## **Development Consent**

## Section 89E of the Environmental Planning & Assessment Act 1979

As delegate of the Minister for Planning, the Planning Assessment Commission approves the development application referred to in schedule 1, subject to the conditions in schedules 2 to 5.

These conditions are required to:

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

Name Member of the Commission

Name Member of the Commission

Name Member of the Commission

Name

**Member of the Commission** 

Sydney 26 November 2015

**SCHEDULE 1** 

Application Number: SSD-6464

Applicant: Warkworth Mining Limited

Consent Authority: Minister for Planning

Land: See Appendix 1

**Development:** Warkworth Continuation Project

Blue text represents MOD 2 dated 27 May 2022

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

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

## **TABLE OF CONTENTS**

DEFINITIONS	3
ADMINISTRATIVE CONDITIONS	5
Obligation to Minimise Harm to the Environment Terms of Consent Limits on Consent Commencement of Development Under this Consent Surrender of Existing Development Consent Structural Adequacy Demolition Protection of Public Infrastructure Operation of Plant and Equipment Updating & Staging Strategies, Plans or Programs Community Enhancement	5 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
ENVIRONMENTAL PERFORMANCE CONDITIONS	7
Acquisition Upon Request Additional Mitigation Upon Request Noise Blasting Air Quality Meteorological Monitoring Water Biodiversity Heritage Transport Visual Bushfire Management Waste Rehabilitation	7 7 7 9 11 13 15 19 21 21 22 22
ADDITIONAL PROCEDURES	25
Notification of Landowners/Tenants Independent Review Land Acquisition	25 25 25
ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING	27
Environmental Management Reporting Auditing Access to Information	27 28 29 29
APPENDIX 1: SCHEDULE OF LAND	30
APPENDIX 2: DEVELOPMENT LAYOUT PLANS	37
APPENDIX 3: LAND OWNERSHIP PLANS	42
APPENDIX 4: DIRECT LAND-BASED BIODIVERSITY OFFSETS	52
APPENDIX 5: HERITAGE	56
APPENDIX 6: REHABILITATION PLANS	71
APPENDIX 7: NOISE COMPLIANCE ASSESSMENT	74
APPENDIX 8: INDICATIVE ROUTE-EMERGENCY ACCESS TRACK	75
APPENDIX 9: INTERIM NOISE CRITERIA	76

#### **DEFINITIONS**

Aboriginal stakeholders

Annual review Applicant

BCA BCD Blast misfire CCC CHAG

Conditions of this consent

Council CMA CPI Day

Department Development

DPE Water EIS

EEC

EPA EP&A Act EP&A Regulation EPBC Act EPL Evening

Heritage item

Feasible

Heritage NSW Incident

Land

Lemington underground mine workings Material harm

Mine water

Mining company

Cultural Heritage Working Group and any Aboriginal groups registered for cultural heritage consultation for the development

The review required by condition 3 of schedule 5

Warkworth Mining Limited, or any person who seeks to carry out

the development approved under this consent

Building Code of Australia

Biodiversity & Conservation Division within the Department

The failure of one or more holes in a blast pattern to initiate

Community Consultative Committee

Coal & Allied Community Heritage Advisory Group, or equivalent

organisation

Conditions contained in schedules 1 to 5 (inclusive) of this document

Singleton Council

Hunter-Central Rivers Catchment Management Authority Australian Bureau of Statistics Consumer Price Index

The period from 7am to 6pm on Monday to Saturday, and 8am to

6pm on Sundays and Public Holidays
Department of Planning and Environment

The development as described in the documents listed in

condition 2 of Schedule 2 of this document Water Group within the Department

Environmental Impact Statement titled Warkworth Continuation 2014 Environmental Impact Statement (6 volumes) dated June 2014, and associated response to submissions titled Warkworth Continuation 2014 Response to Submissions (2 volumes) dated 10 November 2014, and associated response titled Warkworth Continuation 2014 Response to Planning Assessment Commission review report dated 20 March 2015

Endangered ecological community, as defined under the

Threatened Species Conservation Act 1995

**Environment Protection Authority** 

Environmental Planning and Assessment Act 1979
Environmental Planning and Assessment Regulation 2000
Environment Protection and Biodiversity Conservation Act 1999
Environment Protection Licence issued under the POEO Act
The period from 6pm to 10pm

Feasible relates to engineering considerations and what is practical to build or implement

An item as defined under the *Heritage Act 1977* and/or an Aboriginal Object or Aboriginal Place as defined under the *National Parks and Wildlife Act 1974* 

Heritage NSW within the Department

An occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance

Has the same meaning as the definition in section 1.4 of 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

The underground workings identified in Appendix 2 Figure 3A Is harm to the environment that:

- involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial; or
- results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment)

This definition excludes "harm" that is authorised under either this consent or any other statutory approval

Water that accumulates within active mining and infrastructure areas

Mining, extractive industry or petroleum company

Mining operations Includes the removal of overburden and extraction, processing,

handling, storage and transportation of coal on site

Minister Minister for Planning, or delegate
Minor Not very large, important or serious

Mitigation Activities associated with reducing the impacts of the

development

Modification Report (MOD 2) Modification Report titled MTW/HVO Lemington Underground

Mine Water Storage Project, Modification Report dated September 2021 and the Submissions Report dated December 2021, and associated response titled MTW-HVO Lemington Underground Water Storage Modifications (MP06\_0261 MOD 7 AND SSD-6464 MOD 2) — Response To Additional Information

Request dated 15 March 2022.

Negligible Small and unimportant, such as to be not worth considering
Night The period from 10pm to 7am on Monday to Saturday, and 10pm

to 8am on Sundays and Public Holidays

Non-compliance An occurrence, set of circumstances or development that is a

breach of this consent

NRAR NSW Natural Resources Access Regulator

delegate

POEO Act Protection of the Environment Operations Act 1997

Privately-owned land Land that is not owned by the Crown or a mining company (or its

subsidiaries)

Public infrastructure Linear and related infrastructure that provides services to the

general public, such as roads, railways, water supply, drainage, sewerage, gas supply, electricity, telephone,

telecommunications, etc.

Reasonable Means applying 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 restoration of land disturbed by the development to a good

condition, and ensure it is safe, stable and non-polluting

Resources Regulator NSW Resources Regulator

RFS Rural Fire Service ROM coal Run-of-mine coal

SA NSW Subsidence Advisory New South Wales

Site The land listed in Appendix 1

TSC Act Threatened Species Conservation Act 1995

TfNSW
VPA
Transport for New South Wales
Voluntary Planning Agreement

Wollombi Brook Aboriginal Cultural The area depicted on Figure 15 in Appendix 5

Heritage Conservation Area

# SCHEDULE 2 ADMINISTRATIVE CONDITIONS

#### **OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT**

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

#### **TERMS OF CONSENT**

- 2. The Applicant must carry out the development:
  - (a) generally in accordance with the EIS and Modification Report (MOD 2); and
  - (b) in accordance with the conditions of this consent.

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

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

#### **LIMITS ON CONSENT**

### **Mining Operations**

The Applicant may carry out mining operations on site for 21 years from the date of commencement of development under this consent.

Note: Under this consent, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of the Planning Secretary and the Resources Regulator. 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.

#### **Coal Extraction**

The Applicant must not extract more than 18 million tonnes of ROM coal from the Warkworth mine in a calendar year.

#### **Coal Transport**

- 7. The Applicant must:
  - (a) not transport any coal produced at the development by public road; and
  - (b) ensure that the coal produced on site is only sent to the Mt Thorley Coal Loader for transport by rail to export and/or domestic markets.

#### COMMENCEMENT OF DEVELOPMENT UNDER THIS CONSENT

- 8. The Applicant must:
  - (a) notify the Planning Secretary in writing of the date of commencement of development under this consent; and
  - (b) may only commence development under this consent once the Planning Secretary has agreed in writing that all prequisites to the commencement of development under this consent have been met.

#### SURRENDER OF EXISTING DEVELOPMENT CONSENT

 By the end January 2017, unless the Planning Secretary agrees otherwise, the Applicant must surrender the existing development consent (DA-300-9-2002-i) for the Warkworth mine in accordance with Section 104A of the EP&A Act.

Following the commencement of development under this consent, the conditions of this consent prevail to the extent of any inconsistency with the conditions of DA-300-9-2002-i.

#### STRUCTURAL ADEQUACY

The Applicant must ensure that all new buildings and structures, and any alterations or additions to
existing buildings and structures, are constructed in accordance with the relevant requirements of the
BCA and SA NSW.

#### Notes:

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

#### **DEMOLITION**

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

#### PROTECTION OF PUBLIC INFRASTRUCTURE

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

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

#### **OPERATION OF PLANT AND EQUIPMENT**

13. The Applicant must ensure that all plant and equipment used on site, or to monitor the performance of the development, is maintained and operated in a proper and efficient manner.

### **UPDATING & STAGING STRATEGIES, PLANS OR PROGRAMS**

- 14. With the approval of the Planning Secretary, the Applicant may:
  - (a) submit any strategy, plan or program required by this consent on a progressive basis; and
  - (b) combine any strategy, plan or program required by this consent with any similar strategy, plan or program required for the Mt Thorley mine.

To ensure these strategies, plans or programs are updated on a regular basis, the Applicant may at any time submit revised strategies, plans or programs to the Planning Secretary for approval.

With the agreement of the Planning Secretary, the Applicant may prepare any revised strategy, plan or program without undertaking consultation with all parties under the applicable condition of this consent.

#### Notes:

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

#### **COMMMUNITY ENHANCEMENT**

- 15. Within 6 months of the date of this consent, unless the Planning Secretary agrees otherwise, the Applicant must enter into a VPA with Council in accordance with:
  - (a) Division 6 of Part 4 of the EP&A Act; and
  - (b) the terms of Applicant's offer in its letter to the Department dated 4 May 2015.

The VPA must include provisions for the payment, collection, management and distribution of the contributions under the agreement, with a focus on funding community infrastructure and services in the area surrounding the mine, including Bulga Village.

Note: The Applicant's offer comprises a total contribution of \$11 million over 21 years for both the development and the Mt Thorley Continuation Project (SSD-6465).

NSW Government Department of Planning and Environment

# SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS

#### **ACQUISITION UPON REQUEST**

1. Upon receiving a written request for acquisition from an owner of the land listed in Table 1, the Applicant must acquire the land in accordance with the procedures in conditions 5 and 6 of schedule 4.

Table 1: Land subject to acquisition upon request

Acquisition Basis	Land
Noise & Air	77, 102, D, E, F
Noise	34, 81, 148, 150, 190, 192, J
Air	A, B

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

2. The Applicant is only required to acquire property 77 if the owner of this land no longer has voluntary land acquisition rights under the planning approvals for the Wambo mine and/or its associated rail facilities.

#### **ADDITIONAL MITIGATION UPON REQUEST**

3. Upon receiving a written request from the owner of any residence on the land listed in Table 1 or Table 2, the Applicant must implement additional noise and/or air quality mitigation measures at or in the vicinity of the residence in consultation with the landowner. These measures must be consistent with the measures outlined in the *Voluntary Land Acquisition and Mitigation* Policy. They must also be reasonable and feasible and proportionate with the level of predicted impact.

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

Table 2: Land subject to additional mitigation upon request

Mitigation Basis	Characterisation of Impact	Land
Noise	Moderate	12, 14, 15, 126, 128, 130, 139, 152, 183, 191, 192, 217, 262, 263

#### Notes:

- To interpret the land referred to in Table 2, see the applicable figures in Appendix 3.
- Definitions of marginal and moderate mitigation are given in the Voluntary Land Acquisition and Mitigation Policy.

#### NOISE

## Noise Criteria - Before 1 January 2017

4. Before 1 January 2017, except for the land in Table 1, the Applicant must ensure that the noise generated by the development does not exceed the noise criteria in condition 18 of DA-300-9-2002-i.

#### Notes

- The referenced noise criteria in condition 18 of DA-300-9-2002-i are reproduced in Appendix 9.
- These noise criteria apply in the interim period until the completion of the Applicant's noise attenuation program, which is to be completed by the end of 2016 (see condition 6(d) below). From 1 January 2017, the noise criteria in condition 5 will apply.

#### Noise Criteria - From 1 January 2017

5. From 1 January 2017, except for the land in Table 1, the Applicant must ensure that the noise generated by the development does not exceed the criteria in Table 3 at any residence on privately-owned land.

Table 3: Noise criteria dB(A)

Location	Land	Day (L <sub>Aeq (15min)</sub> )	Evening (L <sub>Aeq (15min)</sub> )	Night (L <sub>Aeq (15min)</sub> )	Night (L <sub>A1 (1 min)</sub> )
	17, 19	40	40	40	50
	37, 43, 52, 62, 63, 64, 66, 71, 72, 73, 75, 82, 210, 211, 236, 252, 920	39	39	39	49
Bulga	12, 14, 15, 16, 18, 20, 21, 22, 23, 24, 26, 28, 31, 35, 36, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 50, 53, 54, 55, 56, 57, 58, 60, 61, 67, 70, 74, 80, 84, 89, 215, 217, 229, 231, 234, 235, 237, 238, 243, 253, 254, 903, 917, 918, 919, 921 929	38	38	38	48
	8, 9, 225, 226, 227, 228, 230, 266, 922	37	37	37	47
	4, 6, 7, 10, 221, 222, 223	36	36	36	46
	All other residences on privately owned land	35	35	35	45
	111	36	36	36	46
Milbrodale	All other residences on privately owned land	35	35	35	45
Warkworth	All other residences on privately owned land	38	38	38	48
Maison Dieu	All other residences on privately owned land	35	35	35	45
	126, 262	41	41	41	51
Gouldsville,	128	39	39	39	49
Long Point	130, 139	38	38	38	48
	All other residences on privately owned land	35	35	35	45
	192	40	40	40	50
	152, 191, 263	39	39	39	49
Hambledon	183	38	38	38	48
Hill/ Wylies Flat	181, 182, 184, 185, 186, 187, 937a, 937b	37	37	37	47
	155, 156, 157, 180, 937d, 937e	36	36	36	46
	All other residences on privately owned land	35	35	35	45
	<sup>a</sup> 144, <sup>a</sup> 915	43	43	43	53
Mount	<sup>a</sup> 146	42	42	42	52
Thorley	148, 188	36	36	36	46
	All other residences on privately owned land	35	35	35	45

#### Notes:

- To interpret the land referred to in Table 3, see the applicable figures in Appendix 3.
- a Noise limits developed relative to current acquisition criteria.

Noise generated by the development is to be measured in accordance with the relevant requirements of the *NSW Industrial Noise Policy* (as may be updated from time-to-time) or an equivalent NSW Government noise policy, as amended by Appendix 7 which 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.

#### **Operating Conditions**

- 6. The Applicant must:
  - implement all reasonable and feasible measures to minimise the operational, low frequency and road noise of the development;
  - (b) operate a comprehensive noise management system on site that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this consent;
  - (c) minimise the noise impacts of the development during meteorological conditions when the noise limits in this consent do not apply (see Appendix 7);
  - (d) ensure that:
    - all new trucks, dozers, drills and excavators purchased for use on the site after the date of this consent are commissioned as noise suppressed (or attenuated) units; and
    - the existing fleet of trucks, dozers, drills and excavators on site at the date of this consent is progressively fitted with suitable noise attenuation packages to ensure that 100% of the fleet being used on site is attenuated by the end of 2016; and
  - (e) carry out regular monitoring to determine whether the development is complying with the relevant conditions of this consent and, if necessary, adjust the scale of operations on site to meet the criteria in this consent.

#### **Noise Management Plan**

- 7. The Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Planning Secretary, and carry out the development in accordance with this plan. The plan must:
  - (a) be prepared in consultation with the EPA, and submitted to the Planning Secretary for approval prior to carrying out any development under this consent;
  - describe the measures that would be implemented to ensure compliance with the relevant noise criteria and operating conditions of this consent;
  - (c) describe the proposed noise management system in detail;
  - (d) include provisions for keeping the local community informed about the operation of the noise management system and monitoring programs (including any correction factors under the NSW Industrial Noise Policy), including regular briefings and a public information session within 6 months of the granting of this development consent;
  - (e) include a noise monitoring program that:
    - evaluates and reports on:
      - o the effectiveness of the noise management system;
      - o the effectiveness of the noise attenuation program (see condition 6(d));
      - o compliance against the noise criteria in this consent; and
      - o compliance against the noise operating conditions;
    - includes a program to calibrate and validate the real-time noise monitoring results with the attended monitoring results over time (so the real-time noise monitoring program can be used as a trigger for further attended monitoring where there is a risk of non-compliance with the noise criteria in this consent); and
    - defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.

#### BLASTING

#### **Blasting Criteria**

8. The Applicant must ensure that the blasting on the site does not cause exceedances of the criteria in Table 4.

Table 4: Blasting criteria

Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance
Residence on privately owned land	120	10	0%
	115	5	5% of the total number of blasts over a period of 12 months

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

#### **Blasting Hours**

9. The Applicant must only carry out blasting on site between 7am and 5pm Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays, or at any other time without the written approval of the Planning Secretary.

#### **Blasting Frequency**

- 10. The Applicant may carry out a maximum of:
  - (a) 3 blasts a day; and
  - (b) 12 blasts a week, averaged over a calendar year, at the site.

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

#### Notes:

- For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine.
- For the avoidance of doubt, should an additional blast be required after a blast misfire, this additional blast and the blast misfire are counted as a single blast.
- In circumstances of recurring unfavourable weather conditions (following planned but not completed blast events), to avoid excess explosive sleep times and minimise any potential environmental impacts, the Applicant may seek agreement from the Planning Secretary for additional blasts to be fired on a given day.
- 11. The Applicant must not carry out more than 1 blast a day within 500 metres of the Putty Road and/or Golden Highway.

#### **Property Inspections**

- 12. If the Applicant receives a written request from the owner of any privately-owned land within 2 kilometres of the approved open cut mining pit/s on site for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection updated, then within 2 months of receiving this request the Applicant must:
  - (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to:
    - establish the baseline condition of any buildings and other structures on the land, or update the previous property inspection report; and
    - identify measures that should be implemented to minimise the potential blasting impacts of the 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 the landowner disagrees with the findings of the property inspection report, either party may refer the matter to the Planning Secretary for resolution.

#### **Property Investigations**

- 13. If the owner of any privately-owned land claims that buildings and/or structures on his/her land have been damaged as a result of blasting on the site, then within 2 months of receiving this claim the Applicant must:
  - (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 must repair the damage to the satisfaction of the Planning Secretary.

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

### **Operating Conditions**

- 14. During mining operations on site, the Applicant must:
  - (a) implement all reasonable and feasible measures to:

- protect the safety of people and livestock in the surrounding area;
- protect public or private infrastructure/property in the surrounding area from any damage;
   and
- minimise the dust and fume emissions of any blasting;
- (b) ensure that blasting on the site does not damage historic heritage sites outside the disturbance area including the Wambo Homestead, Bulga Bridge, St Phillips Church or the following Aboriginal grinding groove sites:
  - MTW-266~WSW-09-22;
  - MTW-267~WSW-09-22;
  - MTW-268~WSW-209-23; and
  - Aboriginal grinding groove site Mt Thorley M 37-6-0163 (prior to its relocation);
- (c) minimise the frequency and duration of any road closures; and
- (d) operate a suitable system (including a hotline and website updates) to enable the public to get up-to-date information on the proposed blasting schedule on site.

Note: To identify the Aboriginal grinding grooves and historic heritage sites referred to in this condition, see the applicable figures in Appendix 5.

- 15. The Applicant must not undertake blasting on site within 500 metres of:
  - (a) any public road: or
  - (b) any land outside the site that is not owned by the Applicant, unless:
  - the Applicant has a written agreement with the applicable infrastructure authority or landowner to allow blasting to be carried out closer to the infrastructure or land, and the Applicant has advised the Department in writing of the terms of this agreement; or
  - the Applicant has:
    - demonstrated to the satisfaction of the Planning Secretary that the blasting can be carried out closer to the infrastructure 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 road or land.

#### **Blast Management Plan**

- 16. The Applicant must prepare a Blast Management Plan for the development to the satisfaction of the Planning Secretary, and carry out the development in accordance with this plan. The plan must:
  - (a) be prepared in consultation with the EPA, and submitted to the Planning Secretary for approval prior to carrying out any development under this consent;
  - (b) describe the measures that would be implemented to ensure compliance with the blasting criteria and operating conditions of this consent:
  - (c) include a road closure management plan for blasting within 500 metres of a public road, that has been prepared in consultation with the TfNSW and Council;
  - (d) include a monitoring program for evaluating the performance of the development, including:
    - · compliance with the applicable criteria;
    - avoiding any blasting impacts on the heritage items specified in condition 14 above; and
    - minimising the fume emissions from the site.

### **AIR QUALITY**

#### Air Quality Impact Assessment Criteria

17. Except for the land in Table 1, the Applicant must 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 listed in Tables 5, 6 and 7 at any residence on privately owned land.

