# **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

## **SCHEDULE 1**

Development Application:	DA 376-8-2003;
Applicant:	Bulga Coal Management Pty Limited;
Consent Authority:	Minister for Infrastructure and Planning;
Land:	See Appendix 1;
Proposed Development:	<ul> <li>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:</li> <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;</li> </ul>

• transporting coal to Newcastle Port by rail.

and

State Significant Development:	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> .		
Integrated Development:	<ul> <li>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:</li> <li>Protection of the Environment Operations Act 1997;</li> <li>National Parks &amp; Wildlife Act 1974;</li> <li>Water Act 1912;</li> <li>Roads Act 1993; and</li> <li>Mine Subsidence Compensation Act 1961.</li> </ul>		
Designated Development:	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> .		
BCA Classification:	Class 5: Class 6: Class 8: Class 9b: Class 10a: Class 10b:	Offices Crib room Workshop Bathhouse Gas drainage bore infrastructure De-watering bore infrastructure Coal conveyor Coal stockpile	
Note:			

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

## SCHEDULE 2 DEFINITIONS

Adaptive management	Adaptive management includes monitoring subsidence impacts and subsidence effects and, based on the results, modifying the mining plan as mining proceeds to ensure that the effects, impacts and/or associated environmental consequences remain within predicted and designated ranges and in compliance with the conditions of this consent The review required by condition 2 of Schedule 6
Applicant	Bulga Coal Management Pty Limited, or its successors
BCA	Building Code of Australia
Blakefield North Mine	The underground mine in the Blakefield Seam set out in EA (Mod 5)
Bore	Any bore or well or excavation or other work connected or proposed to be
Built features	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 Includes any building or work erected or constructed on land, and
Duit leatures	includes dwellings and infrastructure such as any formed road, street, path, walk, or driveway and any pipeline, water, sewer, telephone, gas or
Pulse Mining Complex	other service main
Bulga Mining Complex	The development approved under this consent, together with the development approved under the consent for the Bulga Open Cut Coal Mine (DA 41-03-99), considered collectively
CCC	Community Consultative Committee
Conditions of this consent	Conditions contained in Schedules 3 to 6 inclusive
Construction	The demolition of buildings or works, carrying out of works and erection
	of buildings covered by this consent
Council DA	Singleton Shire Council Development Application
Day	Day is defined as the period from 7am to 6pm on Monday to Saturday,
20)	and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning and Infrastructure
Director-General	Director-General of the Department, or delegate
DRE	Division of Resources and Energy, within the Department of Trade &
DSC	Investment, Regional Infrastructure & Services Dams Safety Committee
EAs	The documents listed in condition 2 of Schedule 3
EA (Mod 4)	The modification application 376-8-2003 MOD 4 and Environmental Assessment prepared by Umwelt (Australia) Pty Limited, dated December 2009, and the response to submissions letter dated 22 April 2010
EA (Mod 5)	The modification application 376-8-2003 MOD 5, Environmental Assessment and Statement of Commitments prepared by GSS Environmental dated November 2012 and the response to submissions letter dated 8 April 2013
EIS	Environmental Impact Statement for Bulga Coal Continued Underground
	Operations
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	Environmental Planning and Assessment Act 1979
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPA EPL	Environment Protection Authority Environment Protection Licence issued under the POEO Act
Evening	Evening is defined as the period from 6pm to 10pm
Executive Director Mineral Resources	Executive Director Mineral Resources within DRE, or the equivalent role
Feasible	Feasible relates to engineering considerations and what is practical to
First workings	build or to implement 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</i> 1977 and/or an Aboriginal object or Aboriginal place as defined under the <i>National Parks and Wildlife Act</i> 1974		
Incident	<ul><li>A set of circumstances that:</li><li>causes or threatens to cause material harm to the environment;</li></ul>		
Land	<ul> <li>and/or</li> <li>breaches or exceeds the limits or performance measures/criteria in this consent</li> <li>As defined in the EP&amp;A Act, except for where the term is used in noise and air quality-related conditions where it is defined to mean the whole of a lot, or contiguous lots owned by the same landowner, in a current plan</li> </ul>		
Land Acquisition Criteria	registered at the Land Titles Office Land Acquisition Criteria for air quality impacts and noise impacts are		
Material harm to the environment	applied at a dwelling and/or a proposed dwelling		
	Harm to the environment is material if it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial		
Mining Operations	Includes all extraction, processing, handling, storage and transportation of coal carried out on the site		
Minister	Minister for Planning and Infrastructure, 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		
MSB	Mine Subsidence Board		
Night	Night is defined as the period from 10pm to 7am on Monday to Saturday,		
NOW	and 10pm to 8am on Sundays and Public Holidays		
NOW OEH	NSW Office of Water		
POEO Act	Office of Environment and Heritage Protection of the Environment Operations Act 1997		
PCA	Principal Certifying Authority appointed under Section 109E of the EP&A		
	Act		
Privately-owned land	Land that is not owned by a public agency, or a mining company (or its subsidiary)		
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of		
Reasonable costs	potential improvements 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		
Rehabilitation	determined by a dispute resolution process The treatment or management of land disturbed by the development for the purpose of establishing a safe, stable and non-polluting environment		
Remediation	Activities associated with partially or fully repairing or rehabilitating the impacts of the development or controlling the environmental consequences of this impact		
ROM Coal	Run-of-mine coal		
Safe, serviceable & repairable	Safe means no danger to users who are present, serviceable means available for its intended use, and repairable means damaged components can be repaired economically		
Second workings	Extraction of coal from longwall panels, mini-wall panels or pillar extraction		
Site	The land listed in Appendix 1		
SMP	Subsidence Management Plan		
Subsidence	The totality of subsidence effects, subsidence impacts and environmental consequences of subsidence impacts		
Subsidence effects	Deformation of the ground mass due to mining, including all mining- induced ground movements, such as vertical and horizontal displacement, tilt, strain and curvature		
Subsidence impacts	Physical changes to the ground and its surface caused by subsidence effects, including tensile and shear cracking of the rock mass, localised buckling of strata caused by valley closure and upsidence and surface depressions or troughs		
Surface infrastructure	Includes ventilation shafts, gas drainage and gas flaring infrastructure, pit top facilities, access roads, offices, car parks, electrical sub-stations, and associated services and easements such as those required for		
Vacant land	powerlines, water supply, fire control, communications and waste water 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 2007 SEE

