance schedule established in accordance with the Contributions Study during the life of the project, unless otherwise agreed with Council.

If there is any dispute between the Proponent and Council or the RMS in relation to the funding or completion of the upgrades, then any of the parties may refer the matter to the Secretary for resolution.

*Note:*

- *In making a determination about the applicable upgrade and maintenance contributions for Thomas Mitchell Drive, the Secretary shall take into account the contributions already paid and currently required to be paid towards the upgrade and maintenance of the local road network surrounding Muswellbrook under this approval and the planning agreement executed on 24 June 2011, and summarised in Appendix 9.*
- *For clarity it is noted that while the Proponent is required to upgrade the Thomas Mitchell Drive/Denman Road intersection in accordance with Condition 47 (c), it may receive contributions from other mining companies toward the cost of accelerating this upgrade, in proportion to the respective impacts of these other mine/s on this intersection, as identified in the Contributions Study prepared by GHD titled "Thomas Mitchell Drive Contributions Study, June 2014" (or its latest version), unless otherwise agreed with the Secretary.*

## Railway Crossing

48. The Proponent shall implement all reasonable and feasible measures to minimise blocking the railway crossing on Antiene Railway Station Road, to the satisfaction of the Secretary.

## Rail Loop Duplication

- 48A. The Proponent shall ensure that the rail loop duplication is undertaken in consultation with the ARTC and relevant infrastructure/land owners (including Council), and constructed to meet relevant standards and network interface requirements, to the satisfaction of ARTC.
- 48B. The Proponent shall prepare and implement a Construction Management Plan for the rail loop duplication and associated bridge widening to the satisfaction of the Secretary. This plan must be prepared in consultation with Council and ARTC, and must be submitted to the Secretary for approval prior to the commencement of construction activities for the rail duplication and associated bridge. The plan must describe how public safety and access to Thomas Mitchell Drive would be maintained during the construction period.

## VISUAL

### Mining Operations Additional Visual Impact Mitigation

49. By the end of December 2014, the Proponent shall revise the *Visual Impacts Management Report* prepared by AECOM in May 2011, to the satisfaction of the Secretary. The revised report must:
- (a) identify the privately-owned land that is likely to experience significant visual impacts during the project; and

- (b) describe (in general terms) the additional mitigation measures that could be implemented to reduce the visibility of the mine from these properties.

*Notes:*

- *The additional visual impact mitigation measures should be aimed at reducing the visibility of the mine from significantly affected residences or areas on privately-owned land subject to tourist and/or general public access or areas on the Woodlands thoroughbred horse stud with views of the project, and do not necessarily require measures to reduce visibility of the mine from other locations on affected properties. The additional visual impact mitigation measures do not necessarily have to include measures on the affected property itself (i.e. the additional measures may consist of measures outside the affected property boundary that provide an effective reduction in visual impacts).*
- *Except in exceptional circumstances, the Secretary will not require additional visual impact mitigation to be undertaken for residences that are more than 5 kilometres from the mining operations.*

50. Within 3 months of the Secretary approving this report, the Proponent shall advise all owners of privately-owned land identified in the report that they are entitled to additional mitigation measures to reduce the visibility of the mine from their properties.

51. Upon receiving a written request from an owner of privately-owned land identified in this report, or upon receiving a direction from the Secretary regarding any other privately-owned land, the Proponent shall implement additional visual impact mitigation measures (such as landscaping treatments or vegetation screens) in consultation with the landowner, and to the satisfaction of the Secretary.

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

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.

### **Visual Amenity and Lighting**

52. The Proponent shall:
- (a) implement all reasonable and feasible measures to mitigate visual and off-site lighting impacts of the project;
  - (b) ensure no outdoor lights shine above the horizontal; and
  - (c) ensure that all external lighting associated with the project complies with relevant Australian Standards, including *Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting*,
- to the satisfaction of the Secretary.

### **WASTE**

53. The Proponent shall:
- (a) minimise and monitor the waste generated by the project;
  - (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**

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

## **SCHEDULE 4 ADDITIONAL PROCEDURES**

### **NOTIFICATION OF LANDOWNERS**

1. By the end of September 2014, the Proponent shall ensure that the owners of the land listed in:
  - (a) Table 1 of schedule 3 have been notified in writing that they have the right to require the Proponent to acquire their land at any stage during the project;
  - (b) Table 1 (noise affected land) and Table 4 of schedule 3 have been notified in writing that they are entitled to ask the Proponent to install additional noise mitigation measures at their residence at any stage during the project; and
  - (c) Table 1 (air quality affected land) and Table 12 of schedule 3 have been notified in writing that they are entitled to ask the Proponent to install additional air quality mitigation measures at their residence at any stage during the project.
2. If the results of the monitoring required in schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria, except where a negotiated agreement has been entered into in relation to that impact, then the Proponent shall, within 2 weeks of obtaining the monitoring results notify the Secretary, the affected landowners and tenants (including tenants of mine-owned properties) accordingly, and provide regular monitoring results to each of these parties until the results show that the project is complying with the criteria in schedule 3.
3. The Proponent shall send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to all landowners and/or existing or future tenants (including tenants of mine owned properties) of properties where:
  - (a) the predictions in the EA identify that the dust emissions generated by the project are likely to be greater than the air quality land acquisition criteria in schedule 3; and
  - (b) monitoring results identify that the mine is exceeding the air quality land acquisition criteria in schedule 3, with such notice to be provided within 2 weeks of identifying the exceedance.
- 3A. The Proponent shall ensure that any receiver identified in condition 1 of schedule 4 is notified in writing of any change in the status of their acquisition or mitigation rights, at least 12 months prior to this change occurring, to the satisfaction of the Secretary.

### **INDEPENDENT REVIEW**

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

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

- (a) Commission and fund a suitably qualified, experienced and independent expert, whose appointment has been approved by the Secretary, to:
    - consult with the landowner to determine his/her concerns;
    - conduct monitoring to determine whether the project is complying with the relevant impact assessment criteria in schedule 3; and
    - if the project is not complying with these criteria then:
      - determine if the more than one mine is responsible for the exceedance, and if so the relative share of each mine regarding the impact on the land;
      - identify the measures that could be implemented to ensure compliance with the relevant criteria; and
  - (b) give the Secretary and landowner a copy of the independent review.
5. If the independent review determines that the project is complying with the relevant impact assessment 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 impact assessment criteria in schedule 3, and that the project is primarily responsible for this non-compliance, then the Proponent shall:

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

If the measures referred to in (a) do not achieve compliance with the air quality acquisition criteria in schedule 3, and the Proponent cannot secure a written agreement with the landowner to allow these exceedances within 3 months, then upon receiving a written request from the landowner, the

Proponent shall acquire all or part of the landowner's land in accordance with the procedures in conditions 7-8 below.

6. If the independent review determines that the relevant impact assessment criteria in schedule 3 are being exceeded, but that more than one mine is responsible for this non-compliance, then the Proponent shall, together with the relevant mine/s:
- (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent expert, and conduct further monitoring until there is compliance with the relevant criteria; or
  - (b) secure a written agreement with the landowner and other relevant mines to allow exceedances of the relevant impact assessment criteria in schedule 3, to the satisfaction of the Secretary.

If the measures referred to in (a) do not achieve compliance with the air quality acquisition criteria in schedule 3, and the Proponent together with the relevant mine/s cannot secure a written agreement with the landowner to allow these exceedances within 3 months, then upon receiving a written request from the landowner, the Proponent shall 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 7-8 below.

## LAND ACQUISITION

7. Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent shall make a binding written offer to the landowner based on:
- (a) the current market value of the landowner's interest in the property at the date of this written request, as if the property 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 property and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the 'additional noise mitigation measures' in condition 7 of schedule 3, or 'additional air quality mitigation measures' in condition 22 of schedule 3;
  - (b) the reasonable costs associated with:
    - relocating within the Muswellbrook, Singleton or Scone local government area, or to any other local government area determined by the Secretary; and
    - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and
  - (c) reasonable compensation for any disturbance caused by the land acquisition process.