Table 5: Long term impact assessment criteria for particulate matter

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

Table 6: Short term impact assessment criterion for particulate matter

Pollutant Averag	ing period description description
------------------	------------------------------------

Particulate matter < 10 μm (PM <sub>10</sub> ) 24 hour <sup>b</sup> 50 μg/m <sup>3</sup>
------------------------------------------------------------------------------------------

Table 7: Long term impact assessment criteria for deposited dust

Pollutant	Averaging period	Maximum increase <sup>2</sup> in deposited dust level	Maximum total <sup>1</sup> deposited dust level
<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a</sup> 4 g/m <sup>2</sup> /month

Notes to Tables 5-7

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

#### Mine-owned Land

- 18. The Applicant must 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 listed in Tables 5,6 and 7 at any occupied residence on mine-owned land (including land owned by another mining company), unless and to the extent that:
  - (a) the tenant and landowner (if the residence is owned by another mining or gas company) have been notified of any health risks associated with such exceedances in accordance with the notification requirements under schedule 4 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 and cause;
  - (c) air quality monitoring is regularly undertaken to inform the tenant or landowner (if the residence is owned by another mining or gas company) of the particulate emissions at the residence; and
  - (d) data from this monitoring is presented to the tenant and landowner in an appropriate format for a medical practitioner to assist the tenant and landowner in making informed decisions on the health risks associated with occupying the property.

### **Operating Conditions**

- 19. The Applicant must:
  - (a) implement all reasonable and feasible measures to minimise the:
    - odour, fume and dust emissions of the development; and
    - release of greenhouse gas emissions from the development;
  - (b) operate a comprehensive air quality management system that uses a combination of predictive meteorological forecasting and real-time air quality monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this consent;
  - (c) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note d to Tables 5-7 above); and
  - (d) co-ordinate the air quality management on site with the air quality management at nearby mines (including the Mt Thorley, Bulga, Wambo and Hunter Valley Operations mines) to minimise any cumulative air quality impacts.

#### **Air Quality Management Plan**

- 20. The Applicant must prepare a detailed Air Quality Management Plan for the development to the satisfaction of the Planning Secretary, and carry out the development in accordance with this plan. The plan must:
  - be prepared in consultation with the EPA, and be submitted to the Planning Secretary for approval prior to carrying out any development under this consent;
  - describe the measures that would be implemented to ensure compliance with relevant air quality criteria and operating conditions of this consent;
  - (c) describe the proposed air quality management system;
  - include provisions for keeping the local community informed about the operation of the air quality management system and monitoring programs, including regular briefings and a public information session within 6 months of the granting of this development consent;
  - (e) include an air quality monitoring program that:
    - adequately supports the proactive and reactive air quality management system;
    - evaluates and reports on:
      - o the effectiveness of the air quality management system; and
      - o 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; and
- (f) include a protocol that has been prepared in consultation with the owners of nearby mines (including the Mt Thorley, Bulga, Wambo and Hunter Valley Operations mines) to minimise cumulative air quality impacts.

#### **METEOROLOGICAL MONITORING**

- 21. For the life of the development, the Applicant must ensure that there is a meteorological station in the vicinity of the site that:
  - (a) complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline; and
  - (b) is capable of continuous real-time measurement of temperature inversions in accordance with the NSW Industrial Noise Policy, unless a suitable alternative is approved by the Planning Secretary following consultation with the EPA.

#### **WATER**

### **Water Supply**

- 22. The Applicant must ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of mining operations to match its available water supply.
- 22A. The Applicant must report on water taken from each water source each year in the Annual Review.

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**

23. The Applicant must provide a compensatory water supply to the owner of any privately-owned land whose basic landholder water rights (as defined in the *Water Management Act 2000*) are adversely and directly impacted as a result of the development. This supply must be provided in consultation with NRAR, and to the satisfaction of the Planning Secretary.

The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent to the loss attributable to the development. Equivalent water supply should be provided (at least on an interim basis) as soon as practicable from the loss being identified, unless otherwise agreed with the landowner.

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 Planning Secretary for resolution.

If the Applicant is unable to provide an alternative long-term supply of water, then the Applicant must provide alternative compensation to the satisfaction of the Planning Secretary.

Note: The Water Management Plan (see condition 27) is required to include trigger levels for investigating potentially adverse impacts on water supplies.

#### **Water Discharges**

- 24. Unless an EPL or the EPA authorises otherwise, the Applicant must ensure that all surface water discharges from the site comply with the:
  - (a) discharge limits (both volume and quality) set for the development in any EPL; and
  - (b) relevant provisions of the POEO Act or *Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002.*

Note: For the avoidance of doubt, it is noted that the EPA will determine the cumulative allowable salinity discharges to the Hunter River catchment, according to rules of the Hunter River Salinity Trading Scheme and the respective quantities of tradeable salinity credits held by participants in the scheme (including the Bulga mine and other nearby mining operations).

#### **Water Transfers**

25. The Applicant may receive water from, and transfer water to, the Mt Thorley mine, Hunter Valley Operations mine, Bulga mine and Redbank Power Station.

#### **Water Management Performance Measures**

26. The Applicant must comply with the performance measures in Table 8 to the satisfaction of the Planning Secretary.

Table 8: Water management performance measures

Table 8: Water management perfor	Performance Measure
Water management – General	Minimise the use of clean water (i.e. water not in contact with disturbed areas) on site  Minimise the need for make-up water from external supplies (apart from permissible mine water transfers)
Hunter River Alluvial Aquifer and Wollombi Brook Alluvial Aquifer	Negligible environmental consequences to the Hunter River alluvial aquifer and the Wollombi Brook alluvial aquifer beyond those predicted for the development
Lemington underground mine workings	During water transfers into the Lemington underground mine workings, retain a maximum fill level of 30m AHD in the Lemington underground mine workings or retain a buffer zone of 10m between the base of the Hunter River alluvium and the Lemington underground mine workings fill level; whichever gives the greater vertical separation
Construction and operation of infrastructure	Design, install and maintain erosion and sediment controls generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction</i> including <i>Volume 1, Volume 2A – Installation of Services</i> and <i>Volume 2C – Unsealed Roads</i>
	Design, install and maintain the infrastructure within 40 m of watercourses generally in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land (DPI 2007)</i> , or its latest version
	Design, install and maintain any creek crossings generally in accordance with the <i>Policy and Guidelines for Fish Habitat Conservation and Management</i> (DPI, 2013) and <i>Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings</i> (NSW Fisheries 2003), or their latest versions
Clean water diversion & storage infrastructure	Design, install and maintain the clean water system to capture and convey the 100 year ARI flood.  Maximise as far as reasonable and feasible the diversion of clean
	water around disturbed areas on site
Sediment dams	Design, install and/or maintain the dams generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction – Volume 1 and Volume 2E Mines and Quarries</i>
Mine water storages	Design, install and/or maintain mine water storage infrastructure to ensure no discharge of mine water off-site (except in accordance with condition 24)
	On-site storages (including mine infrastructure dams and treatment dams) are suitably designed, installed and/or maintained to minimise permeability
	Maintain adequate freeboard within the pit void at all times to minimise the risk of discharge to surface waters
Flood mitigation measures	Design, install and maintain flood mitigation measures along the western side of the development, to ensure there is adequate freeboard (at least 500mm) between the Probable Maximum Flood level in Wollombi Brook and the crest levee or peak of the flood mitigation infrastructure.
	Residual impacts downstream must be managed in an appropriate manner.
Overburden emplacements	Design, install and maintain emplacements to encapsulate and prevent migration of tailings, acid forming and potentially acid forming materials, and saline and sodic material
	Design, install and maintain emplacements to prevent off-site migration of saline groundwater seepage
Chemical and hydrocarbon storage	Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standards

#### Water Management Plan

- 27. The Applicant must prepare a Water Management Plan for the development to the satisfaction of the Planning Secretary, and carry out the development in accordance with this plan. The plan must:
  - (a) be prepared in consultation with the EPA and DPE Water and submitted to the Planning Secretary for approval prior to carrying out any development under this consent;
  - (b) in addition to the standard requirements for management plans (see condition 3 of schedule 5), include a:
    - (i) Site Water Balance that:
      - includes details of:
        - sources and security of water supply, including contingency planning for future reporting periods;
        - water use and management on site, including details of water sharing between neighbouring mining operations;
        - any off-site water transfers and discharges;
        - reporting procedures, including the preparation of a site water balance for each calendar year;
        - the methodology used to quantify the annual groundwater inflow into the Lemington underground mine workings during the period water is to be stored and extracted, and the ongoing maximum annual groundwater inflow after these activities have ceased; and
      - investigates and implements all reasonable and feasible measures to minimise water use on site;
    - (ii) Surface Water Management Plan, that includes:
      - detailed baseline data on surface water flows and quality in the watercourses that could potentially be affected by the development;
      - a detailed description of the water management system on site, including the:
        - o clean water diversion systems;
        - o erosion and sediment controls (mine water system); and
        - mine water management systems including irrigation areas;
      - 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;
        - o reinstatement of drainage lines on the rehabilitated areas of the site; and
        - o control of any potential water pollution from the rehabilitated areas of the site;
      - performance criteria for the following, including trigger levels for investigating any potentially adverse impacts associated with the development:
        - o mine water management system;
        - o surface water quality of Wollombi Brook; and
        - o channel stability, stream and riparian vegetation health of Wollombi Brook;
      - · a program to monitor and report on:
        - o the effectiveness of the mine water management system; and
        - surface water flows and quality, stream and riparian vegetation health in Wollombi Brook potentially affected by the development;
      - a plan to respond to any exceedances of the performance criteria, and mitigate and/or
        offset any adverse surface water impacts of the development; and
    - (iii) Groundwater Management Plan, which includes:
      - detailed baseline data on groundwater levels, yield and quality in the region, and privatelyowned groundwater bores, that could be affected by the development;
      - groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts;
      - a program to monitor and report on:
        - o groundwater inflows to the open cut pits;
        - the seepage/leachate from water storages, emplacements, backfilled voids, and final
        - o the impacts of the development on:
          - regional and local (including alluvial) aguifers:
          - groundwater supply of potentially affected landowners;
          - groundwater dependent ecosystems and riparian vegetation;
          - base flows to Wollombi Brook;
      - a plan to respond to any exceedances of the groundwater assessment criteria; and
      - a program to validate the groundwater model for the development, including an independent review of the model with every independent environmental audit, and compare the monitoring results with modelled predictions.

#### **BIODIVERSITY**

#### **Retirement of Credits**

28. Within 3 years of the date of commencement of development under this consent, the Applicant must retire biodiversity credits of a number and class specified in Tables 9 and 10 below to the satisfaction of BCD.

The retirement of these credits must be carried out in accordance with the NSW Biodiversity Offsets Policy for Major Projects and can be achieved by:

- (a) acquiring or retiring credits under the Biobanking Scheme in the TSC Act;
- (b) making payments into an offset fund that has been developed by the NSW Government; or
- (c) providing supplementary measures.

Table 9: Ecosystem credit requirements

Vegetation Community	Code (BVT)	Biometric Vegetation Type	Area (ha)	Endangered Ecological Community (EEC)	<sup>a</sup> Credits required
Warkworth Sands Woodland	HU872	Rough-barked Apple - Narrow-leaved Ironbark - Blakely's Red Gum - Bull Oak - Coast Banksia woodland on sands of the Warkworth area	72.12	Warkworth Sands Woodland in the Sydney Basin Bioregion EEC	3,043
Warkworth Sands Grassland	HU872	Rough-barked Apple - Narrow-leaved Ironbark - Blakely's Red Gum - Bull Oak - Coast Banksia woodland on sands of the Warkworth area	0.67	N/A	16
Central Hunter Grey Box - Ironbark Woodland	HU817	Narrow-leaved Ironbark - Bull Oak - Grey Box shrub - grass open forest of the central and lower Hunter	614.6 4	Central Hunter Grey Box-Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions EEC	<sup>b</sup> 12,180
Regenerating Central Hunter Grey Box - Ironbark Woodland	HU817	Narrow-leaved Ironbark - Bull Oak - Grey Box shrub - grass open forest of the central and lower Hunter	6.43	Central Hunter Grey Box-Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions EEC	108
Central Hunter Grey Box - Ironbark Derived Grassland	HU817	Narrow-leaved Ironbark - Bull Oak - Grey Box shrub - grass open forest of the central and lower Hunter	378.6	N/A	4,516
Central Hunter Ironbark - Spotted Gum - Grey Box Forest	HU818	Narrow-leaved Ironbark - Grey Box - Spotted Gum shrub - grass woodland of the central and lower Hunter	16.61	Central Hunter Ironbark-Spotted Gum-Grey Box Forest in the New South Wales North Coast and Sydney Basin Bioregions EEC	633

#### Notes:

- a Or as otherwise determined by BCD as part of its detailed consideration of credits retirement.
- b This must be read in conjunction with the similar figure in Table 11. It reflects the fact that some of these credits
  may be retired through mine rehabilitation.

Table 10: Species credit requirements

Species	<sup>a</sup> Credits Required
Regent Honeyeater	18,929

Southern Myotis	18,222
Large-eared Pied Bat	139

#### Note:

a Or as otherwise determined by BCD as part of its detailed consideration of credits retirement.

#### **Rehabilitation Offsets**

29. Within 10 years of the completion of mining operations under this consent, the Applicant must retire ecosystem credits of a number and class specified in Table 11 to the satisfaction of BCD.

Table 11: Ecosystem Credit Requirements

Vegetation Community	Code (BVT)	Biometric Vegetation Type	Area (ha)	Endangered Ecological Community (EEC)	<sup>a</sup> Credits Required
Central Hunter Grey Box - Ironbark Woodland	HU817	Narrow- leaved Ironbark - Bull Oak - Grey Box shrub - grass open forest of the central and lower Hunter	2,100	Central Hunter Grey Box- Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions EEC	11,204

#### Note:

• a Or as otherwise determined by BCD as part of its detailed consideration of credits retirement.

The retirement of these credits must be carried out in accordance with the NSW Biodiversity Offsets Policy for Major Projects and can be achieved by:

- (a) retiring credits generated by mine rehabilitation;
- (b) acquiring or retiring credits under the Biobanking Scheme in the TSC Act;
- (c) making payments into an offset fund that has been developed by the NSW Government; or
- (d) providing supplementary measures.

#### **Direct Land-Based Offsets**

30. Within 3 years of the date of commencement of the development under this consent, the Applicant must secure offset areas listed in Table 12 under an in perpetuity conservation mechanism such as entering into a biobank agreement, in accordance with the relevant provisions of the TSC Act. The direct land-based offsets may be used as offsets for any approval required under the EPBC Act for this development.

Table 12: Direct Land-based Offsets

Offset Area	Minimum Size (hectares)	
Northern Biodiversity Area	303	
Southern Biodiversity Area	705	
Goulburn River Biodiversity Area	1,063	
Bowditch Biodiversity Area	520	
Putty Road Biodiversity Area	94	
2003 Warkworth Sands Woodland Area	155.8	
North Rothbury Biodiversity Area (Hanwood Estate)	40	

Note: To identify the areas referred to in Table 12 see the applicable figures in Appendix 4.

- 30A. The Applicant may subdivide the Northern Biodiversity Area in accordance with Figure 14A of Appendix 4 of this consent and with the requirements of the EP&A Act and EP&A Regulation, to allow for transfer of ownership of the remainder of the lot(s) to satisfy the requirements of MP 06\_0261.
  - Under Part 6 of the EP&A Act, the Applicant is required to obtain a subdivision certificate for a plan of subdivision.
  - Division 6.4 of Part 6 of the EP&A Act sets out the application requirements for subdivision certificates.

31. The Applicant may use the ecosystem and species credits generated by the establishment of an in perpetuity conservation mechanism such as a biobank agreement for all of these offset areas, apart from those credits generated for Putty Road Biodiversity Area and 2003 Warkworth Sands Woodland Area, to retire the biodiversity credit requirements of the development under condition 28. All ecosystem and species credits generated by the establishment of an in perpetuity conservation mechanism for the Putty Road Biodiversity Area and 2003 Warkworth Sands Woodland Area must be retired permanently upon the establishment of an in perpetuity conservation mechanism for these areas, and may not be used sold or used to retire any other credit requirements.

#### **Additional Warkworth Sands Woodland Measures**

- 32. Within 6 months of the commencement of development under this consent, the Applicant must:
  - (a) develop suitable performance criteria to the satisfaction of BCD for determining the successful regeneration of the Warkworth Sands Woodland EEC in the Northern Biodiversity Area within 15 years from the commencement of development of under this consent; and
  - (b) lodge a bond (in the form of a bank guarantee) of \$1 million (indexed to CPI) with BCD.

Note: The Applicant's biodiversity offset strategy involves the regeneration of 159 hectares of Warkworth Sands Woodland in the Northern Biodiversity Area, and the protection of an additional 19.5 hectares of existing Warkworth Sands Woodland in the Northern Biodiversity Area and 56 hectares of existing Warkworth Sands Woodland in the Southern Biodiversity Area.

- 33. If, at the end of 15 years from the commencement of development of under this consent, the regeneration of the Warkworth Sands Woodland EEC in the Northern Biodiversity Area meets the performance criteria to the satisfaction of BCD, then BCD will refund the bond to the Applicant.
  - If, however, the regeneration does not meet the performance criteria to the satisfaction of BCD, then the Applicant will forfeit the bond to BCD for use by BCD for the regeneration of Warkworth Sands Woodland EEC in the local area, or equivalent strategic conservation initiatives in the region.
- 34. Within 12 months of the commencement of development under this consent, the Applicant must prepare an Integrated Management Plan for the Warkworth Sands Woodland EEC to the satisfaction of BCD. This plan must be prepared in consultation with the owners of the Wambo and Bulga mines, and outline the measures that would be implemented to co-ordinate management and recovery efforts for the EEC.
- 35. Within 6 months of the commencement of development under this consent, the Applicant must contribute \$1 million to BCD's Saving Our Species Regent Honeyeater conservation program. The contribution may be used as a supplementary measure for any approval required under the EPBC Act for this development.

#### **Biodiversity Management Plan**

- 36. The Applicant must prepare a Biodiversity Management Plan for the development to the satisfaction of the Planning Secretary, and carry out the development in accordance with this plan. The plan must:
  - be prepared in consultation with BCD and submitted to the Planning Secretary for approval prior to the commencement of any development under this consent;
  - (b) describe the short, medium, and long term measures that would be implemented to:
    - manage the remnant vegetation and fauna habitat on the site;
    - implement the biodiversity offset strategy described in the EIS;
    - regenerate and conserve Warkworth Sands Woodland EEC in the biodiversity areas;
    - integrate the implementation of the biodiversity offset strategy to the greatest extent practicable with the rehabilitation of the site;
  - (c) include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy (including the regeneration of Warkworth Sands Woodland), and triggering remedial action (if necessary);
  - (d) include a detailed description of the measures that would be implemented over the next 3 years for:
    - regenerating Warkworth Sands Woodland in the biodiversity offset areas;
    - protecting vegetation and fauna habitat outside the approved disturbance area on-site;
    - enhancing the quality of existing vegetation and fauna habitat on the site and in the biodiversity offset areas;
    - minimising clearing and avoid unnecessary disturbance;
    - maximising the salvage of resources within the approved disturbance area including vegetative and soil resources – for beneficial reuse in the enhancement of any land-based offsets or the rehabilitation of the site;
    - collecting and propagate seed;
    - minimising the impacts on fauna on site, including undertaking pre-clearance surveys;
    - managing salinity using best practice dryland salinity management revegetation measures;

- · controlling weeds and feral pests;
- · controlling erosion;
- · managing grazing and agriculture on site;
- controlling access; and
- bushfire management;
- (e) include a seasonally-based program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria;
- (f) identify the potential risks to the successful implementation of the biodiversity offset strategy (including the regeneration of Warkworth Sands Woodland), and include a description of the contingency measures that would be implemented to mitigate against these risks; and
- (g) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

Note: Management measures relating to the biodiversity offset strategy may be addressed via equivalent measures required by BCD as part of a BioBanking Agreement or similar conservation agreement.

#### **Conservation Bond**

- 37. Within 3 months of the approval of the Biodiversity Management Plan, unless otherwise agreed by the Planning Secretary, the Applicant must lodge a Conservation Bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan. The sum of the bond must be determined by:
  - (a) calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and
  - (b) employing a suitably qualified quantity surveyor to verify the calculated costs, to the satisfaction of the Planning Secretary.

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

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

#### Notes:

- Alternative funding arrangements for long-term management of the biodiversity offset strategy, such as provision
  of capital and management funding as agreed by BCD as part of a Biobanking Agreement or transfer to
  conservation reserve estate 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 Management Plan.

#### **HERITAGE**

### Wollombi Brook Aboriginal Cultural Heritage Conservation Area

- 38. The Applicant must prepare a conservation management plan for the Wollombi Brook Aboriginal Cultural Heritage Conservation Area to the satisfaction of the Planning Secretary, and carry out the development in accordance with this plan. The plan must:
  - (a) be prepared in consultation with Heritage NSW and Aboriginal stakeholders, and submitted to the Planning Secretary for approval prior to carrying out any development to the west of Wallaby Scrub Road under this consent unless otherwise agreed by the Planning Secretary;
  - (b) describe the measures that would be implemented to provide for the protection, conservation and enhancement of Aboriginal heritage values in the area;
  - (c) include a program/procedures for:
    - protection and management of Aboriginal sites, including protocols for the establishment of strictly controlled non-access zones and protocols around culturally sensitive areas;
    - maintaining and managing access to the area by the relevant Aboriginal stakeholders, including establishment of areas for active Aboriginal cultural heritage and landscape management; and
    - ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage in the area;
  - (d) investigate the potential for collaborative management of the Aboriginal heritage values of the land within the Southern Biodiversity Area and the adjoining Wambo-owned land adjacent to the conservation area, in consultation with the owner of the Wambo mine; and
  - (e) include an action plan for the implementation of the plan, including the establishment and role of the Wollombi Brook Aboriginal Cultural Heritage Conservation Area management committee in overseeing implementation of the plan.
- 39. Prior to carrying out any development to the west of Wallaby Scrub Road under this consent, unless the Planning Secretary agrees otherwise, the Applicant must enter into a conservation agreement or

agreements pursuant to section 69B of the *National Parks and Wildlife Act 1974* relating to the Wollombi Brook Aboriginal Cultural Heritage Conservation Area, recording the obligations assumed by the Applicant under the conditions of this consent in relation to the conservation area, and register the agreement/s pursuant to section 69F of the *National Parks and Wildlife Act 1974*.