Ventilation Air Methane Abatement Unit Statement of Environmental Effects for the Bulga Underground – Southern Mining Area Modification – Section 96(2) Application to Modify Consent DA 376-8-2003

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## SCHEDULE 3 ADMINISTRATIVE CONDITIONS

#### **Obligation to Minimise Harm to the Environment**

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

#### **Terms of Approval**

- 2. The Applicant shall carry out the development generally in accordance with the:
  - (a) DA 376-8-2003;
  - (b) EIS titled Bulga Coal Continued Underground Operations, volumes 1-5, dated July 2003;
  - (c) MOD 4-1-2006 and the letter from Umwelt (Australia) Pty Limited to the Department of Planning titled Section 96(1A) Modification of Bulga Coal Underground Operations (DA 376-8-2003) – Relocation of Men and Materials Drifts, dated 23 December 2005;
  - (d) MOD 113-9-2006 Statement of Environmental Effects titled *Coal Handling and Processing Plant Increased Throughput*, dated September 2006; and
  - (e) the modification application MOD 19-3-2007 and accompanying Statement of Environmental Effects entitled Statement of Environmental Effects for the Bulga Underground – Southern Mining Area Modification – Section 96(2) Application to Modify Consent DA 376-8-2003, prepared by Umwelt Environmental Consultants and dated March 2007;
  - (f) the Response to Submissions prepared by Umwelt Environmental Consultants and dated July 2007;
  - (g) EA (Mod 4);
  - (h) EA (Mod 5); and
  - (i) conditions of this consent.
- 3. If there is any inconsistency between the above documents, 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 shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of:
  - (a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this consent; and
  - (b) the implementation of any actions or measures contained in these documents.

#### **Limits on Approval**

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

Note: Under this consent, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of either the Director-General or the Executive Director Mineral Resources. Consequently this consent will continue to apply in all other respects other than the right to conduct mining operations until the rehabilitation of the site and these additional undertakings have been carried out satisfactorily.

- 6. The Applicant shall not extract more than 14 million tonnes of ROM coal per calendar year from the development by underground mining methods.
- 7. The Applicant shall not process more than 20 million tonnes of ROM coal per calendar year from the Bulga Mining Complex.
- 7A. The Applicant shall not commence extraction in the Blakefield Seam in the Bulga *Southern* underground mining area, until the design of the coal transportation system between the Blakefield Seam development headings and the Bulga coal stockpile area, has been finalised and approved by the Minister.

#### **Surrender of Consents**

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

#### **Structural Adequacy**

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

Notes:

- Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works.
- Part 8 of the EP&A Regulation sets out the requirements for the certification of development.
- The development is located in the Patrick Plains Mine Subsidence District. Under section 15 of the Mine Subsidence Compensation Act 1961, the Applicant is required to obtain the Mine Subsidence Board's approval before constructing or relocating any improvements on the site.

#### Demolition

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

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

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

Notes:

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

#### **Community Enhancement Contribution**

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

## SCHEDULE 4 SPECIFIC ENVIRONMENTAL CONDITIONS

#### ACQUISITION UPON REQUEST

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

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

Table 1.1	and subject t	n acquisition	upon request
			uponiequesi

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

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

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

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

#### SUBSIDENCE

#### **Performance Measures – Natural and Heritage Features**

4. The Applicant shall ensure that the development does not cause any exceedances of the performance measures in Table 1A, to the satisfaction of the Director-General.

Watercourses			
Wollombi Brook	Negligible environmental consequences		
Natural drainage lines	No greater subsidence impact or environmental consequences than predicted in the EAs		
Biodiversity			
Threatened species, threatened populations, or endangered ecological communities	No greater subsidence impact or environmental consequences than predicted in the EAs		
Heritage			
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</i> 1974		

Table 1A: Subsidence Impact Performance Measures

Notes:

- 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.

<sup>•</sup> 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.

- 5. If the Applicant exceeds the performance measures in Table 1A and the Director-General determines that:
  - (a) it is not reasonable or feasible to remediate the impact or environmental consequence; or
  - (b) remediation measures implemented by the Applicant have failed to satisfactorily remediate the impact or environmental consequence;

then the Applicant shall provide a suitable offset to compensate for the impact or environmental consequence, to the satisfaction of the Director-General.

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

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

Table 1B: Subsidence Impact Performance Measures

Notes:

- The Applicant will be required to define more detailed performance indicators for each of these performance measures in the Built Features Management Plan.
- The requirements of this condition only apply to the impacts and consequences of mining operations undertaken following the date of approval of Modification 5.
- Requirements regarding "safe" or "serviceable" do not prevent preventative or mitigatory actions being taken prior to or during mining in order to achieve or maintain these outcomes.
- Any breach of this condition is taken to be breach of this consent, and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.
- Compensation required under this condition includes any compensation payable under the Mine Subsidence Compensation Act 1961 and/or the Mining Act 1992.
- 7. Any dispute between the Applicant and the owner of any built feature over the interpretation, application or implementation of the performance measures in Table 1B is to be settled by the Executive Director Mineral Resources. The Executive Director Mineral Resources may seek the advice of the MSB on the matter. Any decision by the Executive Director Mineral Resources shall be final and not subject to further dispute resolution under this consent.

