

# Development Consent

## Section 80 of the *Environmental Planning & Assessment Act 1979*

I, the Minister Assisting the Minister for Infrastructure and Planning (Planning Administration), approve the Development Application referred to in Schedule 1, subject to the conditions in Schedules 3 to 6.

These conditions are required to:

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

Diane Beamer MP  
**Minister Assisting the  
Minister for Infrastructure and Planning  
(Planning Administration)**

Sydney,

2004

File No: S02/02148

Blue type represents April 2006 modification (4-1-2006)

Red type represents October 2006 modification (113-9-2006)

Green type represents October 2007 modification (1-10-2007)

Purple type represents July 2010 modification

Taupe type represents October 2013 modification

Orange type represents October 2016 modification

### SCHEDULE 1

**Development Application:** DA 376-8-2003;

**Applicant:** Bulga Coal Management Pty Limited;

**Consent Authority:** Minister for Infrastructure and Planning;

**Land:** See Appendix 1;

**Proposed Development:** The development of underground mining operations at the Bulga Complex in general accordance with the Environmental Impact Statement for *the Bulga Coal Continued Underground Operations*, which includes:

- underground mining in 4 coal seams, producing up to 14 million tonnes of run-of-mine (ROM) coal a year;
- processing a maximum of 20 million tonnes of ROM coal a year from the Bulga Complex (which includes open cut and underground mining operations);
- constructing a range of associated infrastructure, including new amenities, offices, road intersections, coal conveyors, gas drainage plants, and gas drainage and dewatering bores;
- using, and in some cases upgrading existing infrastructure; and
- transporting coal to Newcastle Port by rail.

**State Significant Development:**

The proposal is classified as State significant development, under section 76A(7) of the *Environmental Planning & Assessment Act 1979*, because it involves coal-mining related development that requires a new mining lease under section 63 of the *Mining Act 1992*.

**Integrated Development:**

The proposal is classified as integrated development, under section 91 of the *Environmental Planning & Assessment Act 1979*, because it requires additional approvals under the:

- *Protection of the Environment Operations Act 1997*;
- *National Parks & Wildlife Act 1974*;
- *Water Act 1912*;
- *Roads Act 1993*; and
- *Mine Subsidence Compensation Act 1961*.

**Designated Development:**

The proposal is classified as designated development, under section 77A of the *Environmental Planning & Assessment Act 1979*, because it is for an underground coal mine, and consequently meets the criteria for designated development in schedule 3 of the *Environmental Planning & Assessment Regulation 2000*.

**BCA Classification:**

Class 5:	Offices
Class 6:	Crib room
Class 8:	Workshop
Class 9b:	Bathhouse
Class 10a:	Gas drainage bore infrastructure De-watering bore infrastructure
Class 10b:	Coal conveyor Coal stockpile

*Note:*

- 1) To find out when this consent becomes effective, see section 83 of the *Environmental Planning & Assessment Act 1979* (EP&A Act);
  - 2) To find out when this consent is liable to lapse, see section 95 of the EP&A Act; and
  - 3) To find out about appeal rights, see section 97 of the EP&A Act.
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## TABLE OF CONTENTS

<b>ADMINISTRATIVE CONDITIONS</b>	<b>7</b>
<b>SPECIFIC ENVIRONMENTAL CONDITIONS</b>	<b>9</b>
Acquisition Upon Request	9
Subsidence	9
Surface Infrastructure Management	12
Surface & Ground Water	12
Air Quality	15
Noise	18
Meteorological Monitoring	20
Aboriginal Heritage	20
Heritage	21
Flora & Fauna	21
Traffic & Transport	23
Visual Impact	23
Greenhouse Gas	23
Waste Minimisation	24
Hazards Management	24
Bushfire Management	24
Mine Exit Strategy	24
Rehabilitation	24
<b>ADDITIONAL PROCEDURES FOR AIR QUALITY, NOISE MANAGEMENT AND SUBSIDENCE MANAGEMENT</b>	<b>26</b>
Notification of Landowners	26
Independent Review	26
Land Acquisition	26
<b>ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING</b>	<b>28</b>
Environmental Management	28
Reporting	29
Independent Environmental Audit	30
Access to Information	30
<b>APPENDIX 1: SCHEDULE OF LAND</b>	<b>31</b>
<b>APPENDIX 2: RECEIVER LOCATION PLANS</b>	<b>34</b>
<b>APPENDIX 3: INDEPENDENT DISPUTE RESOLUTION PROCESS</b>	<b>35</b>
<b>APPENDIX 4: NOISE COMPLIANCE ASSESSMENT</b>	<b>36</b>
<b>APPENDIX 5: ALTERNATE NOISE CONDITIONS</b>	<b>37</b>
<b>APPENDIX 6: REHABILITATION VEGETATION COMMUNITIES</b>	<b>39</b>
<b>APPENDIX 7: WOLLOMBI BROOK CONSERVATION AREA</b>	<b>40</b>

## SCHEDULE 2 DEFINITIONS

Adaptive management	Adaptive management includes monitoring subsidence impacts and subsidence effects and, based on the results, modifying the mining plan as mining proceeds to ensure that the effects, impacts and/or associated environmental consequences remain within predicted and designated ranges and in compliance with the conditions of this consent
Annual Review	The review required by condition 4 of Schedule 6
Applicant	Bulga Coal Management Pty Limited, or its successors
BCA	Building Code of Australia
Blakefield North Mine	The underground mine in the Blakefield Seam set out in EA (MOD 5)
Bore	Any bore or well or excavation or other work connected or proposed to be connected with sources of sub-surface water, and used or proposed to be used or capable of being used to obtain supplies of such water whether the water flows naturally at all times or has to be raised whether wholly or at times by pumping or other artificial means
Built features	Includes any building or work erected or constructed on land, and includes dwellings and infrastructure such as any formed road, street, path, walk, or driveway and any pipeline, water, sewer, telephone, gas or other service main
Bulga Mining Complex	The development approved under this consent, together with the development approved under the consent for the Bulga Optimisation Project (SSD 4960), as modified, considered collectively
CCC	Community Consultative Committee
Conditions of this consent	Conditions contained in Schedules 3 to 6 inclusive
Construction	The demolition of buildings or works, carrying out of works and erection of buildings covered by this consent
Council	Singleton Shire Council
DA	Development Application
Day	Day is defined as the period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning and Environment
DPI Water	Department of Primary Industries - Water
DRE	Division of Resources and Energy within the Department of Industry
DSC	Dams Safety Committee
EA (MOD 4)	Modification application 376-8-2003 MOD 4, and accompanying Environmental Assessment prepared by Umwelt (Australia) Pty Limited titled <i>Environmental Assessment, Blakefield South Power Generation and Ventilation Air Methane Abatement</i> , dated December 2009, including the Response to Submissions dated 22 April 2010
EA (MOD 5)	Modification application 376-8-2003 MOD 5, and accompanying Environmental Assessment prepared by GSS Environmental titled <i>Proposed Modification to DA 376-8-2003 under Section 75W of Part 3A of the EP&amp;A Act 1979, Blakefield North Underground Mine Project</i> and Statement of Commitments, dated November 2012, including the Response to Submissions dated 8 April 2013
EA (MOD 6)	Modification application 376-8-2003 MOD 6, and accompanying Environmental Assessment prepared by Bulga Underground Operations Pty Ltd titled <i>Modification to Bulga Underground Operations (DA 376-8-2003) – Noise Criteria, Flora &amp; Fauna Criteria, and Independent Auditing</i> , dated 20 June 2016
EIS	Environmental Impact Statement prepared by Umwelt (Australia) Pty Ltd titled <i>Bulga Coal Continued Underground Operations</i> , volumes 1-5, dated July 2003
Environmental consequences	The environmental consequences of subsidence impacts, including: damage to built features; loss of surface water flows to the subsurface; loss of standing pools; adverse water quality impacts; development of iron bacterial mats; cliff falls; rock falls; damage to Aboriginal heritage sites; impacts on aquatic ecology; and ponding
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPA	Environment Protection Authority
EPL	Environment Protection Licence issued under the POEO Act
Evening	Evening is defined as the period from 6pm to 10pm
Executive Director Mineral Resources	Executive Director Mineral Resources within DRE, or the equivalent role
Feasible	Feasible relates to engineering considerations and what is practical to build or to implement

First workings	Development of main headings, longwall gate roads, related cut throughs and the like
Gas drainage well construction	Building, civil works and drilling associated with installing vertical, goaf or surface to in-seam wells
<b>GTA</b>	<b>General Term of Approval</b>
Heritage item	An item as defined under the <i>Heritage Act 1977</i> and/or an Aboriginal object or Aboriginal place as defined under the <i>National Parks and Wildlife Act 1974</i>
Incident	A set of circumstances that: <ul style="list-style-type: none"> <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 consent</li> </ul>
Land	As defined in the EP&A Act, except for where the term is used in noise and air quality-related conditions where it is defined to mean the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office
Land Acquisition Criteria	Land Acquisition Criteria for air quality impacts and noise impacts are applied at a dwelling and/or a proposed dwelling
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 all extraction, processing, handling, storage and transportation of coal carried out on the site
Minister	Minister for Planning, or delegate
Minor	Not very large, important or serious
Mitigation	Activities associated with reducing the impacts of the development prior to or during those impacts occurring
Night	Night is defined as the period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
OEH	Office of Environment and Heritage
Open cut mining operations	Includes overburden removal and the extraction, processing, handling, storage and transportation of coal under the consent for the Bulga Optimisation Project (SSD 4960), as modified
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
PCA	Principal Certifying Authority appointed under Section 109E of the EP&A Act
Privately-owned land	Land that is not owned by a public agency, or a mining company (or its subsidiary)
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Reasonable costs	The costs agreed between the Department and the Applicant for obtaining independent experts to review the adequacy of any aspects of the extraction plan, or where such costs cannot be agreed, the costs determined by a dispute resolution process
Rehabilitation	The treatment or management of land disturbed by the development for the purpose of establishing a safe, stable and non-polluting environment
Remediation	Activities associated with partially or fully repairing or rehabilitating the impacts of the development or controlling the environmental consequences of this impact
ROM Coal	Run-of-mine coal
Safe, serviceable & repairable	Safe means no danger to users who are present, serviceable means available for its intended use, and repairable means damaged components can be repaired economically
SANSW	Subsidence Advisory NSW
Second workings	Extraction of coal from longwall panels, mini-wall panels or pillar extraction
Secretary	Secretary of the Department, or nominee
SEE (MOD 1)	Modification application 4-1-2006, and accompanying Statement of Environmental Effects prepared by Umwelt (Australia) Pty Ltd titled <i>Section 96(1A) Modification of Bulga Coal Underground Operations (DA 376-8-2003) – Relocation of Men and Materials Drifts</i> , dated 23 December 2005
SEE (MOD 2)	Modification application 113-9-2006, and accompanying Statement of Environmental Effects prepared by Umwelt (Australia) Pty Ltd titled <i>Coal Handling and Processing Plant – Increased Throughput</i> , dated September 2006
SEE (MOD 3)	Modification application 19-3-2007, and accompanying Statement of Environmental Effects prepared by Umwelt (Australia) Pty Ltd titled <i>Statement of Environmental Effects for the Bulga Underground – Southern</i>