Note: The location of the conservation area is shown in the figure in Appendix 5.

#### **Human Remains**

40. This consent does not allow the Applicant to disturb any in-situ human remains on site.

#### **Protection of Heritage Items**

41. The Applicant must protect the heritage items identified in Table 1 of Appendix 5.

#### Salvage

42. Prior to carrying out any development on site that could affect the heritage items identified in Table 2 of Appendix 5, the Applicant must salvage those items in accordance with the approved program under the Aboriginal Heritage Management Plan.

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

- 43. The Applicant must prepare an Aboriginal Heritage Management Plan for the development to the satisfaction of the Planning Secretary, and carry out the development in accordance with this plan. The plan must:
  - (a) be prepared in consultation with Heritage NSW and Aboriginal stakeholders, and submitted to the Planning Secretary for approval prior to carrying out any development under this consent;
  - (b) include a program to:
    - salvage, investigate and/or manage Aboriginal sites and potential archaeological deposits within the disturbance area;
    - assess and remove scarred trees within the disturbance area;
    - · protect and monitor Aboriginal sites outside the disturbance areas;
    - manage the discovery of any new Aboriginal objects or skeletal remains during the development;
    - facilitate access to archaeological sites on site for Aboriginal stakeholders; and
    - Aboriginal stakeholders are consulted and involved in the conservation and management of Aboriginal cultural heritage on the site; and
  - (c) include a research program, that has been prepared by suitably qualified and experienced persons whose appointment has been approved by the Planning Secretary, for locating and evaluating sand bodies of likely Pleistocene and early Holocene age that may contain evidence of Aboriginal habitation in the Upper Hunter Valley.

### Mount Thorley Warkworth Historic Heritage Conservation Fund

44. The Applicant must establish and contribute \$500,000 under the Mount Thorley Warkworth Historic Heritage Conservation Fund in consultation with Council and the CHAG and to the satisfaction of the Planning Secretary.

#### Mount Thorley Warkworth Great Northern Road Conservation Fund

45. The Applicant must establish and contribute \$200,000 under the Mount Thorley Warkworth Great Northern Road Conservation Fund to be administered by the Applicant in consultation with Council, CHAG, Convict Trail Project and Heritage Branch, to the satisfaction of the Planning Secretary.

#### **Historic Heritage Management Plan**

- 46. The Applicant must prepare a Historic Heritage Management Plan for the development to the satisfaction of the Planning Secretary, and carry out the development in accordance with this plan. This plan must:
  - (a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Planning Secretary;
  - (b) be prepared in consultation with Heritage NSW, Council, CHAG and local historical organisations;
  - (c) be submitted to the Planning Secretary for approval prior to carrying out any mining to the west of Wallaby Scrub Road;
  - (d) include the following for the management of historic heritage on site:
    - conservation management plans for the former RAAF Base Bulga, Great North Road (Wallaby Scrub Road portion), Brick House and Springwood Homestead; and
    - a program/procedures for:

- archaeological investigations of Wallaby Scrub Road, Well 2 and the former RAAF Base Bulga Complex;
- photographic recording of all historic heritage sites within the disturbance areas prior to disturbance;
- relocation and storage of moveable heritage items:
- managing the discovery of any new heritage items during the development;
- ongoing consultation and involvement of the relevant historical groups in the conservation and management of historic heritage on the site;
- developing an interpretation programme of the heritage values of the RAAF Base Bulga Complex and the Great North Road Complex;
- establishing the Mount Thorley Warkworth Historic Heritage Conservation Fund and the Mount Thorley Warkworth Great Northern Road Conservation Fund; and
- protecting the other heritage items outside the disturbance areas.

Note: It is accepted that the conservation management plan for the Springwood Homestead and interpretation programme for the RAAF Base Bulga Complex and the Great North Road Complex will not be submitted with the initial Historic Heritage Management Plan. These should be progressively added to the plan once completed.

#### **TRANSPORT**

#### Wallaby Scrub Road

47. This consent allows open cut mining through the existing alignment of Wallaby Scrub Road.

Note: The Applicant also requires other related approvals in order to undertake mining within the existing road alignment, including an approval under the Roads Act 1993 to close Wallaby Scrub Road. It also needs to obtain a mining lease over the road under the Mining Act 1992 for mining from surface to 20 metres depth.

#### Intersections

- 48. Unless the Planning Secretary agrees otherwise, the Applicant must:
  - (a) close the intersection of Lydes Lane and the Golden Highway in consultation with Council and to the satisfaction of the TfNSW, within 6 months of the date of this consent; and
  - (b) pay the TfNSW \$375,000 towards the upgrade of the intersection of the Golden Highway (Putty Road) and Mitchell Line of Road within 12 months of the date of this consent.

#### **Putty Road Crossing**

49. If the Applicant decides to construct a third crossing of Putty Road between the Warkworth and Mt Thorley mines, then this crossing must be constructed to the satisfaction of the TfNSW, and the Applicant will bear all the costs associated with the construction, maintenance and subsequent removal of this crossing during the rehabilitation of the site.

#### Rural Fire Service - Emergency Access Track/Fire Trail

- 50. Prior to the closure of Wallaby Scrub Road, the Applicant must do the following in consultation with Council, TfNSW and the RFS:
  - (a) develop a suitable emergency access track/fire trail to the west of the approved mining pit in general accordance with the indicative track/trail shown on the figure in Appendix 8, and ensure that this track/trail complies with the relevant standards in the RFS' Planning for Bush Fire Protection publication and the Bushfire Coordinating Committee's Fire Trails Policy No. 2/2007, or its latest version;
  - (b) develop a protocol with the RFS that:
    - provides for ongoing access and use of the new emergency access track/fire trail following the closure of Wallaby Scrub Road:
    - provides for access to the site during emergencies on site to assist with any emergency response; and
    - provides for the Applicant to use the emergency response equipment and appropriately trained personnel on site to assist the RFS (and any other emergency agencies) respond to emergencies in the surrounding area,

to the satisfaction of the Planning Secretary.

Following approval, the Applicant must carry out the development in accordance with this protocol.

### **Monitoring of Coal Transport**

- 51. The Applicant must:
  - (a) keep records of the amount of coal transported from the development in each calendar year; and
  - (b) make these records available on its website at the end of each calendar year.

#### **VISUAL**

#### **Operating Conditions**

- 52. The Applicant must:
  - (a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development, including lighting impacts on road users and long term impacts of final voids;
  - (b) establish and maintain vegetated bunds, vegetative screening and/or screen fencing along the boundary of the site including adjoining public roads where appropriate;
  - (c) ensure that all external lighting associated with the development complies with Australian Standard AS4282 (INT) 1997 Control of Obtrusive Effects of Outdoor Lighting, or its latest version; and
  - (d) monitor and report on the effectiveness of these measures.

Initial works to establish the vegetative bunds and/or screening referred to in condition 52(b) must be undertaken within 6 months of the date of commencement of development under this consent (unless otherwise agreed by the Planning Secretary), in accordance with a tree screening plan that has been prepared in consultation with Council and to the satisfaction of the Planning Secretary. The use of screen fencing will be limited to areas where vegetative screening is not feasible, or as an interim measure prior to establishment of vegetation.

### **Additional Visual Mitigation Measures**

53. Upon receiving a written request from the owner of any residence on privately-owned land who has, or would have, significant direct views of the mining operations from this residence and/or its associated facilities (such as pool or barbeque area) during the development, the Applicant must implement additional visual impact mitigation measures (such as landscaping or vegetation screens) on the land in consultation with the landowner. These measures must be reasonable and feasible, and directed towards reducing the visibility of mining operations from the residence and/or its associated facilities.

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

#### Notes:

- The additional visual impact mitigation measures must be aimed at reducing the visibility of the mining operations
  on site from significantly affected residences, and do not require measures to reduce the visibility of the mining
  operations from other locations on the affected properties.
- The additional visual impact mitigation measures do not necessarily have to include the implementation of
  measures on the affected property itself (i.e. the additional measures could involve the implementation of
  measures outside the affected property boundary that provide an effective reduction in visual impacts).
- Except in exceptional circumstances, the Planning Secretary will not require additional visual impact mitigation to be undertaken for residences that are more than 5 kilometres from the mining operations.

#### **BUSHFIRE MANAGEMENT**

- 54. The Applicant must:
  - (a) ensure that the development is suitably equipped to respond to any fires on site; and
  - (b) assist the Rural Fire Service and emergency services as much as practicable if there is a fire in the vicinity of the site.

## WASTE

- 55. The Applicant must:
  - implement all reasonable and feasible measures to minimise the waste (including coal reject) generated by the development;
  - (b) ensure that the waste generated by the development is appropriately stored, handled and disposed of; and
  - (c) monitor and report on effectiveness of the waste minimisation and management measures in the Annual Review.

#### **REHABILITATION**

### **Rehabilitation Objectives**

56. The Applicant must rehabilitate the site in accordance with the provisions under the *Mining Act 1992* and must be generally consistent with the proposed rehabilitation strategy described in the EIS (and depicted conceptually in the figure in Appendix 6), and comply with the objectives in Table 13.

Table 13: Rehabilitation objectives

Feature	Objective
Mine site (as a whole)	<ul> <li>Safe, stable and non-polluting</li> <li>Materials (including topsoils, substrates and seeds of the disturbed areas) are recovered, appropriately managed and used effectively as resources in the rehabilitation of the site</li> <li>Final landforms to:         <ul> <li>sustain the intended land use for the post-mining domains;</li> <li>be designed to minimise the visual impacts of the development;</li> <li>be in keeping with the natural terrain features of the area;</li> <li>be integrated with the rehabilitated landforms of surrounding mines;</li> <li>backfill the gap between the two main emplacements in accordance with the dozer (and dragline) option shown on the applicable figure in Appendix 6;</li> <li>incorporate micro-relief; and</li> <li>incorporate drainage lines consistent with topography and natural drainage where reasonable and feasible</li> </ul> </li> </ul>
Water quality	<ul> <li>Water retained on site is fit for the intended land use(s) for the post-mining domains</li> <li>Water discharged from site is consistent with the baseline ecological, hydrological and geomorphic conditions of the creeks prior to mining disturbance</li> <li>Water management is consistent with the applicable regional catchment strategy</li> </ul>
Final voids	Designed as long term groundwater sinks and to maximise groundwater flows across back-filled pits to the final void     Minimise:
Biodiversity	<ul> <li>Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprising local plant species</li> <li>Vegetation to be established, with the restoration of at least 1,617 hectares of Central Hunter Grey Box – Ironbark Woodland EEC</li> <li>Size, location and species of native tree lots and corridors are established to sustain biodiversity habitats</li> <li>Species are selected that re-establishes and complements regional and local biodiversity</li> </ul>
Surface infrastructure	To be decommissioned and removed, unless the Resources Regulator agrees otherwise
Agriculture	<ul> <li>Land capability classification for the relevant nominated agricultural pursuit for each domain is established and self- sustaining within 5 years of land use establishment (first planting vegetation)</li> </ul>
Community	Ensure public safety     Minimise the adverse socio-economic effects associated with mine closure

## **Progressive Rehabilitation**

57. The Applicant must 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 rehabilitation strategies must be employed when areas prone to dust generation cannot yet be permanently rehabilitated.

Note: It is accepted that some parts of the site that are progressively rehabilitated may be subject to further disturbance at some later stage of the development.

#### **Rehabilitation Management Plan**

- 58. The Applicant must prepare a Rehabilitation Management Plan for the development in accordance with the provisions under the *Mining Act* 1992, and carry out the development in accordance with this plan. The plan must:
  - (a) be prepared in consultation with the Department, DPE Water, BCD, Council and the CCC;
  - (b) be prepared in accordance with any relevant Resources Regulator guideline, including any NSW government policy regarding final voids, and be consistent with the documents listed in condition 2 of Schedule 2 and Appendix 6 of this consent;
  - (c) be submitted to the Resources Regulator for review prior to carrying out any development under this consent;
  - (d) describe how the rehabilitation of the site would be integrated with the implementation 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 timeframes for achieving specified rehabilitation objectives;
  - (g) includes a mine closure strategy, that details measures to minimise the long term impacts associated with mine closure, including final landform and final voids, final land use and socioeconomic issues;
  - (h) include interim rehabilitation where necessary to minimise the area exposed for dust generation;
  - (i) include a program to monitor, independently audit and report on the effectiveness of the measures, and progress against the detailed performance and completion criteria; and
  - build to the maximum extent practicable on the other management plans required under this consent.

# SCHEDULE 4 ADDITIONAL PROCEDURES

#### **NOTIFICATION OF LANDOWNERS/TENANTS**

- 1. Within 1 month of the date of this consent, the Applicant must:
  - (a) notify in writing the owners of:
    - the land listed in Table 1 of schedule 3 that they have the right to require the Applicant to acquire their land in accordance with the procedures in conditions 5-6 below at any stage during the development;
    - any residence on the land listed in Table 2 of schedule 3 that they have the right to request the Applicant to ask for additional noise mitigation measures to be installed at their residence at any stage during the development; and
    - any privately-owned land within 2 kilometres of the approved open cut mining pit/s that they are entitled to ask for an inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated;
  - (b) notify the tenants of any mine-owned land of their rights under this consent (see condition 18 of schedule 3); and
  - (c) 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 3 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, or for any of the land listed in Table 1 that is subsequently purchased by the Applicant, the Applicant must:
  - (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 Planning Secretary.
- 3. As soon as practicable after obtaining monitoring results showing:
  - (a) an exceedance of any relevant criteria in schedule 3, the Applicant must 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 3, the Applicant must 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 3 at his/her land, then he/she may ask the Planning Secretary in writing for an independent review of the impacts of the development on his/her land.

If the Planning Secretary is satisfied that an independent review is warranted, then the Applicant must:

- (a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Planning Secretary, to:
  - consult with the landowner to determine his/her concerns;
  - conduct monitoring to determine whether the development is complying with the relevant impact assessment criteria in schedule 3; and
  - if the development is not complying with these criteria then:
    - determine if the more than one mine is responsible for the exceedance, and if so the relative share of each mine regarding the impact on the land;
    - identify the measures that could be implemented to ensure compliance with the relevant criteria; and
- (b) give the Planning Secretary and landowner a copy of the independent review within 2 months of the Planning Secretary's decision, unless the Planning Secretary agrees otherwise.

#### LAND ACQUISITION

- 5. Within 3 months of receiving a written request from a landowner with acquisition rights, the Applicant must make a binding written offer to the landowner based on:
  - 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 in condition 3 of schedule 3:
- (b) the reasonable costs associated with:
  - relocating within the Muswellbrook, Singleton or Cessnock local government area, or to any other local government area determined by the Planning Secretary; and
  - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and
- (c) reasonable compensation for any disturbance caused by the land acquisition process.

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

Upon receiving such a request, the Planning Secretary may 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 must make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.

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

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

6. The Applicant must 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 5 ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

#### **ENVIRONMENTAL MANAGEMENT**

#### **Environmental Management Strategy**

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

#### **Adaptive Management**

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

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

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

#### Management Plan Requirements

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

(h) a protocol for periodic review of the plan.

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

#### **Annual Review**

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

#### Revision of Strategies, Plans and Programs

- 5. Within 3 months of:
  - (a) the submission of an:
    - annual review under condition 4 above;
    - incident report under condition 7 below;
    - audit report under condition 9 below; or
  - (b) any modification to the conditions of this consent (unless the conditions require otherwise), or
  - (c) the introduction of any NSW government policy regarding voids,

the Applicant must review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Planning Secretary.

Where this review leads to revisions in any such document, then within 4 weeks of the review, unless the Planning Secretary agrees otherwise, the revised document must be submitted to the Planning Secretary for approval.

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

#### **Community Consultative Committee**

6. The Applicant must operate a Community Consultative Committee (CCC) for the development to the satisfaction of the Planning Secretary. This CCC must be operated in accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version).

Notes:

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

#### **REPORTING**

#### **Incident Notification**

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

#### **Non-Compliance Notification**

7A. Within seven days of becoming aware of a non-compliance, the Applicant must notify the Department of the non-compliance. The notification must be in writing via the Department's Major Projects Website and identify the development (including the development application number and name), set out the condition

of this consent that the development is non-compliant with, why it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the noncompliance.

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

#### **Regular Reporting**

8. The Applicant must provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.

#### **AUDITING**

#### **Independent Environmental Audit**

- 9. Within 1 year of the commencement of development under this consent, and every 3 years thereafter, unless the Planning Secretary directs otherwise, the Applicant must 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 Planning Secretary;
  - (b) include consultation with the relevant agencies;
  - (c) assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);
  - (d) include an assessment undertaken by an independent expert whose appointment has been endorsed by BCD – of the progress towards implementation of the biodiversity offset strategy, in particular the regeneration of Warkworth Sands Woodland against the detailed performance and completion criteria under the biodiversity management plan (see condition 36 of schedule 3);
  - (e) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and
  - (f) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals.

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

10. Within 6 weeks of the completion of this audit, unless the Planning Secretary agrees otherwise, the Applicant must submit a copy of the audit report to the Planning Secretary, together with its response to any recommendations contained in the audit report.

#### **ACCESS TO INFORMATION**

- 11. From the commencement of development under this consent, the Applicant must:
  - (a) make copies of the following publicly available on its website:
    - the EIS:
    - current statutory approvals for the development;
    - approved strategies, plans and programs required under the conditions of this consent;
    - a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
    - the results of real time noise monitoring, updated daily (unless otherwise agreed by the Planning Secretary);
    - a complaints register, which is to be updated monthly;
    - minutes of CCC meetings;
    - the annual reviews of the development (for the last 5 years, if applicable);
    - any independent environmental audit of the development, and the Applicant's response to the recommendations in any audit;
    - any other matter required by the Planning Secretary; and
  - (b) keep this information up-to-date.

NSW Government Department of Planning and Environment

# APPENDIX 1 SCHEDULE OF LAND

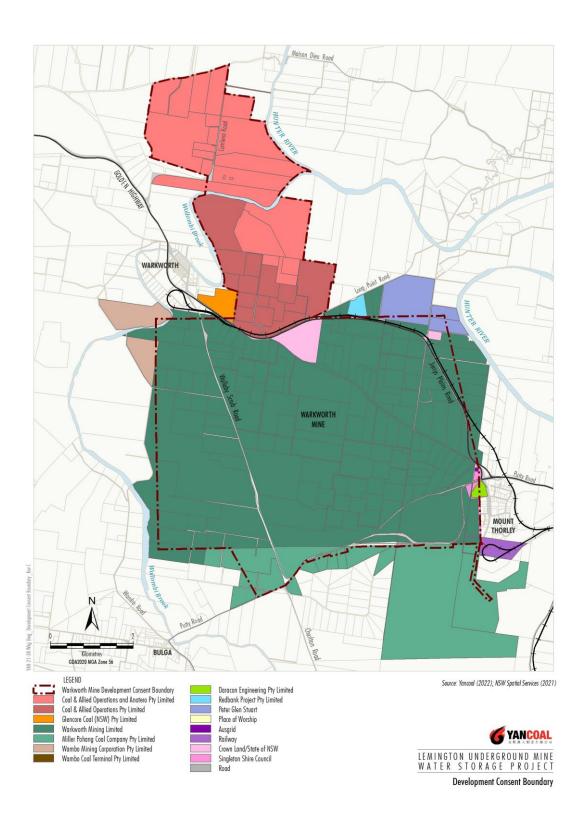


Figure 1: Land Ownership Plan Within the Development Application Area

LOT	DP	Owner
2	1270162	Wambo Mining Corporation Pty Limited
40	587922	Ausgrid
1	129806	Coal & Allied Operations Pty Limited
1	129808	Coal & Allied Operations Pty Limited
146	970755	Coal & Allied Operations Pty Limited
2	129806	Coal & Allied Operations Pty Limited
135	755267	Coal & Allied Operations Pty Limited
4	113342	Coal & Allied Operations Pty Limited
143	755267	Coal & Allied Operations Pty Limited
142	755267	Coal & Allied Operations Pty Limited
3	705493	Crown Land/State of NSW
1	1086834	Crown Land/State of NSW
2011	1137289	Crown Land/State of NSW
372	1026537	Daracon Engineering Pty Limited
1	43422	Miller Pohang Coal Company Pty Limited
273	260663	Miller Pohang Coal Company Pty Limited
271	260663	Miller Pohang Coal Company Pty Limited
341	612684	Miller Pohang Coal Company Pty Limited
271	600747	Miller Pohang Coal Company Pty Limited
1	42614	Miller Pohang Coal Company Pty Limited
272	600747	Miller Pohang Coal Company Pty Limited
17	658927	Miller Pohang Coal Company Pty Limited
61	755270	Miller Pohang Coal Company Pty Limited
5	247340	Miller Pohang Coal Company Pty Limited
99	755270	Miller Pohang Coal Company Pty Limited
6	587986	Miller Pohang Coal Company Pty Limited
8	247340	Miller Pohang Coal Company Pty Limited
7	247340	Miller Pohang Coal Company Pty Limited
9	247340	Miller Pohang Coal Company Pty Limited
551	569597	Miller Pohang Coal Company Pty Limited
19	247339	Miller Pohang Coal Company Pty Limited
2	610376	Miller Pohang Coal Company Pty Limited
3	42614	Miller Pohang Coal Company Pty Limited
74	755267	Peter Glen Stuart
126	665628	Peter Glen Stuart
75	755267	Peter Glen Stuart
450	1119428	Redbank Project Pty Limited
10	1121154	Road
371	1026537	Singleton Shire Council
5	1026900	Singleton Shire Council
29	255730	Singleton Shire Council
28	255730	Singleton Shire Council
6	251238	State Rail Authority of NSW
2	602169	Trustees of Church Property for the Diocese of Newcastle