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

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

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

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

However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Secretary shall 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, and the detailed report of the party that disputes the independent valuer's determination. Within 14 days of this determination, the Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the Secretary's determination.

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

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



## **SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING**

### **ENVIRONMENTAL MANAGEMENT**

#### **Environmental Management Strategy**

1. The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Secretary. The strategy must:
  - (a) provide the strategic framework for environmental management of the project;
  - (b) identify the statutory approvals that apply to the project;
  - (c) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;
  - (d) describe the procedures that would be implemented to:
    - keep the local community and relevant agencies informed about the operation and environmental performance of the project;
    - receive, handle, respond to, and record complaints;
    - resolve any disputes that may arise during the course of the project;
    - respond to any non-compliance;
    - respond to emergencies; and
  - (e) include:
    - copies of the various strategies, plans and programs that are required under the conditions of this approval once they have been approved; and
    - a clear plan depicting all the monitoring to be carried out in relation to the project.

#### **Management Plan Requirements**

2. The Proponent shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:
  - (a) detailed baseline data;
  - (b) a description of:
    - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
    - any relevant limits or performance measures/criteria;
    - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;
  - (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
  - (d) a program to monitor and report on the:
    - impacts and environmental performance of the project;
    - effectiveness of any management measures (see c above);
  - (e) a contingency plan to manage any unpredicted impacts and their consequences;
  - (f) a program to investigate and implement ways to improve the environmental performance of the project over time;
  - (g) a protocol for managing and reporting any:
    - incidents;
    - complaints;
    - non-compliances with statutory requirements; and
    - exceedances of the impact assessment criteria and/or performance criteria; and
  - (h) a protocol for periodic review of the plan.

#### **Annual Review**

3. By the end of June each year, the Proponent shall review the environmental performance of the project to the satisfaction of the Secretary. This review must:
  - (a) describe the works that were carried out in the past year, and the works that are proposed to be carried out over the next year;
  - (b) include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against the
    - the relevant statutory requirements, limits or performance measures/criteria;
    - the monitoring results of previous years; and
    - the relevant predictions in the EA;
  - (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
  - (d) identify any trends in the monitoring data over the life of the project;
  - (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and
  - (f) describe what measures will be implemented over the next year to improve the environmental performance of the project.

## Revision of Strategies, Plans and Programs

4. Within 3 months of:
  - (a) the submission of an annual review under condition 3 above;
  - (b) the submission of an incident report under condition 7 below;
  - (c) the submission of an audit under condition 9 below; or
  - (d) any modification to the conditions of this approval,the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within four weeks of the review the revised document must be submitted to the Secretary for approval.

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

## Community Consultative Committee

5. The Proponent shall establish and operate a CCC for the project to the satisfaction of the Secretary. This CCC must be established by the end of March 2011 and be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version).

### Notes:

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.*
- *In accordance with the Guideline, the Committee should comprise an independent chair and appropriate representation from the Proponent, affected councils and the general community.*

## Management of Cumulative Impacts

6. In conjunction with the owners of the nearby Drayton and Bengalla mines, the Proponent shall use its best endeavours to minimise the cumulative impacts of the project on the surrounding area to the satisfaction of the Secretary.

*Note: Nothing in this approval is to be construed as requiring the Proponent to act in a manner which is contrary to the Trade Practices Act 1974.*

## REPORTING

### Incident Reporting

7. The Proponent shall immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Proponent shall provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

### Regular Reporting

8. The Proponent shall provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval, and to the satisfaction of the Secretary.

## INDEPENDENT ENVIRONMENTAL AUDIT

9. By the end of June 2014, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
  - (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
  - (b) include consultation with the relevant agencies;
  - (c) assess the environmental performance of the project and assess whether it is complying with the requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);
  - (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and
  - (e) recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under the abovementioned approvals.

### Notes:

- *This audit team must be led by a suitably qualified auditor and include experts in surface water, groundwater and any other fields specified by the Secretary.*
- *The audits should be coordinated with similar auditing requirements for the Mt Arthur Underground Project.*

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

#### **ACCESS TO INFORMATION**

11. From the end of December 2010, the Proponent shall:
- (a) make the following information publicly available on its website:
- a copy of all current statutory approvals for the project;
  - a copy of the current environmental management strategy and associated plans and programs;
  - a summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval;
  - a complaints register, which is to be updated on a monthly basis;
  - a copy of the minutes of CCC meetings;
  - a copy of any Annual Reviews (over the last 5 years);
  - a copy of any Independent Environmental Audit, and the Proponent's response to the recommendations in any audit;
  - any other matter required by the Secretary; and
- (b) keep this information up to date,  
to the satisfaction of the Secretary.
-

**APPENDIX 1  
SCHEDULE OF LAND**

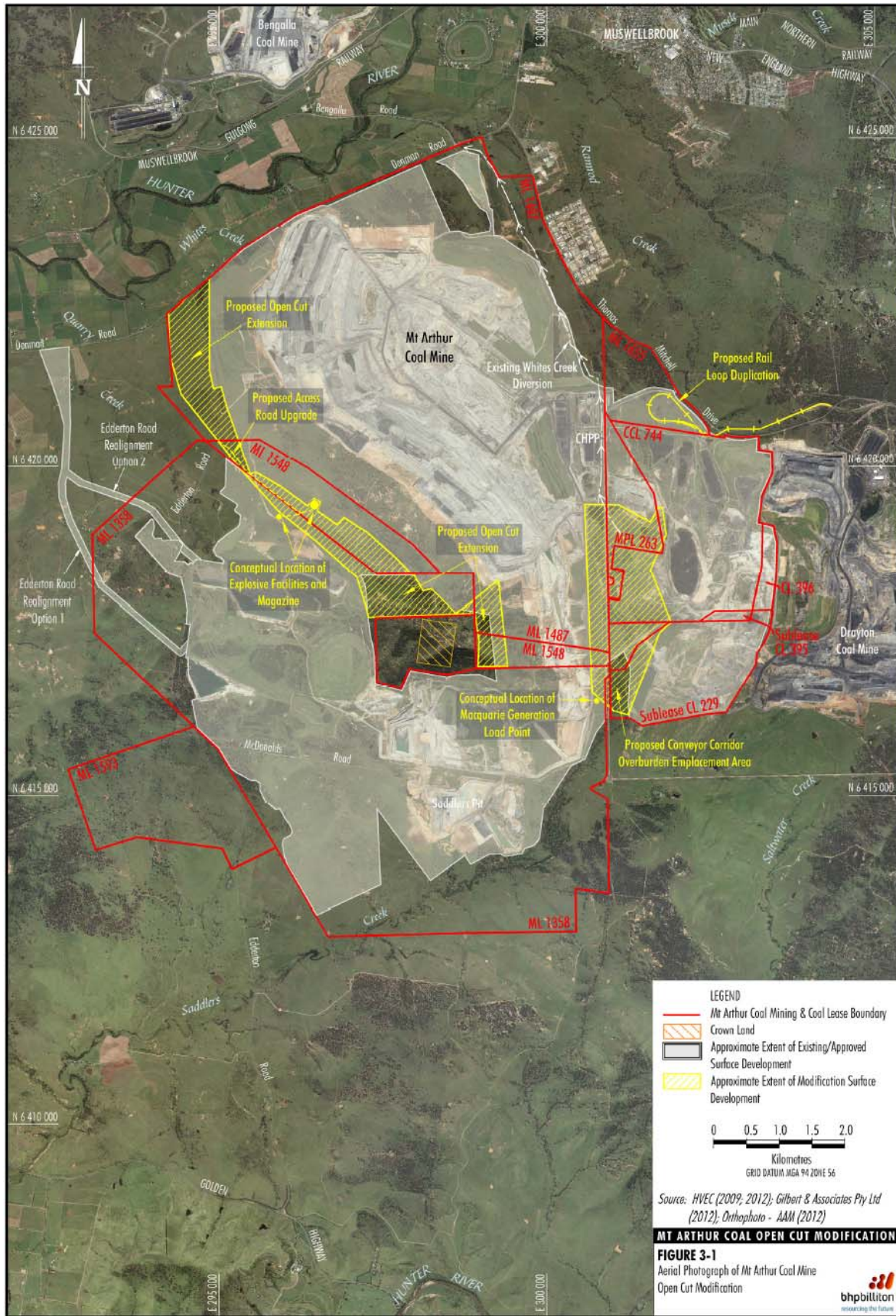
**MT ARTHUR COAL OPEN CUT MODIFICATION  
ATTACHMENT A TO REQUEST TO MODIFY A MAJOR PROJECT FORM**