	<i>Mining Area Modification – Section 96(2) Application to Modify Consent DA 376-8-2003, dated March 2007, including the Response to Submissions dated July 2007</i>
Site	The land listed in Appendix 1
SMP	Subsidence Management Plan
Subsidence	The totality of subsidence effects, subsidence impacts and environmental consequences of subsidence impacts
Subsidence effects	Deformation of the ground mass due to mining, including all mining-induced ground movements, such as vertical and horizontal displacement, tilt, strain and curvature
Subsidence impacts	Physical changes to the ground and its surface caused by subsidence effects, including tensile and shear cracking of the rock mass, localised buckling of strata caused by valley closure and upsidence and surface depressions or troughs
Surface infrastructure	Includes ventilation shafts, gas drainage and gas flaring infrastructure, pit top facilities, access roads, offices, car parks, electrical sub-stations, and associated services and easements such as those required for powerlines, water supply, fire control, communications and waste water
Vacant land	Vacant land is defined as the whole of the lot in a current plan registered at the Land Titles Office that does not have a dwelling situated on the lot and is permitted to have a dwelling on that lot at the date of this consent.
VAM Abatement Unit	Ventilation Air Methane Abatement Unit

## SCHEDULE 3 ADMINISTRATIVE CONDITIONS

### Obligation to Minimise Harm to the Environment

1. The **Applicant must** implement all **reasonable and feasible** measures to prevent and/or minimise any **material** harm to the environment that may result from the construction, operation, or rehabilitation of the development.

### Terms of Approval

2. The Applicant must carry out the project generally in accordance with the:
  - (a) EIS;
  - (b) SEE (MOD 1);
  - (c) SEE (MOD 2);
  - (d) SEE (MOD 3);
  - (e) EA (MOD 4);
  - (f) EA (MOD 5); and
  - (g) EA (MOD 6).
- 2A. The Applicant must carry out the project in accordance with the conditions of this approval.
3. If there is any inconsistency between the documents listed in condition 2 of Schedule 3, the most recent document shall prevail over the former to the extent of the inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency.
4. The Applicant must comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:
  - (a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this consent; and
  - (b) the implementation of any actions or measures contained in these documents.

### Limits on Approval

5. Mining operations under this consent may take place on the site until 23 February 2031.

*Note: Under this consent, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of either the Secretary or the Executive Director Mineral Resources. Consequently this consent will continue to apply in all other respects other than the right to conduct mining operations until the rehabilitation of the site and these additional undertakings have been carried out satisfactorily.*
6. The Applicant must not extract more than 14 million tonnes of ROM coal per calendar year from the development by underground mining methods.
7. The Applicant must not process more than 20 million tonnes of ROM coal per calendar year from the Bulga Mining Complex.
- 7A. The Applicant must not commence extraction in the Blakefield Seam in the Bulga Southern underground mining area, until the design of the coal transportation system between the Blakefield Seam development headings and the Bulga coal stockpile area, has been finalised and approved by the Minister.

### Surrender of Consents

8. Within 12 months of the date of this consent, the Applicant must surrender all existing development consents for underground mining development at the site to the Secretary, in accordance with Clause 97 of the EP&A Regulation.

### Structural Adequacy

9. The Applicant must ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with:
  - (a) the relevant requirements of the BCA; and
  - (b) any additional requirements of SANSW where the building or structure is located on land within a declared Mine Subsidence District.

#### Notes:

- Under Part 4A of the EP&A Act, the Applicant 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 development.

- *The development is located in the Patrick Plains Mine Subsidence District. Under section 15 of the Mine Subsidence Compensation Act 1961, the Applicant is required to obtain the Mine Subsidence Board's approval before constructing or relocating any improvements on the site.*

## **Demolition**

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

## **Operation of Plant and Equipment**

11. The **Applicant must** ensure that all plant and equipment used at the site, including the rail loop on the site, are:
  - (a) maintained in a proper and efficient condition; and
  - (b) operated in a proper and efficient manner.

## **Management Strategies, Plans or Programs**

- 11A. With the approval of the **Secretary**, the Applicant may integrate any strategy, plan, program, report, review or audit required by this consent with any similar strategy, plan, program, report, review or audit for other components of the Bulga Mining Complex.
- 11B. With the approval of the **Secretary**, the Applicant may submit any strategy, plan or program required by this consent on a progressive basis.

### *Notes:*

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

## **Community Enhancement Contribution**

12. Within 6 months of the date of this consent, or as agreed otherwise by Council, the **Applicant must** pay Council up to \$15,000 for water quality enhancement works in the Wollombi Brook. If Council has not carried out these enhancement works within 12 months of payment, the Applicant may retrieve the funds from Council.

## SCHEDULE 4 SPECIFIC ENVIRONMENTAL CONDITIONS

### ACQUISITION UPON REQUEST

1. Upon receiving a written request for acquisition from the landowner of the land listed in Table 1, the **Applicant must** acquire the land in accordance with the procedures in Conditions 9-11 of Schedule 5:

*Table 1: Land subject to acquisition upon request*

Property 195 - Kennedy	Property L - Dwyer Estates P/L*
Property 217s - Russell	Property R – Myers*
Property H - Cobcroft Wines P/L*	149 – E. McInerney
6 – I.B. Headley*	150 – E. McInerney
7 – I.B. Headley*	151 – R.D. & L.M. Lewis*
9 – I.B. & J.D. Headley*	216 – R.D. & G.W. Turnbull*
10– I.B. & J.D. Headley *	

*Notes:*

- For more information on the numerical references to land used in this condition, see the figures in Appendix 2.
- Properties marked with an asterisk have been acquired by Bulga Coal Management Pty Ltd.

2. If the Applicant submits a Subsidence Management Plan to the DRE that includes longwall mining or subsidence impacts on either of the winery buildings within Property G, and subsequently receives a written request for acquisition from the owner of Property G, then the **Applicant must** acquire the land in accordance with the procedures in Conditions 9-11 of Schedule 5.

*Note: For more information on the alphabetical references to land used in this condition, see Table 4.1 and Figure 4.1 of the EIS.*

3. While the land listed in Conditions 1 and 2 are privately-owned, the **Applicant must** implement all practicable measures to ensure that the impacts of the development comply with the predictions in the EIS, to the satisfaction of the **Secretary**.

### SUBSIDENCE

#### Performance Measures – Natural and Heritage Features

4. The **Applicant must** ensure that the development does not cause any exceedances of the performance measures in Table 1A, to the satisfaction of the **Secretary**.

*Table 1A: Subsidence Impact Performance Measures*

<b>Watercourses</b>	
Wollombi Brook	Negligible environmental consequences
Natural drainage lines	No greater subsidence impact or environmental consequences than predicted in the documents listed in condition 2 of Schedule 3
<b>Biodiversity</b>	
Threatened species, threatened populations, or endangered ecological communities	No greater subsidence impact or environmental consequences than predicted in the documents listed in condition 2 of Schedule 3
<b>Heritage</b>	
Aboriginal heritage sites	No greater subsidence impact or environmental consequences than approved under a permit issued under section 90 of the <i>National Parks and Wildlife Act 1974</i>

*Notes:*

- The Applicant will be required to define more detailed performance indicators for each of these performance measures in the various management plans that are required under this consent.
- The requirements of this condition only apply to the impacts and consequences of mining operations undertaken following the date of approval of Modification 5.
- Any breach of this condition is taken to be a breach of this consent, and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation, notwithstanding that offsets may be agreed or implemented under this consent.

5. If the Applicant exceeds the performance measures in Table 1A and the **Secretary** determines that:
- it is not reasonable or feasible to remediate the impact or environmental consequence; or
  - remediation measures implemented by the Applicant have failed to satisfactorily remediate the impact or environmental consequence;
- then the **Applicant must** provide a suitable offset to compensate for the impact or environmental consequence, to the satisfaction of the **Secretary**.

*Note: Any offset required under this condition must be proportionate with the significance of the impact or environmental consequence.*

#### Performance Measures – Built Features

6. The **Applicant must** ensure that the development does not cause any exceedances of the performance measures in Table 1B, to the satisfaction of the Executive Director Mineral Resources.

*Table 1B: Subsidence Impact Performance Measures*

<b>Built features</b>	
Charlton Road, Cobcroft Road and Fordwich Road	<p>Always safe.</p> <p>Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated.</p> <p>Damage must be fully repaired or replaced, or else fully compensated.</p>
Other public infrastructure (including dams and voids; roads and tracks; active mining areas and infrastructure; electricity transmission lines; gas pipelines; survey marks; telecommunications networks and fibre optic cables; water supply and irrigation pipelines, etc.)	<p>Always safe.</p> <p>Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated.</p> <p>Damage must be fully repaired or replaced, or else fully compensated.</p>
Houses, industrial premises, swimming pools, farm dams and other built features or improvements	
<b>Public safety</b>	
Public safety	Negligible additional risk

*Notes:*

- The Applicant will be required to define more detailed performance indicators for each of these performance measures in the Built Features Management Plan.
- The requirements of this condition only apply to the impacts and consequences of mining operations undertaken following the date of approval of Modification 5.
- Requirements regarding “safe” or “serviceable” do not prevent preventative or mitigatory actions being taken prior to or during mining in order to achieve or maintain these outcomes.
- Any breach of this condition is taken to be breach of this consent, and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.
- Compensation required under this condition includes any compensation payable under the Mine Subsidence Compensation Act 1961 and/or the Mining Act 1992.

7. Any dispute between the Applicant and the owner of any built feature over the interpretation, application or implementation of the performance measures in Table 1B is to be settled by the Executive Director Mineral Resources. The Executive Director Mineral Resources may seek the advice of **SANSW** on the matter. Any decision by the Executive Director Mineral Resources shall be final and not subject to further dispute resolution under this consent.

#### First Workings

- 7A. The Applicant may carry out first workings within the site in support of approved second workings, provided that DRE is satisfied that the first workings are designed to remain stable and non-subsiding, except insofar as they may be impacted by approved second workings.