LOT	DP	Owner
2	1086834	Wambo Coal Terminal Pty Limited
451	1119428	Wambo Coal Terminal Pty Limited
23	3030	Wambo Mining Corporation Pty Limited
3	129819	Warkworth Mining Limited
1	129819	Warkworth Mining Limited
2	129819	Warkworth Mining Limited
272	260663	Warkworth Mining Limited
5	43383	Warkworth Mining Limited
36	260056	Warkworth Mining Limited
35	260056	Warkworth Mining Limited
11	1121154	Warkworth Mining Limited
142	573290	Warkworth Mining Limited
1	949066	Warkworth Mining Limited
143	573290	Warkworth Mining Limited
141	573290	Warkworth Mining Limited
1	176095	Warkworth Mining Limited
138	248186	Warkworth Mining Limited
130	248186	Warkworth Mining Limited
203	704466	Warkworth Mining Limited
144	573290	Warkworth Mining Limited
134	248186	Warkworth Mining Limited
132	248186	Warkworth Mining Limited
1	129822	Warkworth Mining Limited
139	248186	Warkworth Mining Limited
137	248186	Warkworth Mining Limited
89	755267	Warkworth Mining Limited
151	755267	Warkworth Mining Limited
21	625709	Warkworth Mining Limited
131	755267	Warkworth Mining Limited
133	248186	Warkworth Mining Limited
131	248186	Warkworth Mining Limited
5	113342	Warkworth Mining Limited
2	827333	Warkworth Mining Limited
136	248186	Warkworth Mining Limited
90	755267	Warkworth Mining Limited
135	248186	Warkworth Mining Limited
2	705493	Warkworth Mining Limited
155	755267	Warkworth Mining Limited
150	755267	Warkworth Mining Limited
4	43383	Warkworth Mining Limited
1	326245	Warkworth Mining Limited
22	113342	Warkworth Mining Limited
170	755267	Warkworth Mining Limited
3	43383	Warkworth Mining Limited
106	755267	Warkworth Mining Limited

LOT	DD	Ourse
LOT	DP	Owner Westwards Mining Limited
2	43383	Warkworth Mining Limited
1	130276	Warkworth Mining Limited
2	227280	Warkworth Mining Limited
1	227280	Warkworth Mining Limited
1	1041796	Warkworth Mining Limited
2	130264	Warkworth Mining Limited
2	129822	Warkworth Mining Limited
841	531116	Warkworth Mining Limited
140	248186	Warkworth Mining Limited
3	227280	Warkworth Mining Limited
22	625709	Warkworth Mining Limited
1B	37572	Warkworth Mining Limited
1	130264	Warkworth Mining Limited
1	130275	Warkworth Mining Limited
4	658759	Warkworth Mining Limited
120	1089243	Warkworth Mining Limited
1	326244	Warkworth Mining Limited
47	1096589	Warkworth Mining Limited
1	1097294	Warkworth Mining Limited
2	1097294	Warkworth Mining Limited
1	246201	Warkworth Mining Limited
99	755267	Warkworth Mining Limited
7	247820	Warkworth Mining Limited
3	129811	Warkworth Mining Limited
1	129811	Warkworth Mining Limited
6	247820	Warkworth Mining Limited
2	129811	Warkworth Mining Limited
1	129812	Warkworth Mining Limited
360	1135647	Warkworth Mining Limited
3	246201	Warkworth Mining Limited
2	246201	Warkworth Mining Limited
350	1135536	Warkworth Mining Limited
220	1135537	Warkworth Mining Limited
11	246201	Warkworth Mining Limited
5	246201	Warkworth Mining Limited
2	804245	Warkworth Mining Limited
1	129800	Warkworth Mining Limited
1	804245	Warkworth Mining Limited
1	573286	Warkworth Mining Limited
178	755267	Warkworth Mining Limited
7	245850	Warkworth Mining Limited
4	245850	Warkworth Mining Limited
16	113342	Warkworth Mining Limited
182	755267	Warkworth Mining Limited
9	246201	Warkworth Mining Limited

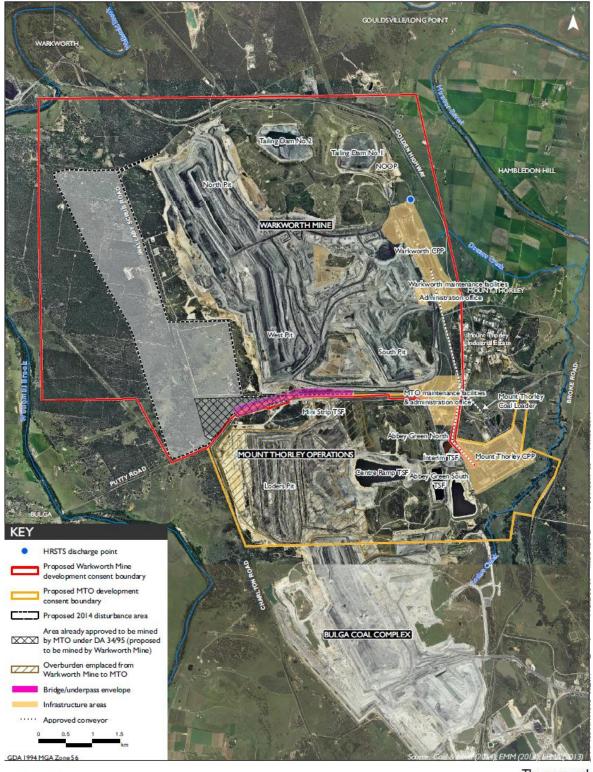
LOT	DP	Owner
129	755267	Warkworth Mining Limited
5	245850	Warkworth Mining Limited
92	755267	Warkworth Mining Limited
48	755267	Warkworth Mining Limited
156	755267	Warkworth Mining Limited
46	755267	Warkworth Mining Limited
130	755267	Warkworth Mining Limited
196	755267	Warkworth Mining Limited
87	755267	Warkworth Mining Limited
144	755267	Warkworth Mining Limited
14	113342	Warkworth Mining Limited
134	755267	Warkworth Mining Limited
1	245850	Warkworth Mining Limited
105	755267	Warkworth Mining Limited
183	755267	Warkworth Mining Limited
189	755267	Warkworth Mining Limited
167	755267	Warkworth Mining Limited
110	755267	Warkworth Mining Limited
137	755267	Warkworth Mining Limited
94	755267	Warkworth Mining Limited
179	755267	Warkworth Mining Limited
8	245850	Warkworth Mining Limited
10	246201	Warkworth Mining Limited
96	755267	Warkworth Mining Limited
93	755267	Warkworth Mining Limited
184	755267	Warkworth Mining Limited
159	755267	Warkworth Mining Limited
173	755267	Warkworth Mining Limited
1	43383	Warkworth Mining Limited
15	113342	Warkworth Mining Limited
97	755267	Warkworth Mining Limited
111	755267	Warkworth Mining Limited
132	755267	Warkworth Mining Limited
157	755267	Warkworth Mining Limited
95	755267	Warkworth Mining Limited
3	245850	Warkworth Mining Limited
1	755267	Warkworth Mining Limited
103	755267	Warkworth Mining Limited
2	245850	Warkworth Mining Limited
6	113342	Warkworth Mining Limited
2	129799	Warkworth Mining Limited
18	113342	Warkworth Mining Limited
168	755267	Warkworth Mining Limited
8	246201	Warkworth Mining Limited
6	245850	Warkworth Mining Limited

LOT	DP	Ourse
		Owner  Warkworth Mining Limited
13 200	113342	9
180	755267	Warkworth Mining Limited
	755267	Warkworth Mining Limited
177	755267	Warkworth Mining Limited
10	113342	Warkworth Mining Limited
7	113342	Warkworth Mining Limited
17	113342	Warkworth Mining Limited
1	129799	Warkworth Mining Limited
91	755267	Warkworth Mining Limited
5	248570	Warkworth Mining Limited
102	755267	Warkworth Mining Limited
152	755267	Warkworth Mining Limited
1	248570	Warkworth Mining Limited
104	755267	Warkworth Mining Limited
197	657482	Warkworth Mining Limited
4	248570	Warkworth Mining Limited
2	248570	Warkworth Mining Limited
2	735566	Warkworth Mining Limited
11	113342	Warkworth Mining Limited
12	246201	Warkworth Mining Limited
161	755267	Warkworth Mining Limited
172	755267	Warkworth Mining Limited
164	755267	Warkworth Mining Limited
191	755267	Warkworth Mining Limited
63	755267	Warkworth Mining Limited
16	755267	Warkworth Mining Limited
12	113342	Warkworth Mining Limited
187	755267	Warkworth Mining Limited
6	248570	Warkworth Mining Limited
Α	182301	Warkworth Mining Limited
7	248570	Warkworth Mining Limited
27	755267	Warkworth Mining Limited
165	755267	Warkworth Mining Limited
190	755267	Warkworth Mining Limited
166	657481	Warkworth Mining Limited
8	1026900	Warkworth Mining Limited
154	755267	Warkworth Mining Limited
20	113342	Warkworth Mining Limited
35	755270	Warkworth Mining Limited
1	705493	Warkworth Mining Limited
136	755267	Warkworth Mining Limited
21	113342	Warkworth Mining Limited
71	755270	Warkworth Mining Limited
162	755267	Warkworth Mining Limited
185	755267	Warkworth Mining Limited

LOT	DP	Owner
19	113342	Warkworth Mining Limited
В	182301	Warkworth Mining Limited
12	1121154	Warkworth Mining Limited
26	755270	Warkworth Mining Limited
25	755270	Warkworth Mining Limited
24	755270	Warkworth Mining Limited
1	610376	Warkworth Mining Limited
1	1043120	Glencore Coal (NSW) Pty Limited
3	783484	Coal & Allied Operations Pty Limited
145	755267	Coal & Allied Operations Pty Limited
122	755267	Coal & Allied Operations Pty Limited
108	755267	Coal & Allied Operations Pty Limited
119	755267	Coal & Allied Operations Pty Limited
4	783484	Coal & Allied Operations Pty Limited
5	783484	Coal & Allied Operations Pty Limited
1	48592	Coal & Allied Operations Pty Limited
141	753792	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
1	592598	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
1	997228	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
194	755267	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
121	755267	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
13	247239	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
16	247239	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
14	247239	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
1420	586339	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
2	719879	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
1	182139	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
1	822177	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
1	105943	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
1	657394	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
1	1103396	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
5	720643	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
122	753792	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
15	247239	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
12	247239	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
В	386100	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
A	386100	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
112	755267	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
195	755267	Coal & Allied Operations Pty Limited
118	755267	Coal & Allied Operations Pty Limited
128	755267	Coal & Allied Operations Pty Limited
140	753792	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
1	48591	Coal & Allied Operations Pty Ltd And Anotero Pty Limited
1	251877	Coal & Allied Operations Pty Ltd And Anotero Pty Limited

Name	Description
Singleton Shire Council  Various Council and Crown Public and Unformed Roads within, between or adjacent to the above Parcels of Land	
Freehold	Any Unidentified Historical Title Residues located within, between or adjacent to the above Parcels of Land
Crown	Creeks, Brooks or Streams located within, between or adjacent to the above Parcels of Land
Crown	Any Unidentified Crown Land or Crown Land Historical Title Residues located within, between or adjacent to the above Parcels of Land

# APPENDIX 2 DEVELOPMENT LAYOUT PLANS





The proposal Warkworth Continuation 2014 Environmental Impact Statement Figure 2.3

Figure 3: General Development Layout

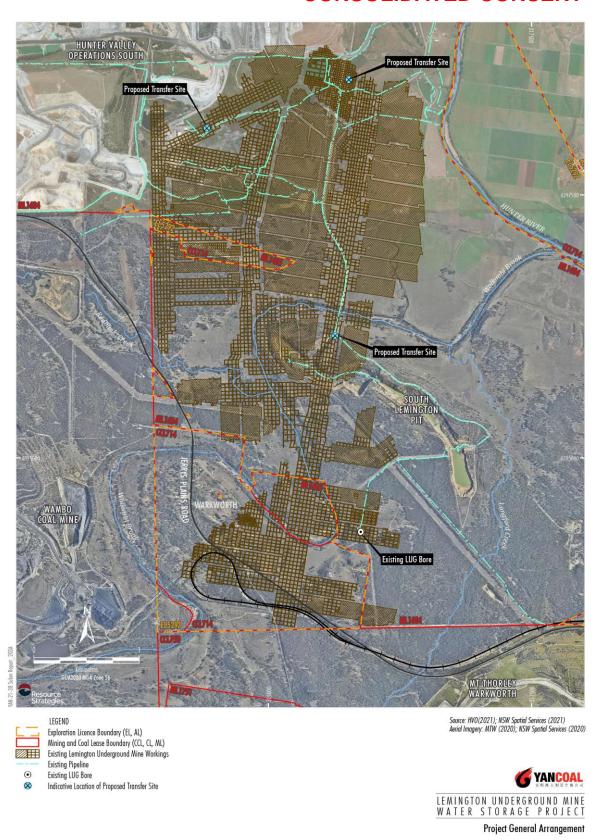
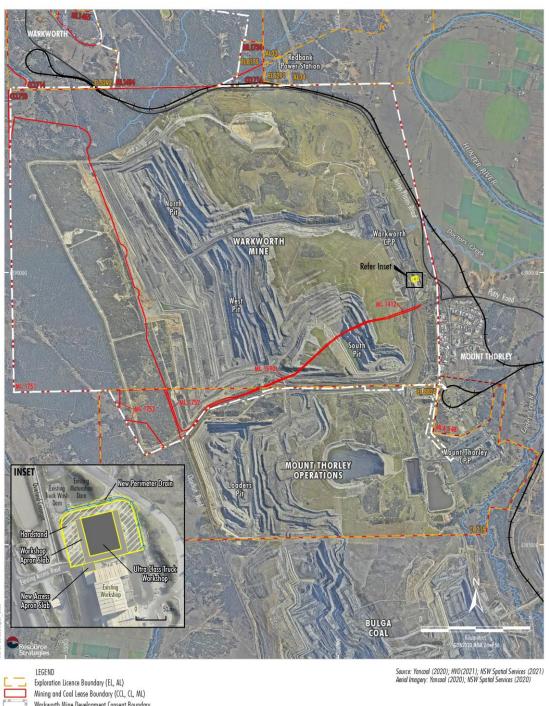


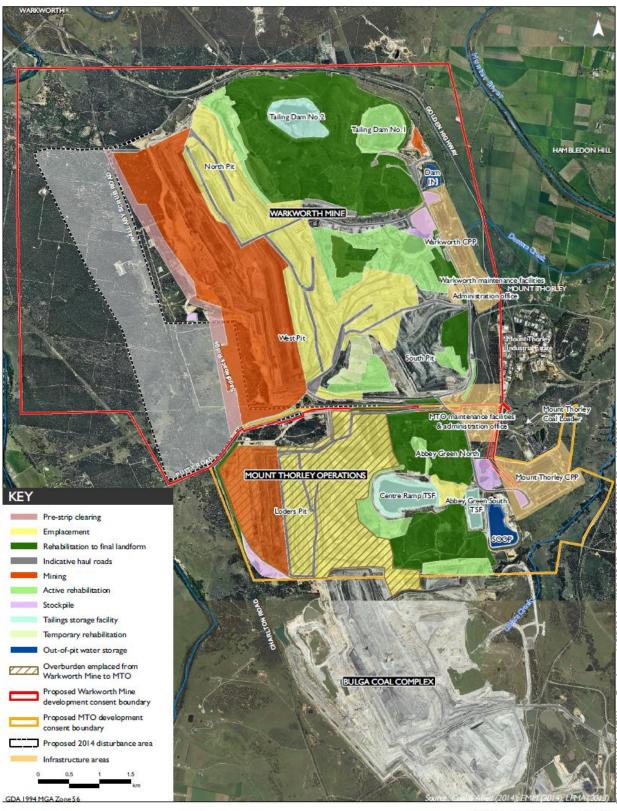
Figure 3A: General Development Layout – Lemington Underground Mine Workings



Warkworth Mine Development Consent Boundary Indicative Ultra Class Truck Workshop Layout



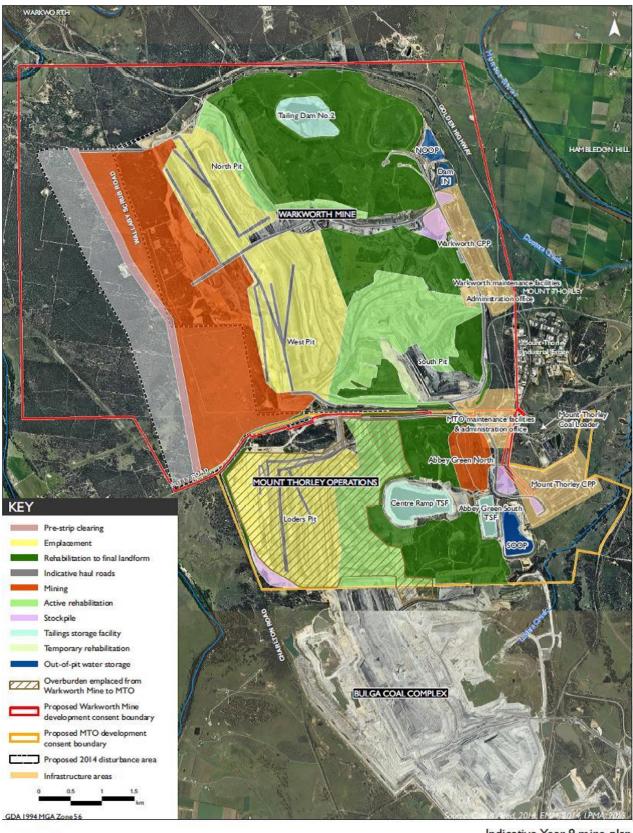
Figure 3B: General Development Layout – Ultra Class Truck Workshop





Indicative Year 3 mine plan Warkworth Continuation 2014 Environmental Impact Statement Figure 2.7

Figure 4: Conceptual Mine Plan - Year 3

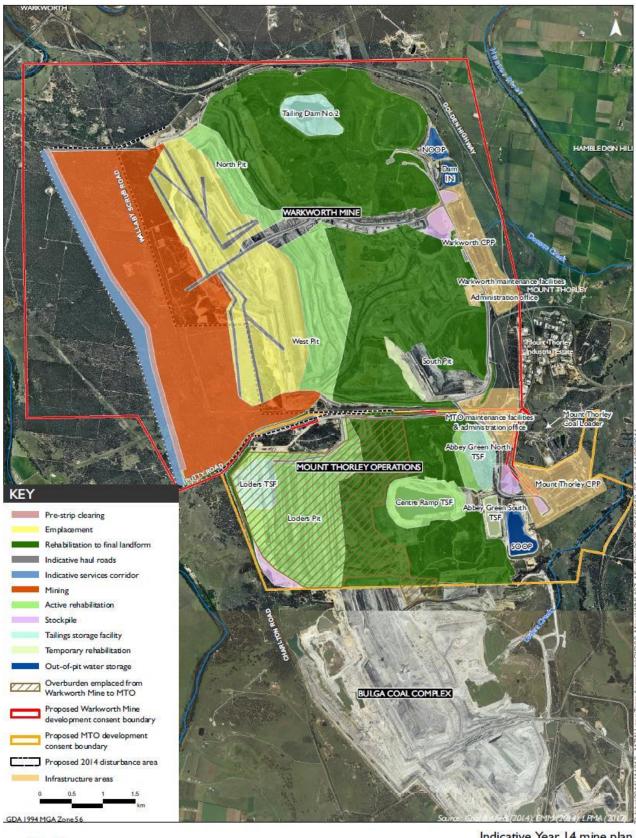




Indicative Year 9 mine plan Warkworth Continuation 2014 Environmental Impact Statement

Figure 2.8

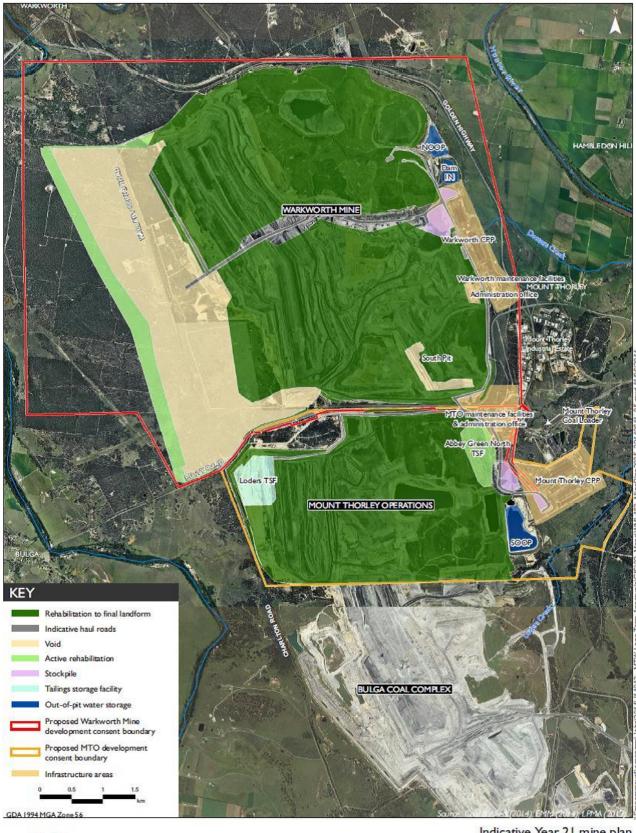
Figure 5: Conceptual Mine Plan - Year 9





Indicative Year 14 mine plan Warkworth Continuation 2014 Environmental Impact Statement Figure 2.9

