

# 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

Light Blue type represents July 2020 modification

Pink type represents February 2022 modification

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

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

## SCHEDULE 1

<b>Development Application:</b>	DA 376-8-2003;																
<b>Applicant:</b>	Bulga Coal Management Pty Limited;																
<b>Consent Authority:</b>	Minister for Infrastructure and Planning;																
<b>Land:</b>	See Appendix 1;																
<b>Proposed Development:</b>	<p>The development of underground mining operations at the Bulga Complex in general accordance with the Environmental Impact Statement for <i>the Bulga Coal Continued Underground Operations</i>, which includes:</p> <ul style="list-style-type: none"><li>• underground mining in 4 coal seams, producing up to 14 million tonnes of run-of-mine (ROM) coal a year;</li><li>• processing a maximum of 20 million tonnes of ROM coal a year from the Bulga Complex (which includes open cut and underground mining operations);</li><li>• constructing a range of associated infrastructure, including new amenities, offices, road intersections, coal conveyors, gas drainage plants, and gas drainage and dewatering bores;</li><li>• using, and in some cases upgrading existing infrastructure; and</li><li>• transporting coal to Newcastle Port by rail.</li></ul>																
<b>State Significant Development:</b>	<p>The proposal is classified as State significant development, under section 76A(7) of the <i>Environmental Planning &amp; Assessment Act 1979</i>, because it involves coal-mining related development that requires a new mining lease under section 63 of the <i>Mining Act 1992</i>.</p>																
<b>Integrated Development:</b>	<p>The proposal is classified as integrated development, under section 91 of the <i>Environmental Planning &amp; Assessment Act 1979</i>, because it requires additional approvals under the:</p> <ul style="list-style-type: none"><li>• <i>Protection of the Environment Operations Act 1997</i>;</li><li>• <i>National Parks &amp; Wildlife Act 1974</i>;</li><li>• <i>Water Act 1912</i>;</li><li>• <i>Roads Act 1993</i>; and</li><li>• <i>Mine Subsidence Compensation Act 1961</i>.</li></ul>																
<b>Designated Development:</b>	<p>The proposal is classified as designated development, under section 77A of the <i>Environmental Planning &amp; Assessment Act 1979</i>, because it is for an underground coal mine, and consequently meets the criteria for designated development in schedule 3 of the <i>Environmental Planning &amp; Assessment Regulation 2000</i>.</p>																
<b>BCA Classification:</b>	<table><tr><td>Class 5:</td><td>Offices</td></tr><tr><td>Class 6:</td><td>Crib room</td></tr><tr><td>Class 8:</td><td>Workshop</td></tr><tr><td>Class 9b:</td><td>Bathhouse</td></tr><tr><td>Class 10a:</td><td>Gas drainage bore infrastructure</td></tr><tr><td></td><td>De-watering bore infrastructure</td></tr><tr><td>Class 10b:</td><td>Coal conveyor</td></tr><tr><td></td><td>Coal stockpile</td></tr></table>	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
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**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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## SCHEDULE 2

### DEFINITIONS

Aboriginal Object / Place	Has the same meaning as the definition of the term in section 5 of the NP&W Act
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 anyone else who relies on this consent to carry out the development that is subject to this consent
BCA	Building Code of Australia
BC Act	Biodiversity Conservation Act 2016
BCD	Biodiversity and Conservation Division within the Department
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	All physical works to enable mining operations to be carried out, including demolition and removal of buildings or works, and erection of buildings and other infrastructure permitted by this consent
Council	Singleton Shire Council
DA	Development Application
Dams Safety	Dams Safety NSW within the Department
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	NSW Department of Planning and Environment
Development	The development as described in the documents listed in condition 2 of Schedule 3
DPIE Crown Lands	Crown Lands Group within the Department
DPIE Water	Water Group within the Department
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
EEC	Endangered ecological community, as defined under the BC Act and/or EPBC Act
EIS	Environmental Impact Statement prepared by Umwelt (Australia) Pty Ltd titled <i>Bulga Coal Continued Underground Operations</i> , volumes 1-5, dated July 2003

Environment	Includes all aspects of the surroundings of humans, whether affecting any humans as an individual or in his or her social groupings
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>
EPBC Act	<i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</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
Feasible	Means what is possible and practicable in the circumstances
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
GTA	General Term of Approval
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>
Heritage NSW	Heritage Branch of the Department of Premier and Cabinet
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 in this consent where it is defined to mean the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this consent
Material harm	Is harm to the environment that: <ul style="list-style-type: none"> <li>involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial; or</li> <li>results in actual or potential loss or property damage of an amount or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment)</li> </ul>
MEG	Mining, Exploration and Geoscience within Regional NSW
Minimise	Implement all reasonable and feasible mitigation measures to reduce the impacts of the development
Mining Operations	The carrying out of mining, including the extraction, processing, handling, storage, stockpiling and transportation of coal on the site and the associated removal, storage and/or emplacement of vegetation, topsoil, overburden, tailings and coarse reject material
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
MR (MOD 8)	The modification application DA 376-8-2003 MOD 8 and accompanying documents titled <i>DA 376-8-2003 – Application to change the Bulga Coal Annual Review reporting period and change to use the sigma theta method for meteorological monitoring</i> , prepared and submitted by Glencore on 21 January 2022
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
NP&W Act	<i>National Parks and Wildlife Act 1974</i>
Open cut mining operations	The carrying out of mining operations using open cut mining methods in accordance with the consent for the Bulga Optimisation Project (SSD 4960), as modified
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Planning Secretary	Planning Secretary under the EP&A Act or nominee