#### **First Workings**

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

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

## **Extraction Plan**

- 7B. The Applicant shall prepare and implement an Extraction Plan for any second workings on site, to the satisfaction of the Director-General. The plan must:
  - (a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Director-General;
  - (b) take into account any guidelines issued by the Department for the preparation of Extraction Plans;
  - (c) be approved by the Director-General before the Applicant carries out any of the second workings covered by the plan;
  - (d) include detailed plans of existing and proposed first and second workings and any associated surface development;
  - (e) include detailed performance indicators for each of the performance measures shown in Tables 1A and 1B;
  - (f) provide revised predictions of the conventional and non-conventional subsidence effects, subsidence impacts and environmental consequences of the proposed second workings, incorporating any relevant information obtained since the approval of Modification 5;
  - (g) describe the measures that would be implemented to:
    - ensure compliance with the performance measures in Tables 1A and 1B; and
      - manage or remediate subsidence impacts and/or environmental consequences;
  - (h) include a contingency plan that expressly provides for adaptive management where monitoring indicates that there has been an exceedance of any performance measure in Tables 1A and 1B, or where any such exceedance appears likely;
    - i) include the following to the satisfaction of DRE:
      - a Subsidence Monitoring Program to:
        - o provide data to assist with the management of the risks associated with subsidence;
        - o 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
        - o inform the contingency plan and adaptive management process;
        - a Coal Resource Recovery Plan that demonstrates effective recovery of the available resource;
        - a Built Features Management Plan, which has been prepared in consultation with Council, DSC, RMS and the owners of potentially affected features, and which includes measures to manage the potential impacts and consequences of subsidence on any built features; and
        - a Public Safety Management Plan to ensure public safety in the mining area.
  - (j) include a:
    - Water Management Plan, which has been prepared in consultation with the EPA and NOW, 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;
      - o a program to monitor and report groundwater inflows to underground workings; and
      - a program to predict, manage and monitor impacts on any groundwater bores on privately-owned land;
    - Biodiversity Management Plan, which has been prepared in consultation with OEH and DRE, which:
      - includes a program of works to ensure that overall terrestrial and aquatic biodiversity values are the same or better than existed in the locality prior to longwall mining;
      - provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on aquatic and terrestrial flora and fauna;
    - Land Management Plan, which has been prepared in consultation with any affected public authorities, to manage the potential impacts and/or environmental consequences of the proposed second workings on land in general;
    - Heritage Management Plan, which has been prepared in consultation with OEH and relevant Aboriginal stakeholders, which includes a program/procedures for:
      - minimising disturbance to Aboriginal sites as far as is reasonable and feasible, particularly in relation to the BMU1 site;
      - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area, including the BMU1 site;
      - o 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.
- Note: An SMP approved by DRE prior to 1 January 2014 is taken to satisfy all requirements of this condition.

#### Payment of Reasonable Costs

7C. The Applicant shall 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 shall 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 Director-General.
- 7E. The Applicant shall prepare and implement 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 Director-General. This plan must be submitted to the Director-General 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.

#### **Service Boreholes**

- 7F. The Applicant shall prepare and implement 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 Director-General. This plan must be submitted to the Director-General 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.

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

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

#### **Pollution of Waters**

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

<sup>&</sup>lt;sup>1</sup> Incorporates EPA GTA

#### **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 shall:
  - (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
рН	рН	6.5 ≤ pH ≤ 9.5
Non-filterable residue	mg/litre	NFR ≤ 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 shall:
  - (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.

#### **Flood Exclusion Levee**

- 11. The Applicant shall design, construct, maintain, and rehabilitate the Flood Exclusion Levee to the satisfaction of the Director-General. This levee shall:
  - (a) remain stable under a 1 in a 100 year ARI flood event; and
  - (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 shall submit an as-executed report, certified by a practising registered engineer, to the Director-General.

#### Monitoring

- 13. The Applicant shall:
  - (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 NOW and to the satisfaction of the Director-General.

#### Site Water Management Plan

14. Within 12 months of the date of this consent, the Applicant shall prepare or update the existing Site Water Management Plan for the development in consultation with EPA, and to the satisfaction of the Director-General. This plan must include:

<sup>&</sup>lt;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.

- (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 shall 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 shall 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 shall include:
  - (a) measures to mitigate any adverse impacts on existing water supply bores or wells in either the alluvial or coal measure aquifer systems;
  - (b) measures to remediate any connective cracking between the underground mine workings and any surface water stream channels, floodplain areas, or the alluvial aquifer;
  - (c) measures to address a decrease in throughflow rates caused by the development within the Wollombi Brook/Monkey Place Creek alluvium adjacent to or downstream of the development within the mine lease boundary; and
  - (d) the procedures that would be followed if any unforeseen impacts are detected during the development.

#### **Flood Levee Plan**

- 18. Three months prior to the commencement of construction of the flood levee on the northern drainage line, the Applicant shall submit a Flood Exclusion Levee Plan for the Director-General's approval. The Plan shall 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 shall submit an Erosion and Sediment Control Plan for the Director-General's approval. The Plan shall:
  - (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

<sup>&</sup>lt;sup>3</sup> Incorporates EPA GTA

- 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 shall 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 Director-General. This program shall:
  - (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 shall 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 Director-General.

#### AIR QUALITY

#### Impact Assessment Criteria

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

#### Table 3: Long term impact assessment criteria for particulate matter

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

#### Table 4: Short term impact assessment criterion for particulate matter

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

Table 5: Long term impact assessment criteria for deposited dust

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a</sup> 4 g/m <sup>2</sup> /month

Notes for Tables 3-5:

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

#### Land Acquisition Criteria

23. If the air pollution generated by the development exceeds the criteria in Tables 6, 7, and 8 at any residence on privately-owned land or on more than 25 per cent of any privately-owned land, the Applicant shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in Conditions 9-11 of Schedule 5.

#### Table 6: Long term land acquisition criteria for particulate matter

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

#### Table 7: Short term land acquisition criteria for particulate matter

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

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

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

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

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

Table 8: Long term land acquisition criteria for deposited dust

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a</sup> 4 g/m <sup>2</sup> /month

Notes for tables 6-8:

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

#### **Operating Conditions**

- 24. The Applicant shall:
  - (a) implement best practice air quality management on site, including all reasonable and feasible measures to minimise the off-site odour, fume and dust emissions generated by the development, including those generated by any spontaneous combustion;
  - (b) minimise any visible air pollution generated by the development;
  - (c) regularly assess meteorological forecasting data and relocate, modify and/or suspend operations to ensure compliance with the relevant conditions of this approval; and
  - (d) 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 Director-General.