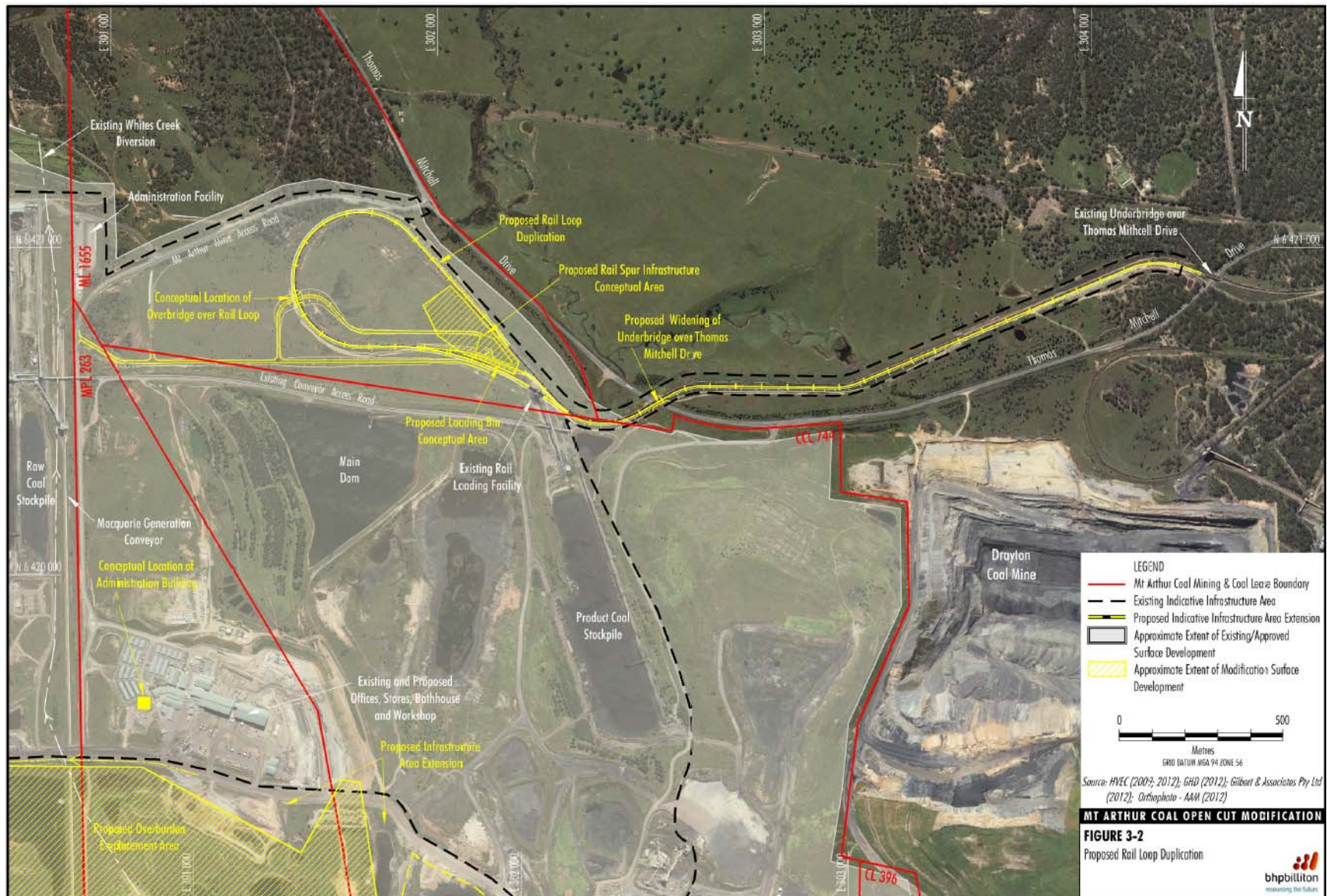
<b>Property Ownership within EA Boundary</b>		
<b>Ownership</b>	<b>Lot</b>	<b>DP</b>
Anglo Coal (Drayton Management) Pty Limited	321	625513
Anglo Coal (Drayton Management) Pty Limited	3	701496
Anglo Coal (Drayton Management) Pty Limited	4	701496
Anglo Coal (Drayton Management) Pty Limited	6	701496
Anglo Coal (Drayton Management) Pty Limited	8	843635
Anglo Coal (Drayton Management) Pty Limited	64	850818
Anglo Coal (Drayton Management) Pty Limited	65	850818
Anglo Coal (Drayton Management) Pty Limited	1	1004725
Anglo Coal (Drayton Management) Pty Limited	22	1018587
Anglo Coal (Drayton Management) Pty Limited	180	812852
Crown	2	48776
Crown	3	48776
Crown	4	48776
Crown	5	48776
Crown	6	48776
Crown	7	48776
Crown	8	48776
Crown	7003	93323
Crown	11	632691
Crown	160	722249
Crown	1	752486
Crown	85	752500
Crown	10	793428
Crown	1	532672
Crown	108	43392
Crown	1	47302
Freehold (Private Landholding)	4	6090
Freehold (Private Landholding)	1	34397
Freehold (Private Landholding)	2	34397
Freehold (Energy Australia)	1	223018
Freehold (Muswellbrook Council)	112	633293
Freehold (Private Landholding)	1	752441
Freehold (Private Landholding)	97	752441
Freehold (Private Landholding)	98	752441
Freehold (Private Landholding)	102	752441
Freehold (Private Landholding)	1	956112
Freehold (Private Landholding)	68	752500
Freehold (Private Landholding)	69	752500
Freehold (Private Landholding)	70	752500
Freehold (Private Landholding)	71	752500
Hunter Valley Energy Coal Limited	5	726248
Hunter Valley Energy Coal Limited	111	633293
Hunter Valley Energy Coal Limited	1	1090735
Hunter Valley Energy Coal Limited	2	1090735
Hunter Valley Energy Coal Limited	3	1090735
Hunter Valley Energy Coal Limited	4	1090735
Hunter Valley Energy Coal Limited	5	1090735
Hunter Valley Energy Coal Limited	6	1090735
Hunter Valley Energy Coal Limited	8	26211
Hunter Valley Energy Coal Limited	9	26211
Hunter Valley Energy Coal Limited	10	26211
Hunter Valley Energy Coal Limited	1	27346

