

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 2 to 6.

These conditions are required to:

- (i) Prevent, minimise, and/or offset adverse environmental impacts;
- (ii) Set standards and performance measures for acceptable environmental performance;
- (iii) Require regular monitoring and reporting; and
- (iv) Provide for the on-going environmental management of the development.

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

Sydney,

2003

File No. S02/02198

SCHEDULE 1

Development Application:	DA-300-9-2002-i.
Applicant:	Warkworth Mining Limited.
Consent Authority:	Minister for Planning.
Land:	See Appendix 1.
Proposed Development:	<p>The expansion of the Warkworth open cut coal mine, which includes:</p> <ul style="list-style-type: none">• Extending the existing North & West pits west towards Wallaby Scrub Road;• Extending the existing Woodlands pit south towards Putty Road;• Constructing a new conveyor between the Warkworth mine and the Mount Thorley mine and coal loader;• Constructing 2 new bridges over Putty Road between the Warkworth and Mount Thorley mines;• Constructing a bypass road adjacent to Putty Road;• Continuing use of existing facilities and infrastructure;• Extracting up to 18 million tonnes of ROM coal a year; and• Operating the mine 24 hours a day, 7 days a week.
State Significant Development:	<p>The proposal is classified as State significant development, under Section 76A(7) of the <i>Environmental Planning and Assessment Act 1979</i>, because it involves coal-mining related development associated with a development approval previously given by the Minister after 4 June 1987, and consequently satisfies the criteria in the Minister's direction, dated 29 June 2001.</p>
Integrated Development:	<p>The proposal is classified as integrated development, under Section 91 of the <i>Environmental Planning and Assessment Act 1979</i>, because it requires additional approvals from the:</p>

- Environment Protection Authority under the *Protection of the Environment Operations Act 1997*;
- Department of Land & Water Conservation under the *Water Act 1912*;
- National Parks & Wildlife Service under the *National Parks & Wildlife Act 1974*;
- Roads & Traffic Authority under the *Roads Act 1993*; and
- Mine Subsidence Board under the *Mine Subsidence Act 1961*.

Designated Development:

The proposal is classified as designated development, under Section 77A of the *Environmental Planning & Assessment Act 1979*, because it is for an open cut coal mine that would produce or process more than 500 tonnes of coal a day and disturb more than 4 hectares of land..."; and consequently meets the criteria for designated development in Schedule 3 of the *Environmental Planning & Assessment Regulation 2000*.

BCA Classification:

Class 5:	Office Upgrade
Class 8:	Heavy Vehicle Workshop
Class 9b:	Bathhouse
Class 10a:	Car Park
	Heavy Vehicle Wash Station
Class 10b:	Coal Conveyor

Note:

- 1) To find out when this consent becomes effective, see Section 83 of the Act;
- 2) To find out when this consent is liable to lapse, see Section 95 of the Act; and
- 3) To find out about appeal rights, see Section 97 of the Act.

SCHEDULE 2 DEFINITIONS

Annual review	The review required by condition 4 of schedule 6 of this consent
Applicant	Warkworth Mining Limited
BCA	Building Code of Australia
Biodiversity offset strategy	The conservation and enhancement strategy depicted conceptually in the figure in Appendix 2, and described in the: <ul style="list-style-type: none"> • <i>Extension of Warkworth Coal Mine – Green Offsets Strategy</i> and • EA titled <i>Warkworth Modification 6 Environmental Assessment</i> and dated November 2013, as amended by the response to submissions and preferred project report dated December 2013
CCC	Community Consultative Committee
Conditions of this consent	Conditions contained in schedules 1 to 6
Council	Singleton Shire Council
DA	Development Application
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning and Infrastructure
Director-General	Director-General of the Department, or nominee
DRE	Division of Resources and Energy within the Department of Trade and Investment, Regional Infrastructure and Services
EA	Environmental Assessment
EEC	Endangered ecological community as defined under the TSC Act
EIS	The Environmental Impact Statement titled <i>Extension of Warkworth Coal Mine</i> , volumes 1-4, dated August 2002, and prepared by Environmental Resources Management Australia Pty. Ltd., as modified by the: <ul style="list-style-type: none"> • letter from Coal & Allied to the Department, dated 23 October 2002, and titled <i>Proposed Extension of Warkworth Coal Mine – Additional Flora Survey</i>; • letter from Coal & Allied to the Department, dated 24 October 2002, and titled <i>Additional Information Request – Aboriginal Heritage</i>; • letter from Coal & Allied to the Department, dated 19 November 2002, and titled <i>Proposed Extension of Warkworth Coal Mine Archaeological Assessment Response</i>; • letter from Holmes Air Sciences to the Department, dated 19 November 2002, and titled <i>Additional Information Relating to Air Quality Issues for the Proposed Extension to Warkworth Mines</i>; • letter from Coal & Allied to the Department, dated 29 November 2002, titled <i>Extension of Warkworth Coal Mine</i>; • letter from Coal & Allied to the Department, dated 13 December 2002, and titled <i>Extension of Warkworth Coal Mine</i>; and • report titled <i>Extension of Warkworth Coal Mine – Green Offsets Strategy</i>, dated December 2002, and prepared by Environmental Resources Management Australia Pty Ltd;
EMP	Environmental Management Plan
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPA	Environment Protection Authority
EPL	Environment Protection Licence
Evening	The period from 6pm to 10pm
Executive Director Mineral Resources	Executive Director of Mineral resources within DRE, or equivalent position
Extension area	Land within the red boundary in Figure EIS-2 of Volume 4 of the EIS (excluding the additional extension area subject to Modification 6 and the associated EA)
Feasible	Feasible relates to engineering considerations and what is practical to build or implement
HMA	Habitat Management Area

Incident	<p>A set of circumstances that:</p> <ul style="list-style-type: none"> • causes or threatens to cause material harm to the environment; and/or • breaches or exceeds the limits or performance measures/criteria in this consent
Land	As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions in schedules 3 and 4 of this consent where it is defined to mean the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this consent
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Mine-owned land	Land that is owned by a mining or petroleum company (or its subsidiary)
Mine Water	Water that accumulates within, or drains from, active mining areas, emplacements, stockpiles, tailings dams and infrastructure areas (synonymous with 'dirty water')
Mining operations	Includes the removal, transportation and emplacement of overburden and extraction, processing, handling and storage and transportation of coal carried out on the site
Minister	Minister for Planning and Infrastructure, or delegate
Mitigation	Activities associated with reducing the impacts of the development
MOP	Mining Operations Plan
MSB	Mine Subsidence Board
NDA	Non-Disturbance Area
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
NOW	NSW Office of Water
OEH	Office of Environment and Heritage
Privately-owned land	Land that is not owned by a public agency or a mining or petroleum company (or its subsidiary)
Public infrastructure	Infrastructure that provides services to the general public, such as roads, railways, water supply, drainage, sewerage, gas supply, electricity, telephone, telecommunications, etc
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Rehabilitation	The treatment or management of land disturbed by the development for the purpose of establishing a safe, stable and non-polluting environment
RMS	Roads and Maritime Services
ROM	Run-of-mine
SEE	Statement of Environmental Effects
Site	Land to which the DA applies
TSC Act	<i>Threatened Species Conservation Act 1995</i>

SCHEDULE 3 ADMINISTRATIVE CONDITIONS

Green type represents October 2004 modification
Blue type represents February 2007 modification
Red type represents October 2007 modification
Violet type represents September 2008 modification
Aqua type represents October 2009 modification
Orange type represents January 2014 modification

Obligation to Minimise Harm to the Environment

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

Terms of Approval

2. The Applicant shall carry out the development generally in accordance with the:
 - (a) EIS;
 - (b) MOD 64-7-2004, and accompanying SEE dated July 2004;
 - (c) DA 300-9-2002 MOD 3, and accompanying information dated October 2007;
 - (d) DA 300-9-2002 MOD 4, and accompanying EA dated May 2008;
 - (e) DA 300-9-2002 MOD 5, and accompanying letter dated October 2009;
 - (f) DA 300-9-2002 MOD 6, and accompanying EA, titled *Warkworth Modification 6 Environmental Assessment* and dated November 2013, as amended by the response to submissions and preferred project report dated December 2013; and
 - (g) conditions of this consent.
3. If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this 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, plans or correspondence that are submitted in accordance with this consent; and
 - (b) the implementation of any actions or measures contained in these reports, plans or correspondence.

Limits of Consent

5. The Applicant may carry out mining operations on the site until 30 June 2021.

Note: Under this consent, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of both the Director-General and 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 18 million tonnes of ROM coal a year from the development.

Surrender of Consents

7. Within 3 months of the DRE approving the initial MOP for development in the extension area, the Applicant shall surrender all existing development consents associated with the Warkworth Mine in accordance with Clause 97 of EP&A Regulation.

Structural Adequacy

8. 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 the relevant requirements of the BCA.

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 detailed requirements for the certification of development.

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

Demolition

9. 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.

Protection of Public Infrastructure

10. Unless the Applicant and the applicable authority agree otherwise, the Applicant shall:
 - (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and
 - (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.

Note: This condition does not apply to any damage to roads caused as a result of general road usage.

Operation of Plant and Equipment

11. The Applicant shall ensure that all plant and equipment used on site, or in connection with the development, are:
 - (a) maintained in a proper and efficient condition; and
 - (b) operated in a proper and efficient manner.

Section 94 Contribution

12. Before carrying out the development, or as agreed otherwise by Council, the Applicant shall pay Council \$60,000 in accordance with Council's Section 94 Contribution Plan.

Note: This contribution is subject to indexation by the Implicit Price Deflator, as published by the Australian Bureau of Statistics.

Community Enhancement Contribution

13. Within 6 months of the DRE approving the initial MOP for development in the extension area, the Applicant shall pay Council up to \$15,000 for water quality enhancement works in either the Hunter River or Wollombi Brook.

Staged Submission of Strategies, Plans or Programs

14. 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 apply, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.