#### Air Quality & Greenhouse Gas Management Plan

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

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

## <sup>4</sup>Monitoring

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

Table 9: Air quality m	Table 9: Air quality monitoring					
Pollutant	Units of	Averaging	Frequency	Sampling method <sup>1</sup>		
	Measure	Period				
TSP	µg/m³	24 hour, annual	1 day in 6	AM-15		
Dust Deposition	g/m²/month	Month, annual	Continuous	AM-19		
Siting	-	-	-	AM-1		

<sup>1</sup> NSW EPA, 2001, Approved Methods for the Sampling and Analysis of Air Pollutants in NSW. <sup>2</sup>Standards Australia, 2001, AS3580.9.8-2002, Method for Sampling and Analysis of Ambient Air - Determination of Suspended Particulate Matter - PM<sub>10</sub> Continuous Direct Mass Method using a Tapered Element Oscillating Microbalance Analyser, or any other method that is approved by the DECCW and the Director-General.

#### 26. (deleted)

#### Post Commissioning Report

- 27. Within 3 months of commissioning a ventilation shaft discharge vent, the Applicant shall:
  - (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/m3	TM-15
Odour	OU	OM-7
Velocity	m/s	TM-2
Volumetric flow rate	m3/s	TM-2
Temperature	°C	TM-2
Moisture	%	TM-22
Dry gas density	kg/m3	TM-23
Molecular weight of stack gases	g/g.mol	TM-23
Carbon dioxide	%	TM-24
Selection of sampling positions	-	TM-1

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

28. If the results of the ventilation shaft monitoring are outside the range used in the dispersion modelling study in the EIS as modified by the 2007 SEE, the Applicant shall 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 shall:
  - (a) carry out air emissions monitoring (by sampling and obtaining results by analysis) of the concentration of each parameter in Table 11, for the stack serving each gas-fired engine and the stack serving the VAM abatement unit;
  - (b) demonstrate compliance with EPA's ground level concentration criteria; and
  - (c) submit the results to EPA.

<sup>&</sup>lt;sup>4</sup> Incorporates EPA GTA

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

Parameter	Units of Measure	Sampling method <sup>1</sup>
Carbon monoxide	mg/m3	TM-32
Nitrogen dioxide $(NO_2)$ or nitric oxide $(NO)$ or both, as $NO_2$ equivalent	mg/m3	OM-11
Volatile organic compounds	mg/m3	TM-34
Volumetric flow rate	m3/s	TM-2
Oxygen	%	TM-25
Moisture	%	TM-22
Dry gas density	kg/m3	TM-23
Molecular weight of stack gases	g/g.mol	TM-23
Selection of sampling positions	-	TM-1

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

#### <sup>5</sup>NOISE

#### **Construction Hours**

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

#### Land Acquisition Criteria

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

#### Table 12: Land Acquisition Criteria dB(A)

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

Notes:

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

#### Noise Impact Assessment Criteria

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

Residence/Land	Day	Evening	N	ight
Residence/Land	L <sub>Aeq(15 min)</sub>	L <sub>Aeq(15 min)</sub>	L <sub>Aeq(15 min)</sub>	<b>L</b> A1(1 min)
249	40	40	40	45
8, 195	39	39	39	45
157, 179, 307	38	38	38	45
237, 239, 261, 262	38	38	37	45
232, 234, 235, 240	38	38	36	45

#### Table 13: Noise Impact Assessment Criteria dB(A)

<sup>&</sup>lt;sup>5</sup> Incorporates EPA GTAs

Residence/Land	Day	Evening	Ni	ight
Residence/Land	L <sub>Aeq(15 min)</sub>	L <sub>Aeq(15 min)</sub>	L <sub>Aeq(15 min)</sub>	L <sub>A1(1 min)</sub>
1, 2s, 154, 250, 252, 308	37	37	37	45
241, 243, 263, 264, 265, 266, 267, 272, 273, 274, 275, 276, 277, 279, 280, 281, 283, 284, 288	37	37	36	45
229, 230A, 230B, 231, 233, 236, 238, 242	37	37	35	45
97, 153, 163, 169e, 171, 183, 184, 197, 217s, 217m, 217n, 282, 285, 311	36	36	36	45
<b>33, 156w,</b> 222, 223, 226, 227, 228, 244, 254, 256, 286, 287, 289, 290, 291, 292, 293, 294, 295, 306	36	36	35	45
All other privately owned land, excluding the land listed in Table 1.	35	35	35	45

Notes:

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

#### Additional Noise Mitigation Measures

- 31. Upon receiving a written request from:
  - a landowner of the land listed in Table 1 (unless the landowner has requested acquisition); or
  - a landowner of residence/land 8, 157, 179, 195, 232, 234, 235, 237, 239, 240, 249, 261, 262 or 307 (unless a negotiated agreement is in place); or
  - the owner of any other residence where subsequent operational noise monitoring shows the noise generated by the development is greater than, or equal to, 38 dB(A) L<sub>Aeq(15 minute)</sub> (unless a negotiated agreement is in place),

the Applicant shall implement additional noise mitigation measures such as double glazing, insulation, and/or air conditioning at any residence on the land in consultation with the landowner.

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

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 Director-General for resolution.

#### **Cumulative Noise Impact Assessment Criteria**

32. The Applicant shall implement all reasonable and feasible measures to ensure that the noise generated by the development combined with the noise generated by other mines does not exceed the amenity criteria in Table 14 at any residence on privately-owned land or on more than 25 per cent of any privately-owned land, to the satisfaction of the Director-General.

Location	Day	Evening	Night
Location L <sub>Aeq(11</sub>	L <sub>Aeq(11 hour)</sub>	L <sub>Aeq(4 hour)</sub>	L <sub>Aeq(9 hour)</sub>
All privately owned land, excluding the land listed in Table 1.	50	45	40

Table 14: Cumulative Noise Impact Assessment Criteria dB(A) LAeg (period)

#### Notes:

- For the purposes of this condition an "exceedence" is considered to have occurred when valid attended noise data from compliance monitoring (collected in accordance with the requirements in Appendix 4) indicates the noise generated by the Bulga Mining Complex has exceeded the criteria set out in Table 14.
- Appendix 4 sets out the meteorological condition under which these criteria apply and the requirements for evaluating compliance with these criteria.