Figure 6: Conceptual Mine Plan - Year 14





Indicative Year 21 mine plan Warkworth Continuation 2014 Environmental Impact Statement Figure 2.10

Figure 7: Conceptual Mine Plan – Year 21

#### APPENDIX 3 LAND OWNERSHIP PLANS

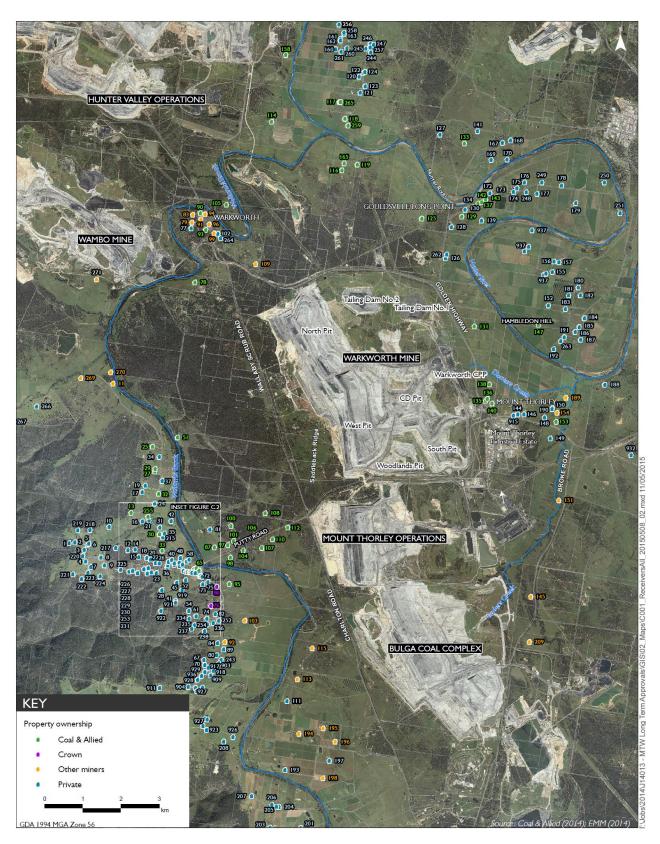


Figure 8: Surrounding Residences

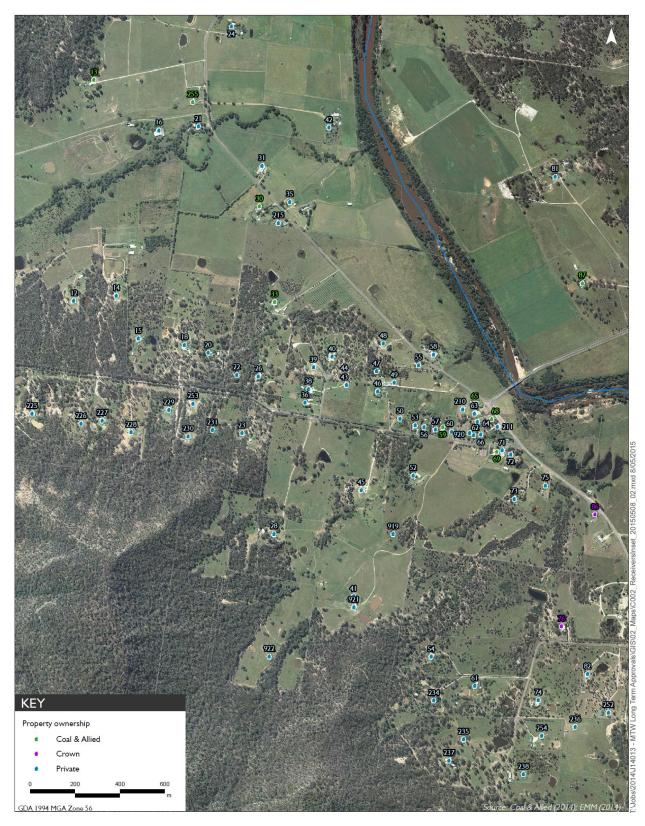


Figure 9: Surrounding Residences – South West (Bulga)

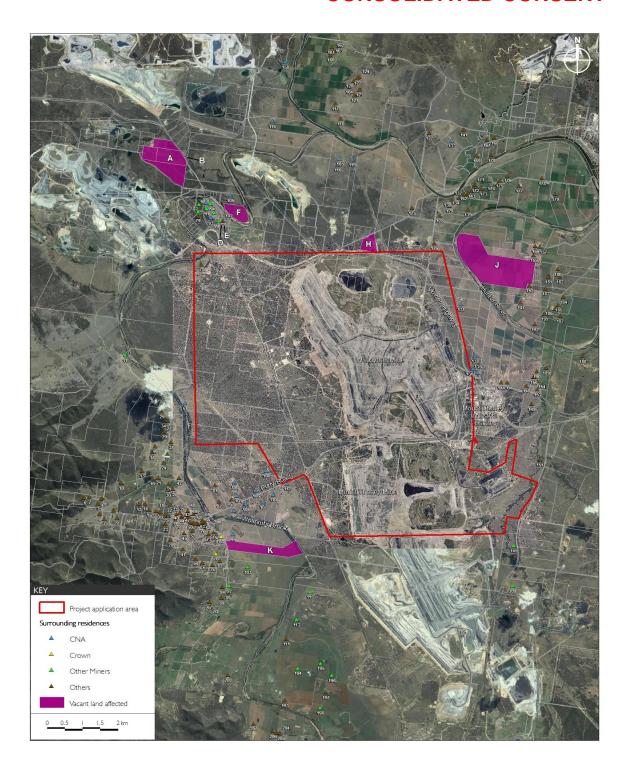


Figure 10: Vacant Land

Assessment location ID	Property owner
1	Judith Leslie
2	Shayne Aaron Currie
3	Charleroi Pty Limited
4	Graeme O'Brien & Susann Florence O'Brien
5	Daniel Bruce Jones
6	Russell James Doidge, Trinette Louise Reid
7	Darral Keith Margery & Annette Gaye Margery
8	Laurence Fletcher, Margaret Ann Fletcher
9	Donald Bruce Roser
10	Andrew Mark Robey, Kim Luanne Robey
11	Wambo Mining Corporation Pty. Limited
12	Ronald Alexander Corino, Pauline Rayner
13	Warkworth Mining Limited
14	Karin Margaret Hunt
15	William Lindsay Gordon Slaney, Peta Slaney
16	Leona Ann Williams
17	George David Lianos, Honor Claire Lianos
18	Barry John Anderson, Melissa Gai Anderson
19	Denis Cyril Maizey, Elaine Margaret Maizey
20	Gregory William Banks, Marion Elizabeth Banks
21	Gregory William Banks, Marion Elizabeth Banks
22	Elizabeth Mackenzie
23	Peter Jason Kolatchew, Heidi Kolatchew
24	Ronald Garry Bailey, Fiona Susan Bailey
25	William George Joseph Lambkin, Dawn Lambkin*
26	Barbara Gae Harrison, Trevor Eric Harrison
27	Warkworth Mining Limited
28	Hubert George Upward
29	Warkworth Mining Limited
30	Warkworth Mining Limited
31	Gregory Malcolm Caban
32	Warkworth Mining Limited
33	Warkworth Mining Limited
34	Allan Clyde Lepisto, Nerida Lepisto
35	Lawrence Malcolm Caban, Rhonda Beryl Caban
36	Raymond Carl Powell
37	Gregory Paul Crowe
38	Benjamin John Street, Jami Ann Street
39	Gregory John Mcnaught
40	Margaret Player, John Maclachlan Player
41	Hubert George Upward
42	Mark Anthony Lancaster, Debbie Marie Lancaster

Assessment location ID	Property owner
43	Geoffrey Allen Burgess, Betty Joy Burgess
44	Barry Fogwell
45	Adam Charles Cameron
46	Jason Phillip Horn
47	Philip Adamthwaite
48	Brett James Gallagher, Rebecca Louise Gallagher
49	John Thompson, Delwyn Kay Jackson
50	Bradley Richard Sales, Sharon Ann Bellamy
51	Warkworth Mining Limited
52	Stewart James Mitchell, Marie Clare Mitchell
53	Robert Mclaughlin
54	Christopher Stanley Neville & Elizabeth Ann Neville
55	Robert John Evans
56	Leonard Walter Mclachlan, Noelene Rita Mclachlan
57	Paul William Harris, Tracey Anne Swindail
58	David Andrew Gregory
59	Warkworth Mining Limited
60	Vaughan Thomas Cagney, Candice Rose Albert
61	Darrell Stanley Kaizer
62	Dwi Octaviani
63	Margueriette Ann Henneberry, Paul Andrew Burgess
64	Dusko Dragicevic, Milan Dragicevic
65	Warkworth Mining Limited
66	Michael Vivian Bendall, Sue-Ellen Bendall
67	Michael Shane Dawson & Suzana Dawson
68	Warkworth Mining Limited
69	Warkworth Mining Limited
70	Peter Francis Ritchie And Fiona Jennifer Ritchie
71	Robert Ian Hedley, Jan Maree Louis
72	Frank Henry Turnbull
73	Phillip Joseph Reid, Carol Reid
74	Ronald Guy Godyn, Anne-Marie Godyn
75	Lindsay Robert Smith, Jillian Maree Smith
76	The State Of New South Wales
77	William Joseph Kelly, Marie Joyce Kelly, Lawrence Kelly
78	Warkworth Mining Limited
79	Wambo Mining Corporation Pty. Limited
80	Dimitrious Vikas & Joy Mary Vikas
81	Agl Energy Limited
82	Stephen Glenn Williamson, Nicole Leanne Highett
83	Xstrata Coal Pty Limited
84	Mary Veronica Thompson

Assessment location ID	Property owner
86	The State Of New South Wales
87	Andre Marc Renaud, Noela Mary Renaud*
89	Bryan Dudley Medhurst
90	Coal & Allied Operations Pty Limited
91	Wambo Coal Pty Limited
92	Saxonvale Coal Pty Limited, Nippon Steel Australia Pty Limited
93	Coal & Allied Operations Pty Limited
94	Wambo Coal Pty Limited
95	Miller Pohang Coal Company Pty Limited
96	Wambo Mining Corporation Pty. Limited
97	Warkworth Mining Limited
98	Miller Pohang Coal Company Pty Limited
99	Wambo Coal Pty Limited
100	Miller Pohang Coal Company Pty Limited
101	Miller Pohang Coal Company Pty Limited
102	Brian Edward Kennedy, John Griffiths (Warkworth Hall)
103	Saxonvale Coal Pty. Limited, Nippon Steel Australia Pty. Limited
104	Miller Pohang Coal Company Pty Limited
105	Coal & Allied Operations Pty Limited
106	Miller Pohang Coal Company Pty Limited
107	Miller Pohang Coal Company Pty Limited
108	Miller Pohang Coal Company Pty Limited
109	Xstrata Coal (Nsw) Pty Limited
110	Miller Pohang Coal Company Pty Limited
111	Ian Wallace Russell
112	Miller Pohang Coal Company Pty Limited
113	Saxonvale Coal Pty Limited, Nippon Steel Australia Pty Limited
114	Coal & Allied Operations Pty Limited
115	Saxonvale Coal Pty. Limited, Nippon Steel Australia Pty. Limited
116	Coal & Allied Operations Pty Limited
117	Coal & Allied Operations Pty Limited
118	Coal & Allied Operations Pty Limited
119	Coal & Allied Operations Pty Limited
120	Russell John Wenham, Janelle Susan Wenham
121	Julie Gai Ernst, Gregory John Ernst
122	Stephen Douglas Edwards, Terri-Anne Howard, Joselyn Vida Clifton
123	Neil Robert Nelson, Glenda Joy Nelson
124	Stephen Douglas Edwards, Terri-Anne Howard, Joselyn Vida Clifton
125	Coal & Allied Operations Pty Limited
126	Peter Glen Stuart
127	Noel Francis Riley, Elaine Roslyn Riley
128	Warren John Welsh, Adam John Young

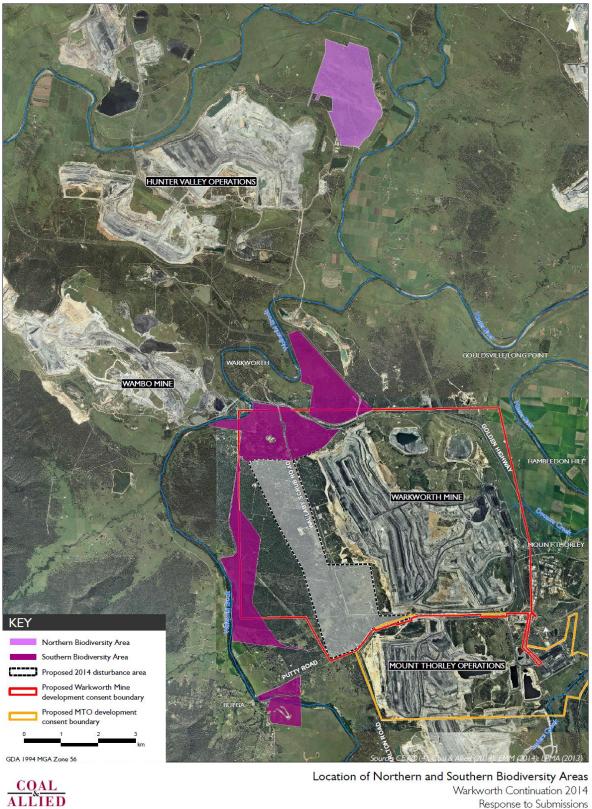
Assessment location ID	Property owner
129	Coal & Allied Operations Pty Limited
130	Francescantonio Ventra, Joanne Ventra
131	Warkworth Mining Limited
133	Coal & Allied Operations Pty Limited
134	Andrew Arthur Barrett, Nicole Maree Kenny
135	Warkworth Mining Limited
136	Warkworth Mining Limited
137	Coal & Allied Operations Pty Limited
138	Warkworth Mining Limited
139	Kevin Denis Hartcher, Linda Anne Hartcher
140	Warkworth Mining Limited
141	Warren Thomas Barry, Lesley Una Barry
142	Coal & Allied Operations Pty Limited
143	Coal & Allied Operations Pty Limited
144	Jason Cyril Rumbel, Rebecca Ruth Rumbel
145	Saxonvale Coal Pty. Limited, Nippon Steel Australia Pty. Limited
146	Paul Henry Russell
147	Warkworth Mining Limited
148	Dorothy Clare Russell
149	Timothy Peter Hedley
150	Keith David Isaac, Sharon Ann Isaac
151	Bulga Coal Management Pty Limited
152	Graham Edwin Berry, Elizabeth Anne Berry
153	Warkworth Mining Limited
154	Bulga Coal Management Pty Limited
155	Trevor Keith Berry, Graham Edwin Berry
156	Jean Mary O'Hara
157	Jean Mary O'Hara
158	Coal & Allied Operations Pty Limited
160	Elizabeth Stuart Bowman
161	Wyoming Holsteins Pty Limited
162	Wyoming Holsteins Pty Limited
163	Wyoming Holsteins Pty Limited
165	Coal & Allied Operations Pty Limited
167	Nathan James Laing
168	Stuart Francis Nichol Wright, Pamela Lynn Wright
169	Harold Douglas Hobden
170	John Marcheff
172	John Stuart Gough, Lynette Jean Gough
173	Michael John Wellard, Faye Denise Wellard
174	Margaret Anne Neal
175	Bradley John Halter

Assessment location ID	Property owner
176	Michael Raymond Mapp, Shirley Maree Mapp
177	Greig Andrew Delaney
178	Craig Ian Flissinger, Catherine Anne Flissinger
179	Tickalara Pty. Limited
180	Bruce Graham Moore
181	David Charles Vassallo, Sheree Ann Vassallo
182	Robert Francis Holstein And Andrea Terry Holstein
183	Paul Anthony Cavanough, Jacinta Jade Dawkins
184	Campbell Stuart Ball And Gail Agnes Ball
185	Leonard Dale Franks
186	Leonard Dale Franks
187	Keith Heuston Pty. Limited
188	Comserve (No.932) Pty Ltd
189	Bulga Coal Management Pty Limited
190	Keith David Isaac, Sharon Ann Isaac
191	Robert John Vidler, Coral May Vidler
192	Jean Mary O'Hara
193	Robert Kennedy
194	Saxonvale Coal Pty Limited, Nippon Steel Australia Pty Limited
195	Saxonvale Coal Pty Limited, Nippon Steel Australia Pty Limited
196	Saxonvale Coal Pty Limited, Nippon Steel Australia Pty Limited
197	Robert Kennedy
198	Saxonvale Coal Pty Limited, Nippon Steel Australia Pty Limited
199	Adrian Garton, Susan Jean Garton
200	Karren Anne Mccraw, Kenneth Ian Mccraw
201	Richard James Owens
202	Richard James Owens
203	Grapemen Holdings Pty Limited
204	Brenda Joan Tanner
205	Victoria Ann Foster
206	Theo Poulos, Maria Poulos
207	John Stephen Tulloch
208	Cybele Genevieve Orton
209	Saxonvale Coal Pty Limited, Nippon Steel Australia Pty Limited
210	Meria Violet Ford
211	Mike Dean Silk, Antoinette Silk
215	Allan Wayne Louis, Cheryl Anne Louis
217	Packtron Packaging Pty Limited
218	Phillip John Haerse, Elizabeth Rae Haerse
219	Philip Geoffrey Carroll
220	George Jiri Tlaskal
221	Christina Mary Metlikovec

Assessment location ID	Property owner
222	John Vincent Putland
223	Andrew Glenn Upward
224	Rex Wayne Davis, Heather Anne Davis
225	Anthony and Trudie Seibel – Barnes
226	Neale Mccallum, Julie Marie Mcnaughton
227	Ian Wyn Jones, Karen Michelle Jones
228	Jason Peter Passlow, Belinda Louise Lee
229	Maurice Francis Chapman, Nellie Vera Chapman
230	Paul Dermot Byrne O'Toole, Melissa Jane O'Toole
231	Mark Mcalpin Roser, Nicole Roser
234	Robert John Bridge, Kylie Terese Bridge
235	Garrett James Walters & Clare Joanne Gowans
236	Scott Francis Ryan
237	Leslie Carol Krey
238	Raymond George Caban, Kathryn Louise Caban
243	John Patrick Cant, Cherie Margaret Cant
244	Todd Anthony Mills, Sharron Ann Mills
245	Chriss Ivan Maskey
246	Paul Raymond Burley, Catherine Maree Burley
247	Tony Zanardi, Sandra Maree Zanardi
248	Keith Joseph Horne
249	Thomas William Watson, Betty Watson
250	John Michael Woods
251	Frederick John & Carole Maria Flinn
252	Jaques Family Investments Pty Limited
253	Stuart Edward Reakes
254	Peter William Shore & Melanie Louise Shore
255	Warkworth Mining Limited
256	Bruce Eric Moxey, Thea Anne Moxey
257	Robert John Algie
258	Wyoming Holsteins Pty Limited
259	Coal & Allied Operations Pty Limited
260	Wyoming Holstiens Pty. Limited
261	Wyoming Holstiens Pty. Limited
262	Peter Glen Stuart
263	John Klasen, Ruth Anne Klasen
264	George Robert Miller (Anglican Church)
265	Coal & Allied Operations Pty Limited
266	Ronald Wayne Fenwick
267	Kenneth Max Brosi
268	Kenneth Max Brosi, Julie Anne Brosi & Pauline June Mcloughlin
269	Wambo Mining Corporation Pty Limited

Assessment location ID	Property owner
270	Wambo Mining Corporation Pty Limited
271	Wambo Mining Corporation Pty Limited
903	Adam John Baker
904	Allan Mark Brasington, Judith Anne Brasington
905	Cameron Michael Turner, Melissa Jayne Harris
909	Emanuel Victor Vassallo
911	Gary Dale Harris
915	Jason Cyril Rumbel, Rebecca Ruth Rumbel
917	John Robert Lamb
918	Joseph Vassallo, Doris Vassallo
919	Kenneth Neil Cameron
920	Lindsay Gordon Harris, Jillian May Ferguson
921	Melanie Caban, Keiran Lionel Caban
922	Melanie Evelyn Upward
923	Michelle Maria Brennan
926	Paul William Mackay, Suzanne Elizabeth Mackay
927	Phillip John Gunter, Leona Mary Gunter
928	Sarah Elizabeth Purser, Stirling Owen Keayes
929	Simon James Beavis
932	Stephen Dennis Tipping
936	Thomas Charles Jackson, Susan Gai Jackson
937	Trevor Keith Berry, Graham Edwin Berry