15. The conditions in this consent require several management plans to be prepared by a certain date. Prior to the approval of these plans, the Applicant shall implement the existing strategies, plans or programs for the development that have been approved under previous versions of the conditions in this consent, to the satisfaction of the Director-General.

SCHEDULE 4 SPECIFIC ENVIRONMENTAL CONDITIONS

FAUNA & FLORA

Biodiversity Offset Strategy

- The Applicant shall implement the biodiversity offset strategy for the development that is summarised in Table 1 and shown conceptually in Appendix 2, in accordance with the Flora and Fauna Management Plan for the development, and to the satisfaction of the Director-General:

Table 1: Summary of the Biodiversity Offset Strategy

Parameter	NDA	HMA	On-site	Putty Road Offset Area
Woodland	300ha	453ha	676ha	94ha
Open Woodland	317ha	412.3ha	510.5ha	-
Native Pasture	23.6ha	-	1143.5ha	-
Cleared Land	86.3ha	23.4ha	-	-

With the agreement of the Director-General and OEH, the Applicant may provide an alternative offset area for the Putty Road Offset Area. If this occurs, the alternative offset area must comprise at least 94 hectares of land, including:

- 67 ha of Central Hunter Grey Box—Ironbark Woodland EEC and/or Central Hunter Ironbark – Spotted Gum – Grey Box Forest EEC; and
- 27 ha of derived native grasslands that can be demonstrably restored to Central Hunter Grey Box—Ironbark Woodland EEC and/or Central Hunter Ironbark – Spotted Gum – Grey Box Forest EEC.

Warkworth Sands Woodland EEC

- Prior to clearing any Warkworth Sands Woodland on the site, the Applicant shall
 - Accurately determine the quantity and quality of Warkworth Sands Woodland to be cleared on the site;
 - Identify and Map areas where the Warkworth Sands Woodland could be reestablished in the NDAs, HMAs, on land adjacent to these areas, and on-site (consistent with Condition 3);
 - Examine options for the permanent protection of an area, or areas, of Warkworth Sands Woodland in consultation with the owners of the Wambo mine; and
 - Permanently protect, to the greatest extent practicable, an area, or areas of Warkworth Sands Woodland, at a ratio of at least 2:1 and with equivalent habitat value compared to what would be cleared on the site, in the NDAs, HMAs, or on land adjacent to these areas;

to the satisfaction of the Director-General.
- The applicant shall re-establish Warkworth Sands Woodland in areas identified in condition 2(b) above at a ratio of at least 2:1 (or to the greatest extent practicable) compared to what would be cleared on the site, in the NDAs, HMAs, on land adjacent to these areas, or on-site, to the satisfaction of the Director-General
- Prior to clearing any Warkworth Sands Woodland on the site, the Applicant shall conduct research, or support research, to:
 - Improve existing knowledge on the Warkworth Sands Woodland Community;
 - Identify the extent of Warkworth Sands Woodland Community in the NDAs, HMAs, and on-site;
 - Identify areas within the NDAs, HMAs, and either on or off-site where the Warkworth Sands Community could be re-vegetated; and

to the satisfaction of the Director-General.

Based on this research, the Applicant shall determine the best practice for re-establishing the Warkworth Sands Woodland Community to the satisfaction of the Director-General.

Note: The Applicant may require a licence for science, education or conservation under Section 132C of the National Parks & Wildlife Act 1974.

Regeneration in the Putty Road Offset Area

- The Applicant shall ensure the regeneration of vegetation in the Putty Road Offset Area (or in an alternative offset area agreed to in accordance with condition 1 above) is focused on the re-establishment of the Central Hunter Grey Box-Ironbark Woodland EEC and Ironbark-Spotted Gum-Grey Box Forest EEC.

Note: The Putty Road Offset Area is depicted in Appendix 2.

Long Term Security of Biodiversity Offset Areas

6. Prior to carrying out any development in the extension area, the Applicant shall enter into a Deed of Agreement with the Minister. In this agreement, the Applicant shall agree to:
 - (a) conserve and manage the land in the NDAs and HMAs in accordance with the biodiversity offset strategy (see condition 1 of schedule 4), as set out in the Flora and Fauna Management Plan (see condition 10 of schedule 4), and best practice;
 - (b) permanently protect the land in the NDAs for conservation and exclude open cut mining; and
 - (c) exclude open cut mining in the HMAs, unless, in the opinion of the Minister, the Applicant has demonstrated that there is a clear justification for this on social, economic, and environmental grounds. To assist the Minister in his decision-making, the Applicant shall:
 - establish the coal reserve in the HMAs;
 - investigate the options for mining this reserve;
 - assess the implications of any open cut coal mining proposal on the offset strategy (see condition 1 of schedule 4), as set out in the Flora and Fauna Management Plan (see condition 10 of schedule 4), and broad conservation outcomes; and
 - assess the environmental, economic and social aspects of any open cut mining proposal in the area.
7. By the 31 December 2014, the Applicant shall provide long term security for the Putty Road Offset Area (or an alternative offset area agreed to in accordance with condition 1 above) through a Biobanking Agreement under the *Threatened Species Conservation Act 1995*, to the satisfaction of the Director-General.

Note: The Putty Road Offset Area is depicted in Appendix 2.

Strategic Study Contribution

8. If during the development, the Department or OEH commissions a strategic study into the regional vegetation corridor stretching from the Wollemi National Park to the Barrington Tops National Park, then the Applicant shall contribute a reasonable amount, up to \$20,000, towards the completion of this study.

Operating Conditions

9. The Applicant shall:
 - (a) implement best practice management to minimise the flora and fauna impacts of the development and enhance the vegetation and habitat for threatened fauna species in the biodiversity offset areas;
 - (b) salvage and reuse as much material as possible from the land that will be mined, such as soil, seeds, tree hollows, rocks, logs, etc.;
 - (c) develop a detailed vegetation clearing protocol to reduce the potential impact of the development on threatened fauna;
 - (d) collect and use seed from the local area for any planting associated with the offset strategy;
 - (e) establish detailed baseline data on the flora and fauna in the NDAs, HMAs, the Putty Road Offset Area (or in an alternative offset area agreed to in accordance with condition 1 above), and on-site; and
 - (f) monitor the performance of the biodiversity offset strategy over time, including (as a minimum) the parameters in Table 2.

Table 2: Parameters for Fauna and Flora Monitoring

Monitoring Component	Monitoring Description
Flora	<i>A number of permanent flora survey quadrats (which may vary in size to survey tree, shrubs and ground cover) should be established in woodland enhancement areas to obtain quantitative data on plant species diversity and abundance.</i>
Habitat Complexity	<i>Habitat complexity should be monitored using a number of permanent transects established within woodland enhancement areas. Habitat complexity parameters such as canopy cover, shrub cover, ground vegetation cover, the amount of litter, fallen logs and rocks should be surveyed.</i>

Terrestrial Fauna	<i>Terrestrial fauna surveys should be conducted to monitor the usage of enhancement areas by vertebrate fauna. Monitoring may include fauna species diversity and abundance, or alternatively, the use of indicator species to measure the effectiveness of enhancement measures.</i>
Specific Enhancement Initiatives	<i>Monitoring of specific enhancement initiatives (e.g. the provision of nesting/roosting boxes, weed control or feral animal control).</i>

Flora and Fauna Management Plan

10. The Applicant shall prepare and implement a Flora and Fauna Management Plan for the development to the satisfaction of the Director-General. This plan must:
- be prepared in consultation with OEH, and submitted to the Director-General for approval by 30 June 2014, unless the Director-General agrees otherwise;
 - describe the short, medium, and long-term measures that would be implemented to:
 - manage the remnant vegetation and habitat on the site;
 - implement the measures required for the Warkworth Sands Woodland EEC in conditions 2-4 of schedule 4 of this consent; and
 - implement the biodiversity offset strategy;
 - include detailed performance and completion criteria for evaluating the performance of the measures required for the Warkworth Sands Woodland EEC in conditions 2-4 of schedule 4 of this consent and the biodiversity offset strategy, and triggering remedial action (if necessary);
 - include a detailed description of the measures that would be implemented over the next 3 years for:
 - enhancing the quality of existing vegetation and fauna habitat;
 - establishing native vegetation and fauna habitat in the biodiversity offset areas and on site through focusing on assisted natural regeneration, targeted vegetation establishment and the introduction of naturally scarce fauna habitat features (where necessary);
 - enhancing the landscaping of the site and along public roads to minimise visual and lighting impacts of the development;
 - protecting vegetation and soil outside approved disturbance area;
 - maximising the salvage of resources within the approved disturbance area – including vegetative and soil – for beneficial reuse in the biodiversity offset strategy;
 - collecting and propagating seed;
 - minimising the impacts to fauna on site, including undertaking pre-clearance surveys;
 - managing any potential conflicts between the proposed restoration works in the biodiversity offset areas and any Aboriginal heritage values (both cultural and archaeological);
 - managing salinity;
 - controlling weeds and feral pests;
 - controlling erosion;
 - managing grazing and agriculture;
 - controlling access; and
 - managing bushfire risk;
 - include a program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria;
 - identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate against these risks; and
 - include details of who would be responsible for monitoring, reviewing, and implementing the plan.

Note:

- An approved management plan under a Biobanking Agreement can fulfill the requirements of this condition in respect of the offset areas to which that agreement applies.*
- The Flora and Fauna Management Plan and Rehabilitation Management Plan need to be substantially integrated for achieving biodiversity objectives for the rehabilitation of the mine site.*

Conservation Bond

11. By 31 December 2015, unless the Director-General agrees otherwise, the Applicant shall lodge a Conservation Bond with the Department to ensure that the measures required for the Warkworth Sands Woodland EEC in conditions 2-4 of schedule 4 of this consent and the biodiversity offset strategy are implemented in accordance with the performance and completion criteria of the Flora and Fauna Management Plan.