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

## Extraction Plan

- 7B. The Applicant must prepare an Extraction Plan for any second workings on site, to the satisfaction of the Secretary. The plan must:
- (a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;
  - (b) take into account any guidelines issued by the Department for the preparation of Extraction Plans;
  - (c) be approved by the Secretary before the Applicant carries out any of the second workings covered by the plan;
  - (d) include detailed plans of existing and proposed first and second workings and any associated surface development;
  - (e) include detailed performance indicators for each of the performance measures shown in Tables 1A and 1B;
  - (f) provide revised predictions of the conventional and non-conventional subsidence effects, subsidence impacts and environmental consequences of the proposed second workings, incorporating any relevant information obtained since the approval of Modification 5;
  - (g) describe the measures that would be implemented to:
    - ensure compliance with the performance measures in Tables 1A and 1B; and
    - manage or remediate subsidence impacts and/or environmental consequences;
  - (h) include a contingency plan that expressly provides for adaptive management where monitoring indicates that there has been an exceedance of any performance measure in Tables 1A and 1B, or where any such exceedance appears likely;
  - (i) include the following to the satisfaction of DRE:
    - a Subsidence Monitoring Program to:
      - provide data to assist with the management of the risks associated with subsidence;
      - validate the subsidence predictions;
      - analyse the relationship between the predicted and resulting subsidence effects and predicted and resulting impacts under the plan and any ensuing environmental consequences; and
      - inform the contingency plan and adaptive management process;
    - a Coal Resource Recovery Plan that demonstrates effective recovery of the available resource;
    - a Built Features Management Plan, which has been prepared in consultation with Council, DSC, RMS and the owners of potentially affected features, and which includes measures to manage the potential impacts and consequences of subsidence on any built features; and
    - a Public Safety Management Plan to ensure public safety in the mining area.
  - (j) include a:
    - Water Management Plan, which has been prepared in consultation with the EPA and DPI Water, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on surface water resources, groundwater resources and flooding, and which includes:
      - surface and groundwater impact assessment criteria, including trigger levels for investigating any potentially adverse impacts on water resources or water quality;
      - a program to monitor and report groundwater inflows to underground workings; and
      - a program to predict, manage and monitor impacts on any groundwater bores on privately-owned land;
    - Biodiversity Management Plan, which has been prepared in consultation with OEH and DRE, which:
      - includes a program of works to ensure that overall terrestrial and aquatic biodiversity values are the same or better than existed in the locality prior to longwall mining;
      - provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on aquatic and terrestrial flora and fauna;
    - Land Management Plan, which has been prepared in consultation with any affected public authorities, to manage the potential impacts and/or environmental consequences of the proposed second workings on land in general;
    - Heritage Management Plan, which has been prepared in consultation with OEH and relevant Aboriginal stakeholders, which includes a program/procedures for:
      - minimising disturbance to Aboriginal sites as far as is reasonable and feasible, particularly in relation to the BMU1 site;
      - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area, including the BMU1 site;
      - protection and monitoring of Aboriginal sites outside the project disturbance area;
      - managing the discovery of any new Aboriginal objects or skeletal remains during the development; and
      - ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage on the site; and

- (k) include a program to collect sufficient baseline data for future Extraction Plans.

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

*Note: An SMP approved by DRE prior to 1 January 2014 is taken to satisfy all requirements of this condition.*

#### Payment of Reasonable Costs

- 7C. The Applicant must pay all reasonable costs incurred by the Department to engage suitably qualified, experienced and independent experts to review the adequacy of any aspect of an Extraction Plan submitted for approval.

### SURFACE INFRASTRUCTURE MANAGEMENT

#### Gas Drainage

- 7D. The Applicant must ensure that all gas drainage pipelines (other than connection points, monitoring points, dewatering facilities, regulation or isolation points) between gas drainage plants are buried, unless otherwise agreed with the relevant landowner or unless burial is inappropriate for safety or other reasons, to the satisfaction of the Secretary.
- 7E. The Applicant must prepare a Gas Drainage Management Plan in respect of construction and future use of gas drainage infrastructure (i.e. gas drainage not subject to any approval at the date of approval of Modification 5) to the satisfaction of the Secretary. This plan must be submitted to the Secretary for approval prior to the construction and operation of any future gas drainage infrastructure and must include details of the Applicant's commitments regarding:
- (a) community consultation;
  - (b) landholder agreements;
  - (c) assessment of noise, air quality, traffic, biodiversity, heritage, public safety and other impacts in accordance with approved methods;
  - (d) avoidance of significant impacts and minimisation of impacts generally;
  - (e) beneficial re-use or flaring of drained hydrocarbon gases, wherever practicable;
  - (f) achievement of applicable standards and goals;
  - (g) mitigation and/or compensation for significant noise, air quality and visual impacts (including minimising visibility of infrastructure from public roads); and
  - (h) rehabilitation of disturbed sites.

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

#### Service Boreholes

- 7F. The Applicant must prepare a Service Boreholes Management Plan in respect of construction and use of future service boreholes (ie any service boreholes not subject to approval at the date of approval of Modification 5) to the satisfaction of the Secretary. This plan must be submitted to the Secretary for approval prior to the construction of any future service borehole and must include details of the Applicant's commitments regarding:
- (a) community consultation;
  - (b) landholder agreements;
  - (c) assessment of noise, air quality, traffic, biodiversity, heritage, public safety and other impacts in accordance with approved methods;
  - (d) avoidance of significant impacts and minimisation of impacts generally;
  - (e) achievement of applicable standards and goals;
  - (f) mitigation and/or compensation for significant noise, air quality and visual impacts (including minimising visibility of infrastructure from a public road); and
  - (g) rehabilitation of disturbed sites.

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

### <sup>1</sup>SURFACE & GROUND WATER

*Note: The Applicant is required to obtain licences for the development under the Water Act 1912, the Water Management Act 2000 and the Protection of the Environment Operations Act 1997.*

#### Pollution of Waters

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<sup>1</sup> Incorporates EPA GTA

8. Except as may be expressly provided by an Environment Protection Licence, the **Applicant must** comply with section 120 of the *Protection of the Environment Operations Act 1997* during the carrying out of the development.

### Discharge Limits

9. Except as may be expressly provided by an Environment Protection Licence or the *Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002*, the **Applicant must**:
- not discharge more than 55 ML/day from the licensed discharge point/s at the development; and
  - ensure that the discharges from any licensed discharge points comply with the limits in Table 2:

Table 2: Discharge Limits

Pollutant	Units of measure	100 percentile concentration limit
pH	pH	$6.5 \leq \text{pH} \leq 9.5$
Non-filterable residue	mg/litre	$\text{NFR} \leq 120$

Note: This condition does not authorise the pollution of waters by any other pollutants.

### Site Water Balance

10. <sup>2</sup>Each year, the **Applicant must**:
- review the site water balance for the development against the predictions in the EIS;
  - re-calculate the site water balance for the development; and
  - report the results of this review in the **Annual Review**.

### Flood Exclusion Levee

11. The **Applicant must** design, construct, maintain, and rehabilitate the Flood Exclusion Levee to the satisfaction of the **Secretary**. This levee **must**:
- remain stable under a 1 in a 100 year ARI flood event; and
  - not cause an increase in backwater stream heights in Wollombi Brook of greater than 20mm upstream of the confluence of the unnamed watercourse and Wollombi Brook under conditions up to and including a 1 in a 100 year ARI flood event.
12. Within one month of completing the construction of the Flood Exclusion Levee, the **Applicant must** submit an as-executed report, certified by a practising registered engineer, to the **Secretary**.

### Monitoring

13. The **Applicant must**:
- measure:
    - the volume of water discharged from the site via the licensed discharge points;
    - water use on the site;
    - dam and water structure storage level for dams associated with the mine discharge system;
    - water transfers across the site; and
    - water transfers between the site and surrounding mines;
  - monitor the quality of the surface water:
    - discharged from the licensed discharge point/s at the development; and
    - upstream and downstream of the development;
  - monitor flows in the Wollombi Brook;
  - monitor the volume and quality of water inflows to and from the underground workings; and
  - monitor regional ground water levels and quality in the alluvial, coal seam, and inter-burden aquifers during the development and at least 10 years after mining, and periodically assess groundwater pressure response in the coal measures;
- in consultation with **EPA** and **DPI Water** and to the satisfaction of the **Secretary**.

<sup>2</sup> These calculations must exclude the clean water system, including any sediment control structures, and any dams in the mine lease area which fall under the Maximum Harvestable Right Dam Capacity; include any dams that are licensable under Section 205 of the *Water Act 1912*, and water harvested from any non-harvestable rights dam on the mine lease area; address balances of inflows, licensed water extractions, and transfers of water from the site to other sites; include an accounting system for water budgets; and include a salt budget.

## Site Water Management Plan

14. Within 12 months of the date of this consent, the **Applicant must** prepare or update the existing Site Water Management Plan for the development in consultation with EPA, and to the satisfaction of the **Secretary**. This plan must include:
- (a) the predicted site water balance;
  - (b) a Surface Water Monitoring Program;
  - (c) a Ground Water Monitoring Program;
  - (d) a Surface and Ground Water Response Plan; and
  - (e) a strategy for decommissioning water management structures on the site.
15. <sup>3</sup>The Surface Water Monitoring Program **must** include:
- (a) detailed baseline data on surface water flows and quality in the Wollombi Brook and Loders Creek;
  - (b) surface water impact assessment criteria;
  - (c) a program to monitor surface water flows and quality in the Wollombi Brook and Loders Creek; and
  - (d) a program to monitor the effectiveness of the Erosion and Sediment Control Plan.
16. The Ground Water Monitoring Program **must** include:
- (a) detailed baseline data on ground water levels and quality, based on statistical analysis, to benchmark the pre-mining natural variation in groundwater levels and quality;
  - (b) ground water impact assessment criteria;
  - (c) a program to monitor the volume and quality of ground water seeping into the underground mine workings; and
  - (d) a program to monitor regional ground water levels and quality in the alluvial and coal seam aquifers.
17. The Surface and Ground Water Response Plan **must** include:
- (a) measures to mitigate any adverse impacts on existing water supply bores or wells in either the alluvial or coal measure aquifer systems;
  - (b) measures to remediate any connective cracking between the underground mine workings and any surface water stream channels, floodplain areas, or the alluvial aquifer;
  - (c) measures to address a decrease in throughflow rates caused by the development within the Wollombi Brook/Monkey Place Creek alluvium adjacent to or downstream of the development within the mine lease boundary; and
  - (d) the procedures that would be followed if any unforeseen impacts are detected during the development.