#### **Cumulative Land Acquisition Criteria**

32A. If the cumulative noise generated by the development combined with the noise generated by other mines exceeds the amenity criteria in Table 15 at any residence on privately owned land, or on more than 25% of privately owned land, then upon receiving a written request from the landowner, the Applicant shall take all reasonable and feasible measures to acquire the land on as equitable basis as possible with the relevant mines, in accordance with the procedures in conditions 9-11 of schedule 5, to the satisfaction of the Director-General.

Location	Day	Evening	Night
Location	L <sub>Aeq(11 hour)</sub>	LAeq(4 hour)	LAeq(9 hour)
All privately owned land, excluding the land listed in Table 1.	53	48	43

Notes:

- For the purpose of this condition, the expression "Applicant" in conditions 9-11 of schedule 5 should be interpreted as the Applicant and any other relevant mines.
- For the purposes of this condition an "exceedence" is considered to have occurred when valid attended noise data from compliance monitoring (collected in accordance with the requirements in Appendix 4) indicates the noise generated by the Bulga Mining Complex has exceeded the criteria set out in Table 15.
- Appendix 4 sets out the meteorological condition under which these criteria apply and the requirements for evaluating compliance with these criteria.

#### **Continuous Improvement**

- 32B. The Applicant shall:
  - (a) implement all reasonable and feasible best practice noise mitigation measures;
  - (b) progressively upgrade and replace its mobile equipment fleet;
  - (b1) investigate methods to statistically analyse (for example, by using regression analysis) realtime noise and meteorological data to improve noise impact forecasting and to facilitate statistically-based compliance reporting; and
  - (c) report the implementation and effectiveness of these measures in the AEMR,
  - to the satisfaction of the Director-General.

#### Noise Management Plan

- 32C. The Applicant shall prepare and implement a Noise Management Plan for the development to the satisfaction of the Director-General. This plan must:
  - (a) be prepared by a suitably qualified expert whose appointment has been approved by the Director-General, and submitted to the Director-General for approval by 31 March 2014; and
     (b) include a:
    - combination of unattended and attended monitoring measures;
    - noise monitoring protocol for evaluating the contribution of low frequency noise;
    - noise monitoring protocol for evaluating compliance with the relevant criteria for noise impact assessment, land acquisition, cumulative impact assessment and cumulative acquisition in this consent; and
    - response protocol that will immediately be followed if noise emissions are nearing or exceeding these criteria and a description of what contingency plans will be implemented on site if this occurs.
  - (c) include a Construction Noise Management Plan for gas drainage well construction for the Blakefield North Mine featuring:
    - the Applicant's commitments to reasonable and feasible noise mitigation;
      - a work schedule that clearly identifies work that would lead to an exceedance of the Construction Noise Assessment Criteria in Table 13 of condition 30 in Schedule 4;
    - a protocol for notifying affected receivers of the expected severity and duration of such exceedance(s) well in advance of work commencing;
    - a protocol for monitoring and evaluating noise emissions during work;

- a response protocol that will be immediately followed to reduce noise emissions if the work leads to noise impacts from the Bulga Mining Complex that exceed:
  - LAeq 15 min 50 dB during the day at any receiver, except receiver 160;
  - LAeq 15 min 70 dB during the day at receiver 160;
  - o LAeq 15 min 39 dB during the evening or night at any receiver; and
  - LAeq 1 min 51 dB during the evening or night at any receiver.

Notes:

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

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

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

Parameter	Units of measure	Averaging period	Frequency	Sampling method <sup>1</sup>
Lapse rate	°C/100m	1 hour	Continuous	Note <sup>2</sup>
Rainfall	mm/hr	1 hour	Continuous	AM-4
Sigma Theta @ 10 m	0	1 hour	Continuous	AM-2
Siting	-	-	-	AM-1
Temperature @ 10 m	K	1 hour	Continuous	AM-4
Temperature @ 2 m	K	1 hour	Continuous	AM-4
Total Solar Radiation @ 10m	W/m <sup>2</sup>	1 hour	Continuous	AM-4
Wind Direction @ 10 m	0	1 hour	Continuous	AM-2
Wind Speed @ 10 m	m/s	1 hour	Continuous	AM-2

Table 16: Meteorological monitoring

<sup>1</sup> NSW EPA, 2001, Approved Methods for the Sampling and Analysis of Air Pollutants in NSW. <sup>2</sup>The Applicant shall calculate lapse rate from measurements made at 2m and 10m.

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

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

#### **Conservation Agreement**

34. The Applicant shall 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 OEH.

#### Scarred Tree

35. The Applicant shall 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 OEH.

#### **Section 90 Consents**

36. The Applicant shall obtain Section 90 consents from OEH 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).

<sup>6</sup> Incorporates EPA GTA

<sup>&</sup>lt;sup>7</sup> Incorporates OEH GTAs

#### Salvage

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

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

#### **Aboriginal Heritage Management Plan**

- 38. The Applicant shall prepare and implement an Aboriginal Cultural Heritage Management Plan for the project to the satisfaction of the Director-General. This plan must:
  - (a) be prepared in consultation with OEH, the Aboriginal community, and be submitted to the Director-General for approval by the end of March 2014;
  - (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.

#### **Trust Fund Contribution**

39. Within 6 months of the date of this consent, or as agreed otherwise by the Director-General, the Applicant shall 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 shall conserve heritage site BH15 to the satisfaction of the Director-General.

#### **Archival Record**

41. The Applicant shall investigate and prepare an archival record of heritage sites BH9 and BH11 in accordance with the requirements of the NSW Heritage Office, and to the satisfaction of the Director-General.

#### Other Measures

- 42. The Applicant shall:
  - (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 Director-General.