The sum of the bond shall be determined by:

- (a) calculating the full cost of implementing the measures required for the Warkworth Sands Woodland EEC in conditions 2-4 of schedule 4 of this consent and the biodiversity offset strategy (other than land acquisition costs); and
- (b) employing a suitably qualified expert to verify the calculated costs.

The calculation of the Conservation Bond must be submitted to the Department for approval at least 1 month prior to 31 December 2015.

If the offset strategy is completed generally in accordance with the completion criteria in the Flora and Fauna Management Plan to the satisfaction of the Director-General, the Director-General will release the bond.

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

Notes:

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

AIR QUALITY

Impact Assessment Criteria

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

Table 3: Long-term criteria for particulate matter

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

Table 4: Short-term criteria for particulate matter

Pollutant	Averaging Period	^d Criterion
Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³

Table 5: Long-term criteria for deposited dust

Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level
^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month

Notes to Tables 3 - 5

^a Total impact (ie incremental increase in concentrations due to the development plus background concentrations due to all other sources).

^b Incremental impact (ie incremental increase in concentrations due to the development on its own).

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

^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the Director-General.

^e "Reasonable and feasible avoidance measures" includes, but is not limited to, the operational requirements in conditions 15 and 16 to develop and implement a real-time air quality management system that ensures operational responses to the risks of exceedance of the criteria.

Mine-owned Land

13. The Applicant shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria in Tables 3, 4, and 5 at any occupied residence on mine-owned land unless:
- (a) the tenant or landowner (if the residence is owned by another mining or petroleum company) has been notified of any health risks associated with such exceedances in accordance with the notification requirements under schedule 5 of this consent;
 - (b) the tenant of any land owned by the Applicant can terminate their tenancy agreement without penalty at any time, subject to giving reasonable notice;
 - (c) air mitigation measures such as air filters, a first flush roof water drainage system and/or air conditioning) are installed at the residence, if requested by the tenant or landowner (if the residence is owned by another mining or petroleum company);
 - (d) air quality monitoring is regularly undertaken to inform the tenant or landowner (if the residence is owned by another mining or petroleum company) of the actual particulate emissions at the residence; and
 - (e) data from this monitoring is presented to the tenant or landowner in an appropriate format for a medical practitioner to assist the tenant or landowner (if the residence is owned by another mining or petroleum company) in making informed decisions on health risks associated with occupying the property,
- to the satisfaction of the Director-General.

Air Quality Acquisition Criteria

14. If particulate matter emissions generated by the development exceed the criteria, or contribute to an exceedance of the relevant cumulative criteria, in Tables 6, 7 or 8, at any residence on privately-owned land, then upon receiving a written request for acquisition from the landowner the Applicant shall acquire the land in accordance with the procedures in conditions 5-6 of schedule 5.

Table 6: Long term land acquisition criteria for particulate matter

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

Table 7: Short term land acquisition criteria for particulate matter

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

Table 8: Long term land acquisition criteria for deposited dust

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

Notes to Tables 6-8:

a Total impact (ie incremental increase in concentrations due to the development plus background concentrations due to all other sources);

b Incremental impact (ie incremental increase in concentrations due to the development on its own);

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

d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, or any other activity agreed by the Director-General.

Operating Conditions

15. The Applicant shall:
- implement best practice management to minimise the odour, fume and dust emissions of the development;
 - implement all reasonable and feasible measure to minimise the release of greenhouse gas emissions from the site;
 - minimise the surface disturbance of the site;
 - minimise any visible off-site air pollution generated by the development;
 - operate a comprehensive air quality management system that uses a combination of predictive meteorological forecasting, predictive air dispersion modelling and real-time air quality monitoring data to guide the day-to-day planning of mining operations and implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this consent; and
 - minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note d to Tables 6-8 above), to the satisfaction of the Director-General.

Air Quality Management Plan

16. The Applicant shall prepare and implement an Air Quality Management Plan for the development to the satisfaction of the Director-General. This plan must:
- be prepared in consultation with the EPA, and submitted to the Director-General for approval by 31 March 2014, unless otherwise agreed by the Director-General;
 - describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this consent;
 - describe the proposed air quality management system; and
 - include an air quality monitoring program that:
 - uses a combination of real-time monitors and supplementary monitors to evaluate the performance of the development against the air quality criteria in this consent;
 - adequately supports the proactive and reactive air quality management system;
 - evaluates and reports on:
 - the effectiveness of the air quality management system; and
 - compliance with the air quality operating conditions; and
 - defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents.

Meteorological Monitoring

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

NOISE

Noise Criteria

18. The Applicant shall ensure that the noise generated by the development does not exceed the criteria in Table 9 at any residence on privately-owned land.

Table 9: Noise criteria

Day/Evening/Night $L_{Aeq}(15\text{ minute})$	Land Number
39	31, 38, 58
38	5, 35, 47, 70
	Bulga Village ¹
	Warkworth Village ²
37	4, 39, 40, 41, 45, 49, 50, 56, 69
36	7, 9, 11, 42, 43, 54, 55, 125

¹ Bulga Village includes the residential or sensitive receptors generally within the area bounded by properties 18, 20, 23, 22, 117, 122, 89, and 111 on the map EIS-35 in Volume 4 of the EIS.

² Warkworth Village includes the residential or sensitive noise receptors generally within the area bounded by properties 29, 68, and 121 on the map EIS-35 in Volume 4 of the EIS.

Day/Evening/Night $L_{Aeq}(15 \text{ minute})$	Land Number
35	All other residential or sensitive receptors, excluding: 10, 34, 36, 46, 127, 128, 129

Note: To interpret the land referred to in Table 1, see the applicable figure in Appendix 3.

Noise generated by the development is to be measured in accordance with the relevant requirements of the *NSW Industrial Noise Policy*. Appendix 4 sets out the meteorological conditions under which these criteria apply, and the requirements for evaluating compliance with these criteria.

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

Land Acquisition Criteria

19. The land acquisition criteria for noise generated by the development are listed in Table 10³.

Table 10: Land acquisition criteria

Day/Evening/Night $L_{Aeq}(15 \text{ minute})$	Land Number
44	129
43	1, 26, 127, 128 Bulga Village ⁴ Warkworth Village ⁵
42	10 - Russell P & C
40	All other residential or sensitive receptors

Note: To interpret the land referred to in Table 1, see the applicable figure in Appendix 3.

Operating Conditions

20. The Applicant shall:
- implement best management practice to minimise the operational and road noise of the development;
 - ensure noise attenuated plant is preferentially deployed in locations that would be effective in reducing noise impacts on surrounding privately-owned residences;
 - operate a comprehensive noise management system that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day-to-day planning of mining operations, and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this consent;
 - minimise the noise impacts of the development during meteorological conditions under which the noise limits in this consent do not apply (see Appendix 4);
 - co-ordinate noise management on site with the noise management at nearby mines to minimise cumulative noise impacts; and
 - carry out regular monitoring to determine whether the development is complying with the relevant conditions of this consent (see Appendix 4), to the satisfaction of the Director-General.

Noise Management Plan

21. The Applicant shall prepare and implement a Noise Management Plan for the development to the satisfaction of the Director-General. This plan must:
- be prepared in consultation with the EPA, and submitted to the Director-General for approval by 31 March 2014, unless the Director-General agrees otherwise;
 - describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions in this consent;
 - describe the proposed noise management system in detail; and
 - include a monitoring program that:
 - evaluates and reports on:

³ See Notes in Condition 18 for guidance on how to interpret this Table.

⁴ Bulga Village includes the residential or sensitive receptors generally within the area bounded by properties 18, 20, 23, 22, 117, 122, 89, and 111 on the map EIS-35 in Volume 4 of the EIS.

⁵ Warkworth Village includes the residential or sensitive noise receptors generally within the area bounded by properties 29, 68, and 121 on the map EIS-35 in Volume 4 of the EIS.

- the effectiveness of the on-site noise management system including the preferential deployment of attenuated plant to reduce noise impacts on surrounding privately-owned residences;
- compliance against the noise criteria in this consent; and
- compliance with the noise operating conditions;
- includes a program to calibrate and validate real-time noise monitoring results with attended monitoring results over time (so the real-time noise monitoring program can be used as a better indicator of compliance with the noise criteria and as a trigger for additional attended monitoring); and
- defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.

BLASTING

Airblast Overpressure Impact Assessment Criteria

22. The Applicant shall ensure that the airblast overpressure level from blasting at the development does not exceed the criteria in Table 10 at any residence on privately-owned.

Table 10: Airblast overpressure impact assessment criteria

Airblast overpressure level (dB(Lin Peak))	Allowable exceedance
115	5% of the total number of blasts over a period of 12 months
120	0%

Ground Vibration Impact Assessment Criteria

23. The Applicant shall ensure that the ground vibration level from blasting at the development does not exceed the criteria in Table 11 at any residence on privately-owned land.

Table 11: Ground vibration impact assessment criteria

Peak particle velocity (mm/s)	Allowable exceedance
5	5% of the total number of blasts over a period of 12 months
10	0%

Blasting Hours

24. The Applicant shall only carry out blasting at the development between 7 am and 6 pm, Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays, or at any other time without the written approval of the Director-General.

Property Inspection

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

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

Property Investigations

26. If any owner of privately-owned land claims that the buildings and/or structures on his/her land have been damaged as a result of blasting on site, then within 2 months of receiving this claim in writing from the landowner, the Applicant shall:
- (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties, to investigate the claim; and
 - (b) give the landowner a copy of the property investigation report.

If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Applicant shall repair the damages to the satisfaction of the Director-General.