## Flood Levee Plan

18. Three months prior to the commencement of construction of the flood levee on the northern drainage line, the **Applicant must** submit a Flood Exclusion Levee Plan for the **Secretary's** approval. The Plan **must** include:
- (a) the detailed design and specifications of the levee, including any measures to allow waters to flow through the levee when required;
  - (b) the measures that would be implemented to minimise soil erosion and the potential for the migration of sediments to downstream waters;
  - (c) a construction program for the levee, describing how the work would be staged, and integrated with the proposed works in the Northern Drainage Line; and
  - (d) a program to inspect and maintain the levee and associated revegetation works during the development.

## Erosion and Sediment Control Plan

19. Three months prior to the commencement of construction works outside the Bulga Complex Water Management System or subsidence remediation, the **Applicant must** submit an Erosion and Sediment Control Plan for the **Secretary's** approval. The Plan **must**:
- (a) be consistent with the requirements of the Department of Housing's *Managing Urban Stormwater: Soils and Construction* manual;
  - (b) identify activities that could cause soil erosion and generate sediment;
  - (c) describe the location, function, and capacity of erosion and sediment control structures; and
  - (d) describe the measures to minimise soil erosion and the potential for the migration of sediments to downstream waters.

*Note: The Erosion & Sediment Control Plan should only relate to development that is scheduled to occur outside the mine's "dirty water" system. Given that this development is likely to be staged, the Department accepts that the*

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<sup>3</sup> Incorporates EPA GTA

*Erosion & Sediment Control Plan is likely to be prepared in stages to coincide with the relevant stages of the development.*

## Surface & Sub-surface Investigation & Monitoring Program

20. Within 12 months of the date of this consent, or prior to the commencement of longwall extraction in the approved panels, whichever occurs first, the **Applicant must** develop and implement a surface and subsurface investigation and monitoring program to assess the likely fracturing of geological strata and hydraulic property changes above each longwall panel, to the satisfaction of the **Secretary**. This program **must**:
- assess the impact on groundwater resources and surface expression resulting from underground mining at varying depths;
  - compare the results from all longwall panels against pre-mining baseline geological conditions, in order to assess the level of variability of fracture and changes in hydraulic properties between panels; and
  - be repeated for each coal seam as it is mined.

## Final Void Management

21. At least 5 years prior to the completion of the development, the **Applicant must** evaluate the potential long-term impacts of any final pit voids on groundwater resources, and develop an appropriate management plan to the satisfaction of the **Secretary**.

## AIR QUALITY

### Impact Assessment Criteria

22. The **Applicant must** ensure that all reasonable and feasible avoidance and mitigation measures are implemented so that particulate matter emissions generated by the development do not cause exceedances of the criteria listed in Tables 3, 4, and 5 at any residence on privately-owned land.

*Table 3: Long term impact assessment 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 4: Short term impact assessment criterion for particulate matter*

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

*Table 5: Long term impact assessment 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 for Tables 3-5:*

- <sup>a</sup>Total impact (ie incremental increase in concentrations due to the project plus background concentrations due to other sources);
- <sup>b</sup>Incremental impact (ie incremental increase in concentrations due to the project on its own);
- <sup>c</sup>Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS/NZS 3580.10.1-2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method; and
- <sup>d</sup>Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed to by the **Secretary** in consultation with EPA.

## Land Acquisition Criteria

23. If the air pollution generated by the development exceeds the criteria in Tables 6, 7, and 8 at any residence on privately-owned land or on more than 25 per cent of any privately-owned land, the

**Applicant must**, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in Conditions 9-11 of Schedule 5.

*Table 6: 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 7: Short term land acquisition criteria for particulate matter*

Pollutant	Averaging period	<sup>d</sup> Criterion	Percentile <sup>1</sup>	Basis
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>a</sup> 150 µg/m <sup>3</sup>	99 <sup>2</sup>	Total <sup>3</sup>
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>a</sup> 50 µg/m <sup>3</sup>	98.6	Increment <sup>4</sup>

<sup>1</sup>Based on the number of block 24 hour averages in an annual period.

<sup>2</sup>Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the **Secretary** in consultation with the EPA.

<sup>3</sup>Background PM<sub>10</sub> concentrations due to all other sources plus the incremental increase in PM<sub>10</sub> concentrations due to the development alone.

<sup>4</sup>Incremental increase in PM<sub>10</sub> concentrations due to the development alone.

*Table 8: 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 for tables 6-8:

- <sup>a</sup>Total impact (ie incremental increase in concentrations due to the project plus background concentrations due to other sources);
- <sup>b</sup> Incremental impact (ie incremental increase in concentrations due to the project on its own);
- <sup>c</sup>Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS/NZS 3580.10.1-2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.
- <sup>d</sup>Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed to by the **Secretary** in consultation with EPA.

## Operating Conditions

24. The **Applicant must**:
- implement best practice air quality management on site, including all reasonable and feasible measures to minimise the off-site odour, fume and dust emissions generated by the development, including those generated by any spontaneous combustion;
  - minimise any visible air pollution generated by the development;
  - regularly assess meteorological forecasting data and relocate, modify and/or suspend operations to ensure compliance with the relevant conditions of this approval; and
  - co-ordinate air quality management on site with the air quality management at nearby mines, including the Bulga Mining Complex to minimise the cumulative air quality impacts of the mines, to the satisfaction of the **Secretary**.

## Air Quality & Greenhouse Gas Management Plan

- 24A. The **Applicant must** prepare a detailed Air Quality & Greenhouse Gas Management Plan for the development to the satisfaction of the **Secretary**. This plan must:
- be prepared in consultation with the EPA and submitted to the **Secretary** for approval by the end of March 2014;
  - describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, including consideration of applying a real-time air quality management system that employs both reactive and proactive mitigation measures;

- (c) describe the measures that would be implemented to minimise the release of greenhouse gas emissions from the site; and
- (d) include an air quality monitoring program that uses a combination of high volume samplers and dust deposition gauges to evaluate the performance of the project, and includes a protocol for determining exceedances with the relevant conditions of this approval.

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

#### 4Monitoring

25. The Applicant must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant in Table 9 to the satisfaction of EPA and the Secretary, using the specified averaging period, frequency, and sampling method:

Table 9: Air quality monitoring

Pollutant	Units of Measure	Averaging Period	Frequency	Sampling method <sup>1</sup>
TSP	µg/m <sup>3</sup>	24 hour, annual	1 day in 6	AM-15
Dust Deposition	g/m <sup>2</sup> /month	Month, annual	Continuous	AM-19
Siting	-	-	-	AM-1

<sup>1</sup> NSW EPA, 2001, *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW*.

<sup>2</sup> Standards Australia, 2001, AS3580.9.8-2002, *Method for Sampling and Analysis of Ambient Air - Determination of Suspended Particulate Matter - PM<sub>10</sub> Continuous Direct Mass Method using a Tapered Element Oscillating Microbalance Analyser, or any other method that is approved by the DECCW and the Secretary.*

26. (deleted)

#### Post Commissioning Report

27. Within 3 months of commissioning a ventilation shaft discharge vent, the Applicant must:
- (a) carry out ventilation shaft monitoring (by sampling and obtaining results by analysis) of the concentration of each parameter in Table 10, using the specified sampling method; and
  - (b) submit the results to EPA.

Table 10: Ventilation Shaft Monitoring

Parameter	Units of Measure	Sampling method <sup>1</sup>
Solid particles	mg/m <sup>3</sup>	TM-15
Odour	OU	OM-7
Velocity	m/s	TM-2
Volumetric flow rate	m <sup>3</sup> /s	TM-2
Temperature	°C	TM-2
Moisture	%	TM-22
Dry gas density	kg/m <sup>3</sup>	TM-23
Molecular weight of stack gases	g/g.mol	TM-23
Carbon dioxide	%	TM-24
Selection of sampling positions	-	TM-1

<sup>1</sup> NSW EPA, 2001, *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW*.

28. If the results of the ventilation shaft monitoring are outside the range used in the dispersion modelling study in the EIS as modified by SEE (MOD 3), the Applicant must reassess the odour and dust impacts from the ventilation shafts, and submit the results to EPA.

#### Post Commissioning Report – Power Generation Plant and VAM Abatement Unit

- 28A Within 3 months of commissioning any gas engine within a power generation plant and/or the VAM abatement unit, the Applicant must:
- (a) carry out air emissions monitoring (by sampling and obtaining results by analysis) of the concentration of each parameter in Table 11, for the stack serving each gas-fired engine and the stack serving the VAM abatement unit;
  - (b) demonstrate compliance with EPA's ground level concentration criteria; and
  - (c) submit the results to EPA.

<sup>4</sup> Incorporates EPA GTA

Table 11: Power Generation Plant and VAM Abatement Unit Monitoring

Parameter	Units of Measure	Sampling method <sup>1</sup>
Carbon monoxide	mg/m3	TM-32
Nitrogen dioxide (NO <sub>2</sub> ) or nitric oxide (NO) or both, as NO <sub>2</sub> equivalent	mg/m3	OM-11
Volatile organic compounds	mg/m3	TM-34
Volumetric flow rate	m3/s	TM-2
Oxygen	%	TM-25
Moisture	%	TM-22
Dry gas density	kg/m3	TM-23
Molecular weight of stack gases	g/g.mol	TM-23
Selection of sampling positions	-	TM-1

<sup>1</sup> NSW EPA, 2001, *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW*.

## <sup>5</sup>NOISE

### Construction Hours

- 28B. The Applicant must ensure that gas drainage well construction (except drilling of surface to in-seam wells) is conducted only between 7.00am and 6.00pm Monday to Friday and between 8.00am and 1.00pm Saturdays, unless noise impacts comply with the Noise Impact Assessment Criteria in Table 13 of Condition 30 of Schedule 4.

### Land Acquisition Criteria

29. Except for noise generated by gas drainage well construction for the Blakefield North Mine, if the noise generated by the development exceeds the criteria in Table 12 at any residence on privately-owned land or on more than 25 per cent of any privately-owned land, the Applicant must, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 6-8 of schedule 3.

Table 12: Land Acquisition Criteria dB(A)

Day/Evening/Night L <sub>Aeq</sub> (15 minute)	Land
40	All privately owned land, excluding the land listed in Table 1.

#### Notes:

- For the purposes of this condition an "exceedence" is considered to have occurred when valid attended noise data from compliance monitoring (collected in accordance with the requirements in Appendix 4) indicates the noise generated by the Bulga Mining Complex has exceeded the criteria set out in Table 12.
- Appendix 4 sets out the meteorological condition under which these criteria apply and the requirements for evaluating compliance with these criteria.
- These noise limits do not apply on land if the Applicant has a negotiated agreement with the relevant owner/s of that land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.

### Noise Impact Assessment Criteria

30. Except for noise generated by gas drainage well construction for the Blakefield North Mine, the Applicant must ensure that the noise generated by the Bulga Mining Complex does not exceed the noise impact assessment criteria in Table 13 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.