Privately-owned land	Land that is not owned by a public agency, or a mining company (or its subsidiary)
Public Infrastructure	Infrastructure that provides services to the general public, such as roads, railways, water supply, drainage, sewerage, gas supply, electricity, telephone, telecommunications, etc.
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Reasonable costs	The costs agreed between the Department and the 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 restoration of land disturbed by the development to a good condition to ensure it is safe, stable and non-polluting
Remediation	Activities associated with partially or fully repairing or rehabilitating the impacts of the development or controlling the environmental consequences of this impact
RFS	NSW Rural Fire Service
RR	Regional NSW - Resources Regulator
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
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 Mining Area Modification – Section 96(2) Application to Modify Consent DA 376-8-2003</i> , dated March 2007, including the Response to Submissions dated July 2007
SEE (MOD 7)	Modification application 376-8-2003 MOD 7, and accompanying Statement of Environmental Effects titled <i>Bulga Optimisation Project Modification 3 and Bulga Underground Modification 7</i> , dated September 2019 and prepared by Umwelt (Australia) Pty Ltd, including the associated reports titled <i>Submissions Report</i> dated December 2019, <i>Response to Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development Advice</i> , dated April 2020, and additional information dated 9 March 2020
Site	The land listed in Appendix 1, including any subdivided lot that may be created from the listed land lots
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
TfNSW	Transport for NSW



Underground Mining Operations	The carrying out of mining operations using underground mining methods, in accordance with this consent
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. In addition to meeting the specific performance measures and criteria established under this consent, 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 development 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);
  - (g) EA (MOD 6);
  - (h) SEE (MOD 7); and
  - (i) MR (MOD 8).
- 2A. The Applicant must carry out the development in accordance with the conditions of this consent.
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 Planning 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;
  - (b) any reports, reviews or audits commissioned by the Department regarding compliance with this consent; and
  - (c) the implementation of any actions or measures contained in these documents.

#### LIMITS ON 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 Planning Secretary or RR. 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.

- 7B. The Applicant may undertake mining operations 24 hours per day, 7 days per week.

## 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 Planning 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;
  - (b) the relevant requirements of AS 3959-2009 Construction of buildings in bush fire-prone areas; and
  - (c) any additional requirements of SANSW where the building or structure is located on land within a declared Mine Subsidence District.

### Notes:

- Under Part 6 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 21 of the Coal Mine Subsidence Compensation Act 2017, 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, or any equipment used off site for monitoring the performance of the development, is:
- (a) maintained in a proper and efficient condition; and
  - (b) operated in a proper and efficient manner.

## 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.

## PROTECTION OF PUBLIC INFRASTRUCTURE

13. Unless the Applicant and the applicable authority agree otherwise, the Applicant must:
- (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and



- (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.

*Note: This condition does not apply to any damage to public infrastructure subject to compensation payable under the Coal Mine Subsidence Compensation Act 2017, or to any damage to roads caused as a result of general road usage.*

## **EVIDENCE OF CONSULTATION**

- 14. Where conditions of this consent require consultation with an identified party, the Applicant must:
  - (a) consult with the relevant party prior to submitting the subject document; and
  - (b) provide details of the consultation undertaken including:
    - (i) the outcome of that consultation, matters resolved and unresolved; and
    - (ii) details of any disagreement remaining between the party consulted and the Applicant and how the Applicant has addressed the matters not resolved.

## **COMPLIANCE**

- 15. The Applicant must ensure that all of its employees, contractors (and their sub-contractors) are made aware of, and are instructed to comply with, the conditions of this consent relevant to activities they carry out in respect of the development.

## **APPLICABILITY OF GUIDELINES**

- 16. References in the conditions of this consent to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, Standards or policies in the form they are in as at the date of inclusion (or later update) in the condition.
- 17. However, consistent with the conditions of this consent and without altering any limits or criteria in this consent, the Planning Secretary may, in respect of ongoing monitoring and management obligations, agree to or require compliance with an updated or revised version of such a guideline, protocol, Standard or policy, or a replacement of them.

## **CROWN LAND**

- 18. The Applicant must consult with DPIE – Crown Lands prior to undertaking any development on Crown Land or Crown Roads.

### **Notes:**

- Under section 265 of the Mining Act 1992, the Applicant is required to enter into a compensation agreement with DPIE – Crown Lands prior to undertaking any mining operations or related activities on Crown land or Crown roads within a mining lease.
- Under section 141 of the Mining Act 1992, the Applicant is required to enter into an access arrangement with DPIE – Crown Lands prior to undertaking any prospecting operations on Crown land or Crown roads within an exploration licence.

## 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 and 10 of Schedule 5:

*Table 1: Land subject to acquisition upon request*

Property 195 - Kennedy	149 – E. McInerney
Property 217s - Russell	150 – E. McInerney

*Notes:*

- For more information on the numerical references to land used in this condition, see the figures in Appendix 2.

2. If the Applicant submits an [Extraction Plan to the Planning Secretary](#) 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 and 10](#) 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 [Planning 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 [Planning 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 <a href="#">condition 2 of Schedule 3</a>
<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 <a href="#">condition 2 of Schedule 3</a>
<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 **Planning 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 **Planning 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.

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 [Coal Mine Subsidence Compensation Act 2017](#), 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 [Planning Secretary](#). The [Planning Secretary](#) may seek the advice of [SANSW](#) or the [RR](#) on the matter. Any decision by the [Planning Secretary](#) 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 approved underground mining areas of the site, other than in accordance with an approved Extraction Plan, provided that:
- the first workings are designed to remain stable and non-subsiding in the long term, except insofar as they may be impacted by approved second workings, and
  - the Resources Regulator is notified at least 90 days prior to the works being carried out and they raise no objections.