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

Operating Conditions

27. The Applicant shall:
- (a) implement best management practice to:
 - protect the safety of people and livestock in the surrounding area;
 - protect public infrastructure and private property in the surrounding area from any damage; and
 - minimise the dust and fume emissions of any blasting;
 - (b) minimise the frequency and duration of any required road closures; and
 - (c) operate a suitable system to enable the public to get up-to-date and accurate information on the proposed blasting schedule on site, to the satisfaction of the Director-General.
28. The Applicant shall not undertake blasting within 500 metres of:
- (a) any public road; or
 - (b) any land outside of the site not owned by the Applicant,
- unless the Applicant has:
- demonstrated to the satisfaction of the Director-General that the blasting can be carried out closer to the road or land without compromising the safety of people or livestock, or damaging buildings and/or structures; and
 - updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the land or road; or
 - a written agreement with the landowner or relevant road authority (Council or RMS), in the case of any public road, to allow blasting to be carried out closer to the land or road, and the Applicant has advised the Department in writing of the terms of this agreement.

Blast Management Plan

29. The Applicant shall prepare and implement a Blast 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 31 March 2014, unless the Director-General agrees otherwise;
 - (b) describe the measures that would be implemented to ensure compliance with the blasting criteria and operating conditions of this consent;
 - (c) propose and justify any alternative ground vibration limits for public infrastructure in the vicinity of the site (if relevant); and
 - (d) include a monitoring program for evaluating and reporting on compliance with the blasting criteria and operating conditions.

SURFACE WATER

Water Supply

30. The Applicant shall ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of operations on site to match its available water supply.

Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain the necessary water licences for the development.

Compensatory Water Supply

31. The Applicant shall provide a compensatory water supply to the owner of any privately-owned land whose water supply is adversely and directly impacted (other than a negligible impact) as a result of the development, in consultation with NOW, and to the satisfaction of the Director-General.

The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent to the loss attributed to the development. Equivalent water supply should be provided (at least on an interim basis) within 24 hours of the loss being identified.

If 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.

If the Applicant is unable to provide an alternative long-term supply of water, then the Applicant shall provide alternative compensation to the satisfaction of the Director-General.

Pollution of Waters

32. Unless an EPL authorises otherwise, the Applicant shall comply with Section 120 of the *Protection of the Environment Operations Act 1997* during the carrying out of the development.

Transfer of Water

33. During the development, the Applicant may transfer water to, and receive water from, the Redbank Power Station and Lemington and Mount Thorley Mines.

Independent Review of Groundwater Model

34. By 30 June 2014, the Applicant shall submit an independent expert review of the groundwater model for the development to the Director-General. This review must be carried out in consultation with NOW, and assess the consistency of the model with the requirements of the *Australian Groundwater Modelling Guidelines*. Any recommendations made in the independent expert review must be addressed in the Water Management Plan for the site.

Water Management Plan

35. The Applicant shall prepare and implement a Water Management Plan for the development to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with NOW and the EPA, and submitted to the Director-General for approval by 30 June 2014, unless the Director-General agrees otherwise; and
 - (b) in addition to the standard requirements for management plans (see condition 3 of schedule 6), include a:
 - (i) Site Water Balance, that:
 - includes details of:
 - sources and security of water supply, including contingency supply for future reporting periods;
 - a summary of water licences, and use of harvestable rights on the site;
 - water use and management on site;
 - any off-site water discharges; and
 - reporting procedures, including the preparation of a site water balance for each calendar year; and
 - investigates and implements all reasonable and feasible measures to minimise use of clean water on the site;
 - (ii) Surface Water Management Plan, that includes:
 - detailed baseline data on water flows and quality in the watercourses that could potentially be affected by the development;
 - a detailed description of the water management system, including the:
 - clean water diversion systems;
 - erosion and sediment controls (mine water system); and
 - mine water management systems;
 - detailed plans, including design objectives and performance criteria for:
 - design and management of final voids;
 - design and management for the emplacement of coal reject materials and potential acid-forming or sulphate-generating materials;
 - management of sodic and dispersible soils;
 - reinstatement of drainage lines on the rehabilitated areas of the site; and
 - control of any potential water pollution from the rehabilitated areas of the site;

- performance criteria for the following, including trigger levels for investigating any associated potentially adverse impacts:
 - mine water management system;
 - downstream surface water quality; and
 - stream and riparian vegetation health of the watercourses downstream of the development;
 - a program to monitor and report on:
 - effectiveness of the mine water management system; and
 - surface water flows and quality in the watercourses potentially affected by the development;
 - reporting procedures for the results of the monitoring program; and
 - a plan to respond to any exceedences of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the development;
- (iii) Groundwater Management Plan that includes:
- detailed baseline data of groundwater levels, yield and quality in the region that could be affected by the development, including licensed privately-owned groundwater bores and a detailed survey/schedule of groundwater dependent ecosystems;
 - groundwater assessment criteria including trigger levels for investigating any potentially adverse groundwater impacts;
 - a program to monitor and report on:
 - groundwater inflows to the open cut pits;
 - the seepage/leachate from water storages, emplacements and final voids;
 - background changes in groundwater yield/quality against mine-induced changes; and
 - impacts of the development on:
 - regional and local (including alluvial) aquifers;
 - groundwater supply of potentially affected landowners; and
 - groundwater dependent ecosystems and riparian vegetation;
 - a program to validate the groundwater model for the development, including an independent review of the model every 3 years (in conjunction with the Independent Environmental Audit – see schedule 6), and comparison of monitoring results with modelled predictions; and
 - a plan to respond to any exceedences of the performance criteria.

ABORIGINAL & EUROPEAN HERITAGE

Archaeological Salvage Excavations

36. The Applicant shall conduct archaeological salvage excavations in the landform zones listed in Table 12, and depicted in Figure 4 of Part E of the EIS, to the satisfaction of the OEH.

Table 12: Landform Zones for Archaeological Salvage Excavations

Landform Zone	Description
4	The sand sheet
1	Along the upper reaches of Sandy Hollow Creek
8a	On the relatively less disturbed areas along the ridge-tops
8c	on the relatively less disturbed areas along the ridge-tops

Note: Before carrying out these excavations, the Applicant is required to obtain an Excavation Permit from the OEH, under Section 87 of the National Parks & Wildlife Act 1974

Consent to Destroy

37. The Applicant must obtain consent from the National Parks and Wildlife Service, under Section 90 of the *National Parks & Wildlife Act 1974*, to destroy the Aboriginal sites and artefacts listed in Table 13, and depicted in Figures 8 and 10 of Part E of the EIS, and depicted in Figure 9.1 of the EA supporting Modification 6.

Table 13: List of Section 90 Artefacts and Sites

Site Name	Site Type	Landform Zone
B	A	1. Sandy Hollow Creek
K	A	3. Unnamed Tributary to Wollombi Brook
MTW-557	IF	Mod Area 6
MTW-558	IF	Mod Area 6
MTW-560	IF	Mod Area 6
PL6	A	Mod Area 6

Site Name	Site Type	Landform Zone
PL7	A	Mod Area 6
PL11	IF	Mod Area 6
PN1	A	8c. Undulating Terrain
PN2	IF	8c. Undulating Terrain
PN3	IF	8c. Undulating Terrain
PN7	IF	2. Longford Creek
PN8	A	2. Longford Creek
PN9	IF	2. Longford Creek
PN10	GG	2. Longford Creek
PN11	A	2. Longford Creek
PN12	IF	8a. Undulating Terrain
PC1	IF	8c. Undulating Terrain
PC2	A	8c. Undulating Terrain
PC3	A	8c. Undulating Terrain
PC4	IF	3. Unnamed Tributary to Wollombi Brook
PC5	A	3. Unnamed Tributary to Wollombi Brook
PL12	A	3. Unnamed Tributary to Wollombi Brook
PL13	A	3. Unnamed Tributary to Wollombi Brook
PL14	A	3. Unnamed Tributary to Wollombi Brook
PL15 ('X')	IF	3. Unnamed Tributary to Wollombi Brook
F1	IF	7. Woodlands
F2	IF	7. Woodlands
F3	IF	7. Woodlands
W1	A	7. Woodlands
W6 (Remainder – not already covered by Consent #435)	A	1. Sandy Hollow Creek
W7	A	1. Sandy Hollow Creek
W8	A	1. Sandy Hollow Creek
W9	IF	1. Sandy Hollow Creek
W10	A	1. Sandy Hollow Creek
W11	A	1. Sandy Hollow Creek
W12	A	Mod Area 6
W13	A	Mod Area 6
W14	A	1. Sandy Hollow Creek, and 4. Sand Sheet Adjacent to Sandy Hollow Creek
W15	A	1. Sandy Hollow Creek
W16	A	1. Sandy Hollow Creek
W17	A	1. Sandy Hollow Creek
W18	A	1. Sandy Hollow Creek
W19	A	1. Sandy Hollow Creek
W22	A	3. Unnamed Tributary to Wollombi Brook
W23	A	8c. Undulating Terrain
W24	IF	8c. Undulating Terrain
W30	IF	8a. Undulating Terrain
W37	A	8a. Undulating Terrain
W38	A	8a. Undulating Terrain
W39	A	8a. Undulating Terrain
W40	IF	8a. Undulating Terrain
W41	A	8a. Undulating Terrain
W42	A	7. Woodlands
W43	IF	3. Unnamed Tributary to Wollombi Brook
W44	IF	3. Unnamed Tributary to Wollombi Brook
W45	IF	8c. Undulating Terrain
W46	A	8c. Undulating Terrain
W62	1F	1. Sandy Hollow Creek
W63	A	1. Sandy Hollow Creek
W65	A	8b. Undulating Terrain
W66	A	1. Sandy Hollow Creek
W67	A	8b. Undulating Terrain
W68	1F	8b. Undulating Terrain
W69	A	4. Sand Sheet Adjacent to Sandy Hollow Creek

Site Name	Site Type	Landform Zone
W72	IF	7. Woodlands
W73	IF	7. Woodlands
W74	IF	3. Unnamed Tributary to Wollombi Brook
W75	IF	8c. Undulating Terrain
W76	A	8c. Undulating Terrain
W77	A	8b. Undulating Terrain
W78	IF	8b. Undulating Terrain
W79	A	8b. Undulating Terrain
W80	A	8b. Undulating Terrain
W81	IF	8b. Undulating Terrain
W82	A	8b. Undulating Terrain
W83	A	8c. Undulating Terrain
W84	IF	4. Sand Sheet Adjacent to Sandy Hollow Creek

Cultural Salvage

38. Before it destroys the archaeological sites listed in Table 13, the Applicant shall allow local Aboriginal groups to collect, salvage, and/or record material from these sites in accordance with the Cultural Salvage Program (see Condition 41).