## FAUNA & FLORA

#### Habitat Creation and Conservation

- 43. The Applicant shall:
  - (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 flora and fauna corridors on site (see Figure 12.2 of the EIS);
  - (c) investigate the feasibility of extending these corridors into the proposed voluntary conservation area (see Figure 12.2 of the EIS);
  - (d) conserve and maintain the existing Warkworth Sands Woodland ecological community (see Figure 12.1 of the EIS);
  - (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) Re-establish and maintain riparian vegetation along the northern and southern drainage lines following remedial works (see Figures 7.2 & 7.3 of the EIS); and
- (g) Create temporary aquatic habitat in the proposed northern diversion channel during creek restoration works (see Figures 7.2 & 7.3 of the EIS), and re-establish and maintain aquatic habitat following remedial works in the northern and southern drainage lines (see Figures 7.2 & 7.3 of the EIS); and
- (h) Conduct regular flora and fauna monitoring on site during the development,

to the satisfaction of the Director-General.

#### Additional Vegetation Offsets

- 43A. By the end of December 2014, the Applicant shall:
  - (a) provide an area that is, in the opinion of the Director-General, 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 Director-General, 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 Director-General.

#### Flora & Fauna Management Plan

- 44. Within 12 months of the date of this consent, the Applicant shall prepare a Flora & Fauna Management Plan for the development, in consultation with the Hunter Coalfield Flora and Fauna Advisory Committee, and to the satisfaction of the Director-General. This plan must include:
  - (a) baseline data of the existing habitat on site;
  - (b) a detailed description of what measures would be implemented to satisfy the requirements in Condition 43;
  - (c) performance/completion criteria for the habitat creation and conservation works;
  - (d) the detailed procedures to:
    - salvage and reuse material from the site;
    - clear vegetation on site;
    - control erosion and sediment flows;
    - collect and propagate seeds from the local area;
    - control weeds;
    - control access to certain areas on site;
    - manage any potential conflicts between flora and fauna and Aboriginal heritage
  - (e) a flora and fauna monitoring program; and
  - (f) a description of who would be responsible for monitoring, reviewing, and implementing the plan.
- 45. (deleted)
- 46. *(deleted)*

#### **TRAFFIC & TRANSPORT**

#### **New Access Intersections**

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

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

#### Conveyors

48. The Applicant shall design and construct the proposed conveyors over Broke Road to the satisfaction of Council.

<sup>&</sup>lt;sup>8</sup> Incorporates RMS GTA

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

## **VISUAL IMPACT**

#### Landscaping & Visual Screening

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

to the satisfaction of the Director-General.

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

51. The Applicant shall 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 Director-General.

#### **Lighting Emissions**

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

#### **GREENHOUSE GAS**

- 54. The Applicant shall:
  - (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 Director-General.

#### WASTE MINIMISATION

55. The Applicant shall minimise the amount of waste generated by the development to the satisfaction of the Director-General.

#### HAZARDS MANAGEMENT

#### Spontaneous Combustion

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

#### Dangerous Goods

57. The Applicant shall 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 shall:
  - (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 as much as possible if there is a fire onsite during the development.

#### **MINE EXIT STRATEGY**

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

Feature	Objective			
Mine site (as a whole)	Safe, stable & non-polluting			
Surface infrastructure	To be decommissioned and removed, unless the Executive Director			
	Mineral Resources agrees otherwise			
Portals and vent shafts	To be decommissioned and made safe and stable.			
	Retain habitat for threatened species (eg bats), where practicable			
Watercourses subject to	Hydraulically and geomorphologically stable, with riparian vegetation			
subsidence impacts	that is the same or better than prior to mining			
Land to be restored or	Restored and maintained to:			
maintained for agricultural	<ul> <li>the same or higher land capability and agricultural suitability than</li> </ul>			
purposes	prior to mining; and			
	• a landform consistent with the surrounding environment			
	including no greater than minor changes to flooding			
	characteristics or ponding.			
Other land	Restore ecosystem function, including maintaining or establishing self-			
	sustaining eco-systems comprised of:			
	<ul> <li>local native plant species (unless the Executive Director Minera</li> </ul>			
	Resources agrees otherwise); and			
	<ul> <li>a landform consistent with the surrounding environment including and master than minor changes to floading</li> </ul>			
	including no greater than minor changes to flooding			
Built features damaged by	characteristics or ponding. Repair to pre-mining condition or equivalent unless:			
mining operations	<ul> <li>the owner agrees otherwise; or</li> </ul>			
mining operations	<ul> <li>the damage is fully restored, repaired or compensated for under</li> </ul>			
	the Mine Subsidence Compensation Act 1961.			
Community	Ensure public safety			
	Minimise the adverse socio-economic effects associated with mine closure			

Notes:

These rehabilitation objectives apply to all subsidence impacts and environmental consequences caused by mining taking place after the date of approval of Modification 5; and to all surface infrastructure part of the development, whether constructed prior to or following the date of this approval.

• Rehabilitation of subsidence impacts and environmental consequences caused by mining which took place prior to the date of approval of Modification 5 may be subject to the requirements of other approvals (eg under a mining lease or a Subsidence Management Plan approval) or the Applicant's commitments.

#### **Progressive Rehabilitation**

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

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

#### **NOTIFICATION OF LANDOWNERS**

- Within 1 month of the date of this modification, the Applicant shall notify the landowners of the land 1. 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 shall notify the Director-General and the affected landowners and tenants (including tenants of mine owned properties) accordingly, and provide quarterly monitoring results to each of these parties until the results show that the development is complying with the criteria in schedule 4.
- 3. Within 6 months of the date of this consent, the Applicant shall develop a procedure in consultation with EPA and NSW Health, for notifying landowners and tenants referred to in Condition 1. This procedure must ensure that: (a)
  - all existing and future tenants are advised in writing about:
  - air quality impacts likely to occur at the residence during the operational life of the mine; and
  - likely health and amenity impacts associated with exposure to particulate matter;
  - (b) the written advice in (a) is based on current air quality monitoring data, dispersion modelling results, research and literature; and
  - there is an ongoing process for providing current air quality monitoring data, dispersion (c) modelling results, research and literature to the tenants.