*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 negligible resulting direct subsidence impacts.*

## Extraction Plan

- 7B. The Applicant must prepare an Extraction Plan for any second workings on site, to the satisfaction of the [Planning Secretary](#). The plan must:
- be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the [Planning Secretary](#);
  - take into account any guidelines issued by the Department for the preparation of Extraction Plans;
  - be approved by the [Planning Secretary](#) before the Applicant carries out any of the second workings covered by the plan;
  - include detailed plans of existing and proposed first and second workings and any associated surface development;
  - include detailed performance indicators for each of the performance measures shown in Tables 1A and 1B;
  - 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;
  - 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;
  - 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;
  - include the following to the satisfaction of the [RR](#):
    - 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, [Dams Safety NSW](#), [TfNSW](#) 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.
  - include a:
    - Water Management Plan, which has been prepared in consultation with the EPA and [DPIE 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 [BCD](#), 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 [BCD](#) 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 Extraction Plan as approved by the Planning Secretary.](#)

#### **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 [Planning 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 [Planning Secretary](#). This plan must be submitted to the [Planning 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 Gas Drainage Management Plan as approved by the Planning 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 Planning Secretary. This plan must be submitted to the Planning 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 Service Boreholes Management Plan as approved by the Planning Secretary.

### Exploration Activities and Surface Infrastructure

- 7G. Prior to carrying out exploration activities on the site under this consent that would cause temporary surface disturbance or the construction and/or upgrade of minor surface infrastructure on the site, the Applicant must prepare an Exploration Activities and Minor Surface Infrastructure Management Plan for the development to the satisfaction of the Planning Secretary. This Plan must:
- (a) be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the Planning Secretary;
  - (b) be prepared in consultation with MEG and BCD;
  - (c) include a description of the measures to be implemented for:
    - (i) managing exploration activities;
    - (ii) managing construction and operation of minor surface infrastructure and associated access tracks;
    - (iii) consulting with and compensating affected landowners;
    - (iv) assessing noise, air quality, traffic, biodiversity, heritage, public safety and other impacts;
    - (v) beneficial re-use or flaring of drained hydrocarbon gases, wherever practicable;
    - (vi) avoiding significant impacts and minimisation of impacts generally;
    - (vii) avoiding threatened species, populations or their habitats and EECs;
    - (viii) minimising clearance and disturbance of native vegetation;
    - (ix) minimising and managing erosion and sedimentation; and
    - (x) rehabilitating disturbed areas.

The Applicant must implement the Exploration Activities and Minor Surface Infrastructure Management Plan as approved by the Planning Secretary.



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

### **Pollution of Waters**

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**:
- (a) not discharge more than 55 ML/day from the licensed discharge point/s at the development; and
  - (b) 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**:
- (a) review the site water balance for the development against the predictions in the EIS;
  - (b) re-calculate the site water balance for the development; and
  - (c) report the results of this review in the Annual Review.

### **Water Supply**

- 10A. The Applicant must ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of the development to match its available water supply.

*Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain necessary water licences for the development, including during rehabilitation and post mine closure.*

- 10B. The Applicant must report on water extracted from the site each year (direct and indirect) in the Annual Review, including water taken under each water licence for the development. The Applicant must also report on any water transferred to/from the site each year (direct and indirect) in the Annual Review, including water taken under water licences that apply to other mining operations.

### **Flood Exclusion Levee**

11. The **Applicant must** design, construct, maintain, and rehabilitate the Flood Exclusion Levee to the satisfaction of the **Planning Secretary**. This levee **must**:
- (a) remain stable under a 1 in a 100 year ARI flood event; and

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<sup>1</sup> Incorporates EPA GTA

<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.

- (b) 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 **Planning Secretary**.

### Monitoring

13. The **Applicant must**:
- (a) 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;
  - (b) monitor the quality of the surface water:
    - discharged from the licensed discharge point/s at the development; and
    - upstream and downstream of the development;
  - (c) monitor flows in the Wollombi Brook;
  - (d) monitor the volume and quality of water inflows to and from the underground workings; and
  - (e) 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
  - (f) periodically assess groundwater pressure response in the coal measures;
- in consultation with **EPA and DPIE Water** and to the satisfaction of the **Planning Secretary**.

### 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 **Planning 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;

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<sup>3</sup> Incorporates EPA GTA

- (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 **Planning 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 **Planning 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 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 **Planning Secretary**. This program **must**:
  - (a) assess the impact on groundwater resources and surface expression resulting from underground mining at varying depths;
  - (b) 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
  - (c) 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 **Planning Secretary**.

## AIR QUALITY

### Impact Assessment Criteria

22. The Applicant must ensure that all reasonable and feasible avoidance and mitigation measures are implemented so that the particulate matter emissions generated by the Bulga mining complex do not exceed the criteria listed in Table 3 at any residence on privately-owned land.

Table 3: Air quality criteria

Pollutant	Averaging period	Criterion
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	<sup>a, c</sup> 25 µg/m <sup>3</sup>
	24 hour	<sup>b</sup> 50 µg/m <sup>3</sup>
Particulate matter < 2.5 µm (PM <sub>2.5</sub> )	Annual	<sup>a, c</sup> 8 µg/m <sup>3</sup>
	24 hour	<sup>b</sup> 25 µg/m <sup>3</sup>
Total suspended particulate (TSP) matter	Annual	<sup>a, c</sup> 90 µg/m <sup>3</sup>
<sup>d</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:**

<sup>a</sup> Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources).

<sup>b</sup> Incremental impact (i.e. incremental increase in concentrations due to the development on its own).

<sup>c</sup> Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any other activity agreed by the Planning Secretary.

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

23. The air quality criteria in Table 3 do not apply if the Applicant has an agreement with the owner/s of the relevant residence or land to exceed the air quality criteria, and the Applicant has advised the Department in writing of the terms of this agreement.

### Air Quality Operating Conditions

24. The Applicant must:
- implement all reasonable and feasible measures to minimise the off-site odour, fume and particulate matter (including PM<sub>10</sub> and PM<sub>2.5</sub>) 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 consent; 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 Planning 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 Planning Secretary. This plan must:
- be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the Planning Secretary;
  - be prepared in consultation with the EPA and submitted to the Planning 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 consent, including consideration of applying a real-time air quality management system that employs both reactive and proactive mitigation measures;

- (d) describe the measures that would be implemented to minimise the release of greenhouse gas emissions from the site; and
- (e) include an air quality monitoring program undertaken in accordance with the *Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales* (DEC, 2007) that uses a combination of real-time monitors and supplementary monitors to evaluate the performance of the development, and includes a protocol for determining exceedances with the relevant conditions of this consent.