#### **APPENDIX 4 DIRECT LAND-BASED BIODIVERSITY OFFSETS**

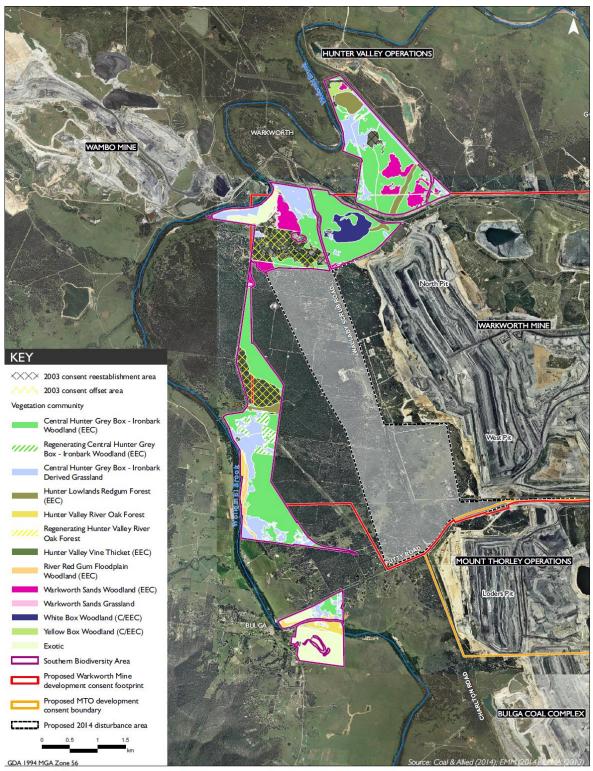


Location of Northern and Southern Biodiversity Areas

Warkworth Continuation 2014 Response to Submissions

Figure 2.10

Figure 11: Location of Northern and Southern Biodiversity Areas

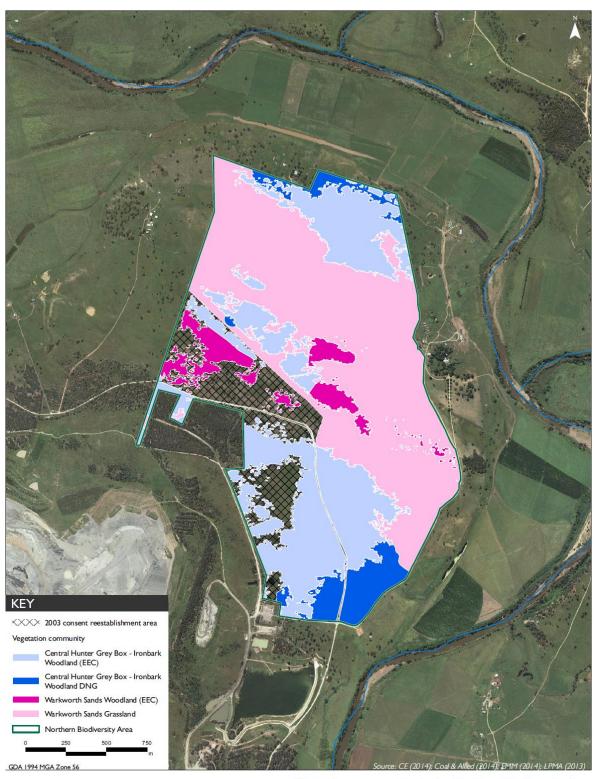




Vegetation communities in the Southern Biodiversity Area
Warkworth Continuation 2014
Environmental Impact Statement

Figure 12.7

Figure 12: Vegetation Communities in the Southern Biodiversity Area

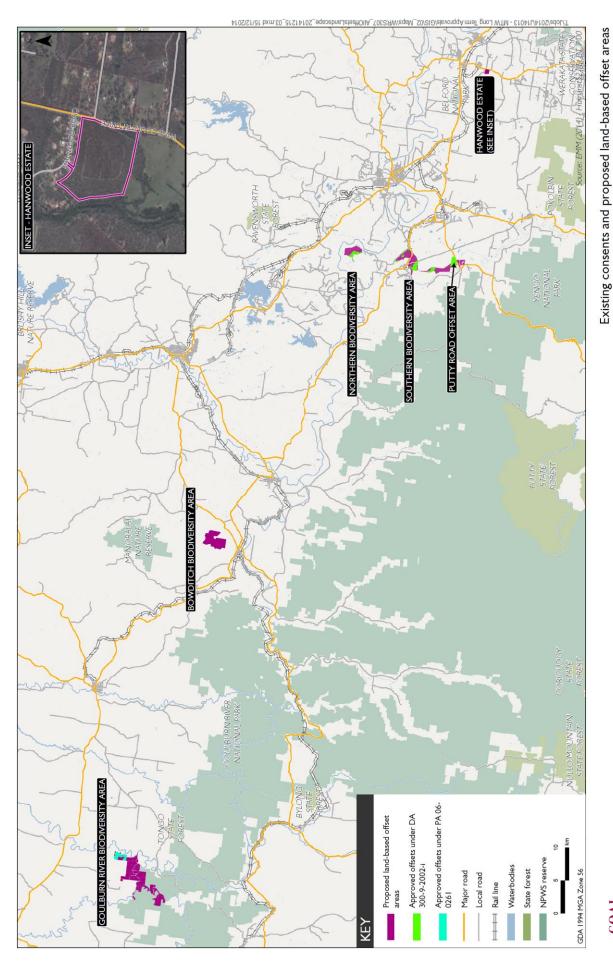




Vegetation communities in the Northern Biodiversity Area Warkworth Continuation 2014 Environmental Impact Statement

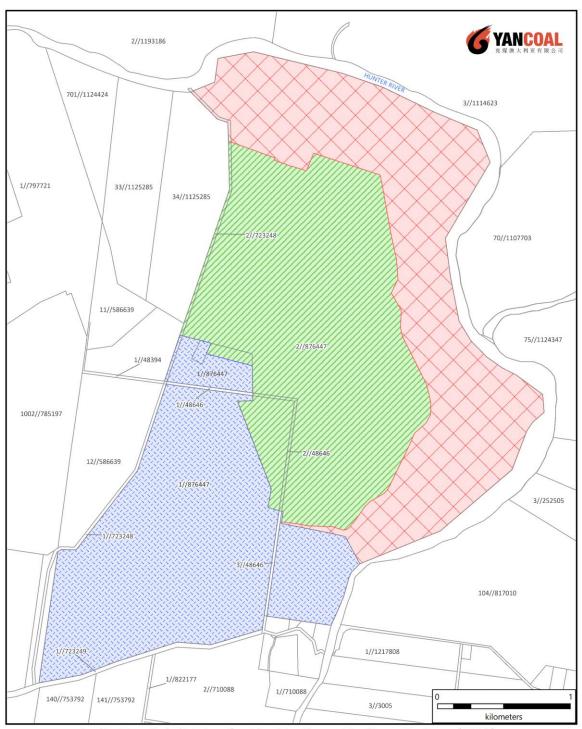
Figure 12.8

Figure 13: Vegetation Communities in the Northern Biodiversity Area



COAL ALLIED

Figure 14: Location of Goulburn River, Bowditch and Other Biodiversity Areas



Indicative Subdivision for the Northern Biodiversity Area (NBA)



Date: 24/03/2022
A4 Portrait/Version 2.0
Cadastral data sourced from DCDs
© Yancoal Australia Limited 2022
\*\*All boundaries shown are considered approximate only and subject to survey.\*\*

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Figure 14A: Indicative Subdivision of the Northern Biodiversity Area

#### APPENDIX 5 HERITAGE

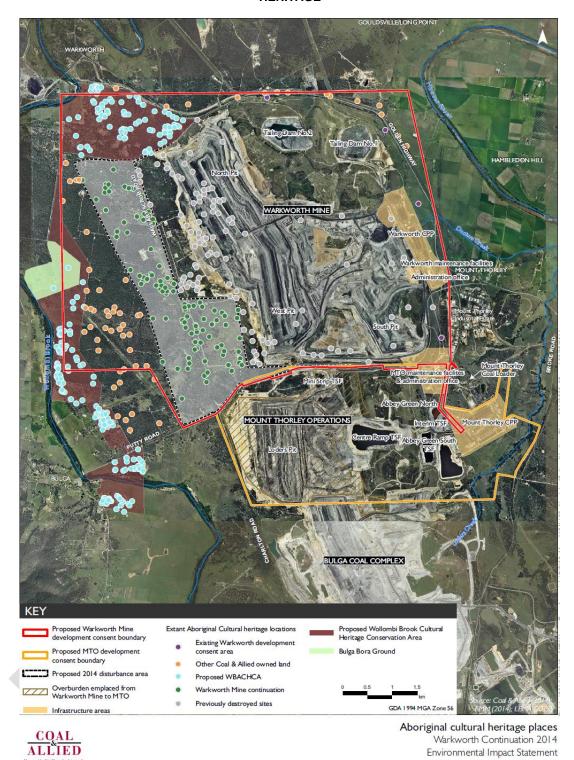


Figure 18.1

Figure 15: Wollombi Brook Aboriginal Cultural Heritage Conservation Area

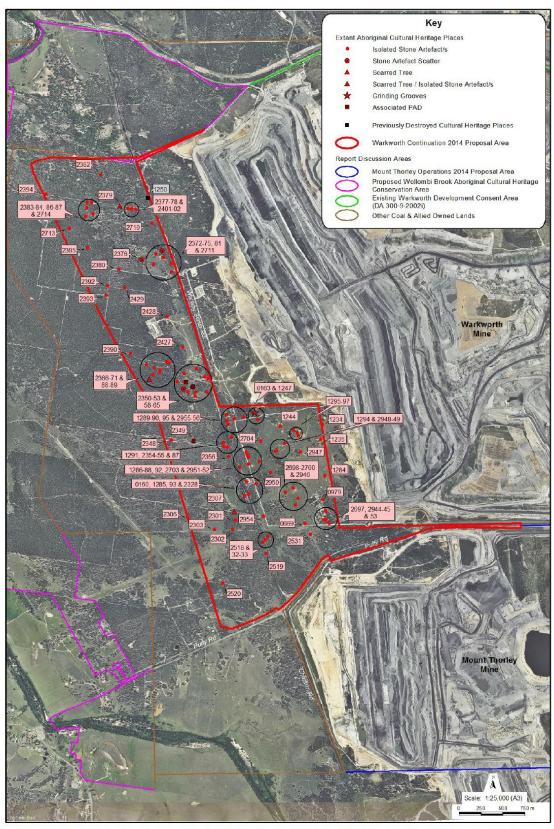


Figure 4: Map showing the location and current status of Aboriginal cultural heritage places within the Warkworth Continuation 2014 proposal area. Note: all place numbers are prefixed by the AHIMS code 37-6-XXXX.

Figure 16: Aboriginal Cultural Heritage Places Identified in Table 2 Below

Table 1: Aboriginal Cultural Heritage Places to be Protected

ATTORCAL	DI V	DI T	DAD	G
AHIMS No	Place Name	Place Type	PAD	Status
37-6-0641	Lemington Mine Lease ISF4	Isolated Stone Artefact/s	-	Valid
37-6-0848	Site T (Bulga)	Stone Artefact Scatter	-	Valid
37-6-0991	JP30	Isolated Stone Artefact/s	-	Valid
37-6-1437	JP 16	Isolated Stone Artefact/s	-	Valid
37-6-1438	JP 17	Isolated Stone Artefact/s	-	Valid
37-6-1440	JP 18	Isolated Stone Artefact/s	-	Valid
37-6-1441	JP 19	Isolated Stone Artefact/s	-	Valid
37-6-1442	JP 21	Isolated Stone Artefact/s	-	Valid
37-6-1445	JP 24	Stone Artefact Scatter	-	Valid
37-6-1446	JP 25	Stone Artefact Scatter	-	Valid
37-6-1448	JP 27	Stone Artefact Scatter	-	Valid
37-6-1450	JP 31	Isolated Stone Artefact/s	-	Valid
37-6-1451	JP 35	Stone Artefact Scatter	-	Valid
37-6-2062	KR57	Stone Artefact Scatter	-	Valid
37-6-2064	KR59	Stone Artefact Scatter	-	Valid
37-6-2065	KR60	Stone Artefact Scatter	-	Valid
37-6-2304	MTW-5	Isolated Stone Artefact/s	-	Valid
37-6-2305	MTW-6	Isolated Stone Artefact/s	-	Valid
37-6-2311	MTW-12	Isolated Stone Artefact/s	-	Valid
37-6-2322	MTW-23	Isolated Stone Artefact/s	-	Valid
37-6-2323	MTW-24	Isolated Stone Artefact/s	-	Valid
37-6-2329	MTW-30	Isolated Stone Artefact/s	-	Valid
37-6-2331	MTW-32	Isolated Stone Artefact/s	-	Valid
37-6-2332	MTW-33	Isolated Stone Artefact/s	-	Valid
37-6-2333	MTW-34	Isolated Stone Artefact/s	-	Valid
37-6-2334	MTW-35	Isolated Stone Artefact/s	-	Valid
37-6-2335	MTW-36	Isolated Stone Artefact/s	-	Valid
37-6-2336	MTW-37	Isolated Stone Artefact/s	-	Valid
37-6-2337	MTW-38	Isolated Stone Artefact/s	-	Valid
27 ( 2229	MTW 20	Isolated Stone Artefact/s /	-	V-1: 4
37-6-2338	MTW-39	Shell Material		Valid
37-6-2339	MTW-40	Isolated Stone Artefact/s	-	Valid
37-6-2340	MTW-41	Isolated Stone Artefact/s	-	Valid
37-6-2341	MTW-42	Isolated Stone Artefact/s	-	Valid
37-6-2342	MTW-43	Scarred Tree Isolated Stone Artefact/s /	-	Valid
37-6-2343	MTW-44	Stone Source	-	Valid
37-6-2344	MTW-45	Isolated Stone Artefact/s	-	Valid
37-6-2345	MTW-46	Isolated Stone Artefact/s	-	Valid
37-6-2346	MTW-47	Isolated Stone Artefact/s	-	Valid
37-6-2347	MTW-48	Isolated Stone Artefact/s	-	Valid
37-6-2391	MTW-92	Isolated Stone Artefact/s	-	Valid
37-6-2395	MTW-96	Isolated Stone Artefact/s	-	Valid
37-6-2396	MTW-97	Isolated Stone Artefact/s	-	Valid
37-6-2397	MTW-98	Isolated Stone Artefact/s	-	Valid
37-6-2398	MTW-99	Isolated Stone Artefact/s	-	Valid
37-6-2399	MTW-100	Isolated Stone Artefact/s	-	Valid
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37-6-2400	MTW-101	Isolated Stone Artefact/s	-	Valid
37-6-2436	MTW-137	Isolated Stone Artefact/s	-	Valid
37-6-2437	MTW-138	Isolated Stone Artefact/s	-	Valid
37-6-2438	MTW-140	Stone Artefact Scatter	-	Valid
37-6-2439	MTW-141	Stone Artefact Scatter	-	Valid
37-6-2440	MTW-142	Stone Artefact Scatter	-	Valid
37-6-2441	MTW-143	Isolated Stone Artefact/s	Yes	Valid
37-6-2442	MTW-144	Isolated Stone Artefact/s	-	Valid
37-6-2443	MTW-145	Isolated Stone Artefact/s	-	Valid
37-6-2444	MTW-146-WSW-09-4	Isolated Stone Artefact/s	Yes	Valid
37-6-2445	MTW-147-WSW09-4	Isolated Stone Artefact/s	Yes	Valid
37-6-2446	MTW-148-WSW-09-4	Isolated Stone Artefact/s	Yes	Valid
37-6-2447	MTW-149-WSW-09-4	Isolated Stone Artefact/s	Yes	Valid
37-6-2448	MTW-150-WSW-09-4	Stone Artefact Scatter	Yes	Valid
37-6-2449	MTW-151-WSW-09-4	Isolated Stone Artefact/s	Yes	Valid
37-6-2450	MTW-152-WSW-09-4	Isolated Stone Artefact/s	Yes	Valid
37-6-2451	MTW-153-WSW-09-4	Isolated Stone Artefact/s	Yes	Valid
37-6-2452	MTW-154-WSW-09-4	Isolated Stone Artefact/s	Yes	Valid
37-6-2453	MTW-155-WSW-09-4	Isolated Stone Artefact/s	Yes	Valid
37-6-2454	MTW-156-WSW-09-4	Isolated Stone Artefact/s	Yes	Valid
37-6-2455	MTW-157-WSW-09-4	Isolated Stone Artefact/s	Yes	Valid
37-6-2456	MTW-158-WSW-09-4	Isolated Stone Artefact/s	Yes	Valid
37-6-2457	MTW-159-WSW-09-4	Isolated Stone Artefact/s	Yes	Valid
37-6-2458	MTW-160-WSW-09-4	Isolated Stone Artefact/s	Yes	Valid
37-6-2459	MTW-161-WSW-09-4	Isolated Stone Artefact/s	Yes	Valid
37-6-2460	MTW-162-WSW-09-4	Isolated Stone Artefact/s	Yes	Valid
37-6-2461	MTW-163-WSW-09-41	Isolated Stone Artefact/s	-	Valid
37-6-2462	MTW-164-WSW-09-40	Isolated Stone Artefact/s	_	Valid
37-6-2463	MTW-165-WSW-09-27	Scarred Tree	-	Valid
37-6-2464	MTW-166-WSW-09-42	Isolated Stone Artefact/s	-	Valid
37-6-2465	MTW-167-WSW-09-43	Isolated Stone Artefact/s	_	Valid
37-6-2466	MTW-168-WSW-09-28	Scarred Tree	_	Valid
37-6-2467	MTW-169-WSW-09-29	Scarred Tree	-	Valid
37-6-2468	MTW-170-WSW-09-44	Isolated Stone Artefact/s	-	Valid
37-6-2469	MTW-171-WSW-09-5	Isolated Stone Artefact/s	_	Valid
37-6-2470	MTW-172-WSW-09-45	Isolated Stone Artefact/s	-	Valid
37-6-2471	MTW-173-WSW-09-6	Isolated Stone Artefact/s	Yes	Valid
37-6-2472	MTW-174-WSW-09-6	Isolated Stone Artefact/s	Yes	Valid
37-6-2473	MTW-175-WSW-09-6	Isolated Stone Artefact/s	Yes	Valid
37-6-2474	MTW-176-WSW-09-6	Stone Artefact Scatter	Yes	Valid
37-6-2475	MTW-177-WSW-09-7	Isolated Stone Artefact/s	-	Valid
37-6-2476	MTW-178-WSW-09-68	Isolated Stone Artefact/s	_	Valid
37-6-2477	MTW-179-WSW-09-30	Scarred Tree	-	Valid
37-6-2478	MTW-180-WSW-09-69	Isolated Stone Artefact/s	_	Valid
37-6-2479	MTW-181-WSW-09-31	Scarred Tree	_	Valid
37-6-2480	MTW-182-WSW-09-70	Isolated Stone Artefact/s	_	Valid
37-6-2481	MTW-182-WSW-09-70	Isolated Stone Artefact/s	_	Valid
37-6-2481	MTW-184-WSW-09-11	Stone Artefact Scatter	Yes	Valid
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37-6-2483	MTW-185-WSW-09-12	Isolated Stone Artefact/s	<u> </u>	Valid

37-6-2484	MTW-186-WSW-09-12	Isolated Stone Artefact/s	-	Valid
37-6-2485	MTW-187-WSW-09-12	Isolated Stone Artefact/s	-	Valid
37-6-2486	MTW-188-WSW-09-12	Isolated Stone Artefact/s	-	Valid
37-6-2487	MTW-189-WSW-09-12	Isolated Stone Artefact/s	-	Valid
37-6-2488	MTW-190-WSW-09-57	Isolated Stone Artefact/s	-	Valid
37-6-2489	MTW-191-WSW-09-72	Isolated Stone Artefact/s	-	Valid
37-6-2490	MTW-192-WSW-09-13	Isolated Stone Artefact/s	-	Valid
37-6-2491	MTW-193-WSW-09-73	Isolated Stone Artefact/s	-	Valid
37-6-2492	MTW-194-WSW-09-74	Isolated Stone Artefact/s	-	Valid
37-6-2494	MTW-196-WSW-09-14	Isolated Stone Artefact/s	-	Valid
37-6-2505	MTW-207-WSW-09-18	Isolated Stone Artefact/s	-	Valid
37-6-2506	MTW-208-WSW-09-17	Isolated Stone Artefact/s	-	Valid
37-6-2507	MTW-209-WSW-09-18	Stone Artefact Scatter	-	Valid
37-6-2521	MTW-223-WSW-09-32	Scarred Tree	-	Valid
37-6-2522	MTW-224-WSW-09-53	Isolated Stone Artefact/s	-	Valid
37-6-2523	MTW-225-WSW-09-54	Isolated Stone Artefact/s	-	Valid
27 - 255 :	A CONTRACT OF S	Isolated Stone Artefact/s /		
37-6-2524	MTW-226-WSW-09-8	Stone Source		Valid
37-6-2577	MTW-282-WSW-09-63	Isolated Stone Artefact/s	-	Valid
37-6-2578	MTW-283-WSW-09-36	Scarred Tree	-	Valid
37-6-2579	MTW-284-WSW-09-64	Isolated Stone Artefact/s	-	Valid
37-6-2580	MTW-285-WSW-09-37	Scarred Tree	-	Valid
37-6-2581	MTW-286-WSW-09-65	Isolated Stone Artefact/s	-	Valid
37-6-2708	WS12	Isolated Stone Artefact/s	-	Valid
37-6-2709	WS13	Isolated Stone Artefact/s	-	Valid
37-6-2712	WS6	Isolated Stone Artefact/s	-	Valid
37-6-2942	MTW-521	Isolated Stone Artefact/s	-	Valid
37-6-2943	MTW-522	Isolated Stone Artefact/s	-	Valid
37-6-0611	Jerry's Plains Road 2	Isolated Stone Artefact/s	-	Valid
37-6-0682	Wark-2	Isolated Stone Artefact/s	-	Valid
37-6-2061	KR56	Stone Artefact Scatter	-	Valid
37-6-2063	KR58	Stone Artefact Scatter	-	Valid
37-6-0055	Wollombi Brook 04	Spiritual Place	-	Valid
37-6-0056	Wollombi Brook 03	Spiritual Place / Scarred Tree	-	Valid
37-6-1103	Site 1 GG	Grinding Grooves	-	Valid
37-6-1239	W70	Isolated Stone Artefact/s	-	Valid
37-6-1241	W71	Isolated Stone Artefact/s		Valid
37-6-1254	W25 (MTW337-336)	Stone Artefact Scatter	-	Valid
37-6-1255	W26 (MTW-334, MTW-343)	Isolated Stone Artefact/s	-	Valid
37-6-1258	W27 (MTW-342)	Isolated Stone Artefact/s	-	Valid
37-6-1259	W28 (MTW-314)	Isolated Stone Artefact/s	-	Valid
37-6-1260	W29 (MTW-356)	Isolated Stone Artefact/s	_	Valid
37-6-1262	W31 (MTW-333)	Isolated Stone Artefact/s	<u> </u>	Valid
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37-6-1264	W32	Isolated Stone Artefact/s	-	Valid
37-6-1265	W33 (MTW-332)	Isolated Stone Artefact/s	-	Valid
37-6-1267	W34 (MTW-320)	Isolated Stone Artefact/s	-	Valid
37-6-1268	W35 (MTW-312)	Isolated Stone Artefact/s	-	Valid