Property Ownership within EA Boundary		
Ownership	Lot	DP
Hunter Valley Energy Coal Limited	2	27346
Hunter Valley Energy Coal Limited	3	27346
Hunter Valley Energy Coal Limited	4	27346
Hunter Valley Energy Coal Limited	5	27346
Hunter Valley Energy Coal Limited	6	27346
Hunter Valley Energy Coal Limited	7	27346
Hunter Valley Energy Coal Limited	8	27346
Hunter Valley Energy Coal Limited	11	27346
Hunter Valley Energy Coal Limited	12	27346
Hunter Valley Energy Coal Limited	13	27346
Hunter Valley Energy Coal Limited	14	27346
Hunter Valley Energy Coal Limited	15	27346
Hunter Valley Energy Coal Limited	16	27346
Hunter Valley Energy Coal Limited	1	29950
Hunter Valley Energy Coal Limited	2	29950
Hunter Valley Energy Coal Limited	3	29950
Hunter Valley Energy Coal Limited	4	29950
Hunter Valley Energy Coal Limited	5	29950
Hunter Valley Energy Coal Limited	6	29950
Hunter Valley Energy Coal Limited	7	29950
Hunter Valley Energy Coal Limited	8	29950
Hunter Valley Energy Coal Limited	9	29950
Hunter Valley Energy Coal Limited	10	29950
Hunter Valley Energy Coal Limited	11	29950
Hunter Valley Energy Coal Limited	12	29950
Hunter Valley Energy Coal Limited	1	101142
Hunter Valley Energy Coal Limited	1	113689
Hunter Valley Energy Coal Limited	1	133634
Hunter Valley Energy Coal Limited	2	133634
Hunter Valley Energy Coal Limited	1	204369
Hunter Valley Energy Coal Limited	4	204369
Hunter Valley Energy Coal Limited	13	228159
Hunter Valley Energy Coal Limited	115	246348
Hunter Valley Energy Coal Limited	111	246348
Hunter Valley Energy Coal Limited	112	246348
Hunter Valley Energy Coal Limited	113	246348
Hunter Valley Energy Coal Limited	114	246348
Hunter Valley Energy Coal Limited	4	247064
Hunter Valley Energy Coal Limited	1	249536
Hunter Valley Energy Coal Limited	2	249536
Hunter Valley Energy Coal Limited	3	249536
Hunter Valley Energy Coal Limited	4	249536
Hunter Valley Energy Coal Limited	5	249536
Hunter Valley Energy Coal Limited	6	249536
Hunter Valley Energy Coal Limited	1	308136
Hunter Valley Energy Coal Limited	1	372862
Hunter Valley Energy Coal Limited	1	385720
Hunter Valley Energy Coal Limited	2	385720
Hunter Valley Energy Coal Limited	2	387021
Hunter Valley Energy Coal Limited	3	387021
Hunter Valley Energy Coal Limited	4	390143
Hunter Valley Energy Coal Limited	1	403081
Hunter Valley Energy Coal Limited	A	407349
Hunter Valley Energy Coal Limited	C	407349

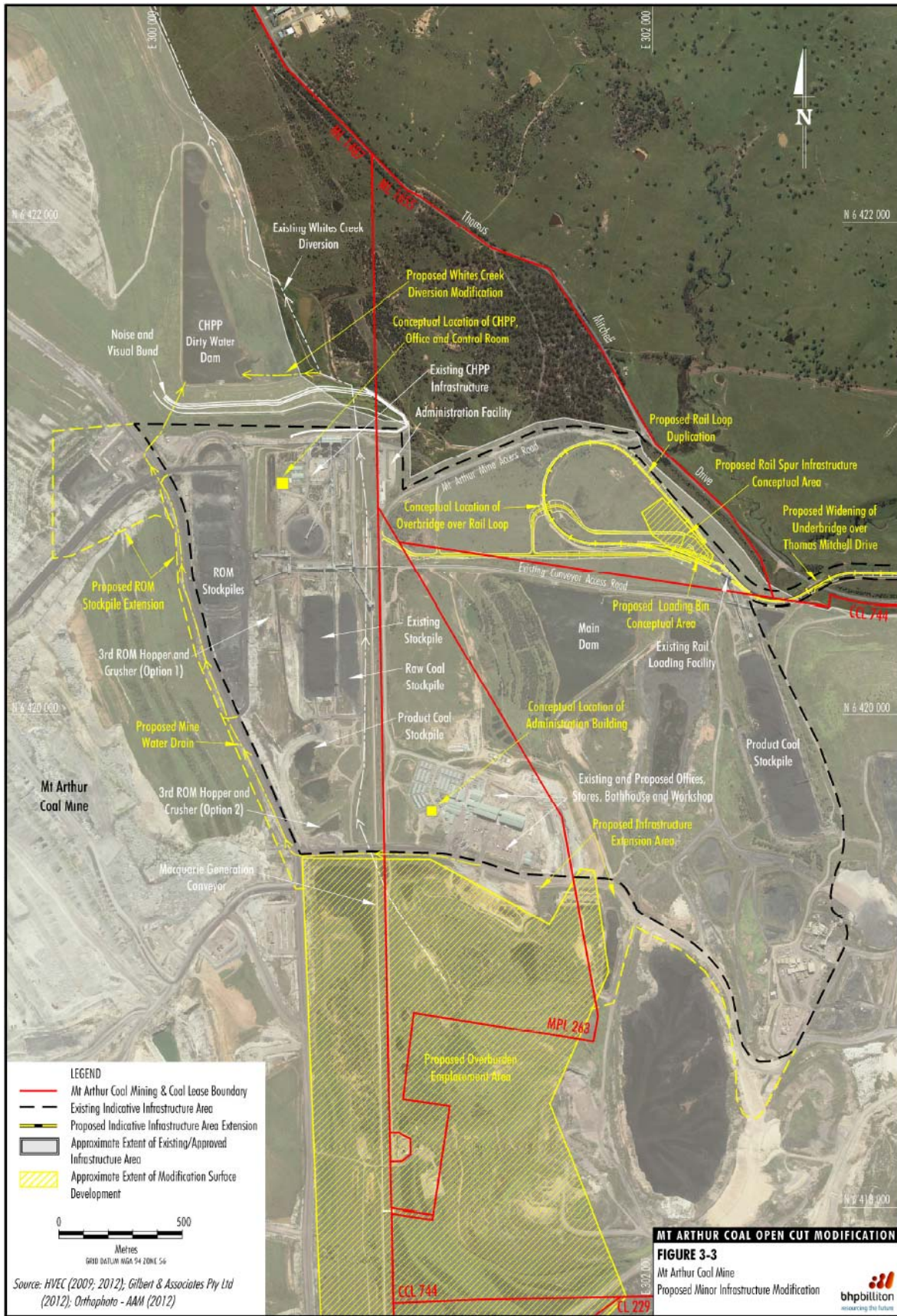
Property Ownership within EA Boundary		
Ownership	Lot	DP
Hunter Valley Energy Coal Limited	1	503827
Hunter Valley Energy Coal Limited	111	514759
Hunter Valley Energy Coal Limited	112	514759
Hunter Valley Energy Coal Limited	1	515936
Hunter Valley Energy Coal Limited	2	515936
Hunter Valley Energy Coal Limited	11	526344
Hunter Valley Energy Coal Limited	20	550431
Hunter Valley Energy Coal Limited	1	573259
Hunter Valley Energy Coal Limited	2	573259
Hunter Valley Energy Coal Limited	121	575515
Hunter Valley Energy Coal Limited	122	575515
Hunter Valley Energy Coal Limited	123	575515
Hunter Valley Energy Coal Limited	124	575515
Hunter Valley Energy Coal Limited	2	601359
Hunter Valley Energy Coal Limited	10	632691
Hunter Valley Energy Coal Limited	9	655749
Hunter Valley Energy Coal Limited	159	722249
Hunter Valley Energy Coal Limited	110	727767
Hunter Valley Energy Coal Limited	63	752449
Hunter Valley Energy Coal Limited	49	752500
Hunter Valley Energy Coal Limited	83	752500
Hunter Valley Energy Coal Limited	154	752500
Hunter Valley Energy Coal Limited	166	752503
Hunter Valley Energy Coal Limited	30	787702
Hunter Valley Energy Coal Limited	604	802124
Hunter Valley Energy Coal Limited	605	802124
Hunter Valley Energy Coal Limited	607	802124
Hunter Valley Energy Coal Limited	1	806149
Hunter Valley Energy Coal Limited	2	806149
Hunter Valley Energy Coal Limited	201	842045
Hunter Valley Energy Coal Limited	1	843634
Hunter Valley Energy Coal Limited	2	843634
Hunter Valley Energy Coal Limited	3	843634
Hunter Valley Energy Coal Limited	4	843634
Hunter Valley Energy Coal Limited	6	843635
Hunter Valley Energy Coal Limited	7	843635
Hunter Valley Energy Coal Limited	9	843635
Hunter Valley Energy Coal Limited	66	850818
Hunter Valley Energy Coal Limited	21	1018587
Hunter Valley Energy Coal Limited	113	1078759
Hunter Valley Energy Coal Limited	115	1078759
Macquarie Generation	1	790994
Macquarie Generation	181	812852
Macquarie Generation	46	241179
Macquarie Generation	45	241179
Macquarie Generation	44	241179
Macquarie Generation	1	556370
Macquarie Generation	1	238862
Macquarie Generation	PT5	752486
Macquarie Generation	PT2	752486
Macquarie Generation	22	241179