The Applicant must implement the Air Quality & Greenhouse Gas Management Plan as approved by the Planning Secretary.

25. Deleted

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, *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.

*Table 11: Power Generation Plant and VAM Abatement Unit Monitoring*

Parameter	Units of Measure	Sampling method <sup>1</sup>
Carbon monoxide	mg/m <sup>3</sup>	TM-32
Nitrogen dioxide (NO <sub>2</sub> ) or nitric oxide (NO) or both, as NO <sub>2</sub> equivalent	mg/m <sup>3</sup>	OM-11
Volatile organic compounds	mg/m <sup>3</sup>	TM-34
Volumetric flow rate	m <sup>3</sup> /s	TM-2
Oxygen	%	TM-25
Moisture	%	TM-22
Dry gas density	kg/m <sup>3</sup>	TM-23
Molecular weight of stack gases	g/g.mol	TM-23
Selection of sampling positions	-	TM-1

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

#### **4NOISE**

##### **Construction Noise**

- 28B. Approved construction works (including gas drainage well construction) must be undertaken during standard construction hours (7am to 6pm, Monday to Friday and 8am to 1pm on Saturdays, excluding Sundays and Public Holidays), unless otherwise agreed by the Planning Secretary.

The Applicant may undertake construction works outside of these hours provided that:

- (a) the combined operational and construction noise from the development does not exceed the operational noise criteria under conditions 30 and 30A of this Schedule; or
- (b) the Applicant has an agreement with the owner/s of the relevant residence/land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement; or
- (c) an alternative temporary limit has been approved by the Planning Secretary for specific works.

- 28C. In order to seek an alternative temporary construction noise limit under Condition 28B that exceeds the levels identified in conditions 30 and 30A of this Schedule, the Applicant must submit a Construction Noise Work Protocol to the Planning Secretary for approval, prior to undertaking the nominated construction works. This protocol must:

- (a) be prepared to the satisfaction of the Planning Secretary;
- (b) be prepared in consultation with the EPA and any landowners who may be affected by the proposed variation; and
- (c) address the relevant requirements of the Interim Construction Noise Guideline.

The Applicant may only undertake construction activities that require a Construction Work Noise Protocol, in accordance with an approved Construction Noise Work Protocol as approved by the Planning Secretary.

29. Deleted

<sup>4</sup> Incorporates EPA GTAs



## Noise Impact Assessment Criteria

30. Except for noise affected land listed in Table 1, 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.

Table 13: Noise Impact Assessment Criteria dB(A)

Location	Day	Evening	Night	Night
	<i>L<sub>Aeq</sub> (15 min)</i>	<i>L<sub>Aeq</sub> (15 min)</i>	<i>L<sub>Aeq</sub> (15 min)</i>	<i>L<sub>A1</sub> (1 min)</i>
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, 237, 239, 240, 241, 261, 262, 263, 264, 265, 266, 272	36	36	36	45
All other privately-owned residences	35	35	35	45

However, the noise criteria in Table 13 do not apply if the Applicant has a written agreement with the relevant landowner to exceed the noise criteria, and the Applicant has advised the Department in writing of the terms of this agreement.

### 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 “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 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.

- 30A. At the direction of the Planning Secretary, Table 13 above must be replaced with the Table in Appendix 5.

*Note: This direction will be given following the construction of the proposed noise and visual bund under SSD 4960 to a height of 150 m AHD or the start of year 7 of development under SSD 4960, whichever occurs sooner.*

## Additional Noise Mitigation Measures

31. Upon receiving a written request from the landowner of any residence on land listed in Table 1 (unless the landowner of that land has requested acquisition), 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 and directed towards reducing the noise impacts of the development on the residence. 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 Planning 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 Planning Secretary for resolution.

32. Deleted.

32A. Deleted.

### Noise Operating Conditions

32B. The Applicant must:

- (a) implement all reasonable and feasible measures to minimise the construction, operational and road noise of the development;
- (b) progressively upgrade and replace its mobile equipment fleet;
- (c) operate a comprehensive noise management system on site that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day-to-day planning of mining operations and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this consent; and
- (d) monitor and report on compliance with the relevant noise conditions of this consent,

to the satisfaction of the Planning Secretary.

### Noise Management Plan

32C. The Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:

- (a) be prepared by a suitably qualified expert whose appointment has been approved by the Planning Secretary, and submitted to the Planning Secretary for approval by 31 March 2014;
- (b) describe the measures that would be implemented to ensure compliance with the relevant conditions of this consent;
- (c) describe the proposed noise management system in detail;
- (d) include a noise monitoring program that:
  - evaluates and reports on:
    - the effectiveness of the noise management system;
    - compliance against the noise criteria in this consent; and
    - compliance against the noise operating conditions;
  - includes a program to calibrate and validate the real-time noise monitoring results with the attended monitoring results over time (so the real-time noise monitoring program can be used as a trigger for further attended monitoring where there is a risk of non-compliance with the noise criteria in this consent); and
  - defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents; and
- (e) include a Construction Noise Work Protocol as required under Condition 28C of this Schedule (including 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 this Schedule;
  - 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; and
  - 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:
    - $L_{Aeq\ 15\ min}$  50 dB during the day at any privately-owned receiver;
    - $L_{Aeq\ 15\ min}$  39 dB during the evening or night at any receiver; and
    - $L_{Aeq\ 1\ min}$  51 dB during the evening or night at any receiver.

The Applicant must implement the Noise Management Plan as approved by the Planning 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 consent, noise traces for the offending period should be forwarded to the Department and EPA as soon as practicable following the event.

## METEOROLOGICAL MONITORING

33. During the life of the development, the Applicant must ensure that there is a suitable meteorological station operating in the vicinity of the site that:
- (a) complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* (DEC, 2007) guideline; and
  - (b) is capable of measuring meteorological conditions in accordance with the *NSW Industrial Noise Policy* (EPA, 2000), unless a suitable alternative is approved by the Planning Secretary following consultation with the EPA.