Conservation

39. Throughout the development, the Applicant shall actively protect and conserve the archaeological sites and artefacts in the NDAs and HMAs in accordance with the Conservation Program (see Condition 41).

Trust Fund Contribution

40. Within 6 months of DRE approving the initial MOP for development in the extension area, 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 cultural heritage, as defined by the Trust Deed.

Archaeology and Cultural Heritage Management Plan

41. The Applicant shall prepare and implement an Archaeology and Cultural Heritage Management Plan, in consultation with the OEH and local Aboriginal groups including the Wonnarua Nation Aboriginal Corporation, Upper Hunter Wonnarua Council, Lower Hunter Tribal Council, Ungooroo Aboriginal Corporation, and Wonnarua Local Aboriginal Land Council. This plan must:
- describe the following in detail:
 - Archaeological Salvage Excavation Program;
 - Cultural Salvage Program;
 - Destruction Program; and
 - Conservation Program.
 - establish a consultation protocol for Aboriginal Cultural Heritage Management on-site during the development; and
 - describe the procedures that would be implemented if any new heritage or archaeological sites are discovered during the development.

The Applicant shall not carry out any development in the extension area before the Director-General has approved this plan.

Reporting

42. The Applicant shall give a detailed progress report on the Archaeological Salvage Excavation, Cultural Salvage, Destruction, and Conservation programs in the Annual Review.

TRAFFIC & TRANSPORT

Road Works in MR503

43. Before carrying out any development in the MR503 (The Putty Road) road reserve, the Applicant shall execute a Deed with the RMS for the proposed construction, operation, and maintenance of this development.

44. The Applicant shall bear all the costs associated with the design, survey, approval, construction, maintenance, monitoring, rehabilitation, and removal of the development, as described in the EIS, in the MR503 road reserve.
45. Development in the MR 503 road reserve shall remain the property and responsibility of the Applicant, and shall not become part of the State Road reserve.
46. The Applicant shall ensure that the development in the MR503 road reserve complies with current RMS and Austroads Design Standards, and the RMS's Quality Assurance Specifications.
47. Before carrying out any development in the MR503 road reserve, the Applicant shall submit detailed engineering plans and a Traffic Control Plan for the proposed development to the RMS for approval. The Applicant shall not carry out any of this development before the RMS has approved these plans.

Note: For more information on the RMS's assessment process see the RMS's publication "Private Sector Development Work on the Road Network – Developer's Notes".

48. The Applicant shall ensure that a RMS Pre-qualified Contractor, whose appointment has been approved in writing by the RMS before construction starts, carries out all development in the MR503 road reserve.
49. Following the construction of any development in the MR503 road reserve, the Applicant shall commission a suitably qualified person to carry out an annual inspection of this development, and provide the RMS with a written report detailing the condition and safety of the development, identifying any maintenance works that are required, and describing when and how these works would be carried out.
50. When the mining-related development ends, the Applicant shall remove all redundant development from within the MR503 road reserve, and rehabilitate the associated land to the satisfaction of the RMS.

Road Closure

51. The Applicant shall not close any public roads without the approval of the relevant road authority.

Parking

52. The Applicant shall provide at least 240 parking spaces on-site.
53. The Applicant shall ensure that these parking spaces comply with the minimum standard for car park construction in Singleton Council's *Car Parking Development Control Plan*.

Coal Haulage

54. The Applicant shall not haul any coal from the mine on public roads, except in an emergency, as agreed by the Director-General in consultation with Council.

Conveyor

55. The Applicant shall construct the proposed conveyor between the Warkworth and Mount Thorley mines by the end of Year 5 of the development, unless otherwise agreed by the Director-General.

WASTE MANAGEMENT

56. The Applicant shall not cause, permit or allow any waste generated outside the mine to be received at the mine for storage, treatment, processing, reprocessing or disposal, or any waste generated at the mine to be disposed of at the mine, except as expressly permitted by a EPA licence.

Note: This condition only applies to the storage, treatment, processing, reprocessing, or disposal of waste that requires a licence under the Protection of the Environment Operations Act 1997.

VISUAL IMPACT

Visual Amenity

57. The Applicant shall carry out the development in a way that prevents and/or minimises the visual impacts of the development.

58. The Applicant shall install bunds at strategic locations around the site, and plant additional trees along the boundary of the site to the satisfaction of the Director-General in order to screen the development, as far as is practicable, from external viewers.
59. If a landowner of any dwelling located at raised elevations to the west of the development requests the Applicant in writing to investigate ways to minimise the visual impact of the development on his/her dwelling, the Applicant shall:
- (a) commission a suitably qualified person within 14 days of receiving this request – to investigate ways to minimise the visual impacts of the development on the landowner's dwelling;
 - (b) give the landowner a copy of the visual impact mitigation report within 14 days of receiving this report.

If both parties agree on the measures that should be implemented to minimise the visual impact of the development, then the Applicant shall implement these measures to the satisfaction of the Director-General.

If the Applicant and the landowner disagree on the measures that should be implemented to minimise the visual impact of the development, then either party may refer the matter to the Director-General for resolution.

Overburden Dumps

60. The Applicant shall construct the of the overburden emplacements generally in accordance with the EIS (including locations, slopes and heights of the emplacements), and to the satisfaction of DRE.

Lighting Emissions

61. The Applicant shall take all practicable measures to prevent and/or minimise any off-site lighting impacts from the development.
62. All external lighting associated with the development shall comply with *Australian Standard AS4282(INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*.

HAZARDS MANAGEMENT

Spontaneous Combustion

63. The Applicant shall:
- (a) take the necessary measures to prevent, as far as is practical, spontaneous combustion on the site; and
 - (b) manage any spontaneous combustion on-site to the satisfaction of DRE.

Dangerous Goods

64. The Applicant shall ensure that the storage, handling, and transport of:
- (a) dangerous goods is done in accordance with the relevant *Australian Standards*, particularly *AS1940* and *AS1596*, and the *Dangerous Goods Code*; and
 - (b) explosives are carried out in accordance with the requirements of DRE.

BUSHFIRE MANAGEMENT

65. The Applicant shall:
- (a) ensure that the development is suitably equipped to respond to any fires on-site;
 - (b) assist the Rural Fire Service and emergency services as much as possible if there is a fire on-site during the development.
66. Before carrying out any development, the Applicant shall prepare a Bushfire Management Plan for the site to the satisfaction of Council and the Rural Fire Service.

REHABILITATION

Rehabilitation Objectives

67. The Applicant shall rehabilitate the site to the satisfaction of the Executive Director Mineral Resources. This rehabilitation must comply with the objectives in Table 14.

Table 14: Rehabilitation Objectives

Feature	Objective
Mine site (as a whole)	Safe, stable and non-polluting Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprising local native plant species
Rehabilitated materials	Materials (including topsoils, substrates and seeds of disturbed areas) are recovered, appropriately managed and used effectively as resources in the rehabilitation of the site or implementation of the biodiversity offset strategy
Landforms	Final landforms sustain the intended land use following mining Minimise visual impact of final landforms as far as is reasonable and feasible Final landforms incorporate design relief patterns and principles for consistent natural drainage
Final voids	Minimise the size and depth of final voids so far as is reasonable and feasible Minimise the drainage catchment of final voids so far as is reasonable and feasible Minimise high wall instability risk so far as is reasonable and feasible The size and depth of final voids must be designed having regard to their function as long-term groundwater sinks and to maximise groundwater flows across back-filled pits to the void Minimise risk of flood interaction for all flood events up to and including the Probable Maximum Flood
Surface infrastructure	To be decommissioned and removed, unless the Executive Director Mineral Resources agrees otherwise
Biodiversity	Establish 32 hectares of the Central Hunter Grey Box-Ironbark Woodland EEC and Ironbark-Spotted Gum-Grey Box Forest EEC on the site
Community	Ensure public safety Minimise the adverse socio-economic effects associated with mine closure

Progressive Rehabilitation

68. The Applicant shall rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim stabilisation measures must be implemented where reasonable and feasible to control dust emissions in disturbed areas that are not active and which are not ready for final rehabilitation.

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

69. The Applicant shall prepare and implement an accelerated progressive rehabilitation program for the South Pit Area of the site. This program must:
- be prepared in consultation with the Executive Director Mineral Resources;
 - be submitted to the Director-General for approval by 30 June 2014, unless the Director-General agrees otherwise;
 - describe the measures to be undertaken to implement the program;

- (d) include performance and completion criteria for evaluating the performance of the accelerated progressive rehabilitation measures;
- (e) include a timetable for the implementation of the program, including any amendments required to the MOP; and
- (f) include a program to monitor, independently audit and report on the effectiveness of the accelerated progressive rehabilitation measures and progress against the performance and completion criteria.

Rehabilitation Management Plan

70. The Applicant shall prepare and implement a Rehabilitation Management Plan to the satisfaction of Executive Director Mineral Resources. This plan must:
- (a) be prepared in consultation with the Department, NOW, OEH, and Council;
 - (b) be submitted to the Executive Director Mineral Resources for approval by 30 June 2014, unless the Director-General agrees otherwise;
 - (c) be prepared in accordance with any relevant DRE guideline;
 - (d) describe how the rehabilitation of the site would be integrated with the implementation of the biodiversity offset strategy;
 - (e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);
 - (f) describe the measures that would be implemented to ensure compliance with the relevant conditions of this consent, and address all aspects of rehabilitation including mine closure, final landform and final land use;
 - (g) include interim rehabilitation and stabilization measures where necessary to minimise the area exposed for dust generation;
 - (h) include a program to monitor, independently audit and report on the effectiveness of the rehabilitation measures and progress against the detailed performance and completion criteria; and
 - (i) build to the maximum extent practicable on the other management plans required under this consent.