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37-6-1270	W36 (MTW-316)	Isolated Stone Artefact/s	-	Valid
37-6-1300	W64 (MTW-315)	Isolated Stone Artefact/s	-	Valid
37-6-2308	MTW-9	Isolated Stone Artefact/s	-	Valid
37-6-2309	MTW-10	Isolated Stone Artefact/s	-	Valid
37-6-2310	MTW-11	Isolated Stone Artefact/s	-	Valid
37-6-2312	MTW-13	Stone Source	-	Valid
37-6-2313	MTW-14	Scarred Tree	-	Valid
37-6-2314	MTW-15	Isolated Stone Artefact/s	-	Valid
37-6-2315	MTW-16	Stone Arrangement	-	Valid
37-6-2316	MTW-17	Isolated Stone Artefact/s	-	Valid
37-6-2317	MTW-18	Isolated Stone Artefact/s	-	Valid
37-6-2318	MTW-19	Isolated Stone Artefact/s	-	Valid
37-6-2319	MTW-20	Isolated Stone Artefact/s	-	Valid
37-6-2320	MTW-21	Isolated Stone Artefact/s	-	Valid
37-6-2321	MTW-22	Isolated Stone Artefact/s	-	Valid
37-6-2324	MTW-25	Isolated Stone Artefact/s / Stone Source	-	Valid
37-6-2325	MTW-26	Isolated Stone Artefact/s	-	Valid
37-6-2326	MTW-27	Isolated Stone Artefact/s	-	Valid
37-6-2327	MTW-28	Isolated Stone Artefact/s	Yes	Valid
37-6-2330	MTW-31	Isolated Stone Artefact/s	-	Valid
37-6-2403	MTW-104	Isolated Stone Artefact/s	-	Valid
37-6-2404	MTW-105	Isolated Stone Artefact/s	-	Valid
37-6-2405	MTW-106	Isolated Stone Artefact/s	-	Valid
37-6-2406	MTW-107	Isolated Stone Artefact/s	-	Valid
37-6-2407	MTW-108	Isolated Stone Artefact/s	-	Valid
37-6-2408	MTW-109	Stone Artefact Scatter	-	Valid
37-6-2409	MTW-110	Isolated Stone Artefact/s	-	Valid
37-6-2410	MTW-111	Isolated Stone Artefact/s	-	Valid
37-6-2411	MTW-112	Isolated Stone Artefact/s	-	Valid
37-6-2412	MTW-113	Stone Artefact Scatter	-	Valid
37-6-2413	MTW-114, MTW-518	Isolated Stone Artefact/s	-	Valid
37-6-2414	MTW-115	Isolated Stone Artefact/s	-	Valid
37-6-2415	MTW-116	Isolated Stone Artefact/s	-	Valid
37-6-2416	MTW-117	Isolated Stone Artefact/s	-	Valid
37-6-2417	MTW-118	Isolated Stone Artefact/s	-	Valid
37-6-2418	MTW-119	Isolated Stone Artefact/s	_	Valid
37-6-2419	MTW-120	Isolated Stone Artefact/s	-	Valid
37-6-2420	MTW-121	Isolated Stone Artefact/s	-	Valid
37-6-2421	MTW-122	Isolated Stone Artefact/s	-	Valid
37-6-2422	MTW-123	Isolated Stone Artefact/s	-	Valid
37-6-2423	MTW-124	Isolated Stone Artefact/s	-	Valid
37-6-2424	MTW-125	Isolated Stone Artefact/s	-	Valid
37-6-2425	MTW-126	Isolated Stone Artefact/s	-	Valid
37-6-2426	MTW-127	Isolated Stone Artefact/s	-	Valid
37-6-2430	MTW-131	Isolated Stone Artefact/s	-	Valid
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37-6-2431	MTW-132	Isolated Stone Artefact/s	-	Valid
37-6-2432	MTW-133	Isolated Stone Artefact/s	-	Valid
37-6-2433	MTW-134	Isolated Stone Artefact/s	-	Valid
37-6-2434	MTW-135	Isolated Stone Artefact/s	-	Valid
37-6-2435	MTW-136	Isolated Stone Artefact/s	-	Valid
37-6-2493	MTW-195-WSW-09-75	Isolated Stone Artefact/s	-	Valid
37-6-2495	MTW-197-WSW-09-14	Isolated Stone Artefact/s	-	Valid
37-6-2496	MTW-198-WSW-09-14	Isolated Stone Artefact/s	-	Valid
37-6-2497	MTW-199-wsw-09-14	Isolated Stone Artefact/s	-	Valid
37-6-2498	MTW-200-WSW-09-15	Isolated Stone Artefact/s	Yes	Valid
37-6-2499	MTW-201-WSW-09-15	Isolated Stone Artefact/s	Yes	Valid
37-6-2500	MTW-202-WSW-09-15	Stone Artefact Scatter	Yes	Valid
37-6-2501	MTW-203-WSW-09-79	Isolated Stone Artefact/s	-	Valid
37-6-2502	MTW-204-WSW-09-16	Isolated Stone Artefact/s	-	Valid
37-6-2503	MTW-205-WSW-09-76	Isolated Stone Artefact/s	-	Valid
37-6-2504	MTW-206-WSW-09-80	Isolated Stone Artefact/s		Valid
37-6-2508	MTW-210-WSW-09-19	Isolated Stone Artefact/s	Yes	Valid
37-6-2509	MTW-211-WSW-09-19	Isolated Stone Artefact/s	Yes	Valid
37-6-2510	MTW-212-WSW-09-19	Isolated Stone Artefact/s	Yes	Valid
37-6-2511	MTW-213-WSW-09-19	Isolated Stone Artefact/s	Yes	Valid
37-6-2512	MTW-214-WSW-09-78	Isolated Stone Artefact/s	-	Valid
37-6-2513	MTW-215-WSW-09-77	Isolated Stone Artefact/s	-	Valid
37-6-2514	MTW-216-WSW-09-46	Isolated Stone Artefact/s	-	Valid
37-6-2515	MTW-217-WSW-09-47	Isolated Stone Artefact/s	-	Valid
37-6-2516	MTW-218-WSW-09-48	Isolated Stone Artefact/s	-	Valid
37-6-2517	MTW-219-WSW-09-49	Isolated Stone Artefact/s	-	Valid
37-6-2525	MTW-227-WSW-09-33	Scarred Tree	-	Valid
37-6-2526	MTW-228-WSW-09-34	Scarred Tree	-	Valid
37-6-2527	MTW-230-WSW-09-55	Isolated Stone Artefact/s	-	Valid
37-6-2528	MTW-231-WSW-09-56	Isolated Stone Artefact/s	-	Valid
37-6-2529	MTW-232-WSW-09-20	Isolated Stone Artefact/s	Yes	Valid
37-6-2530	MTW-233-WSW-09-58	Isolated Stone Artefact/s	-	Valid
37-6-2534	MTW-237-WSW-09-10	Isolated Stone Artefact/s	Yes	Valid
37-6-2535	MTW-238-WSW-09-10	Isolated Stone Artefact/s	Yes	Valid
37-6-2536	MTW-239-WSW-09-10	Isolated Stone Artefact/s	Yes	Valid
37-6-2537	MTW-240-WSW-09-10	Isolated Stone Artefact/s	Yes	Valid
37-6-2538	MTW-241-WSW-09-10	Isolated Stone Artefact/s	Yes	Valid
37-6-2539	MTW-242-WSW-09-10	Isolated Stone Artefact/s	Yes	Valid
37-6-2540	MTW-243-WSW-09-10	Isolated Stone Artefact/s	Yes	Valid
37-6-2541	MTW-244-WSW-09	Isolated Stone Artefact/s	-	Valid
37-6-2542	MTW-245-WSW-09-10	Isolated Stone Artefact/s	Yes	Valid
37-6-2543	MTW-246-WSW-09-10	Isolated Stone Artefact/s	Yes	Valid
37-6-2544	MTW-247-WSW-09-10	Isolated Stone Artefact/s	Yes	Valid
37-6-2545	MTW-248-WSW-09-10	Isolated Stone Artefact/s	Yes	Valid
37-6-2546	MTW-249-WSW-09-10	Isolated Stone Artefact/s	Yes	Valid

37-6-2547	MTW-250-WSW-09-10	Isolated Stone Artefact/s	Yes	Valid
37-6-2548	MTW-251-WSW-09-10	Isolated Stone Artefact/s	Yes	Valid
37-6-2549	MTW-252-WSW-09-20	Isolated Stone Artefact/s	Yes	Valid
37-6-2550	MTW-253-WSW-09-20	Isolated Stone Artefact/s	Yes	Valid
37-6-2551	MTW-254-WSW-09-20	Isolated Stone Artefact/s	Yes	Valid
37-6-2552	MTW-255-WSW-09-20	Isolated Stone Artefact/s	Yes	Valid
37-6-2553	MTW-256-WSW-09-22	Isolated Stone Artefact/s	Yes	Valid
37-6-2554	MTW-258-WSW-09-21	Scarred Tree	Yes	Valid
37-6-2555	MTW-260-WSW-09-21	Mound Feature (possible Burials)	Yes	Valid
37-6-2556	MTW-261-WSW-09-21	Isolated Stone Artefact/s	Yes	Valid
37-6-2557	MTW-262-WSW-09-21	Isolated Stone Artefact/s	Yes	Valid
37-6-2558	MTW-263-WSW-09-21	Isolated Stone Artefact/s	Yes	Valid
37-6-2559	MTW-264-WSW-09-21	Scarred Tree	Yes	Valid
37-6-2560	MTW-265-WSW-09-21	Isolated Stone Artefact/s	Yes	Valid
37-6-2561	MTW-266-WSW-09-22	Grinding Grooves	Yes	Valid
37-6-2562	MTW-267-WSW-09-22	Grinding Grooves	Yes	Valid
37-6-2563	MTW-268-WSW-09-23	Grinding Grooves	Yes	Valid
37-6-2564	MTW-269-WSW-09-24	Isolated Stone Artefact/s	Yes	Valid
37-6-2565	MTW-270-WSW-09-24	Isolated Stone Artefact/s	Yes	Valid
37-6-2566	MTW-271-WSW-09-24	Isolated Stone Artefact/s	Yes	Valid
37-6-2567	MTW-272-WSW-09-24	Isolated Stone Artefact/s	Yes	Valid
37-6-2568	MTW-273-WSM-09-24	Isolated Stone Artefact/s	Yes	Valid
37-6-2569	MTW-274-WSW-09-24	Isolated Stone Artefact/s	Yes	Valid
37-6-2570	MTW-275-WSW-09-24	Isolated Stone Artefact/s	Yes	Valid
37-6-2571	MTW-276	Isolated Stone Artefact/s	Yes	Valid
37-6-2572	MTW-277-WSW-09-24	Isolated Stone Artefact/s	Yes	Valid
37-6-2573	MTW-278-WSW-09-61	Isolated Stone Artefact/s	-	Valid
37-6-2574	MTW-279-WSW-09-62	Isolated Stone Artefact/s	-	Valid
37-6-2575	MTW-280-WSW-09-62	Isolated Stone Artefact/s	-	Valid
37-6-2576	MTW-281-WSW-09-62	Isolated Stone Artefact/s	-	Valid
37-6-2582	MTW-287-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2583	MTW-288-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2584	MTW-289-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2585	MTW-290-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2586	MTW-291-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2587	MTW-292-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2588	MTW-293-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2589	MTW-294-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2590	MTW-295-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2591	MTW-296-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2592	MTW-297-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2593	MTW-298-wsw-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2594	MTW-299-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2595	MTW-300-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2596	MTW-301-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
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37-6-2597	MTW-302-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2598	MTW-303-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2599	MTW-304-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2600	MTW-305-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2601	MTW-306-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2602	MTW-307-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2603	MTW-308-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2604	MTW-309-WSW-09-25	Isolated Stone Artefact/s	Yes	Valid
37-6-2605	MTW-310-WSW-09-66	Isolated Stone Artefact/s	-	Valid
37-6-2606	MTW-311-WSW-09-67	Isolated Stone Artefact/s	-	Valid
37-6-2607	MTW-313	Isolated Stone Artefact/s	-	Valid
37-6-2608	MTW-317	Isolated Stone Artefact/s	-	Valid
37-6-2609	MTW-318	Isolated Stone Artefact/s		Valid
37-6-2610	MTW-319	Scarred Tree	-	Valid
37-6-2611	WE 16 (MTW-321)	Scarred Tree	1	Valid
37-6-2612	MTW-322	Scarred Tree	-	Valid
37-6-2613	MTW-323	Scarred Tree	-	Valid
37-6-2614	MTW-324	Scarred Tree	-	Valid
37-6-2615	MTW-325	Isolated Stone Artefact/s	-	Valid
37-6-2616	MTW-326	Isolated Stone Artefact/s	-	Valid
37-6-2617	MTW-327	Isolated Stone Artefact/s	-	Valid
37-6-2618	MTW-328	Isolated Stone Artefact/s	-	Valid
37-6-2619	MTW-329	Isolated Stone Artefact/s	-	Valid
37-6-2620	MTW-330	Isolated Stone Artefact/s	-	Valid
37-6-2621	PN6 (MTW-331)	Isolated Stone Artefact/s	-	Valid
37-6-2622	MTW-335	Isolated Stone Artefact/s	-	Valid
37-6-2623	MTW-338	Isolated Stone Artefact/s	-	Valid
37-6-2624	MTW-339	Isolated Stone Artefact/s	-	Valid
37-6-2625	MTW-340	Isolated Stone Artefact/s	-	Valid
37-6-2626	MTW-341	Isolated Stone Artefact/s	-	Valid
37-6-2627	MTW-344	Isolated Stone Artefact/s	-	Valid
37-6-2628	MTW-345	Isolated Stone Artefact/s	-	Valid
37-6-2629	MTW-346	Isolated Stone Artefact/s	-	Valid
37-6-2630	MTW-347	Isolated Stone Artefact/s		Valid
37-6-2631	MTW-348	Isolated Stone Artefact/s	-	Valid
37-6-2632	MTW-349	Isolated Stone Artefact/s	-	Valid
37-6-2633	MTW-350	Isolated Stone Artefact/s	-	Valid
37-6-2634	MTW-351	Isolated Stone Artefact/s	-	Valid
37-6-2635	MTW-352	Isolated Stone Artefact/s	-	Valid
37-6-2636	MTW-353	Isolated Stone Artefact/s	-	Valid
37-6-2637	MTW-354	Isolated Stone Artefact/s	-	Valid
37-6-2638	MTW-355	Isolated Stone Artefact/s	-	Valid
37-6-2639	MTW-357	Stone Artefact Scatter	-	Valid
37-6-2640	MTW-358	Isolated Stone Artefact/s	-	Valid
37-6-2641	MTW-359	Isolated Stone Artefact/s	-	Valid

27 ( 2642	MTW 260	T 1 . 10. A . C . /	I	X7 1' 1
37-6-2642	MTW-360	Isolated Stone Artefact/s	-	Valid
37-6-2643	MTW-361	Isolated Stone Artefact/s	-	Valid
37-6-2644	MTW-362	Isolated Stone Artefact/s	-	Valid
37-6-2645	MTW-363	Isolated Stone Artefact/s	-	Valid
37-6-2646	MTW-365	Isolated Stone Artefact/s	-	Valid
37-6-2647	MTW-366	Isolated Stone Artefact/s	Yes	Valid
37-6-2648	MTW-367	Isolated Stone Artefact/s	Yes	Valid
37-6-2649	MTW-368	Isolated Stone Artefact/s	Yes	Valid
37-6-2650	MTW-369	Isolated Stone Artefact/s	Yes	Valid
37-6-2651	MTW-370	Isolated Stone Artefact/s	Yes	Valid
37-6-2652	MTW-371	Isolated Stone Artefact/s	Yes	Valid
37-6-2653	MTW-372	Isolated Stone Artefact/s	Yes	Valid
37-6-2654	MTW-373	Isolated Stone Artefact/s	Yes	Valid
37-6-2655	MTW-374	Isolated Stone Artefact/s	Yes	Valid
37-6-2656	MTW-375	Isolated Stone Artefact/s	Yes	Valid
37-6-2657	MTW-376	Isolated Stone Artefact/s	Yes	Valid
37-6-2658	MTW-377	Isolated Stone Artefact/s	Yes	Valid
37-6-2659	MTW-378	Isolated Stone Artefact/s	Yes	Valid
37-6-2660	MTW-379	Isolated Stone Artefact/s	Yes	Valid
37-6-2661	MTW-380	Isolated Stone Artefact/s	Yes	Valid
37-6-2662	MTW-381	Isolated Stone Artefact/s	Yes	Valid
37-6-2663	MTW-382	Isolated Stone Artefact/s	Yes	Valid
37-6-2664	MTW-383	Isolated Stone Artefact/s	Yes	Valid
37-6-2665	MTW-384	Isolated Stone Artefact/s	Yes	Valid
37-6-2666	MTW-385	Isolated Stone Artefact/s	Yes	Valid
37-6-2667	MTW-386	Isolated Stone Artefact/s	Yes	Valid
37-6-2668	MTW-387	Isolated Stone Artefact/s	Yes	Valid
37-6-2669	MTW-388	Isolated Stone Artefact/s	Yes	Valid
37-6-2670	MTW-389	Isolated Stone Artefact/s	Yes	Valid
37-6-2671	MTW-390	Isolated Stone Artefact/s	Yes	Valid
37-6-2672	MTW-391	Isolated Stone Artefact/s	Yes	Valid
37-6-2673	MTW-392	Isolated Stone Artefact/s	Yes	Valid
37-6-2674	MTW-393	Isolated Stone Artefact/s	Yes	Valid
37-6-2675	MTW-394	Isolated Stone Artefact/s	Yes	Valid
37-6-2676	MTW-395	Isolated Stone Artefact/s	Yes	Valid
37-6-2677	MTW-396	Isolated Stone Artefact/s	Yes	Valid
37-6-2678	MTW-397	Isolated Stone Artefact/s	_	Valid
37-6-2679	MTW-398	Isolated Stone Artefact/s	Yes	Valid
37-6-2680	MTW-399	Isolated Stone Artefact/s	Yes	Valid
37-6-2681	MTW-400	Isolated Stone Artefact/s	Yes	Valid
37-6-2682	MTW-401	Isolated Stone Artefact/s	Yes	Valid
37-6-2683	MTW-402	Isolated Stone Artefact/s	Yes	Valid
37-6-2684	MTW-403	Isolated Stone Artefact/s	Yes	Valid
37-6-2685	MTW-404	Isolated Stone Artefact/s	Yes	Valid
37-6-2686	MTW-405	Isolated Stone Artefact/s	Yes	Valid
37-0-2080	1VI 1 VV -4UJ	Isolated Stolle Afteract/8	168	v and