Table 13: Noise Impact Assessment Criteria dB(A)

Location	Day L <sub>Aeq</sub> (15 min)	Evening L <sub>Aeq</sub> (15 min)	Night L <sub>Aeq</sub> (15 min)	Night L <sub>A1</sub> (1 min)
1A, 8	38	38	38	45
97	38	38	36	45
217n, 230, 232, 234, 323, 324, 325	37	37	37	45
1B, 94, 95, 103, 105A, 105C, 142A, 143B, 145, 164, 165, 179, 195, 217s, 217m, 222, 226, 227, 228, 229, 231, 233, 235,	36	36	36	45

<sup>5</sup> Incorporates EPA GTAs

237, 239, 240, 241, 261, 262, 263, 264, 265, 266, 272				
All other privately-owned residences	35	35	35	45

In the event that, in the opinion of the Secretary, open cut mining operations at the Complex have been substantially completed, then condition 1 of Appendix 5 has effect in place of this condition.

Notes:

- To interpret the numerical references to land referred to in Tables 1 and 13, see the applicable figures in Appendix 2.
- For the purposes of this condition an “exceedence” is considered to have occurred when valid attended noise data from compliance monitoring (collected in accordance with the requirements in Appendix 4) indicates the noise generated by the Bulga Mining Complex has exceeded the criteria set out in Table 13.
- Appendix 4 sets out the meteorological conditions under which these criteria apply, and the requirements for evaluating compliance with these criteria.
- These noise limits do not apply at residences or land if the Applicant has a negotiated agreement with the relevant owner/s of that residence or land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.

### Additional Noise Mitigation Measures

31. Upon receiving a written request from:
- a landowner of the land listed in Table 1 (unless the landowner has requested acquisition); or
  - deleted
  - the owner of any residence where subsequent operational noise monitoring shows the noise generated by the development is greater than, or equal to, 38 dB(A)  $L_{Aeq}(15 \text{ minute})$  (unless a negotiated agreement is in place),
- the Applicant must implement additional noise mitigation measures such as double glazing, insulation, and/or air conditioning at any residence on the land in consultation with the landowner.

These additional mitigation measures must be reasonable and feasible. The Applicant must notify all landowners that they are entitled to receive additional noise mitigation measures in accordance with this condition, to the satisfaction of the Secretary.

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

32. Deleted.

32A. Deleted.

### Continuous Improvement

- 32B. The Applicant must:
- implement all reasonable and feasible best practice noise mitigation measures;
  - progressively upgrade and replace its mobile equipment fleet;
  - investigate methods to statistically analyse (for example, by using regression analysis) real-time noise and meteorological data to improve noise impact forecasting and to facilitate statistically-based compliance reporting; and
  - report the implementation and effectiveness of these measures in the AEMR, to the satisfaction of the Secretary.

### Noise Management Plan

- 32C. The Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared by a suitably qualified expert whose appointment has been approved by the Secretary, and submitted to the Secretary for approval by 31 March 2014; and
  - include a:
    - combination of unattended and attended monitoring measures;
    - noise monitoring protocol for evaluating the contribution of low frequency noise;
    - noise monitoring protocol for evaluating compliance with the relevant criteria for noise impact assessment and land acquisition in this consent; and
    - response protocol that will immediately be followed if noise emissions are nearing or exceeding these criteria and a description of what contingency plans will be implemented on site if this occurs.
  - include a Construction Noise Management Plan for gas drainage well construction for the Blakefield North Mine featuring:

- the Applicant's commitments to reasonable and feasible noise mitigation;
- a work schedule that clearly identifies work that would lead to an exceedance of the Noise Assessment **Impact** Criteria in Table 13 of condition 30 in Schedule 4;
- a protocol for notifying affected receivers of the expected severity and duration of such exceedance(s) well in advance of work commencing;
- a protocol for monitoring and evaluating noise emissions during work;
- a response protocol that will be immediately followed to reduce noise emissions if the work leads to noise impacts from the Bulga Mining Complex that exceed:
  - LAeq 15 min 50 dB during the day at any receiver, except receiver 160\*;
  - LAeq 15 min 70 dB during the day at receiver 160\*;
  - LAeq 15 min 39 dB during the evening or night at any receiver; and
  - LAeq 1 min 51 dB during the evening or night at any receiver.

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

**Notes:**

- The management responses to be followed in the event that noise emissions are nearing or exceeding the noise criteria in this consent should be staged in a manner that is commensurate with the level of noise emissions that may occur.
- Management responses should include relocating, modifying and/or ceasing operations until the exceedance is addressed and rectified. In the event of a breach of the noise criteria in this approval, noise traces for the offending period should be forwarded to the Department and EPA as soon as practicable following the event.
- Properties marked with an asterisk have been acquired by Bulga Coal Management Pty Ltd.

## **<sup>6</sup>METEOROLOGICAL MONITORING**

33. The Applicant must monitor the parameters specified in Table 16 to the satisfaction of the Secretary, using the specified units of measure, averaging period, frequency, and sampling method in the table.

Table 16: Meteorological monitoring

Parameter	Units of measure	Averaging period	Frequency	Sampling method <sup>1</sup>
Lapse rate	°C/100m	1 hour	Continuous	Note <sup>2</sup>
Rainfall	mm/hr	1 hour	Continuous	AM-4
Sigma Theta @ 10 m	°	1 hour	Continuous	AM-2
Siting	-	-	-	AM-1
Temperature @ 10 m	K	1 hour	Continuous	AM-4
Temperature @ 2 m	K	1 hour	Continuous	AM-4
Total Solar Radiation @ 10m	W/m <sup>2</sup>	1 hour	Continuous	AM-4
Wind Direction @ 10 m	°	1 hour	Continuous	AM-2
Wind Speed @ 10 m	m/s	1 hour	Continuous	AM-2

<sup>1</sup> NSW EPA, 2001, Approved Methods for the Sampling and Analysis of Air Pollutants in NSW.

<sup>2</sup> The Applicant must calculate lapse rate from measurements made at 2m and 10m.

## **<sup>7</sup>ABORIGINAL CULTURAL HERITAGE**

Note: The Applicant is required to obtain consent from OEHL under the National Parks Wildlife Act 1974 to destroy Aboriginal sites and objects on the site.

### **Conservation Agreement**

34. The Applicant must protect BCO10 and the associated landscape context within the proposed conservation area east of Wollombi Brook (see Figure 13.3 in the *Bulga Coal Continued Underground Operations* EIS), and consider options for extending this area to the satisfaction of OEHL.

### **Scarred Tree**

35. The Applicant must protect the scarred tree at Bulga 6 (see Figure 7.2 in Appendix 13 of the *Bulga Coal Continued Underground Operations* EIS) to the satisfaction of OEHL.

## **Section 90 Consents**

36. The Applicant must obtain Section 90 consents from OEHL to destroy the following Aboriginal artefact find locations, and the deposits between them: BCO2, BCO21, BMU1, BMU2 (B71 & Saxonvale B),

<sup>6</sup> Incorporates EPA GTA

<sup>7</sup> Incorporates OEHL GTAs

BMU12, BMU17, IF Bulga South, GIF-IF1, GIF-IF2, GIF-IF3, GIF-IF4, BP2, G2, G3, G4, G9, G11, PART BCO1 (Saxonvale A), BCO3, BCO10 (G7, G6, G8, Bulga 7).

### Salvage

37. The **Applicant must** develop a salvage program/s for the following sites in consultation with the Aboriginal community and to the satisfaction of **OEH**: BCO2, BCO21, BMU2 (B71 & Saxonvale B), BP2, G2, G3, G4, G9, G11, PART BCO1 (Saxonvale A), BCO3, BCO10 (G7, G6, G8, Bulga 7).

*Note: The program/s will be considered as part of the Section 90 consent process.*

### Aboriginal Heritage Management Plan

38. The **Applicant must** prepare an Aboriginal Cultural Heritage Management Plan for the project to the satisfaction of the **Secretary**. This plan must:
- be prepared in consultation with OEH, the Aboriginal community, and be submitted to the **Secretary** for approval by the end of March 2014;
  - include a program/procedures for:
    - minimising disturbance to Aboriginal sites as far as is reasonable and feasible;
    - 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;
    - managing the discovery of any new Aboriginal objects or skeletal remains during the development; and
    - ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage on the site.

**The Applicant must implement the approved plan as approved from time to time by the Secretary.**

### Trust Fund Contribution

39. Within 6 months of the date of this consent, or as agreed otherwise by the **Secretary**, the **Applicant must** contribute \$50,000 to the Hunter Aboriginal Cultural Heritage Trust Fund for further investigations into Aboriginal heritage, as defined by the Trust Deed.

## HERITAGE

*Note: For more information on the references used in the following conditions see Figure 13.1 of the EIS.*

### Conservation

40. The **Applicant must** conserve heritage site BH15 to the satisfaction of the **Secretary**.

### Archival Record

41. The **Applicant must** investigate and prepare an archival record of heritage sites BH9 and BH11 in accordance with the requirements of the NSW Heritage Office, and to the satisfaction of the **Secretary**.

### Other Measures

42. The **Applicant must**:
- prepare a photographic record of the condition and integrity of heritage site BH13 before, during and after mining;
  - mark BH12 to prevent accidental destruction; and
  - fence and signpost BH7 to the satisfaction of the **Secretary**.

## FAUNA & FLORA

### Habitat Creation and Conservation

43. The **Applicant must**:
- take all practicable measures to minimise vegetation clearing during the development, and wherever practicable, avoid clearing the existing woodland vegetation on site;
  - establish and maintain the proposed ecological corridors on site (see Appendix 6);
  - ensure the corridors shown in Appendix 6 link to the Wollombi Brook Conservation Area;
  - conserve, maintain and enhance the existing Warkworth Sands Woodland ecological community (see Appendix 7);

- (e) investigate the potential distribution of the Warkworth Sands Woodland ecological community on company owned land on and adjacent to the site, and consider options for providing long-term protection to the existing and potential areas of the Warkworth Sands Woodland ecological community;
- (f) ~~deleted;~~
- (g) ~~deleted;~~
- (h) Conduct regular flora and fauna monitoring on site during the development, to the satisfaction of the **Secretary**.

#### **Additional Vegetation Offsets**

- 43A. By the end of December 2014, the **Applicant must:**
- (a) provide an area that is, in the opinion of the **Secretary**, suitable in its quantity, quality and vegetation community to offset the clearing of 5.34 hectares of *Central Hunter Grey Box – Ironbark Woodland* under Modification 5;
  - (b) provide an area that is, in the opinion of the **Secretary**, suitable in its quantity, quality and vegetation community to offset the disturbance of 23.71 hectares of *Central Hunter Grey Box – Ironbark Derived Native Grassland* under Modification 5; and
  - (c) make suitable arrangements to manage, protect and provide long-term security for these areas, to the satisfaction of the **Secretary**.