## <sup>5</sup>ABORIGINAL CULTURAL HERITAGE

*Note: The Applicant is required to obtain consent from BCD 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 BCD.

### 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 BCD.

## Section 90 Consents

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

### Heritage Management Plan

38. The Applicant must prepare a Heritage Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:
- (a) be prepared in consultation with BCD, the Aboriginal community, and be submitted to the Planning Secretary for approval by the end of March 2014; and

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<sup>5</sup> Incorporates BCD GTAs

(b) 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 Heritage Management Plan as approved by the Planning Secretary.

### Trust Fund Contribution

39. Within 6 months of the date of this consent, or as agreed otherwise by the Planning 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 Planning 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 Heritage NSW, and to the satisfaction of the Planning Secretary.

#### Other Measures

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

### FAUNA & FLORA

#### Habitat Creation and Conservation

43. The Applicant must:
- (a) take all practicable measures to minimise vegetation clearing during the development, and wherever practicable, avoid clearing the existing woodland vegetation on site;
  - (b) establish and maintain the proposed ecological corridors on site (see Appendix 6);
  - (c) ensure the corridors shown in Appendix 6 link to the Wollombi Brook Conservation Area;
  - (d) 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 [Planning 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 [Planning 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 [Planning 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 [Planning Secretary](#).

#### **Biodiversity Management Plan**

44. The Applicant must prepare a Biodiversity Management Plan for the Bulga Mining Complex to the satisfaction of the [Planning Secretary](#). This plan must:
- (a) be prepared in consultation with BCD, and submitted to the [Planning 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 Biodiversity Management Plan as approved by the Planning 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>6</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 Planning Secretary. This plan must:
- (a) be prepared in consultation with Council and TfNSW and submitted to the Planning Secretary 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 Construction Traffic Management Plan as approved by the Planning 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

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<sup>6</sup> Incorporates RMS GTA



to the satisfaction of the [Planning 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 [Planning 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 [Planning 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 [Planning Secretary](#).

#### **WASTE MINIMISATION**

55. The [Applicant must](#) minimise the amount of waste generated by the development to the satisfaction of the [Planning Secretary](#).

#### **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](#):
- (a) ensure that the development is suitably equipped to respond to any fires on-site; and
  - (b) [assist the Rural Fire Service and emergency services to the extent practicable if there is a fire in the vicinity of the site; and](#)
  - (c) [provide for asset protection in accordance with the relevant requirements in the \*Planning for Bushfire Protection\* \(RFS, 2019\) guideline.](#)

## 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 in accordance with the conditions imposed on the mining leases(s) associated with the development under the *Mining Act 1992*. 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 <a href="#">Final land use compatible with surrounding land uses</a>
Surface infrastructure	To be decommissioned and removed, unless the <a href="#">RR</a> agrees otherwise
Portals and vent shafts	To be decommissioned and made safe and stable. <a href="#">Consider opportunities to retain</a> 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 <a href="#">RR</a> 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 <a href="#">Coal Mine Subsidence Compensation Act 2017</a>.</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 [an Extraction 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.

## Rehabilitation Management Plan

62. The Applicant must prepare a Rehabilitation Management Plan for the development in accordance with the conditions imposed on the mining lease(s) associated with the development under the *Mining Act 1992*. This plan must:
- (a) be prepared in consultation with the Department, DPIE Water, BCD, Council and the CCC;
  - (b) be prepared in accordance with any relevant RR guideline and be consistent with the rehabilitation objectives in Table 17;
  - (c) describe how the rehabilitation of the site would be integrated with the implementation of the requirements of conditions 43 and 43A of this Schedule;
  - (d) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);
  - (e) describe the measures that would be implemented to ensure compliance with the relevant conditions of this consent, and address all aspects of rehabilitation including mine closure, final landform, and final land use;
  - (f) provide for detailed mine closure planning, including measures to investigate and facilitate post-mining beneficial land uses for the site;
  - (g) include interim rehabilitation where necessary to minimise the area exposed for dust generation;
  - (h) include a program to monitor and report on the effectiveness of the measures, and progress against the detailed performance and completion criteria; and
  - (i) build to the maximum extent practicable on the other management plans required under this consent.

## SCHEDULE 5

### ADDITIONAL PROCEDURES

#### 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 Planning Secretary and the affected landowners and tenants (including tenants of mine owned properties) accordingly, and provide regular monitoring results to each of these parties until the results show that the 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 and the tenants of any mine-owned land. 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
    - the potential health and amenity impacts associated with exposure to particulate matter; and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (NSW Health, 2017);
  - (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 Planning Secretary in writing for an independent review of the impacts of the development on his/her land.

If the Planning Secretary is satisfied that an independent review is warranted, then within 3 months of the Planning Secretary's decision, the Applicant must:

- (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Planning Secretary, to:
    - consult with the landowner to determine his/her concerns;
    - conduct monitoring to determine whether the development is complying with the relevant impact assessment criteria in Schedule 4; and
    - if the development is not complying with these criteria then identify the measures that could be implemented to ensure compliance with the relevant criteria; and
    - in cases where there is an exceedance of any air quality criteria, and more than one mine is responsible for the exceedance, determine the relative share of each mine regarding the impact of the development; and
  - (b) give the Planning 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, Cessnock or Muswellbrook local government areas**, or to any other local government area determined by the **Planning 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 **Planning Secretary** for resolution.

Upon receiving such a request, the **Planning 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.

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 **Planning 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 **Planning 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 **Planning 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 **Planning 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 **Planning Secretary** determines otherwise.

10. The Applicant must pay all reasonable costs associated with the land acquisition process described in condition 9 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.