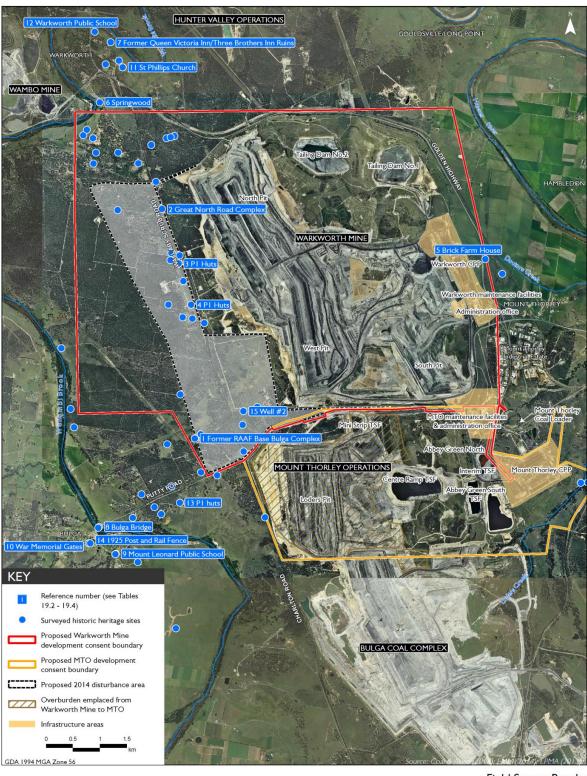
37-6-2687	MTW-406	Isolated Stone Artefact/s	Yes	Valid
37-6-2688	MTW-407	Isolated Stone Artefact/s	Yes	Valid
37-6-2689	MTW-408	Isolated Stone Artefact/s	Yes	Valid
37-6-2690	MTW-409	Isolated Stone Artefact/s	-	Valid
37-6-2691	MTW-410	Isolated Stone Artefact/s	-	Valid
37-6-2692	MTW-411	Isolated Stone Artefact/s	-	Valid
37-6-2693	MTW-412	Isolated Stone Artefact/s	-	Valid
37-6-2694	MTW-413	Scarred Tree	-	Valid
37-6-2705	PN4	Isolated Stone Artefact/s	-	Valid
37-6-2706	PN5 (N)	Isolated Stone Artefact/s	-	Valid
37-6-2924	MTW-505	Isolated Stone Artefact/s	-	Valid
37-6-2923	MTW-506	Isolated Stone Artefact/s	-	Valid
37-6-2925	MTW-507	Isolated Stone Artefact/s		Valid
37-6-2926	MTW-508	Isolated Stone Artefact/s	-	Valid
37-6-2927	MTW-509	Isolated Stone Artefact/s	-	Valid
37-6-2928	MTW-510	Isolated Stone Artefact/s		Valid
37-6-2929	MTW-511	Stone Artefact Scatter	-	Valid
37-6-2930	MTW-512	Isolated Stone Artefact/s	-	Valid
37-6-2931	MTW-513	Isolated Stone Artefact/s	-	Valid
37-6-2936	MTW-514	Isolated Stone Artefact/s	-	Valid
37-6-2937	MTW-515	Isolated Stone Artefact/s	_	Valid
37-6-2938	MTW-516	Isolated Stone Artefact/s	-	Valid
37-6-2939	MTW-517	Isolated Stone Artefact/s	-	Valid
37-6-2940	MTW-519	Isolated Stone Artefact/s	-	Valid
37-6-2941	MTW-520	Isolated Stone Artefact/s	-	Valid

Table 2: Aboriginal Cultural Heritage Places to be Impacted by the Development

AHIMS No	Place Name	Place Type	PAD	Status
37-6-0160	Mt Thorley J (MTW590-594)	Isolated Stone Artefact/s	-	Valid
37-6-0163	Mt Thorley M	Grinding Grooves	-	Valid
37-6-0669	MT 37 (MTW587-587)	Isolated Stone Artefact/s	-	Valid
37-6-0979	BP-4	Isolated Stone Artefact/s	-	Valid
37-6-1234	W12 (MTW-563)	Isolated Stone Artefact/s	-	Partially Destroyed
37-6-1235	W13 (MTW-562)	Isolated Stone Artefact/s	-	Partially Destroyed
37-6-1244	W20 (MTW-573)	Isolated Stone Artefact/s	-	Valid
37-6-1247	W21	Isolated Stone Artefact/s	-	Valid
37-6-1250	W23	Isolated Stone Artefact/s	-	Destroyed
37-6-1284	W48 (MTW-561)	Isolated Stone Artefact/s		Valid
37-6-1285	W49 (MTW-579)	Isolated Stone Artefact/s	-	Valid
37-6-1286	W50 (MTW-580)	Isolated Stone Artefact/s		Valid
37-6-1287	W51 (MTW-582)	Isolated Stone Artefact/s	-	Valid
37-6-1288	W52 (MTW-584)	Isolated Stone Artefact/s	-	Valid
37-6-1289	W53	Isolated Stone Artefact/s	-	Valid
37-6-1290	W54 (MTW-599)	Isolated Stone Artefact/s	-	Valid
37-6-1291	W55 (MTW-596)	Isolated Stone Artefact/s	-	Valid
37-6-1292	W56 (MTW-595)	Isolated Stone Artefact/s	-	Valid
37-6-1293	W57 (MTW-589)	Isolated Stone Artefact/s	-	Valid
37-6-1294	W58 (MTW-574)	Isolated Stone Artefact/s	-	Valid
37-6-1295	W59	Isolated Stone Artefact/s	-	Valid
37-6-1296	W60 (MTW-570)	Isolated Stone Artefact/s	-	Valid
37-6-1297	W61 (MTW-572)	Isolated Stone Artefact/s	-	Valid
37-6-2301	MTW-2	Isolated Stone Artefact/s	-	Valid
37-6-2302	MTW-3	Isolated Stone Artefact/s	-	Valid
37-6-2303	MTW-4	Isolated Stone Artefact/s	-	Valid
37-6-2306	MTW-7	Isolated Stone Artefact/s	-	Valid
37-6-2307	MTW-8	Scarred Tree	-	Valid
37-6-2328	MTW-29	Isolated Stone Artefact/s	-	Valid
37-6-2348	MTW-49	Isolated Stone Artefact/s	-	Valid
37-6-2349	MTW-50	Isolated Stone Artefact/s	Yes	Valid
37-6-2350	MTW-51	Isolated Stone Artefact/s	-	Valid
37-6-2351	MTW-52	Isolated Stone Artefact/s	-	Valid
37-6-2352	MTW-53	Isolated Stone Artefact/s	-	Valid
37-6-2353	MTW-54	Isolated Stone Artefact/s	-	Valid
37-6-2354	MTW-55	Isolated Stone Artefact/s	-	Valid
37-6-2355	MTW-56	Isolated Stone Artefact/s	-	Valid
37-6-2356	MTW-57	Isolated Stone Artefact/s	-	Valid
37-6-2357	MTW-58	Isolated Stone Artefact/s	-	Valid
37-6-2358	MTW-59	Isolated Stone Artefact/s	-	Valid
37-6-2359	MTW-60	Stone Artefact Scatter	Yes	Valid
37-6-2360	MTW-61	Stone Artefact Scatter	-	Valid

AHIMS No	Place Name	Place Type	PAD	Status
37-6-2361	MTW-62	Isolated Stone Artefact/s	-	Valid
37-6-2362	MTW-63	Isolated Stone Artefact/s	-	Valid
37-6-2363	MTW-64	Isolated Stone Artefact/s	-	Valid
37-6-2364	MTW-65	Isolated Stone Artefact/s	Yes	Valid
37-6-2365	MTW-66	Isolated Stone Artefact/s	-	Valid
37-6-2366	MTW-67	Isolated Stone Artefact/s	-	Valid
37-6-2367	MTW-68	Isolated Stone Artefact/s	-	Valid
37-6-2368	MTW-69	Isolated Stone Artefact/s	-	Valid
37-6-2369	MTW-70	Scarred Tree	-	Valid
37-6-2370	MTW-71	Isolated Stone Artefact/s	1	Valid
37-6-2371	MTW-72	Isolated Stone Artefact/s	-	Valid
37-6-2372	MTW-73	Isolated Stone Artefact/s		Valid
37-6-2373	MTW-74	Isolated Stone Artefact/s	-	Valid
37-6-2374	WS2A (MTW-75)	Stone Artefact Scatter	1	Valid
37-6-2375	MTW-76	Isolated Stone Artefact/s	1	Valid
37-6-2376	MTW-77	Stone Artefact Scatter	-	Valid
37-6-2377	MTW-78	Isolated Stone Artefact/s	-	Valid
37-6-2378	MTW-79	Isolated Stone Artefact/s	1	Valid
37-6-2379	MTW-80	Scarred Tree / Isolated Stone Artefact/s	-	Valid
37-6-2380	MTW-81	Isolated Stone Artefact/s	-	Valid
37-6-2381	MTW-82	Isolated Stone Artefact/s	-	Valid
37-6-2382	MTW-83	Isolated Stone Artefact/s	-	Valid
37-6-2383	MS1 (MTW-84)	Isolated Stone Artefact/s	-	Valid
37-6-2384	MS8 (MTW-85)	Isolated Stone Artefact/s	-	Valid
37-6-2385	MTW-86	Isolated Stone Artefact/s	-	Valid
37-6-2386	MTW-87	Isolated Stone Artefact/s	-	Valid
37-6-2387	MTW-88	Isolated Stone Artefact/s	-	Valid
37-6-2388	MTW-89	Isolated Stone Artefact/s	-	Valid
37-6-2389	MTW-90	Isolated Stone Artefact/s	-	Valid
37-6-2390	MTW-91	Isolated Stone Artefact/s	-	Valid
37-6-2392	MTW-93	Isolated Stone Artefact/s	-	Valid
37-6-2393	MTW-94	Isolated Stone Artefact/s	-	Valid
37-6-2394	MTW-95	Isolated Stone Artefact/s	-	Valid
37-6-2401	MTW-102	Isolated Stone Artefact/s	-	Valid
37-6-2402	MTW-103	Isolated Stone Artefact/s	-	Valid
37-6-2427	MTW-128	Isolated Stone Artefact/s	-	Valid
37-6-2428	MTW-129	Isolated Stone Artefact/s	-	Valid
37-6-2429	MTW-130	Isolated Stone Artefact/s	-	Valid
37-6-2518	MTW-220-MSW-09-50	Isolated Stone Artefact/s	-	Valid
37-6-2519	MTW-221-WSW-09-51	Isolated Stone Artefact/s	-	Valid
37-6-2520	MTW-222-WSW-09-52	Isolated Stone Artefact/s	-	Valid
37-6-2531	MTW-234-WSW-09-9	Isolated Stone Artefact/s	-	Valid
37-6-2532	MTW-235-WSW-09-59	Isolated Stone Artefact/s	-	Valid
37-6-2533	MTW-236-WSW-09-60	Isolated Stone Artefact/s	-	Valid

AHIMS No	Place Name	Place Type	PAD	Status
37-6-2695	PL10 (MTW-600)	Isolated Stone Artefact/s	-	Valid
37-6-2697	PL2	Isolated Stone Artefact/s	-	Valid
37-6-2698	PL3	Isolated Stone Artefact/s	-	Valid
37-6-2699	PL4 (MTW-568)	Isolated Stone Artefact/s	-	Valid
37-6-2700	PL5 (MTW-577)	Isolated Stone Artefact/s	-	Valid
37-6-2703	PL8	Isolated Stone Artefact/s	-	Valid
37-6-2704	PL9	Isolated Stone Artefact/s	-	Valid
37-6-2707	WS10	Isolated Stone Artefact/s	-	Valid
37-6-2710	WS2	Isolated Stone Artefact/s	-	Valid
37-6-2711	WS3	Isolated Stone Artefact/s	-	Valid
37-6-2713	WS7	Isolated Stone Artefact/s	- 1	Valid
37-6-2714	WS9	Isolated Stone Artefact/s	-	Valid
37-6-2944	MTW-566	Isolated Stone Artefact/s	-	Valid
37-6-2945	MTW-567	Isolated Stone Artefact/s		Valid
37-6-2946	MTW-569	Isolated Stone Artefact/s	-	Valid
37-6-2947	MTW-571	Isolated Stone Artefact/s	-	Valid
37-6-2948	MTW-575	Isolated Stone Artefact/s	-	Valid
37-6-2949	MTW-576	Isolated Stone Artefact/s	-	Valid
37-6-2950	MTW-578	Isolated Stone Artefact/s	-	Valid
37-6-2951	MTW-581	Isolated Stone Artefact/s	-	Valid
37-6-2952	MTW-583	Isolated Stone Artefact/s	-	Valid
37-6-2953	MTW-585	Isolated Stone Artefact/s	-	Valid
37-6-2954	MTW-588	Isolated Stone Artefact/s	-	Valid
37-6-2955	MTW-597	Isolated Stone Artefact/s	-	Valid
37-6-2956	MTW-598	Isolated Stone Artefact/s	-	Valid

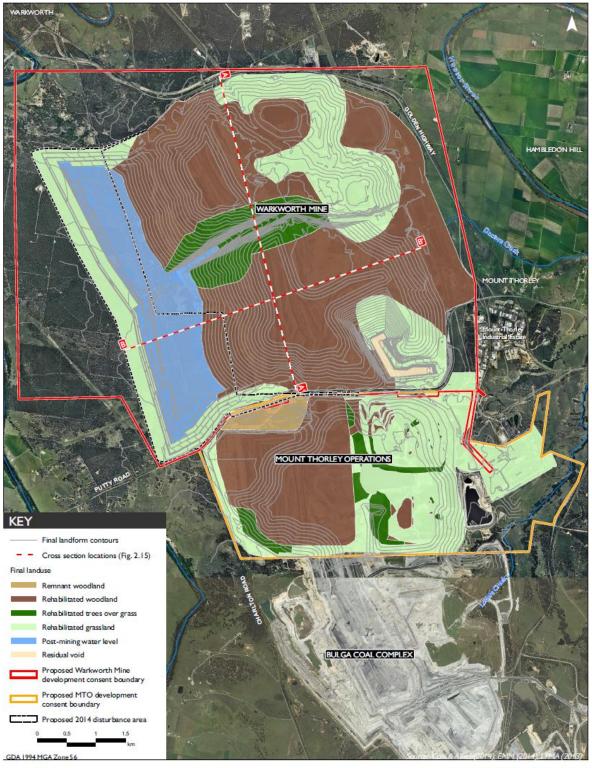




Field Survey Results Warkworth Continuation 2014 Environmental Impact Statement Figure 19.2

Figure 17: Historic Heritage Items

# APPENDIX 6 REHABILITATION PLANS





Final landuse and contours Warkworth Continuation 2014 Environmental Impact Statement Figure 2.16

Figure 18: Indicative Final Landform and Land Use

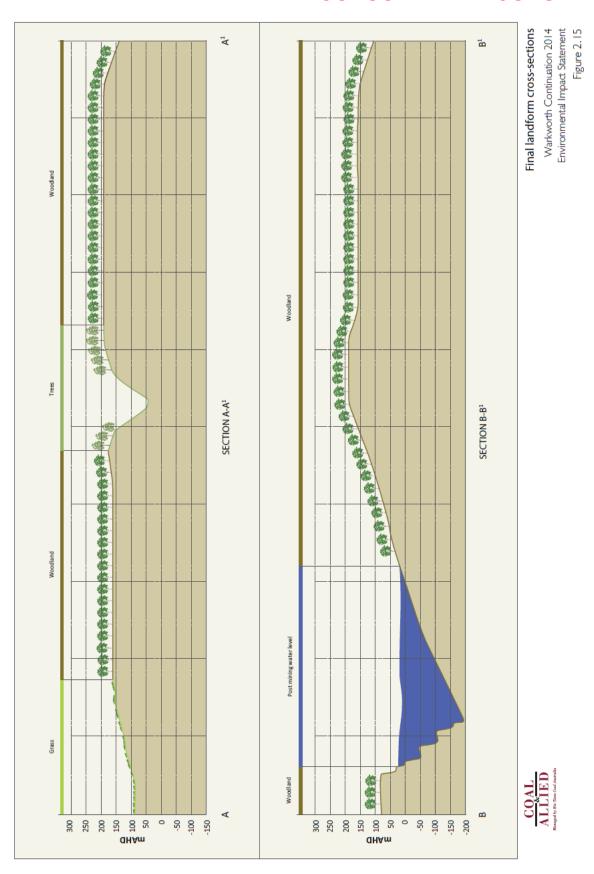


Figure 19: Indicative Final Landform - Cross Sections

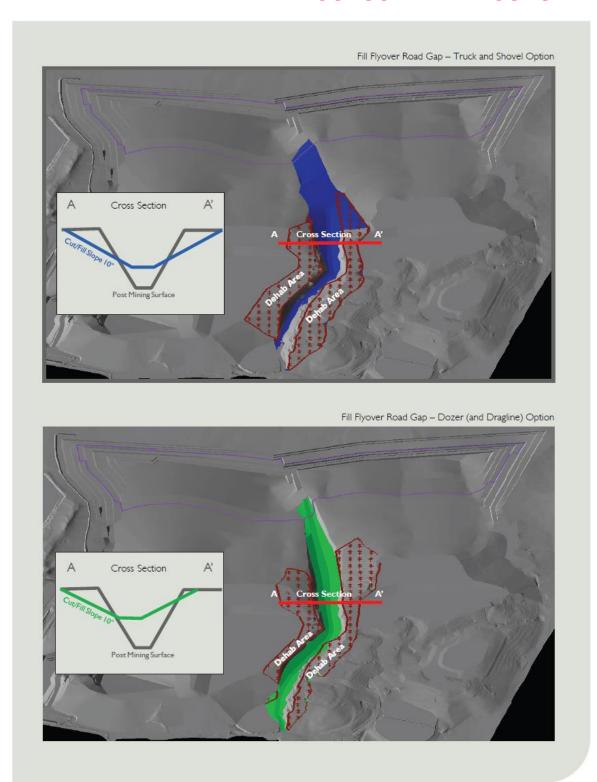


Figure 20: Indicative Final Landform – Main Emplacements Gap

# APPENDIX 7 NOISE COMPLIANCE ASSESSMENT

#### **Applicable Meteorological Conditions**

- 1. The noise criteria in Table 3 of schedule 3 are to apply under all meteorological conditions except the following:
  - a) wind speeds greater than 3 m/s at 10 m above ground level; or
  - stability category F temperature inversion conditions and wind speeds greater than 2 m/s at 10 m above ground level; or
  - c) stability category G temperature inversion conditions.

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

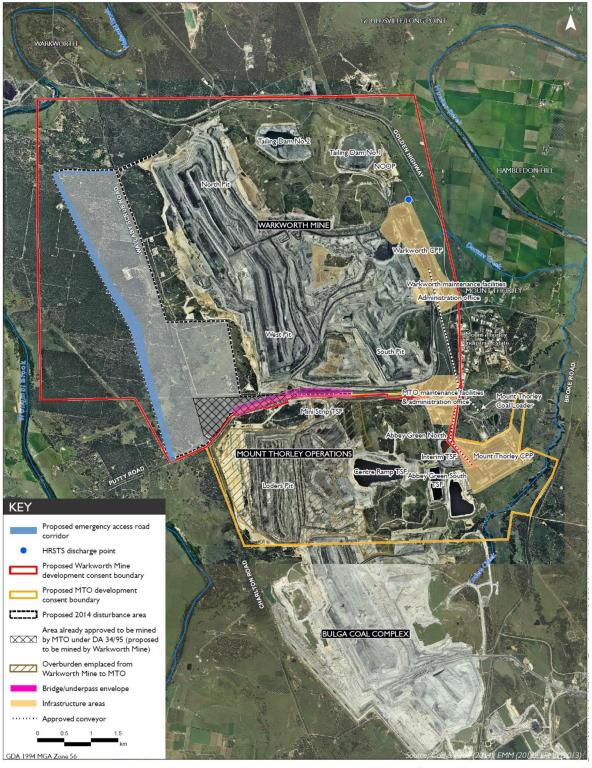
2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions must be that recorded by the meteorological station located on the site.

#### **Compliance Monitoring**

- 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 12 times a year, unless the Planning Secretary directs otherwise.
- 5. Unless otherwise agreed with the Planning Secretary, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the NSW Industrial Noise Policy (as amended from time to time) or an equivalent NSW Government noise policy, 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;
  - equipment used to collect noise data, and conformance 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: or
    - low frequency noise, where it is demonstrated that the dBC dBA noise difference is caused by distance attenuation only.

NSW Government Department of Planning and Environment

# APPENDIX 8 INDICATIVE ROUTE – EMERGENCY ACCESS TRACK





Proposed emergency access road Warkworth Continuation 2014 Environmental Impact Statement

Figure 21: Indicative Alternative Emergency Access Track/Fire Trail Corridor

#### **APPENDIX 9 INTERIM NOISE CRITERIA**

Noise criteria in condition 18 of DA-300-9-2002-i

Day/Evening/Night LAeq(15 minute)	Land Number
39	31, 38, 58
38	5, 35, 47, 70
	Bulga Village <sup>1</sup>
	Warkworth Village <sup>2</sup>
37	4, 39, 40, 41, 45, 49, 50, 56, 69
36	7, 9, 11, 42, 43, 54, 55, 125
35	All other residential or sensitive receptors, excluding: 10, 34, 36, 46, 127, 128, 129

Note: To interpret the land referred to in this table, see the applicable figure below.

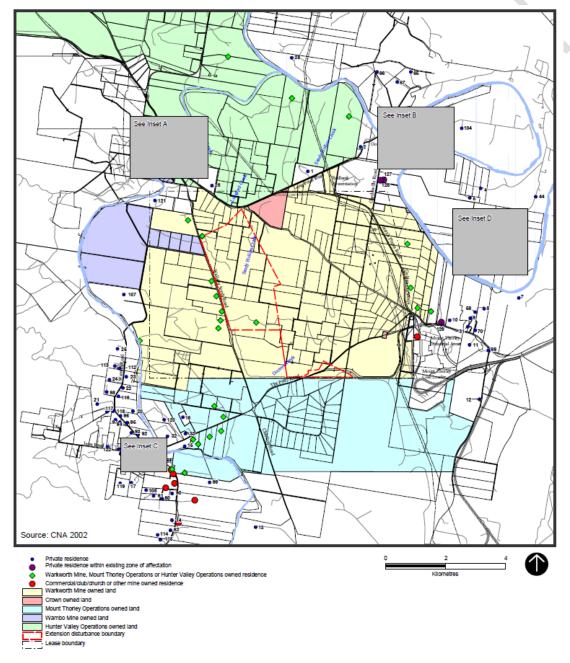


Figure 22: Surrounding Receivers

<sup>&</sup>lt;sup>1</sup> 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 for DA-300-9-2002-i.

<sup>&</sup>lt;sup>2</sup> 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 for DA-300-9-2002-i. NSW Government



Figure 23: Surrounding Receivers