#### **Biodiversity Management Plan**

44. The Applicant must prepare a Biodiversity Management Plan for the Bulga Mining Complex to the satisfaction of the **Secretary**. This plan must:
- (a) be prepared in consultation with OEH, and submitted to the **Secretary** for approval by 31 March 2017;
  - (b) include a detailed description of what measures would be implemented to satisfy the requirements in condition 43 and 43A of Schedule 4;
  - (c) describe the short, medium, and long term measures that would be implemented to:
    - manage the impacts of clearing vegetation, including pre-clearance surveys; and
    - manage the remnant vegetation and habitat on the site;
  - (d) include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:
    - enhancing the quality of existing vegetation and fauna habitat in the conservation and offset areas;
    - restoring native vegetation and fauna habitat on the biodiversity areas and rehabilitation area through focusing on assisted natural regeneration, targeted vegetation establishment and the introduction of naturally scarce fauna habitat features (where necessary);
    - maximising the salvage of resources within the approved disturbance area – including vegetative and soil resources – for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area;
    - collecting and propagating seed from the local area;
    - protecting vegetation and fauna habitat outside the approved disturbance area on site;
    - minimising the impacts on fauna on site, including undertaking pre-clearance surveys;
    - managing any potential conflicts between the proposed restoration works in the biodiversity areas and any Aboriginal heritage values (both cultural and archaeological);
    - managing salinity;
    - controlling weeds and feral pests;
    - controlling erosion;
    - managing grazing and agriculture on site;
    - controlling access; and
    - bushfire management;
  - (e) include a seasonally-based program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria;
  - (f) identify the potential risks to the successful implementation of the plan, and include a description of the contingency measures that would be implemented to mitigate these risks; and
  - (g) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

The Applicant must implement the approved plan as approved from time to time by the **Secretary**.

45. ~~(deleted)~~

46. ~~(deleted)~~

#### **TRAFFIC & TRANSPORT**

## New Access Intersections

*Note: The Applicant requires Council approval under the Roads Act 1993 for any works within the public road reserve.*

47. <sup>8</sup>The Applicant must design, construct and maintain the proposed new Type C access intersections with Broke Road to the satisfaction of Council.

## Conveyors

48. The Applicant must design and construct the proposed conveyors over Broke Road to the satisfaction of Council.
49. The Applicant must ensure that all construction work within the transmission line easement is carried out to the satisfaction of Transgrid.

## Construction Traffic Management Plan

- 49A. The Applicant must prepare a Construction Traffic Management Plan for the development to the satisfaction of the Director General. This plan must:
- (a) be prepared in consultation with Council and RMS and submitted to the Director General before the commencement of gas drainage well construction;
  - (b) detail the management of light and heavy vehicle movements associated with gas drainage well construction under Modification 5;
  - (c) identify overlaps with any other mine related construction projects in the area; and
  - (d) employ measures to minimise the impact of gas drainage well construction traffic on the network including measures to restrict the hours of heavy vehicle movements to avoid road use conflicts.

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

## VISUAL IMPACT

### Landscaping & Visual Screening

50. The Applicant must:
- (a) landscape the proposed access intersections off Broke Road within 3 months of completing construction works; and
  - (b) maintain and augment as required, the visual screening along Broke Road throughout the life of the development to the satisfaction of the Secretary.

### Location & Construction of Gas Plants, and Gas & Dewatering Bores

51. The Applicant must minimise the potential visual impacts associated with locating and constructing the proposed gas plants, and gas and dewatering bores on site to the satisfaction of the Secretary.

### Lighting Emissions

52. The Applicant must take all practicable measures to mitigate off-site lighting impacts from the development to the satisfaction of the Secretary.
53. All external lighting associated with the development must comply with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*.

## GREENHOUSE GAS

54. The Applicant must:
- (a) monitor the greenhouse gas emissions generated by the development;
  - (b) investigate ways to reduce greenhouse gas emissions on site; and
  - (c) report on these investigations in the AEMR, to the satisfaction of the Secretary.

## WASTE MINIMISATION

55. The Applicant must minimise the amount of waste generated by the development to the satisfaction of the Secretary.

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<sup>8</sup> Incorporates RMS GTA

## HAZARDS MANAGEMENT

### Spontaneous Combustion

56. The **Applicant must** take the necessary measures to prevent, as far as is practical, spontaneous combustion on the site.

### Dangerous Goods

57. The **Applicant must** ensure that the storage, handling, and transport of dangerous goods is done in accordance with the relevant *Australian Standards*, particularly *AS1940* and *AS1596*, and the *Dangerous Goods Code*.

## BUSHFIRE MANAGEMENT

58. The **Applicant must**:
- ensure that the development is suitably equipped to respond to any fires on-site; and
  - assist the Rural Fire Service and emergency services as much as possible if there is a fire on-site during the development.

## MINE EXIT STRATEGY

59. The **Applicant must** work with the Council to investigate the minimisation of adverse socio-economic effects of a significant reduction in local employment levels and closure of the development at the end of its life.

## REHABILITATION

### Rehabilitation Objectives

60. The **Applicant must** rehabilitate the site to the satisfaction of the Executive Director Mineral Resources. This rehabilitation must comply with the objectives in Table 17.

Table 17: Rehabilitation Objectives

Feature	Objective
Mine site (as a whole)	Safe, stable & non-polluting
Surface infrastructure	To be decommissioned and removed, unless the Executive Director Mineral Resources agrees otherwise
Portals and vent shafts	To be decommissioned and made safe and stable.
	Retain habitat for threatened species (eg bats), where practicable
Watercourses subject to subsidence impacts	Hydraulically and geomorphologically stable, with riparian vegetation that is the same or better than prior to mining
Land to be restored or maintained for agricultural purposes	Restored and maintained to: <ul style="list-style-type: none"><li>the same or higher land capability and agricultural suitability than prior to mining; and</li><li>a landform consistent with the surrounding environment, including no greater than minor changes to flooding characteristics or ponding.</li></ul>
Other land	Restore ecosystem function, including maintaining or establishing self-sustaining eco-systems comprised of: <ul style="list-style-type: none"><li>local native plant species (unless the Executive Director Mineral Resources agrees otherwise); and</li><li>a landform consistent with the surrounding environment, including no greater than minor changes to flooding characteristics or ponding.</li></ul>
Built features damaged by mining operations	Repair to pre-mining condition or equivalent unless: <ul style="list-style-type: none"><li>the owner agrees otherwise; or</li><li>the damage is fully restored, repaired or compensated for under the <i>Mine Subsidence Compensation Act 1961</i>.</li></ul>
Community	Ensure public safety
	Minimise the adverse socio-economic effects associated with mine closure

Notes:

- *These rehabilitation objectives apply to all subsidence impacts and environmental consequences caused by mining taking place after the date of approval of Modification 5; and to all surface infrastructure part of the development, whether constructed prior to or following the date of this approval.*
- *Rehabilitation of subsidence impacts and environmental consequences caused by mining which took place prior to the date of approval of Modification 5 may be subject to the requirements of other approvals (eg under a mining lease or a Subsidence Management Plan approval) or the Applicant's commitments.*

#### **Progressive Rehabilitation**

61. The **Applicant must** rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance.

## SCHEDULE 5 ADDITIONAL PROCEDURES FOR AIR QUALITY, NOISE MANAGEMENT AND SUBSIDENCE MANAGEMENT

### NOTIFICATION OF LANDOWNERS

1. Within 1 month of the date of this modification, the **Applicant must** notify the landowners of the land listed in Table 1 of schedule 4 in writing that they have the right to require the Applicant to acquire their land at any stage during the development.
2. If the results of monitoring required in schedule 4 identify that impacts generated by the development are greater than the impact assessment criteria in schedule 4, except where this is predicted in the EA, and except where a negotiated agreement has been entered into in relation to that impact, then the **Applicant must** notify the **Secretary** and the affected landowners and tenants (including tenants of mine owned properties) accordingly, and provide quarterly monitoring results to each of these parties until the results show that the development is complying with the criteria in schedule 4.
3. Within 6 months of the date of this consent, the **Applicant must** develop a procedure in consultation with **EPA** and NSW Health, for notifying landowners and tenants referred to in Condition 1. This procedure must ensure that:
  - (a) all existing and future tenants are advised in writing about:
    - air quality impacts likely to occur at the residence during the operational life of the mine; and
    - likely health and amenity impacts associated with exposure to particulate matter;
  - (b) the written advice in (a) is based on current air quality monitoring data, dispersion modelling results, research and literature; and
  - (c) there is an ongoing process for providing current air quality monitoring data, dispersion modelling results, research and literature to the tenants.

### INDEPENDENT REVIEW

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

If the **Secretary** is satisfied that an independent review is warranted, the **Applicant must** within 3 months of the **Secretary** advising that an independent review is warranted:

- (a) consult with the landowner to determine his/her concerns;
  - (b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the **Secretary**, to conduct monitoring on the land, to:
    - determine whether the development is complying with the relevant impact assessment criteria in schedule 4; and
    - identify the source(s) and scale of any impact on the land, and the development's contribution to this impact; and
  - (c) give the **Secretary** and landowner a copy of the independent review.
5. *(Deleted)*
  6. *(Deleted)*
  7. *(Deleted)*
  8. *(Deleted)*

### LAND ACQUISITION

9. Within 3 months of receiving a written request from a landowner with acquisition rights, the **Applicant must** make a binding written offer to the landowner based on:
  - (a) the current market value of the landowner's interest in the property at the date of this written request, as if the property was unaffected by the development, 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 31 of schedule 4;
  - (b) the reasonable costs associated with:

- relocating within the Singleton local government area, or to any other local government area determined by the **Secretary**; and
  - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and
- (c) reasonable compensation for any disturbance caused by the land acquisition process.

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

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

- (a) consider submissions from both parties;
- (b) 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;
- (c) prepare a detailed report setting out the reasons for any determination; and
- (d) provide a copy of the report to both parties and the **Secretary**.

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

However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the **Secretary** for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the **Secretary** 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 and any other relevant matters.

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

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

10. The **Applicant must** pay all reasonable costs associated with the land acquisition process described in condition 6 above.
11. If the Applicant and landowner agree that only part of the land shall be acquired, then the **Applicant must** pay all reasonable costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of the plan at the Office of the Registrar-General.