## SCHEDULE 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 **Planning Secretary**. This strategy must:
  - (a) be submitted to the **Planning 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 **and any incident; and**
    - 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 Environmental Management Strategy as approved by the **Planning 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 **Planning Secretary**,  
to the satisfaction of the **Planning 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 **Planning 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 **Planning Secretary**, the Applicant must submit a report to the Department reviewing the environmental performance of the development to the satisfaction of the **Planning 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 **Planning Secretary**.

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

## Updating & Staging Strategies, Plans or Programs

- 5A. The Applicant may at any time submit revised strategies, plans or programs for the approval of the Planning Secretary. With the agreement of the Planning Secretary, the Applicant may also submit any strategy, plan or program required by this consent on a staged basis.

With the agreement of the Planning Secretary, the Applicant may prepare a revision or stage of any strategy, plan or program required under this consent without undertaking consultation with all parties nominated under the applicable condition in this consent.

### Notes:

- While any strategy, plan or program may be submitted on a staged basis, the Applicant must 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.

## Management Strategies, Plans or Programs

- 5B. With the approval of the Planning 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.

## Community Consultative Committee

6. The Applicant must operate a Community Consultative Committee (CCC) for the Bulga Mining Complex to the satisfaction of the Planning Secretary. This CCC must be operated in general accordance with the Department's Community Consultative Committee (CCC) Guidelines for State Significant Projects (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 Notification

7. The Applicant must immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must be in writing via the Department's Major Projects Website and identify the development (including the development application number and name) and set out the location and nature of the incident.

### Non-Compliance Notification

- 7A. Within seven days of becoming aware of a non-compliance, the Applicant must notify the Department of the non-compliance. The notification must be in writing via the Department's Major Projects Website and identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, why it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.

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

## Regular Reporting

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 Planning 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 Planning 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 Planning Secretary.

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

10. Within 12 weeks of commencing each audit, unless the Planning Secretary agrees otherwise, the Applicant must submit a copy of the audit report to the Planning Secretary, and any other NSW agency that requests it, 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. The recommendations must be implemented to the satisfaction of the Planning Secretary.

## Monitoring and Environmental Audits

- 10A. Any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification, compliance report and independent audit.

*Note: For the purposes of this condition, as set out in the EP&A Act, "monitoring" is monitoring of the development to provide data on compliance with the consent or on the environmental impact of the development, and an "environmental audit" is a periodic or particular documented evaluation of the development to provide information on compliance with the consent or the environmental management or impact of the development.*

- 10B. Noise and/or air quality monitoring under this consent may be undertaken at suitable representative monitoring locations instead of at privately-owned residences or other locations listed in Schedule 4, providing that these representative monitoring locations are set out in the respective management plan/s.

## 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 [Planning Secretary](#); and
- (b) keep this information up-to-date,  
to the satisfaction of the [Planning Secretary](#).
- 

FOR INFORMATION

**APPENDIX 1**  
**SCHEDULE OF LAND**

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

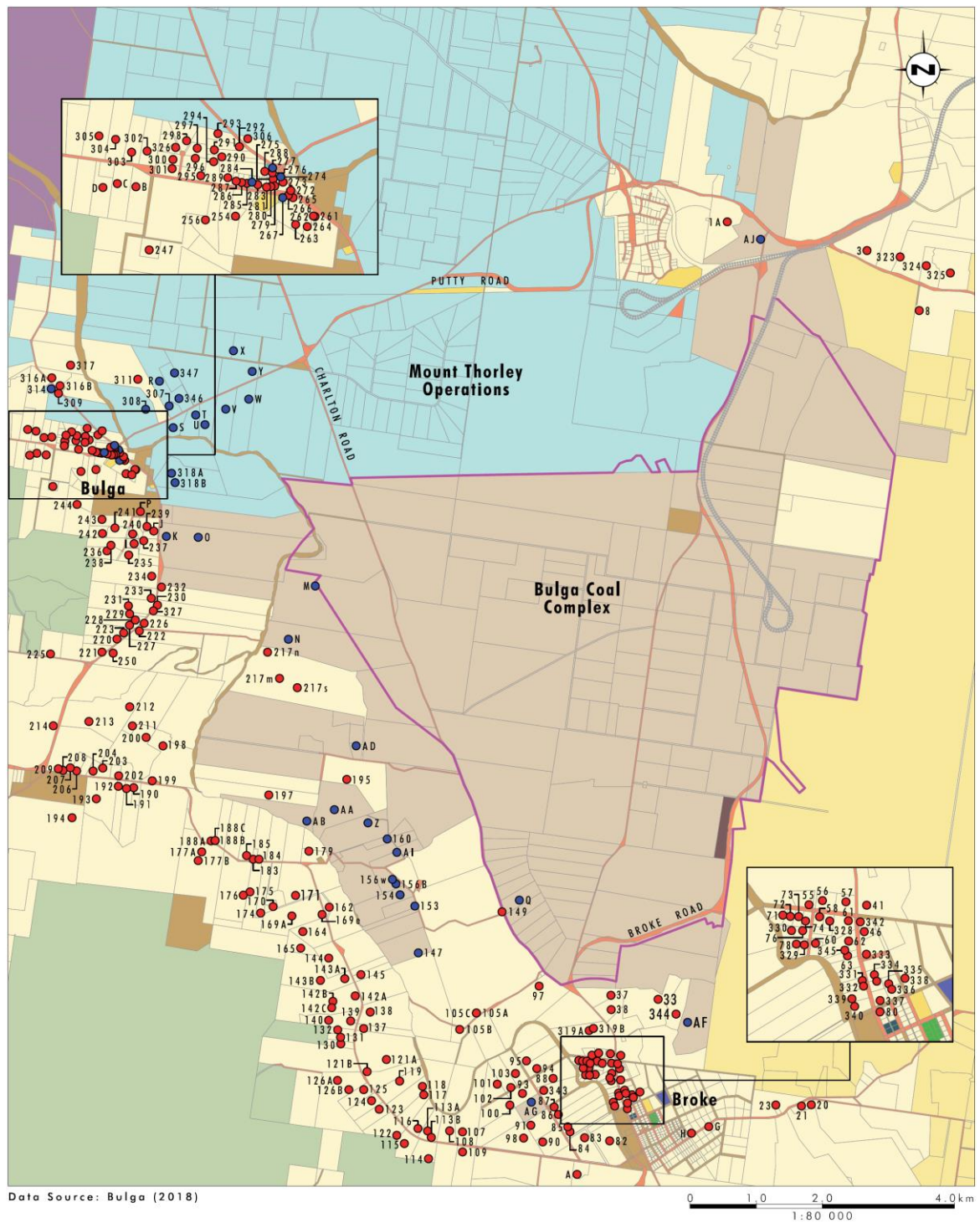
DP	Lot	DP	Lot
Road 14916		174788	A
Road 1033019		174788	B
part Moffat Street		205613	1
part Ellis Street		205613	2
part Blaxland Street		205613	3
part Adair Street		244826	10
Cobcroft Road		244826	11
part Charlton Road		247398	1
part Fordwich Road		247398	2
part Broke Road (MR 181)		247398	3
Part Butlers 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