## APPENDIX 2 PROJECT LAYOUT PLANS









## APPENDIX 3 PREVIOUS EAs

### **Mt Arthur North Mine**

Development Application 144-05-2000 and Environmental Impact Statement titled *The Mt Arthur North Coal Project*, dated April 2000, and prepared by URS Australia, as amended by the following:

- Submissions to the Commission of Inquiry; and
- the 2002 modification application, including the plans titled *Mount Arthur North Industrial Area Facilities – General Arrangement*, prepared by Sinclair Knight Merz, dated 26 November 2002.

### **South Pit Extension Project**

Project Application 06\_0108 and Environmental Assessment titled *Proposed South Pit Extension Project*, dated July 2007, including the response to submissions dated November 2007.

### **Bayswater No.3 Mine**

Development Application 210/93 and Environmental Impact Statement dated November 1993, and prepared by Resource Planning Pty Ltd, as amended by the following:

- Submissions to the Commission of Inquiry;
- the modification application and accompanying Statement of Environmental Effects, dated September 1999; and
- the modification application and accompanying Statement of Environmental Effects, dated 1 March 2001.

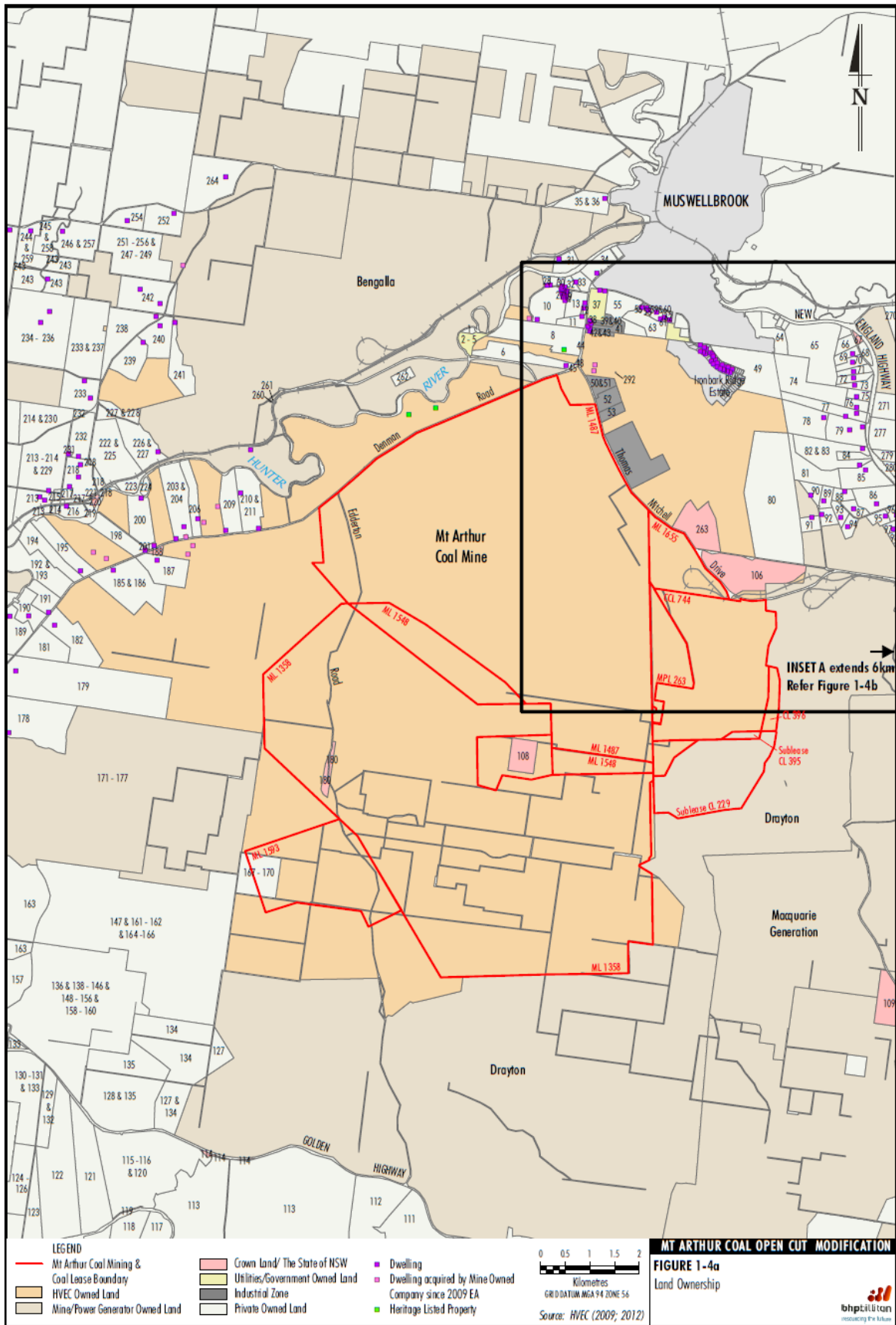
### **Bayswater Rail Loading Facility and Rail Loop**