## **SCHEDULE 6 ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING**

### **ENVIRONMENTAL MANAGEMENT**

#### **Environmental Management Strategy**

1. The Applicant must prepare an Environmental Management Strategy for the Bulga Mining Complex to the satisfaction of the Secretary. This strategy must:
  - (a) be submitted to the Secretary for approval by the end of December 2016;
  - (b) provide the strategic framework for environmental management of the Bulga Mining Complex;
  - (c) identify the statutory approvals that apply to the development;
  - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;
  - (e) describe the procedures that would be implemented to:
    - keep the local community and relevant agencies informed about the operation and environmental performance of the development;
    - receive, handle, respond to, and record complaints;
    - resolve any disputes that may arise during the course of the development;
    - respond to any non-compliance;
    - respond to emergencies; and
  - (f) include:
    - copies of any strategies, plans and programs approved under the conditions of this consent; and
    - a clear plan depicting all the monitoring required to be carried out under the conditions of this consent.

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

#### **Adaptive Management**

2. The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedule 4. Any exceedance of these criteria and/or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.

Where any exceedance of these criteria and/or performance measures has occurred, the Applicant must, at the earliest opportunity:

- (a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;
- (b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and
- (c) implement remediation measures as directed by the Secretary, to the satisfaction of the Secretary.

#### **Management Plan Requirements**

3. The Applicant must ensure that the management plans required under this consent 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 development 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 development;
    - 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 development over time;
  - (g) a protocol for managing and reporting any:
    - incidents;
    - complaints;

- non-compliances with statutory requirements; and
  - exceedances of the impact assessment criteria and/or performance criteria; and
- (h) a protocol for periodic review of the plan.

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

#### **Annual Review**

4. By the end of March each year, or other timing as may be agreed by the Secretary, the Applicant must submit a report to the Department reviewing the environmental performance of the development to the satisfaction of the Secretary. This review must:
- (a) describe the development (including any rehabilitation) that was carried out in the past calendar year, and the development that is proposed to be carried out over the current calendar year;
  - (b) include a comprehensive review of the monitoring results and complaints records of the development over the past calendar year, which includes a comparison of these results against the:
    - relevant statutory requirements, limits or performance measures/criteria;
    - requirements of any plan or program required under this consent;
    - monitoring results of previous years; and
    - relevant predictions in the documents listed in condition 2 of Schedule 3;
  - (c) identify any non-compliance over the past calendar year, and describe what actions were (or are being) taken to ensure compliance;
  - (d) identify any trends in the monitoring data over the life of the development;
  - (e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
  - (f) describe what measures will be implemented over the current calendar year to improve the environmental performance of the development.

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

5. Within 3 months of the:
- (a) submission of an annual review under Condition 4 above;
  - (b) submission of an incident report under Condition 7 below;
  - (c) submission of an audit report under Condition 9 below; or
  - (d) approval of any modifications to this consent,
- the Applicant must review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Secretary.

Within 4 weeks of conducting any such review, the Applicant must advise the Secretary of the outcomes of the review, and provide any revised documents to the Secretary for review and approval.

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

#### **Community Consultative Committee**

6. The Applicant must operate a Community Consultative Committee (CCC) for the Bulga Mining Complex to the satisfaction of the Secretary. This CCC must be operated in general accordance with the *Community Consultative Committee (CCC) Guidelines for State Significant Projects* (Department of Planning, 2016, or its latest version).

*Notes:*

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

#### **REPORTING**

##### **Incident Reporting**

7. The Applicant must immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Applicant must 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 Applicant must provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.

## INDEPENDENT ENVIRONMENTAL AUDIT

9. By the end of 2015, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant must commission, commence and pay the full cost of an Independent Environmental Audit of the development. 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 development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);
  - (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals;
  - (e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, strategy, plan or program required under the abovementioned approvals; and
  - (f) be conducted and reported to the satisfaction of the Secretary.

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

10. Within 12 weeks of commencing each audit, unless the Secretary agrees otherwise, the Applicant must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of any measures proposed to address the recommendations.

## ACCESS TO INFORMATION

11. By the end of December 2016, the Applicant must:
    - (a) make copies of the following publicly available on its website:
      - the documents listed in condition 2 of Schedule 3;
      - current statutory approvals for the development;
      - approved strategies, plans and programs required under the conditions of this consent;
      - a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
      - a complaints register, which is to be updated monthly;
      - minutes of CCC meetings;
      - the annual reviews of the development (for the last 5 years, if applicable);
      - any independent environmental audit of the development, and the Applicant's response to the recommendations in any audit;
      - any other matter required by the Secretary; and
    - (b) keep this information up-to-date, to the satisfaction of the Secretary.
-

## APPENDIX 1

### SCHEDULE OF LAND

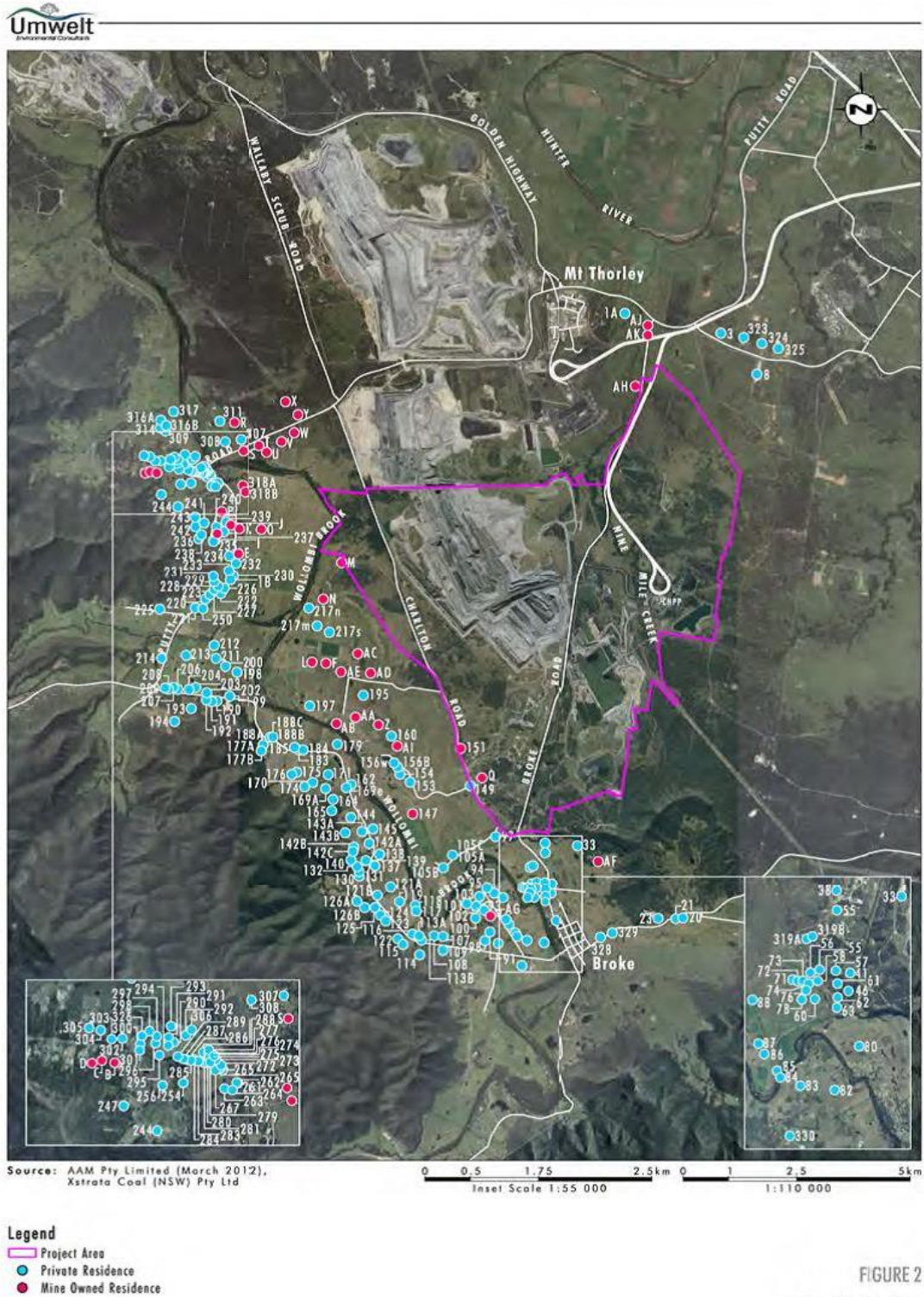
Local Government Area: Singleton Shire  
 Counties: Northumberland and Hunter  
 Parishes: Wollombi, Vere, Whybrow, Milbrodale and Broke

DP	Lot	DP	Lot
Road 14916		174788	A
Road 1033019		174788	B
part Moffat Street		205613	1
part Ellis Street		205613	2
part Blaxland Street		205613	3
part Adair Street		244826	10
Cobcroft Road		244826	11
part Charlton Road		247398	1
part Fordwich Road		247398	2
part Broke Road (MR 181)		247398	3
Part Butlers Lane		247398	4
closed road between Lot 72 & 73 DP 755270		247398	5
various unnamed crown roads		247398	6
3475md	ms	247398	7
10022	4	247398	8
10022	5	247398	9
10022	6	247398	10
10022	7	247398	11
10022	8	247398	12
10022	9	247398	13
10022	10	247398	14
606531	112	247398	15
10022	15	247398	16
10022	16	247398	17
10022	17	247398	18
10022	18	247398	19
62544	1	248448	4
62544	2	248448	5
102103	1	248448	6
102103	2	248448	7
133135	1	248448	8
133135	2	260663	274
133135	3	263943	20
133168	1	435160	1
133168	2	445449	1
133168	3	45581	1
171648	1	47305	1
545559	191	755264	29
545559	192	755264	30
561424	3	755264	31
561424	4	755264	33
561424	5	755264	34
561424	6	755264	35
563668	1	755264	36

DP	Lot	DP	Lot
564480	1	755264	43
587986	5	755264	44
599574	4	755264	51
612261	851	755264	52
612261	852	755264	53
615819	4	755264	54
634708	1	755264	56
657988	1	755264	61
662301	1	755264	80
703892	32	755264	81
704474	7	755264	82
705699	11	755264	83
705699	12	755264	85
705699	13	755264	86
723292	1	755264	98
729923	1	755264	103
729952	126	755264	105
745971	1	755264	109
749857	709	755264	111
755264	22	755264	113
755264	23	755264	125
755264	24	755270	37
755264	25	755270	38
755264	26	755270	39
755264	27	755270	40
755264	28	755270	41
755270	43	758164	3/33
755270	44	758164	4/33
755270	45	758164	5/33
755270	46	758164	6/33
755270	48	758164	7/33
755270	49	758164	8/33
755270	50	758164	3/50
755270	51	758164	1/51
755270	52	758164	2/51
755270	57	758164	3/51
755270	59	758164	4/51
755270	60	784032	1
755270	62	800688	30
755270	68	800688	31
755270	69	811613	20
755270	72	811613	21
755270	73	816636	24
755270	74	821150	1
755270	75	822165	1
755270	76	852571	26a
755270	77	852571	26
755270	78	852571	27
755270	79	861535	1
755270	120	861535	2