Notes:

- *A MOP approved by the Executive Director Mineral Resources can satisfy this condition provided the MOP adequately incorporates the matters specified in (c) to (i) above.*
- *The Flora and Fauna Management Plan and Rehabilitation Management Plan require substantial integration to achieve biodiversity objectives for the rehabilitation on the mine site.*

SCHEDULE 5
ADDITIONAL PROCEDURES FOR AIR QUALITY & NOISE MANAGEMENT

NOTIFICATION OF LANDOWNERS/TENANTS

1. By 31 March 2014, unless the Director-General agrees otherwise, the Applicant shall:
 - (a) notify the relevant tenants or landowners of their rights under condition 13 of schedule 4 of this consent; and
 - (b) send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the owners and/or existing tenants of any land (including mine-owned land) where the predictions in the EIS identify that dust emissions generated by the development are likely to be greater than the relevant air quality criteria in schedule 4 at any time during the life of the development.
2. Prior to entering into any tenancy agreement for any land owned by the Applicant that is predicted to experience exceedances of the recommended dust and/or noise criteria, the Applicant shall:
 - (a) advise the prospective tenants of the potential health and amenity impacts associated with living on the land, and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time); and
 - (b) advise the prospective tenants of the rights they would have under this consent, to the satisfaction of the Director-General.
3. As soon as practicable after obtaining monitoring results showing:
 - (a) an exceedance of any relevant criteria in schedule 4, the Applicant shall notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the development is again complying with the relevant criteria; and
 - (b) an exceedance of the relevant air quality criteria in schedule 4, the Applicant shall send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land).

INDEPENDENT REVIEW

4. If an owner of privately-owned land considers the development to be exceeding the criteria in schedule 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, then within 2 months of the Director-General's decision, the Applicant shall:

- (a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Director-General, to:
 - consult with the landowner to determine his/her concerns;
 - conduct monitoring to determine whether the development is complying with the relevant impact assessment criteria in schedule 4; and
 - if the development is not complying with these criteria then:
 - determine if more than one mine or development is responsible for the exceedance, and if so the relative share of each mine or development regarding the impact on the land; and
 - identify the measures that could be implemented to ensure compliance with the relevant criteria; and
- (b) give the Director-General and landowner a copy of the independent review.

LAND ACQUISITION

5. Within 3 months of receiving a written request from a landowner with acquisition rights, the Applicant shall make a binding written offer to the landowner based on:
 - (a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the 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 land 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 and/or air quality mitigation measures;
 - (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 will request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:

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

Within 14 days of receiving the independent valuer's report, the 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 will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions.

Within 14 days of this 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.

6. The Applicant shall pay all reasonable costs associated with the land acquisition process described in condition 5 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.

SCHEDULE 6
ENVIRONMENTAL MANAGEMENT, REPORTING & AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

1. The Applicant shall prepare and implement an Environmental Management Strategy for the development **to the satisfaction of the Director-General**. This strategy must:
 - (a) provide the strategic context for environmental management of the development;
 - (b) identify the statutory requirements that apply to the development;
 - (c) **describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;**
 - (d) describe the procedures that would be implemented to:
 - keep the local community and relevant agencies informed about the operation and environmental performance of the development;
 - receive, handle, respond to, and record complaints;
 - resolve any disputes that may arise during the course of the development;
 - respond to any non-compliance;
 - manage cumulative impacts; and
 - respond to emergencies; and
 - (e) **include:**
 - copies of any strategies, plans and programs approved under the conditions of this consent; and
 - a clear plan depicting all the monitoring to be carried out in relation to the development.

Community Liaison Officers

2. For the duration of the development (unless otherwise agreed with the Director-General), the Applicant shall employ suitably qualified and experienced full time community liaison officers, to support the implementation of the air quality, noise and blast management plans and monitoring programs for the development in the local community.

Adaptive Management

3. The Applicant shall assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in schedules 3 and 4. Any exceedance of these criteria and/or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.

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

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

Management Plan Requirements

4. The Applicant shall ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:
 - (a) detailed baseline data;
 - (b) a description of:
 - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
 - any relevant limits or performance measures/criteria;
 - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;
 - (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
 - (d) a program to monitor and report on the:
 - impacts and environmental performance of the project;
 - effectiveness of any management measures (see c above);
 - (e) a contingency plan to manage any unpredicted impacts and their consequences;

- (f) a program to investigate and implement ways to improve the environmental performance of the project over time;
- (g) a protocol for managing and reporting any:
 - incidents;
 - complaints;
 - non-compliances with statutory requirements; and
 - exceedances of the impact assessment criteria and/or performance criteria; and
- (h) a protocol for periodic review of the plan.

Annual Review

5. By 31 March of each year, or as otherwise agreed by the Director-General, the Applicant shall review the environmental performance of the development to the satisfaction of the Director-General. This review must:
 - (a) describe the development that was carried out in the previous calendar year, and the development that is proposed to be carried out over the next 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
 - the relevant statutory requirements, limits or performance measures/criteria;
 - the monitoring results of previous years; and
 - the relevant predictions in the EA;
 - (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
 - (d) identify any trends in the monitoring data over the life of the project;
 - (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and
 - (f) describe what measures will be implemented over the next year to improve the environmental performance of the project.

Revision of Strategies, Plans and Programs

6. Within 3 months of the submission of:
 - (a) the submission of annual review under condition 5 above;
 - (b) the submission of an incident report under condition 8 below;
 - (c) the submission of an audit under condition 10 below; or
 - (d) any modification to the conditions of this consent,
 the Applicant shall review and, if necessary, revise the strategies, plans, and programs required under this consent 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 to the Director-General for approval.

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

Community Consultative Committee

7. The Applicant shall operate 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 approval; and*
- *The CCC should be comprised of an independent chair and appropriate representation from the Applicant, Council, recognised environmental groups and the local community.*

REPORTING

Incident Reporting

8. 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

9. 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.

AUDITING

Independent Environmental Audit

10. By the 31 December 2015, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent 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 approval, and any other relevant approvals, relevant EPL/s and/or Mining Lease (including any assessment, plan or program required under these approvals);
 - (d) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals; and
 - (e) recommend measures or actions to improve the environmental performance of the development, and/or any strategy, plan or program required under these approvals.

Note: This audit team must be led by a suitably qualified auditor, and include experts in noise, air quality, ecology, Aboriginal heritage and any other fields specified by the Director-General.

11. Within 3 months of commissioning this audit, or as otherwise agreed by the Director-General, the Proponent 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

12. The Proponent shall:
 - (a) make the following information publicly available on its website:
 - the EIS, and any subsequent environmental assessments;
 - current statutory approvals for the project;
 - approved strategies, plans or programs required under the conditions of this approval;
 - a comprehensive summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval;
 - a complaints register, which is to be updated on a monthly basis;
 - minutes of CCC meetings;
 - the last five annual reviews;
 - any independent environmental audit, and the Proponent's response to the recommendations in any audit;
 - any other matter required by the Director-General; and
 - (b) keep this information up to date,
 - (c) investigate and report on reasonable and feasible measures to make predictive meteorological data and real time monitoring data publicly available on its website to the satisfaction of the Director-General.

**APPENDIX 1
SCHEDULE OF LAND**

Lot	DP	Property Owner
1	43383	Warkworth Mining Limited
1	43422	Miller Pohang Coal Company Pty Limited
1	129799	Warkworth Mining Limited
1	129811	Warkworth Mining Limited
1	129812	Warkworth Mining Limited
1	129819	Warkworth Mining Limited
1	129822	Warkworth Mining Limited
1	130264	Warkworth Mining Limited
1	130275	Warkworth Mining Limited
1	130276	Warkworth Mining Limited
1	176095	Warkworth Mining Limited
1	227280	Warkworth Mining Limited
1	245850	Warkworth Mining Limited
1	248570	Warkworth Mining Limited
1	326244	Warkworth Mining Limited
1	326245	Warkworth Mining Limited
1	573286	Warkworth Mining Limited
1	705493	Warkworth Mining Limited
1	755267	Warkworth Mining Limited
1	949066	Warkworth Mining Limited
1	1026900	RMS (Vested In Singleton Shire Council) - Putty Road
1	1041796	Warkworth Mining Limited
1	1097294	Warkworth Mining Limited
2	43383	Warkworth Mining Limited
2	129799	Warkworth Mining Limited
2	129811	Warkworth Mining Limited
2	129819	Warkworth Mining Limited
2	129822	Warkworth Mining Limited
2	130264	Warkworth Mining Limited
2	227280	Warkworth Mining Limited
2	245850	Warkworth Mining Limited
2	248570	Warkworth Mining Limited
2	705493	Warkworth Mining Limited
2	1026900	RMS (Vested In Singleton Shire Council) - Putty Road
2	1097294	Warkworth Mining Limited
3	43383	Warkworth Mining Limited
3	129811	Warkworth Mining Limited
3	129819	Warkworth Mining Limited
3	227280	Warkworth Mining Limited
3	245850	Warkworth Mining Limited
3	705493	Crown Land - Closed Road
3	1026900	RMS (Vested In Singleton Shire Council) - Putty Road
4	43383	Warkworth Mining Limited
4	245850	Warkworth Mining Limited
4	248570	Warkworth Mining Limited
4	658759	Warkworth Mining Limited
4	1026900	RMS (Vested In Singleton Shire Council) - Putty Road
5	43383	Warkworth Mining Limited
5	113342	Warkworth Mining Limited