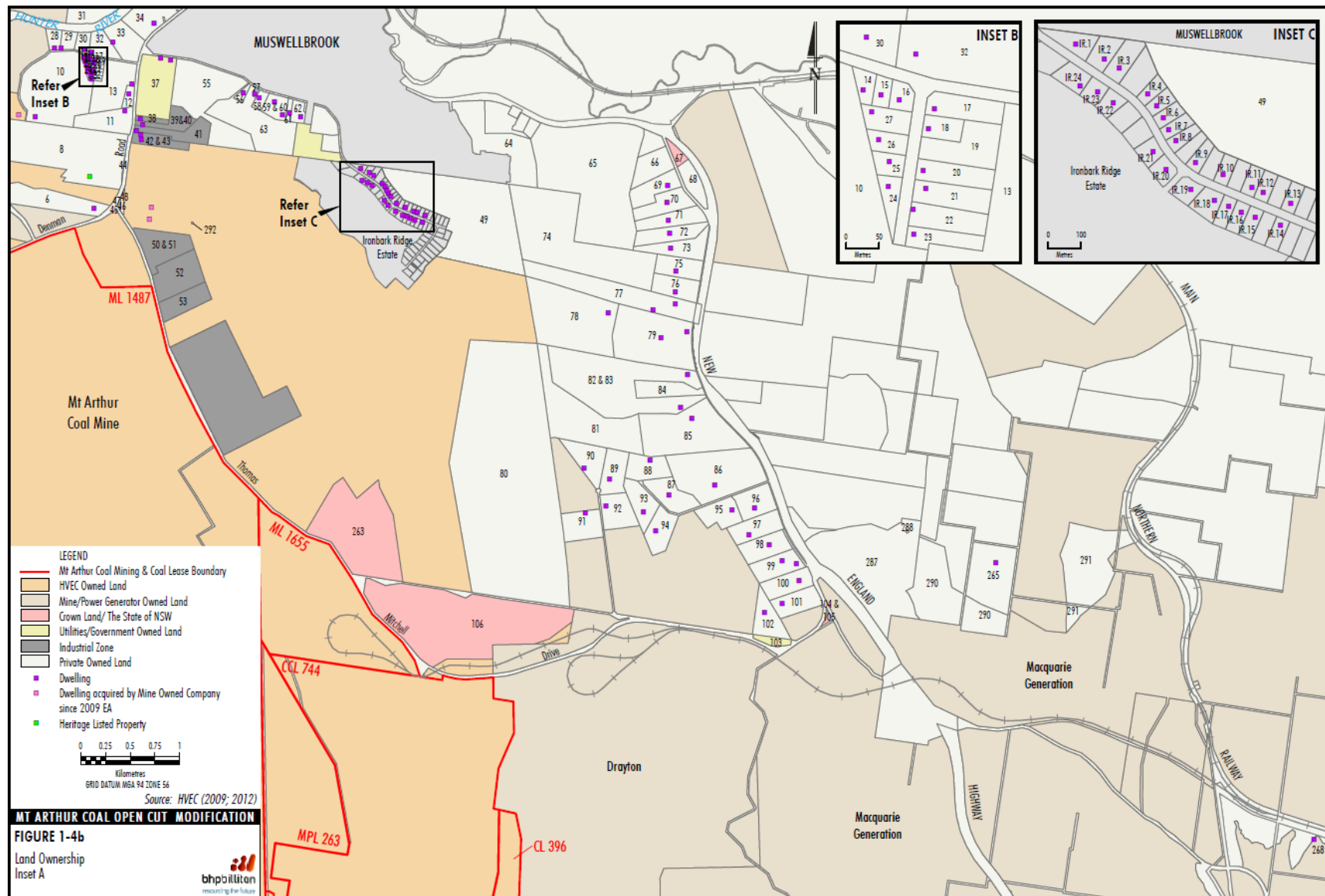
Development Application 105-04-00 and Environmental Impact Statement dated March 2000, and prepared by Umwelt (Australia) Pty Ltd.

### **Bayswater Coal Preparation Plant**

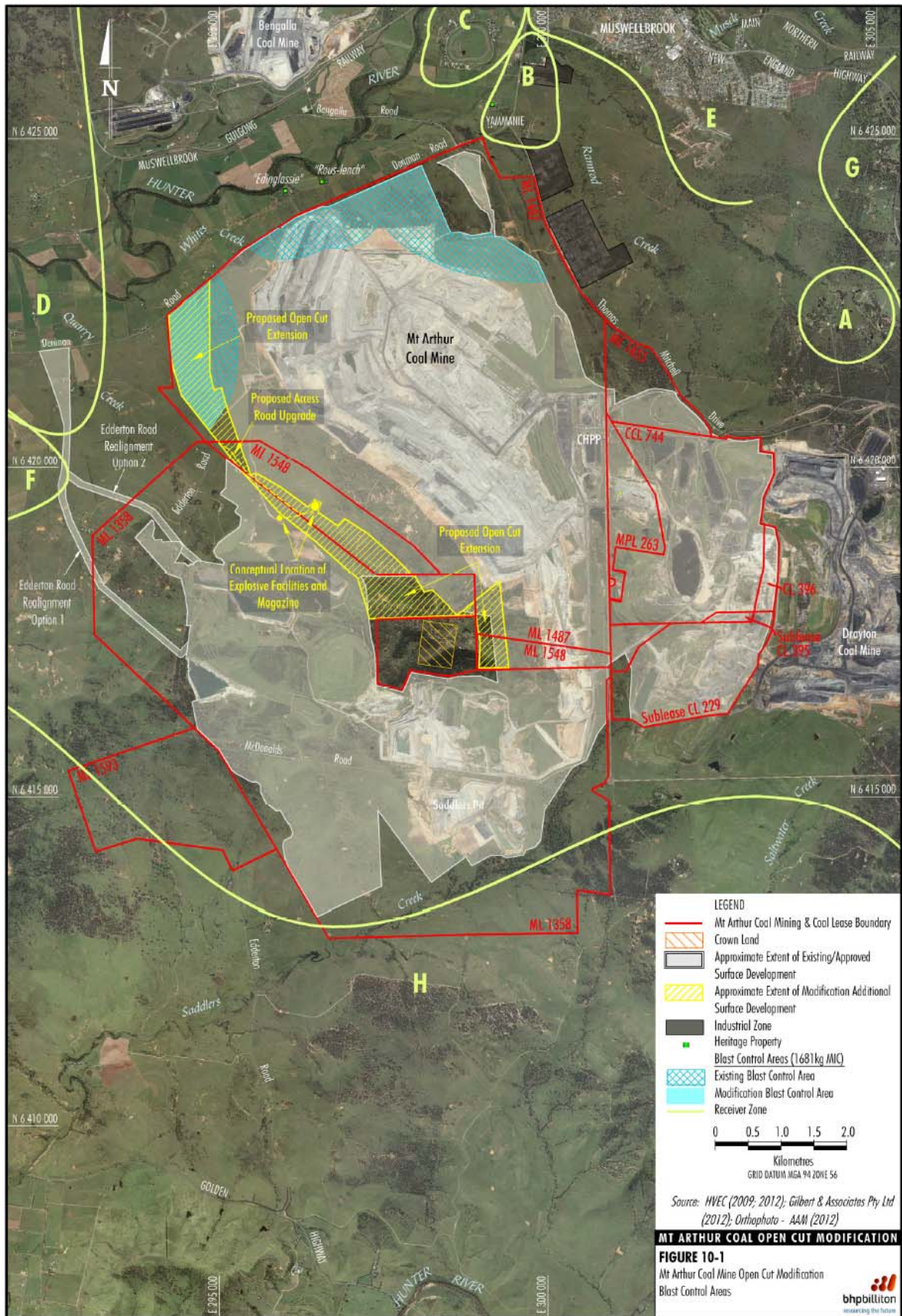
Development Application 24/97 and Environmental Impact Statement dated April 1997, and prepared by Umwelt (Australia) Pty Ltd.