DP	Lot	DP	Lot
755270	121	861535	3
755270	122	861535	4
755270	123	861535	5
755270	125	822165	1
758164	6/21	877447	21
758164	7/21	966407	1
758164	8/21	986831	1
758164	1/33	986831	2
758164	2/33	1007798	3
1007798	4	1015814	1243
1007798	5	1015814	1244
1007798	6	1033019	100
1015814	1241	1033019	101
1015814	1242		

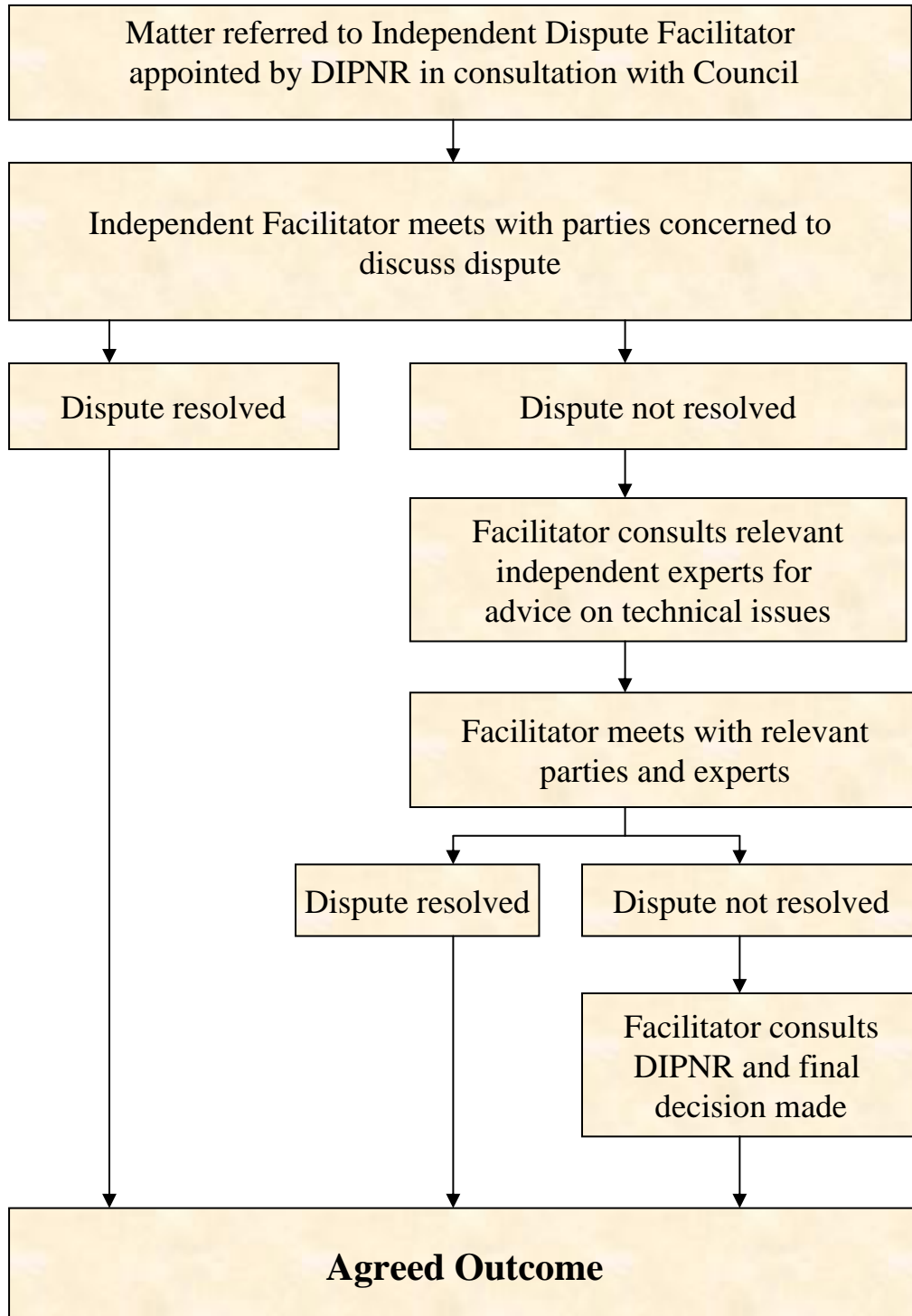
## APPENDIX 2 RECEIVER LOCATION PLAN



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**APPENDIX 3**  
**INDEPENDENT DISPUTE RESOLUTION PROCESS**

**Independent Dispute Resolution Process  
(Indicative only)**



## APPENDIX 4 NOISE COMPLIANCE ASSESSMENT

### Applicable Meteorological Conditions

1. The noise criteria in Tables 12 and 13 of the conditions and Table 18 of Appendix 5 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 10m above ground level; or
  - d. temperature inversion conditions greater than 3°C/100m; or
  - e. temperature inversion conditions between 1.5°C and 3°C/100 m and wind speeds greater than 2 m/s at 10 m above ground level.

### Determination of Meteorological Conditions

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

### Compliance Monitoring

3. Attended monitoring is to be used to evaluate compliance with the relevant conditions of this approval.
4. 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). Monitoring **must** have particular regard to 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 impulsive noise, intermittent noise, or duration.

## APPENDIX 5 ALTERNATE NOISE CONDITION

### Noise Impact Assessment Criteria

1. Except for noise generated by gas drainage well construction for the Blakefield North Mine, the Applicant shall ensure that the noise generated by the development does not exceed the noise impact assessment criteria in Table 18 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.

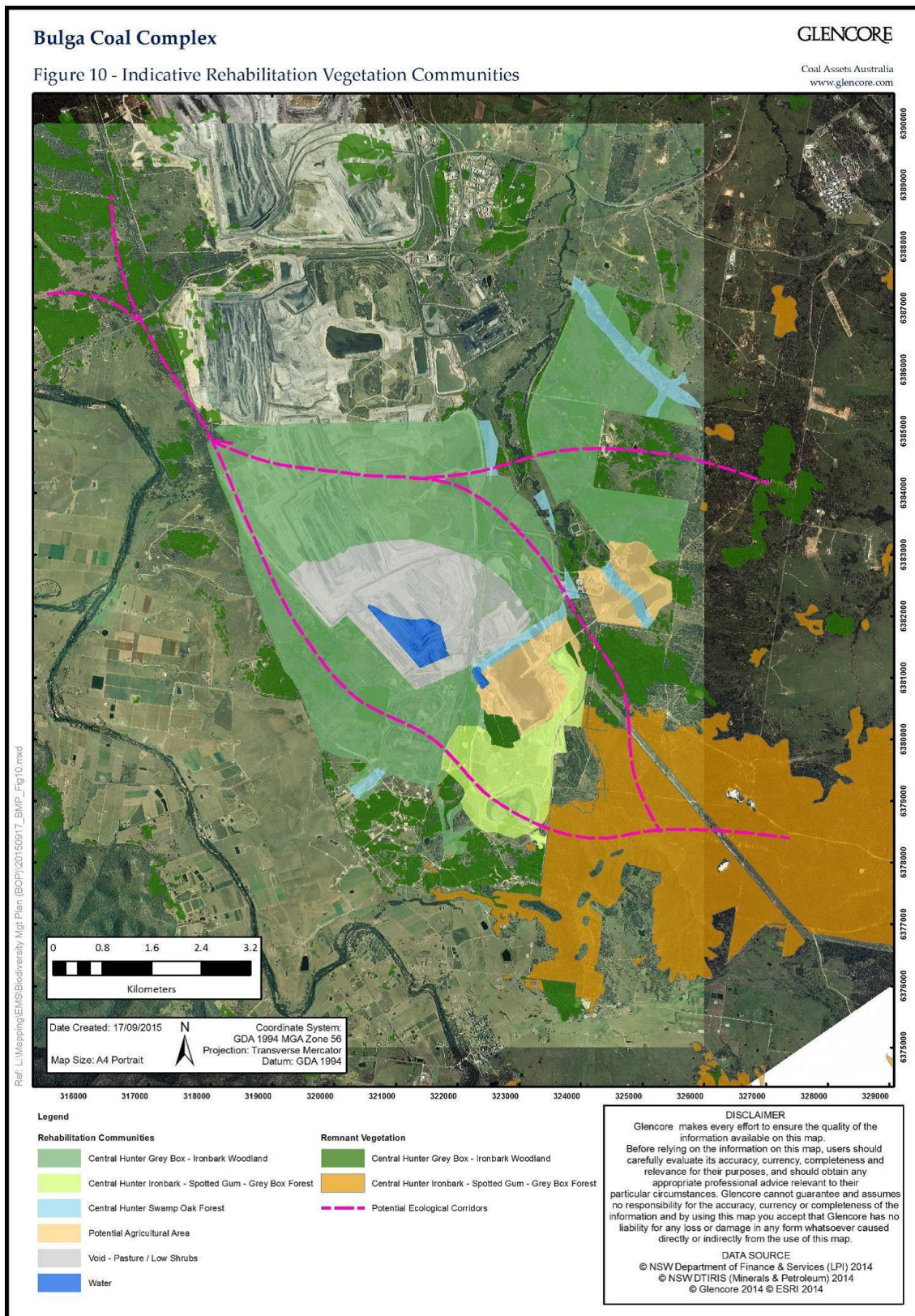
Table 18: Noise Impact Assessment Criteria dB(A)

<b>Location</b>	<b>Day</b> <i>L<sub>Aeq</sub> (15 min)</i>	<b>Evening</b> <i>L<sub>Aeq</sub> (15 min)</i>	<b>Night</b> <i>L<sub>Aeq</sub> (15 min)</i>	<b>Night</b> <i>L<sub>A1</sub> (1 min)</i>
All privately-owned residences	35	35	35	45

*Notes:*

- For the purposes of this condition an “exceedance” is considered to have occurred when valid attended noise data from compliance monitoring (collected in accordance with the requirements in Appendix 4) indicates the noise generated by the Bulga Underground Mine has exceeded the criteria set out in Table 18.
- Appendix 4 sets out the meteorological conditions under which these criteria apply, and the requirements for evaluating compliance with these criteria.
- These noise limits do not apply at residences or land if the Applicant has a negotiated agreement with the relevant owner/s of that residence or land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.

## APPENDIX 6 REHABILITATION VEGETATION COMMUNITIES



## APPENDIX 7 WOLLOMBI BROOK CONSERVATION AREA