5	245850	Warkworth Mining Limited
5	246201	Warkworth Mining Limited
5	248570	Warkworth Mining Limited
5	1026900	Singleton Shire Council
6	113342	Warkworth Mining Limited
6	245850	Warkworth Mining Limited
6	248570	Warkworth Mining Limited
6	251238	State Rail Authority OF NSW
7	113342	Warkworth Mining Limited
7	245850	Warkworth Mining Limited
7	248570	Warkworth Mining Limited
8	245850	Warkworth Mining Limited
8	246201	Warkworth Mining Limited
8	247340	Miller Pohang Coal Company Pty Limited
8	1026900	Warkworth Mining Limited
9	246201	Warkworth Mining Limited
9	247340	Miller Pohang Coal Company Pty Limited
9	1121154	RMS (Vested In Singleton Shire Council) - Putty Road
10	113342	Warkworth Mining Limited
10	246201	Warkworth Mining Limited
10	1121154	RMS (Vested In Singleton Shire Council) - Putty Road
11	113342	Warkworth Mining Limited
11	1121154	Warkworth Mining Limited
12	113342	Warkworth Mining Limited
12	1121154	Warkworth Mining Limited
13	113342	Warkworth Mining Limited
14	113342	Warkworth Mining Limited
15	113342	Warkworth Mining Limited
16	113342	Warkworth Mining Limited
17	113342	Warkworth Mining Limited
17	658927	Miller Pohang Coal Company Pty Limited
18	113342	Warkworth Mining Limited
19	113342	Warkworth Mining Limited
19	247339	Miller Pohang Coal Company Pty Limited
20	113342	Warkworth Mining Limited
21	113342	Warkworth Mining Limited
21	625709	Warkworth Mining Limited
22	113342	Warkworth Mining Limited
22	625709	Warkworth Mining Limited
27	755267	Warkworth Mining Limited
35	260056	Warkworth Mining Limited
36	260056	Warkworth Mining Limited
46	755267	Warkworth Mining Limited
47	1096589	Warkworth Mining Limited
48	755267	Warkworth Mining Limited
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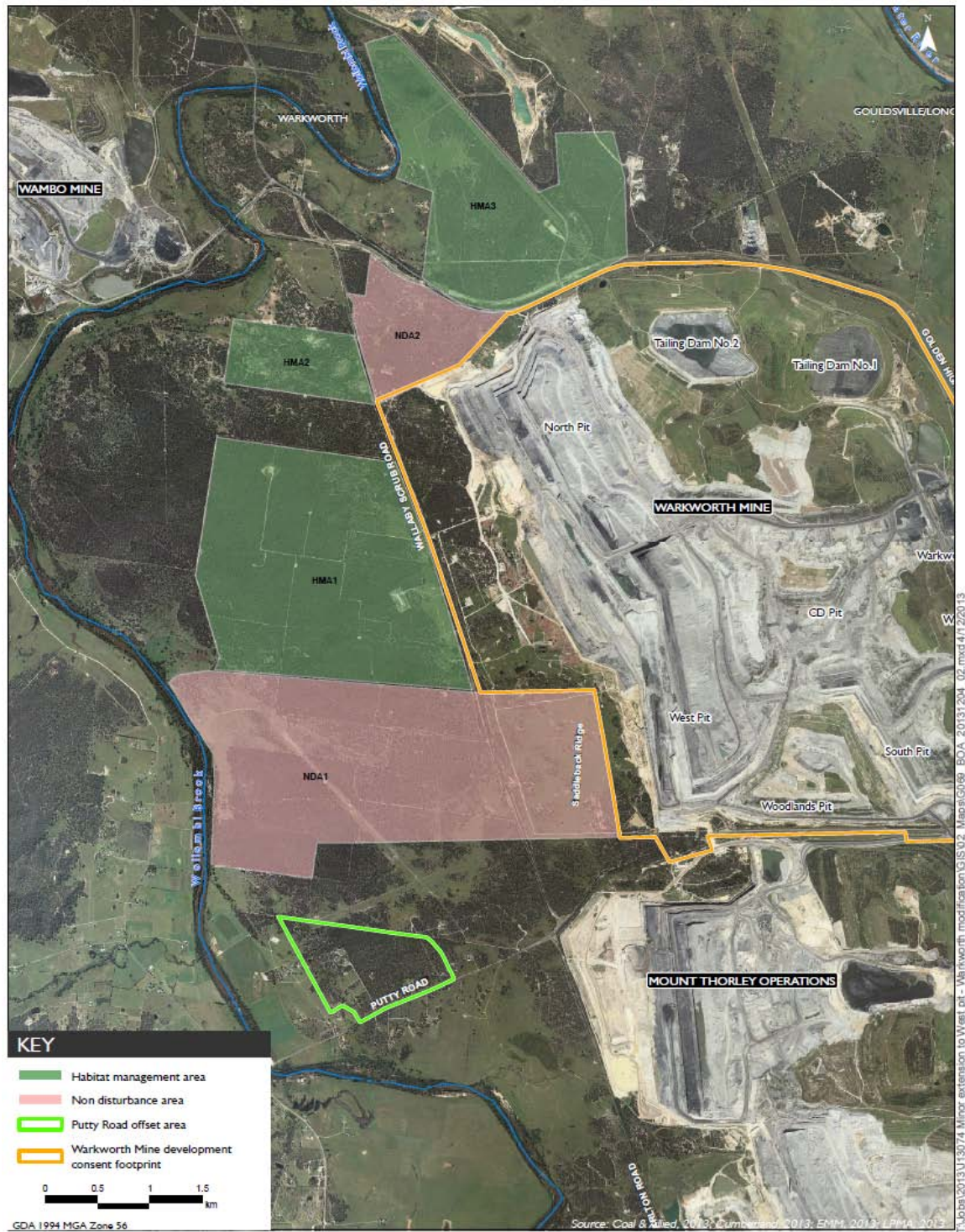
103	755267	Warkworth Mining Limited
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120	1089243	Warkworth Mining Limited
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137	755267	Warkworth Mining Limited
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141	573290	Warkworth Mining Limited
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144	573290	Warkworth Mining Limited
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151	755267	Warkworth Mining Limited
152	755267	Warkworth Mining Limited
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159	755267	Warkworth Mining Limited
162	755267	Warkworth Mining Limited
165	755267	Warkworth Mining Limited
166	657481	Warkworth Mining Limited
167	755267	Warkworth Mining Limited
168	755267	Warkworth Mining Limited
170	755267	Warkworth Mining Limited
172	755267	Warkworth Mining Limited
173	755267	Warkworth Mining Limited
177	755267	Warkworth Mining Limited
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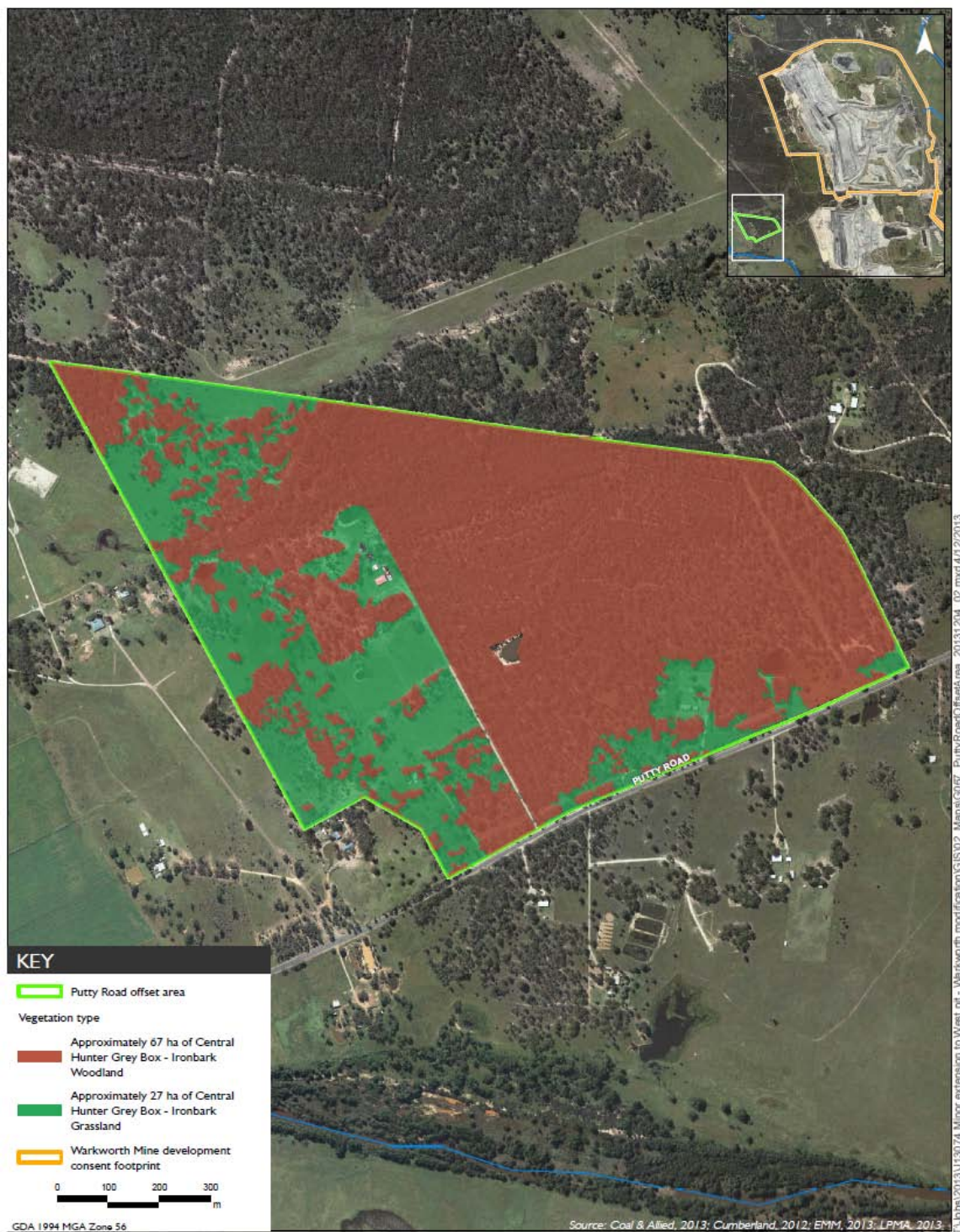
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185	755267	Warkworth Mining Limited
187	755267	Warkworth Mining Limited
189	755267	Warkworth Mining Limited
190	755267	Warkworth Mining Limited
196	755267	Warkworth Mining Limited
197	657482	Warkworth Mining Limited
200	755267	Warkworth Mining Limited
201	755267	Crown Land
203	704466	Warkworth Mining Limited
271	260663	Miller Pohang Coal Company Pty Limited
272	260663	Warkworth Mining Limited
272	600747	Miller Pohang Coal Company Pty Limited
273	260663	Miller Pohang Coal Company Pty Limited
341	612684	Miller Pohang Coal Company Pty Limited
371	1026537	Singleton Shire Council
841	531116	Warkworth Mining Limited
A	182301	Warkworth Mining Limited
B	182301	Warkworth Mining Limited