#### **INDEPENDENT REVIEW**

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

If the Director-General is satisfied that an independent review is warranted, the Applicant shall within 3 months of the Director-General advising that an independent review is warranted:

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

#### LAND ACQUISITION

- Within 3 months of receiving a written request from a landowner with acquisition rights, the Applicant q shall make a binding written offer to the landowner based on:
  - the current market value of the landowner's interest in the property at the date of this written (a) request, as if the property was unaffected by the development, having regard to the:
    - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
    - presence of improvements on the property and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the 'additional noise mitigation measures' in condition 31 of schedule 4;
  - (b) the reasonable costs associated with:

- relocating within the Singleton local government area, or to any other local government area determined by the Director-General; 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 Director-General for resolution.

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

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

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

However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Director-General 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 Director-General 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 determination and any other relevant matters.

Within 14 days of the Director-General's determination, the Applicant shall make a binding written offer to the landowner to purchase the land at a price not less than the Director-General'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 Director-General determines otherwise.

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

## SCHEDULE 6 ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

#### ENVIRONMENTAL MANAGEMENT

#### Adaptive Management

 The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the performance measures or associated performance indicators and impact assessment criteria in Schedule 4. Any exceedance of these 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 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 Director-General,
- to the satisfaction of the Director-General.

#### **Annual Review**

- 2. By the end of April each year, the Applicant shall review the environmental performance of the development to the satisfaction of the Director-General. This review must:
  - (a) describe the works (including any rehabilitation) that were carried out in the previous calendar year, and the works that are proposed to be carried out over the current calendar year;
  - (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against the:
    - relevant statutory requirements, limits or performance measures/criteria;
    - monitoring results of previous years; and
    - relevant predictions in the EAs;
  - (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
  - (d) identify any trends in the monitoring data over the life of the 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 next year to improve the environmental performance of the development.

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

- 3. Within 3 months of:
  - (a) the submission of an annual review under condition 2 above;
  - (b) the submission of an incident report under condition 5 below;
  - (c) the submission of an audit under condition 7 below; and
  - (d) any modification to the conditions of this consent,

the Applicant shall review the strategies, plans, and programs required under this approval, to the satisfaction of the Director-General. Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted for the approval of the Director-General.

Note: The purpose of this condition is to ensure that strategies, plans and programs are regularly updated to incorporate any measures recommended to improve environmental performance of the project.

#### **Community Consultative Committee**

4. The Applicant shall maintain a Community Consultative Committee (CCC) for the development to the satisfaction of the Director-General. This CCC must be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version).

Notes:

The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the 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.
- The CCC may be combined with any similar CCC for the Bulga Surface Operation.

#### REPORTING

## Incident Reporting

5. The Applicant shall notify, at the earliest opportunity, the Director-General and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the development, the Applicant shall notify the Director-General and any other relevant agencies as soon as practicable after the Applicant becomes aware of the incident. Within 7 days of the date of the incident, the Applicant shall provide the Director-General and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

#### **Regular Reporting**

6. The Applicant shall 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.

Note: This website may be integrated with any similar website established for the Bulga Surface Operations.

#### INDEPENDENT ENVIRONMENTAL AUDIT

- 7. By the end of June 2015, and every 3 years thereafter, unless the Director-General directs otherwise, the Applicant shall commission 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 Director-General;
  - (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; and, if appropriate
  - (e) recommend measures or actions to improve the environmental performance of the development, and/or any strategy, plan or program required under these approvals.

Notes:

- This audit team must be led by a suitably qualified auditor and include experts in subsidence and any other field specified by the Director-General.
- The audits should be coordinated with similar auditing requirements for the Bulga Surface Operation.
- 8. Within 6 weeks of the completion of this audit, or as otherwise agreed by the Director-General, the Applicant shall submit a copy of the audit report to the Director-General, together with its response to any recommendations contained in the audit report.

## ACCESS TO INFORMATION

- 9. From 31 October 2013, the Applicant shall:
  - (a) make copies of the following publicly available on its website:
    - the EAs;
    - all current statutory approvals for the development;
    - all approved strategies, plans and programs required under the conditions of this consent;
    - a summary of the monitoring results of the development, which have been reported in accordance with the various plans and programs approved under the conditions of this consent;
    - a complaints register, updated on a monthly basis;
    - minutes of CCC meetings;
    - the annual reviews (over the last 5 years);
    - any independent environmental audit, and the Applicant's response to the recommendations in any audit;
    - any other matter required by the Director-General; and
  - (b) keep this information up-to-date,

to the satisfaction of the Director-General.

## **APPENDIX 1**

## SCHEDULE OF LAND

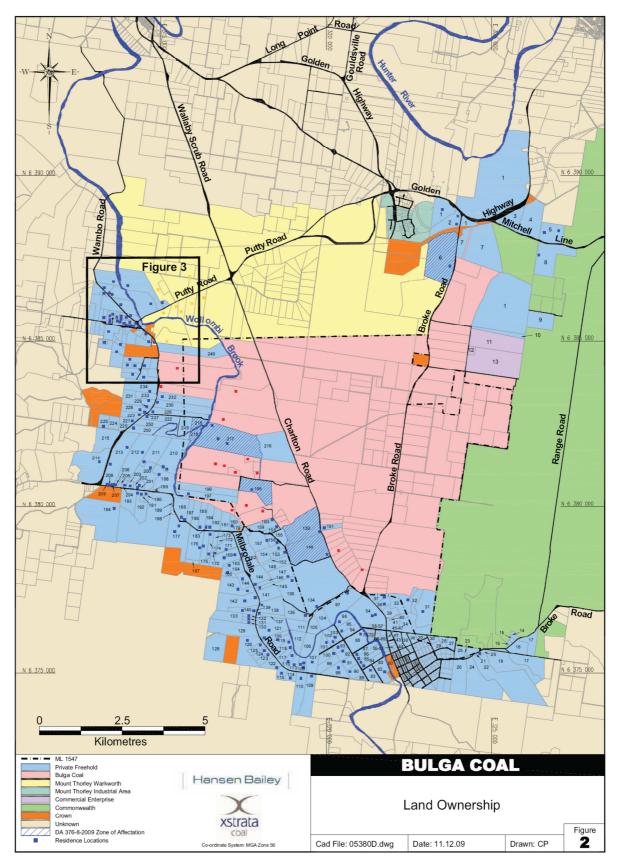
Local Government Area: Counties: Parishes Singleton Shire Northumberland and Hunter Wollombi, Vere, Whybrow, Milbrodale and Broke