## APPENDIX 4 RECEIVER LOCATION PLANS

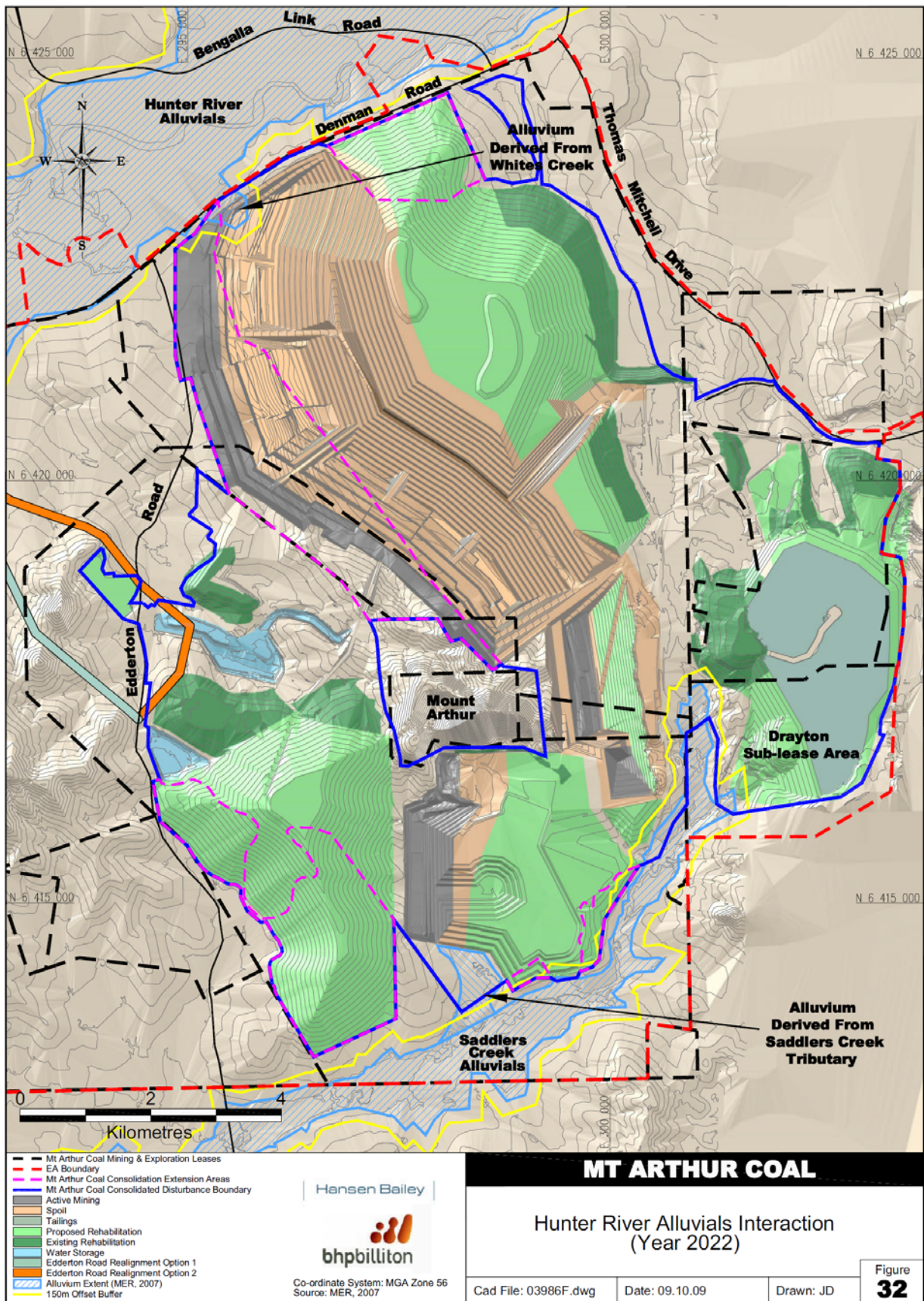




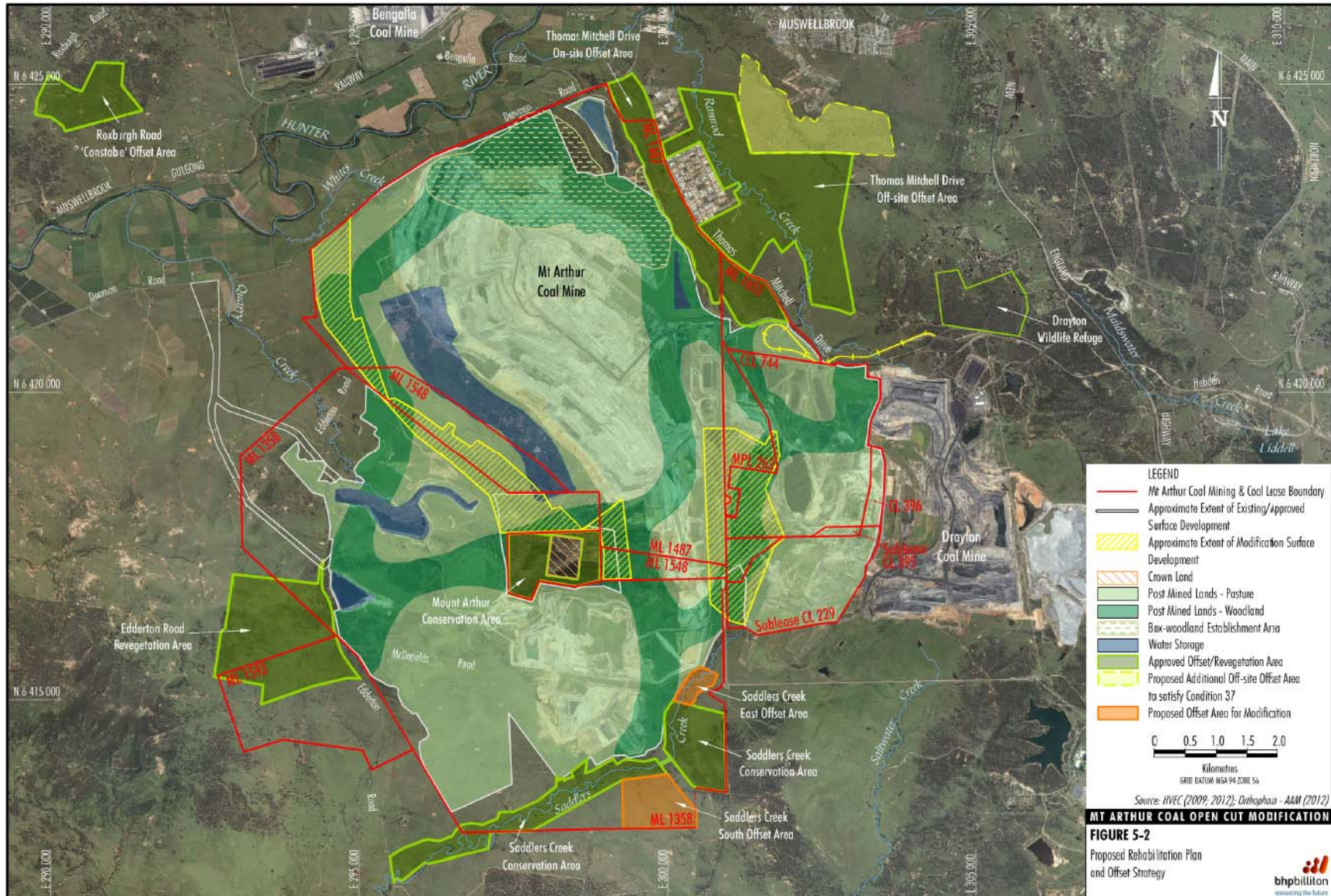
## APPENDIX 5 BLAST CONTROL AREA

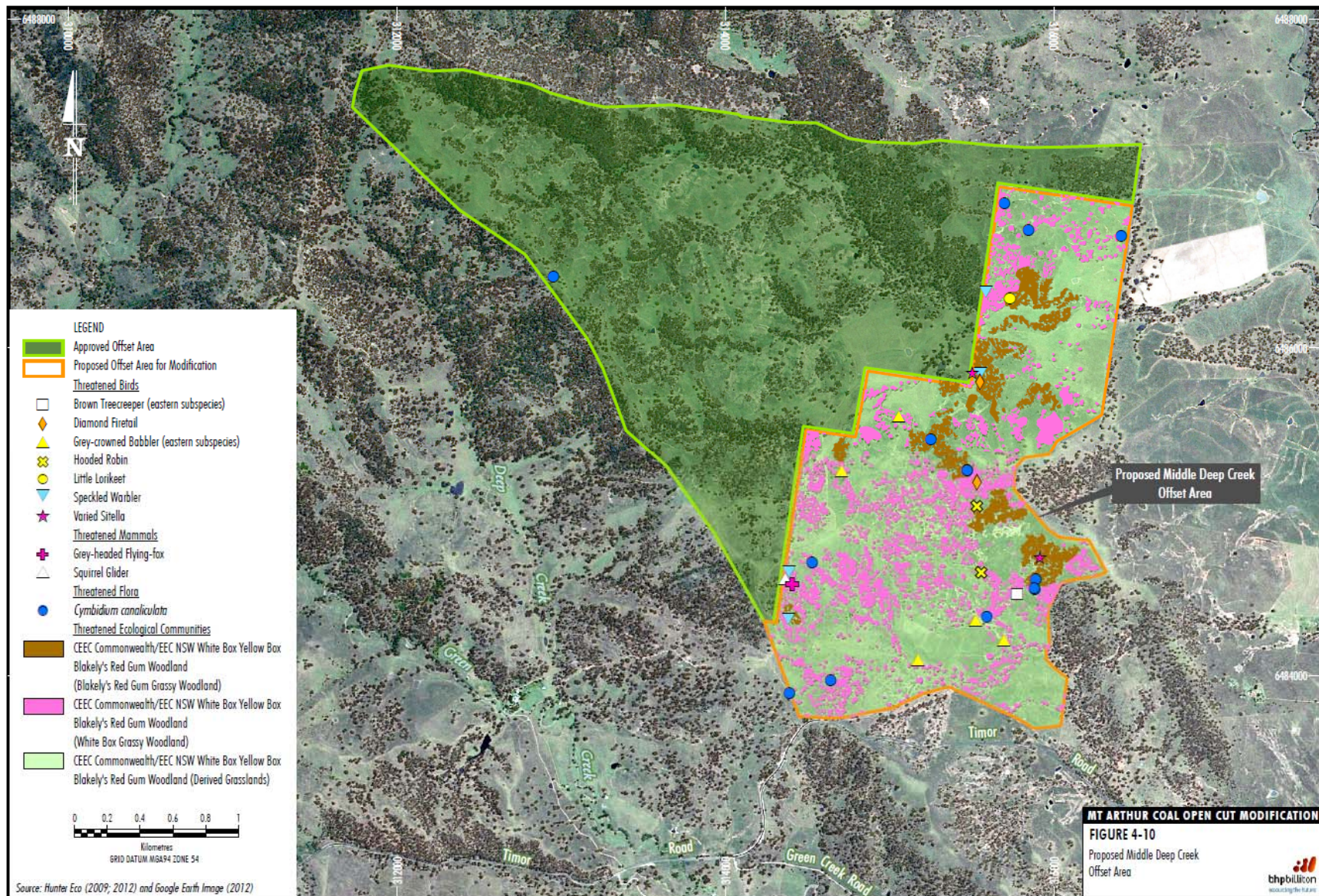


APPENDIX 6  
HUNTER RIVER AND SADDLERS CREEK ALLUVIALS



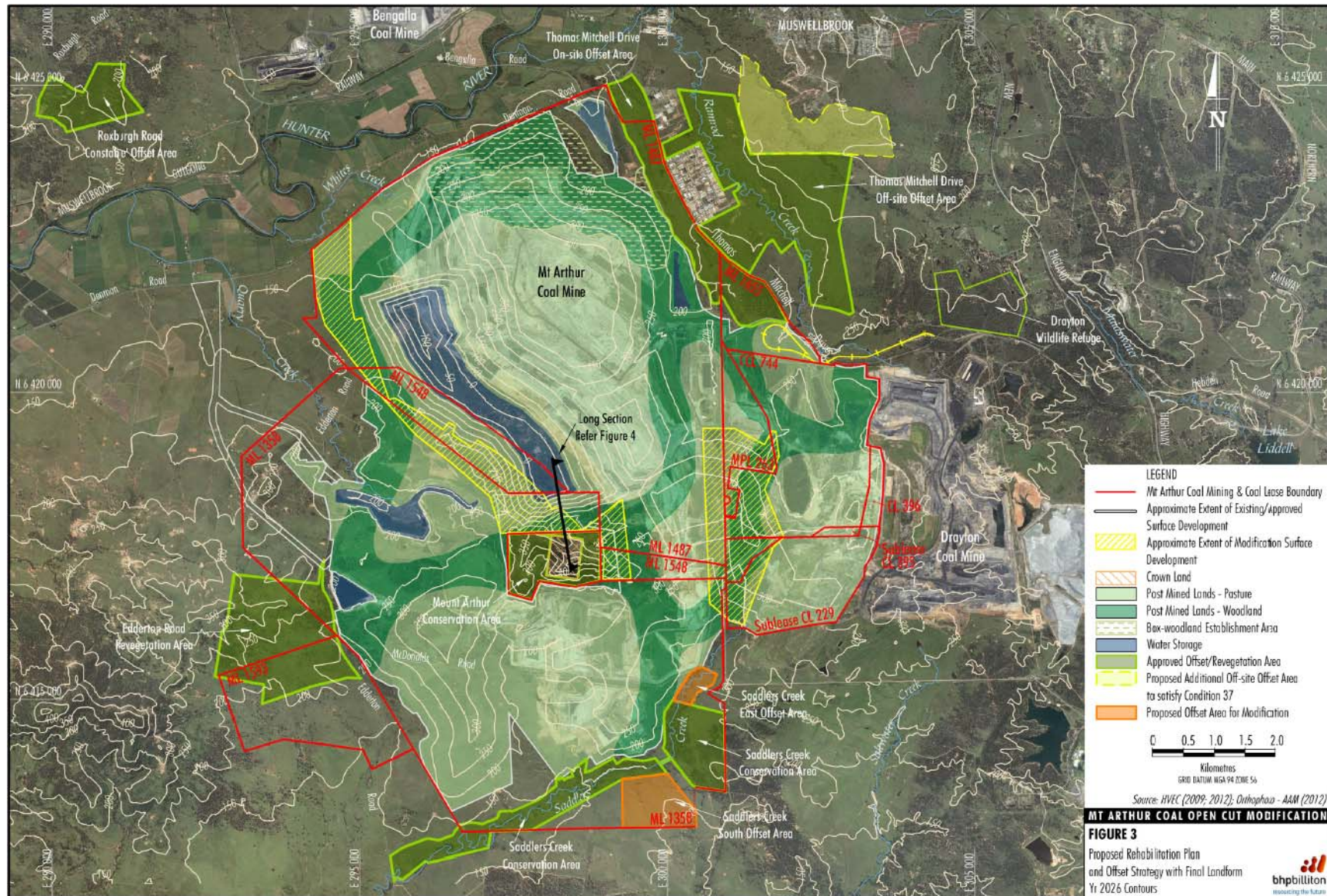
## APPENDIX 7 BIODIVERSITY OFFSET STRATEGY AND REHABILITATION PLAN







## APPENDIX 8 FINAL LANDFORM PLAN



**APPENDIX 9  
GENERAL TERMS OF THE PLANNING AGREEMENT**

<b>Funding Area</b>	<b>Proponent Contribution</b>	<b>Notes / Funding Time Frame</b>
Thomas Mitchell Drive Upgrade	\$3,000,000, plus \$4,060,000 capital	The total contribution of \$7,060,000 will be payable in yearly instalments to match execution of the works.  The \$4,060,000 capital will be repayable to the Proponent by Council from contributions from other projects/developments, in accordance with the terms of the planning agreement.
Thomas Mitchell Drive Maintenance	\$120,000 per annum (max.)	Contributions to start at year 2 of the completion of the Thomas Mitchell Drive upgrade works (contributions to be staged if the upgrade works are staged).
Mt Arthur Coal Community Fund	\$500,000 per annum	Contributions to start on commencement of construction.
Council Environmental Assessment	\$20,000 per annum	Contributions to start on commencement of construction.

## **APPENDIX 10 NOISE COMPLIANCE ASSESSMENT**

### **Applicable Meteorological Conditions**

1. The noise criteria in Table 2 of Schedule 3 are to apply under all meteorological conditions except the following:
  - (a) during periods of rain or hail;
  - (b) average wind speed at microphone height exceeds 5 m/s;
  - (c) wind speeds greater than 3 m/s measured at 10 m above ground level; or
  - (d) temperature inversion conditions greater than 3°C/100 m, or alternatively stability class F and G.

### **Determination of Meteorological Conditions**

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

### **Compliance Monitoring**

3. Attended monitoring is to be used to determine compliance with the relevant conditions of this Approval.
4. This monitoring must be carried out at least once a month (but at least two weeks apart), unless the Secretary directs otherwise.

*Note: The Secretary may direct that the frequency of attended monitoring increase or decrease at any time during the life of the project.*

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