DP	Lot	DP	Lot
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
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

DP	Lot	DP	Lot
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
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



### Legend

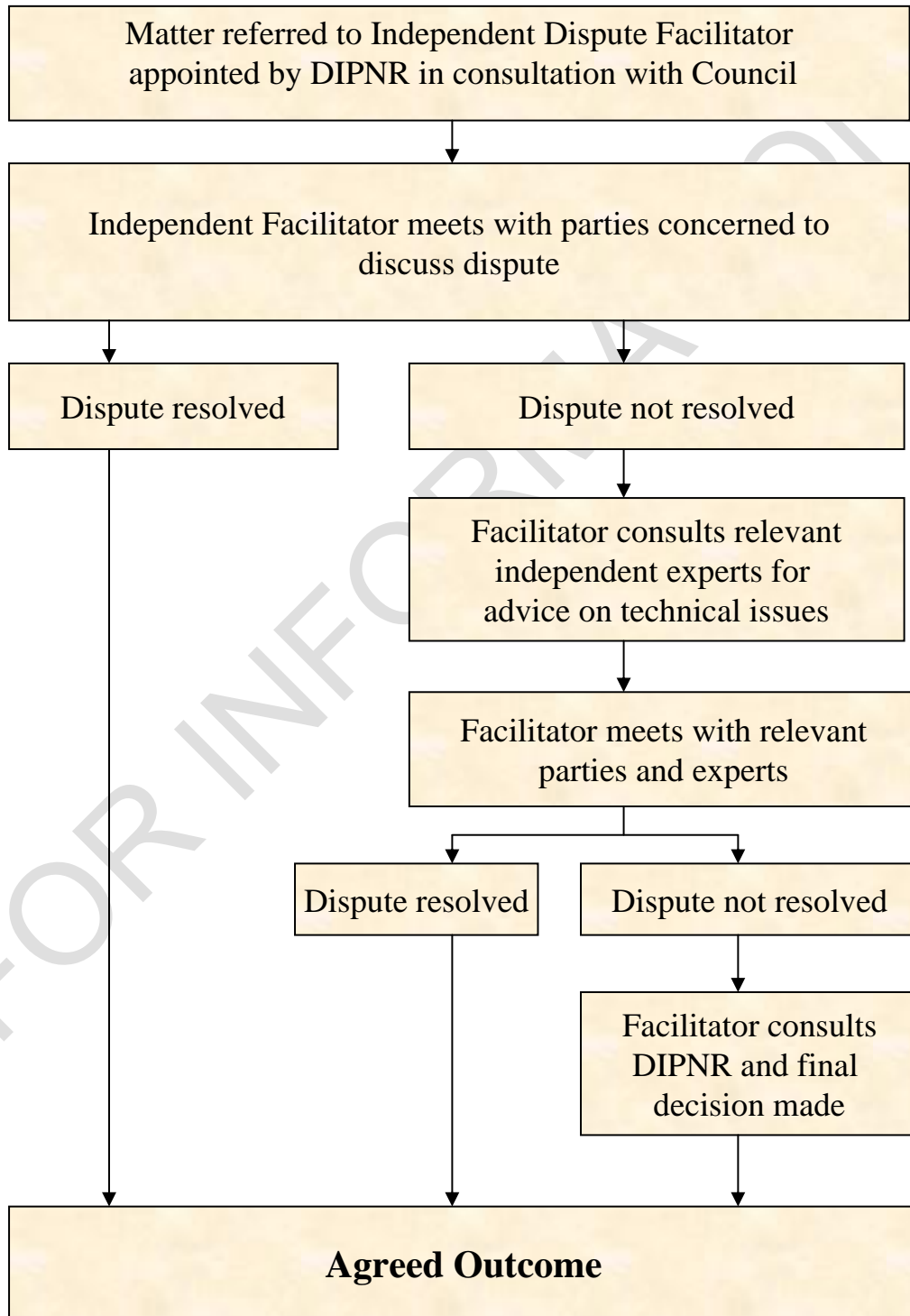
- |   |   |   |
|---|---|---|
| <span style="border: 1px solid purple; display: inline-block; width: 10px; height: 10px;"></span> Project Area                                      | <span style="background-color: #f4a460; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Defence           | <span style="background-color: #808080; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Singleton Council leased to BCM |
| <span style="color: blue;">●</span> Mine Owned Residence  | <span style="background-color: #d2b48c; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Glencore          | <span style="background-color: #ffa07a; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Government Authority            |
| <span style="color: red;">●</span> Private Residence  | <span style="background-color: #fff2cc; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Private           |   |
| <span style="color: blue;">■</span> AGL Energy  | <span style="background-color: #fff2cc; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Singleton Council |   |
| <span style="background-color: #90ee90; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Anglican Church Trustee | <span style="background-color: #add8e6; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Telstra           |   |
| <span style="background-color: #90ee90; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Broke Public School     | <span style="background-color: #4682b4; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Wambo             |   |
| <span style="background-color: #800000; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Bulga Community Centre  | <span style="background-color: #add8e6; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Yancoal           |   |
| <span style="background-color: #808080; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Crown Land              | <span style="background-color: #90ee90; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> National park     |   |