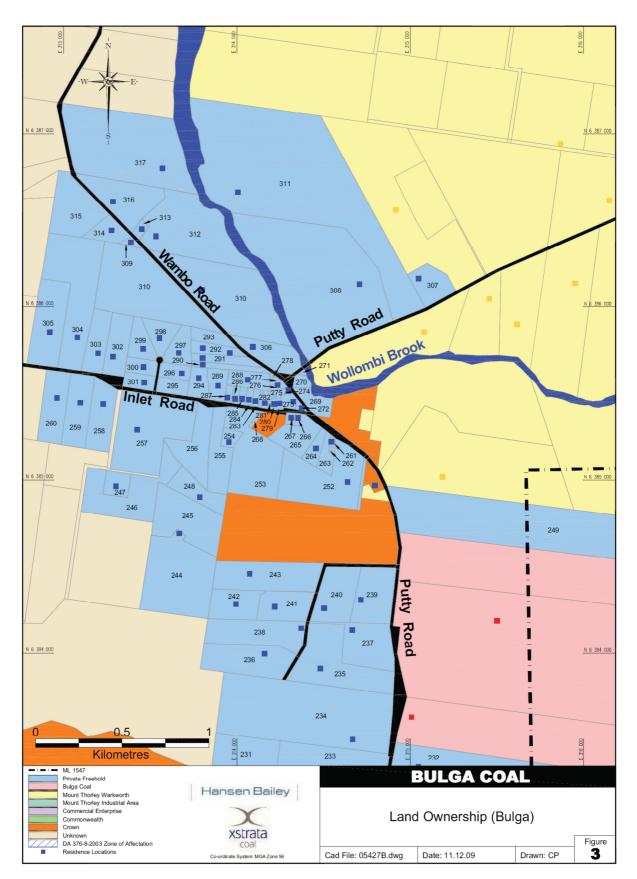
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10022	4	247398	8
10022	5	247398	9
10022	6	247398	10
10022	7	247398	11
10022	8	247398	12
10022		247398	
10022	9	247398	13
	10		14
606531	112	247398	15
10022	15	247398	16
10022	16	247398	17
10022	17	247398	18
10022	18	247398	19
62544	1	248448	4
62544	2	248448	5
102103	1	248448	6
102103	2	248448	7
133135	1	248448	8
133135	2	260663	274
133135	3	263943	20
133168	1	435160	1
133168	2	445449	1
133168	3	45581	1
171648	1	47305	1
545559	191	755264	29
545559	192	755264	30
561424	3	755264	31
561424	4	755264	33
561424	5	755264	34
561424	6	755264	35
563668	1	755264	36
564480	1	755264	43

DP	Lot	DP	Lot
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	23	755270	37
755264	25	755270	38
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755264		755270	39
755264	27 28	755270	<u> </u>
755270	43		3/33
755270		758164	4/33
755270	44	758164	5/33
755270	45	758164	6/33
755270	46	758164	7/33
755270	48	758164	8/33
755270	49	758164	3/50
755270	50	758164	1/51
755270	51	758164	2/51
755270	52	758164	3/51
	57	758164	
755270	59	758164 784032	4/51
755270	60		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

DP	Lot	DP	Lot
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 PLANS\*

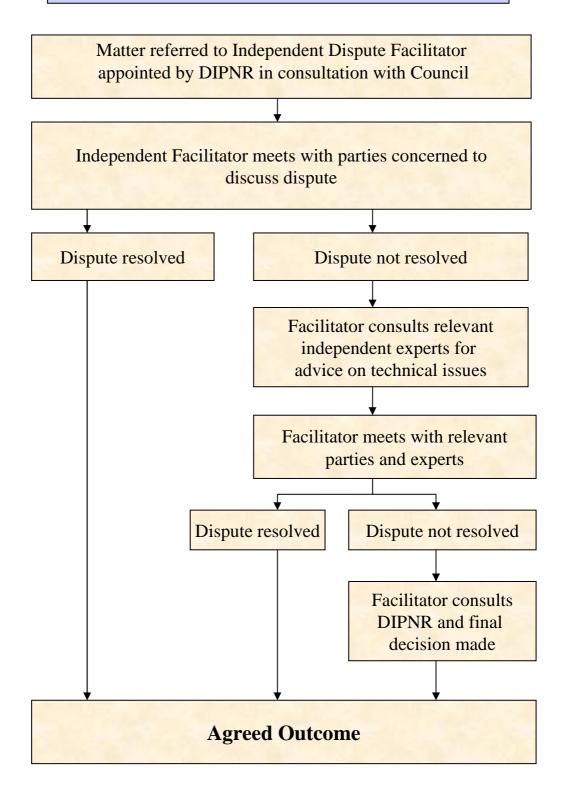




\* As identified in the Environmental Assessment dated 15 February 2010 and referenced in the development consent for Bulga Open Cut Coal Mine (DA 41-03-99).

APPENDIX 3 INDEPENDENT DISPUTE RESOLUTION PROCESS

## Independent Dispute Resolution Process (Indicative only)



#### APPENDIX 4 NOISE COMPLIANCE ASSESSMENT

#### **Applicable Meteorological Conditions**

- 1. The noise criteria in Tables 12, 13, 14 and 15 of the conditions are to apply under all meteorological conditions except the following:
  - a. during periods of rain or hail;
  - b. average wind speed at microphone height exceeds 5 m/s;
  - c. wind speeds greater than 3 m/s measured at 10m above ground level; or
  - d. temperature inversion conditions greater than 3°C/100m.

#### **Determination of Meteorological Conditions**

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

#### **Compliance Monitoring**

- 3. Attended monitoring is to be used to evaluate compliance with the relevant conditions of this approval.
- 4. Unless otherwise agreed with the Director-General, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the NSW Industrial Noise Policy. Monitoring shall 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.