Roads		
		Crown closed road north east corner lot 8 DP1026900
		Crown road west side of lot 11 DP1121154
		Putty Road - RMS (Vested In Singleton Shire Council)
		Old Putty Road Alignment - (Singleton Council)

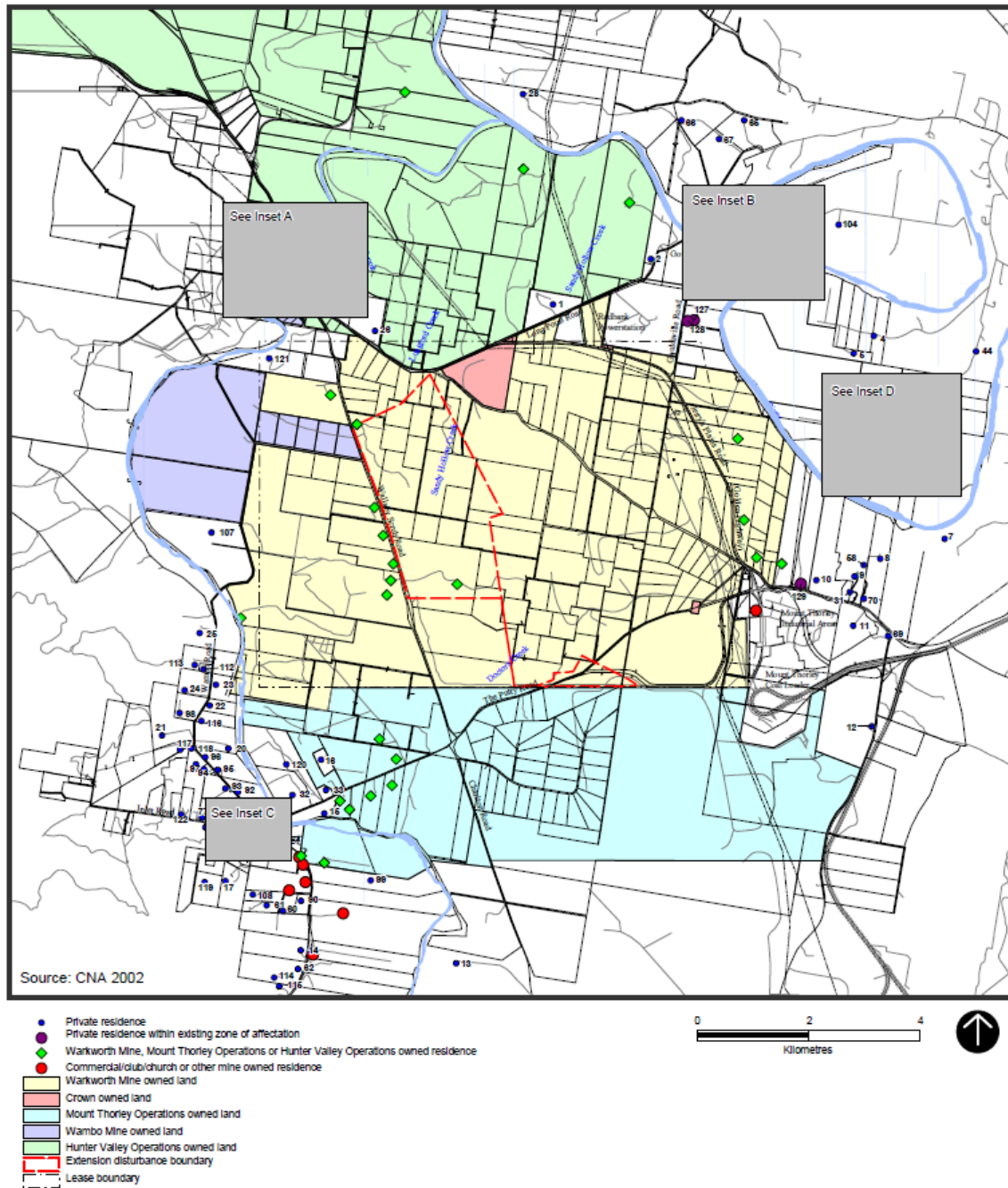
Lots shown based on compiled cadastre and consent boundary. Survey may identify unidentified residues of title or other lot boundaries affected by the consent boundary.

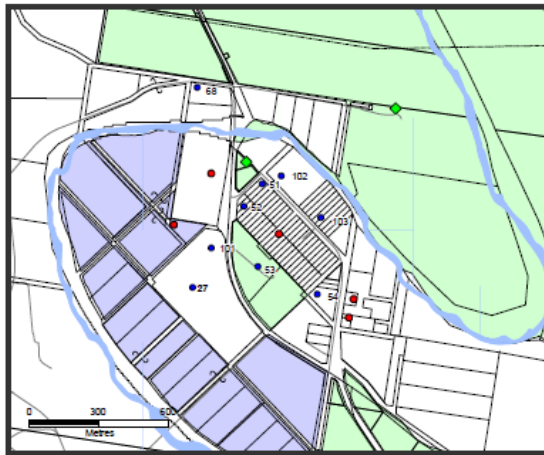
APPENDIX 2 BIODIVERSITY OFFSET AREAS



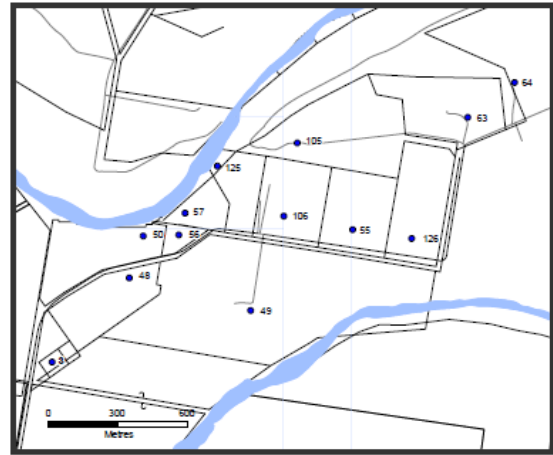


APPENDIX 3 LAND REFERENCE NUMBERS

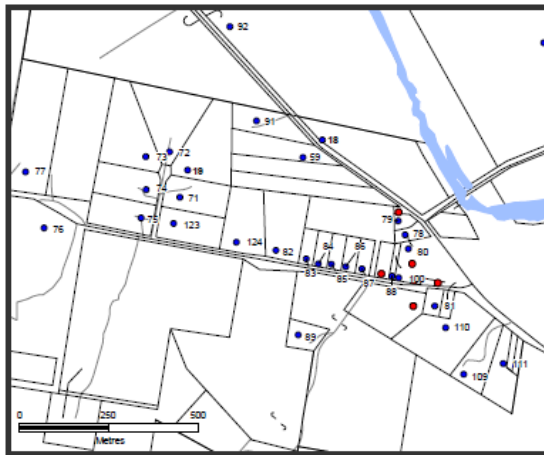




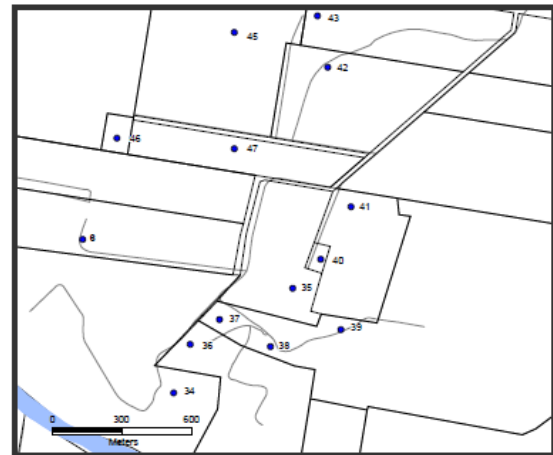
Inset A (Warkworth)



Inset B (Goudisville)



Inset C (Bulga)



Inset D (Hambledon Hill)

APPENDIX 4 NOISE COMPLIANCE ASSESSMENT

Applicable Meteorological Conditions

1. The noise criteria in Table 9 in schedule 4 are to apply under all meteorological conditions except the following:
 - (a) during periods of rain or hail;
 - (b) average wind speed at microphone height exceeds 5 m/s;
 - (c) wind speeds greater than 3 m/s measured at 10 m above ground level; or
 - (d) temperature inversion conditions greater than 3°C/100 m.

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 required under condition 17 of schedule 4.

Compliance Monitoring

3. Attended monitoring is to be used to evaluate compliance with the relevant conditions of this consent.
4. This monitoring must be carried out at least once a month (but at least two weeks apart) unless the Director-General directs otherwise.
5. Unless the Director-General agrees otherwise, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the *NSW Industrial Noise Policy* (as amended from time to time), in particular the requirements relating to:
 - (a) monitoring locations for the collection of representative noise data;
 - (b) meteorological conditions during which collection of noise data is not appropriate;
 - (c) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and
 - (d) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.