**Land Ownership  
and Receptor Locations**

### 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 [Table 12 of Schedule 4](#) 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. *stability category G inversion conditions under the NSW Noise Policy for Industry (EPA, 2017); or*
  - e. *stability category F inversion conditions under the NSW Noise Policy for Industry (EPA, 2017) 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

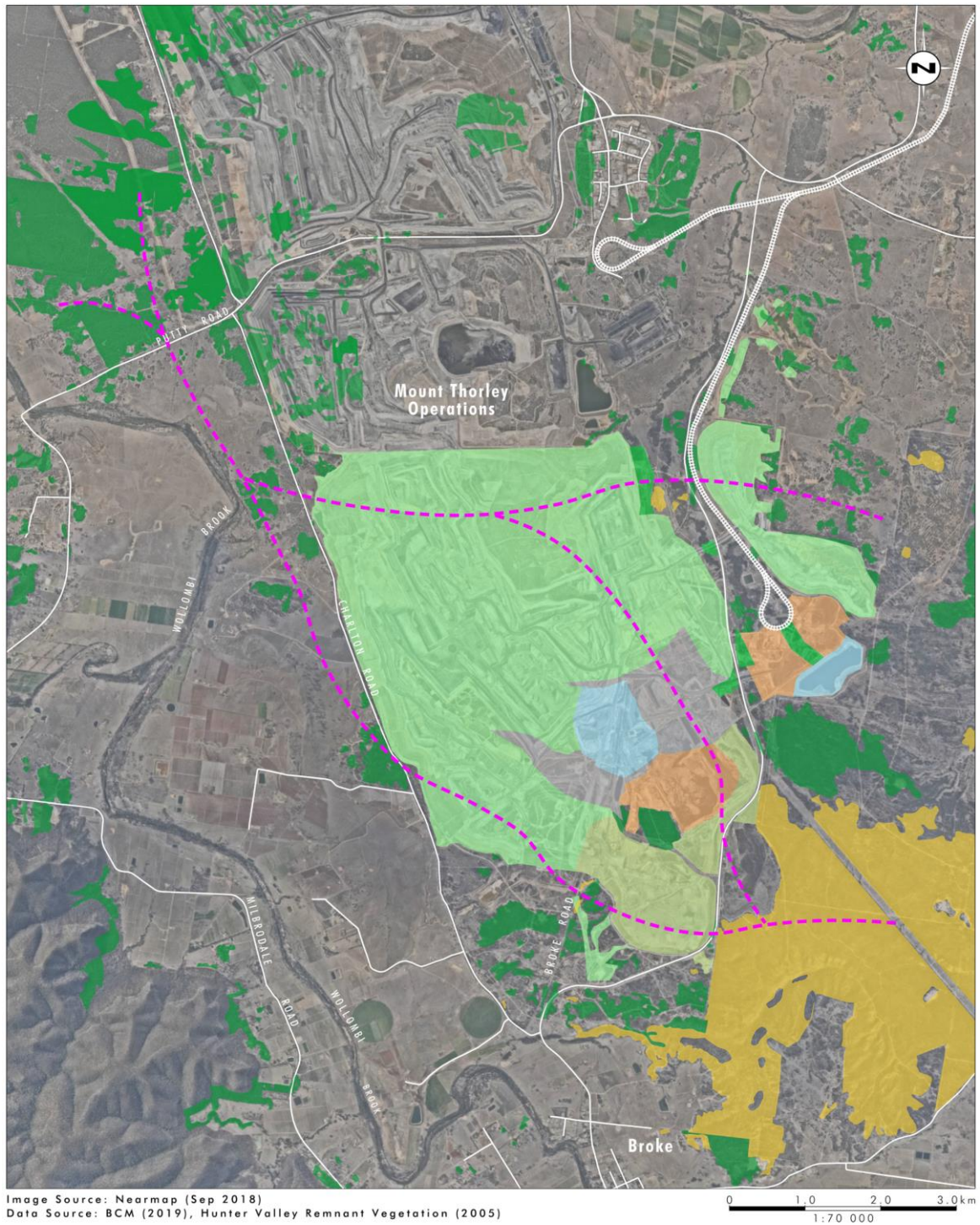
3. Attended monitoring is to be used to evaluate compliance with the relevant conditions of this [consent](#).
4. Unless otherwise agreed with the [Planning Secretary](#), this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the NSW Industrial 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**

<i>Location</i>	<i>Day</i> <i>L<sub>Aeq</sub> (15 min)</i>	<i>Evening</i> <i>L<sub>Aeq</sub> (15 min)</i>	<i>Night</i> <i>L<sub>Aeq</sub> (15 min)</i>	<i>Night</i> <i>L<sub>A1</sub> (1 min)</i>
<b>While open cut mining operations under SSD 4960 are operating concurrently</b>				
95,142A, 143B, 164, 165, 195, 217s	36	36	36	45
All other privately-owned residences	35	35	35	45
<b>Following completion of open cut mining operations under SSD 4960</b>				
All privately-owned residences	35	35	35	45



## APPENDIX 6 REHABILITATION VEGETATION COMMUNITIES



### Legend

#### Rehabilitation Communities

- Central Hunter Grey Box - Ironbark Woodland
- Central Hunter Ironbark - Spotted Gum - Grey Box Forest
- Central Hunter Swamp Oak Forest
- Potential Agricultural Area
- Void - Pasture/Low Shrubs
- Water
- Potential Ecological Corridors

#### Remnant Vegetation

- Central Hunter Grey Box - Ironbark Woodland
- Central Hunter Ironbark - Spotted Gum - Grey Box Forest

**Rehabilitation Vegetation  
Communities**



## APPENDIX 7 WOLLOMBI BROOK CONSERVATION AREA

