

Development Consent

Section 4.36 of the Environmental Planning and Assessment Act 1979

The Independent Planning Commission of NSW (the Commission), as the declared consent authority under clause 8A of the *State Environmental Planning Policy (State and Regional Development) 2011* and section 4.5(a) of the *Environmental Planning and Assessment Act 1979*, approves the development application referred to in Schedule 1, subject to the conditions in Schedule 2.

These conditions are required to:

- prevent, minimise, 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 of Commissioner]
Member of the Commission

[Name of Commissioner]
Member of the Commission

[Name of Commissioner]
Member of the Commission

Sydney

2018

SCHEDULE 1

Application Number:	SSD 7142
Applicant:	United Collieries Pty Limited
Consent Authority:	Independent Planning Commission of NSW
Site:	The land defined in Appendix 1
Development:	United Wambo Open Cut Coal Mine

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DEFINITIONS

Aboriginal object	Has the same meaning as the definition of the term in section 5 of the NP&W Act
Aboriginal place	Has the same meaning as the definition of the term in section 5 of the NP&W Act
Annual Review	The review required by condition E10
Applicant	United Collieries Pty Limited, or any person carrying out any development under this consent
Approved disturbance area	The blue 'operational area' identified on the Development Layout
ARI	Average Recurrence Interval
BCA	Building Code of Australia
BC Act	<i>Biodiversity Conservation Act 2016</i>
BCT	NSW Biodiversity Conservation Trust
Blast misfire	The failure of one or more holes in a blast pattern to initiate
Calendar year	A period of 12 months from 1 January to 31 December
CCC	Community consultative committee required by condition A19
CEEC	Critically endangered ecological community, as defined under the BC Act and/or EPBC Act
Conditions of this consent	Conditions contained in Schedule 2
Construction	All physical works to enable mining operations to be carried out, including demolition and removal of buildings or works, and erection of buildings and other infrastructure permitted by this consent
Council	Singleton Council
Date of commencement	The date notified to the Department by the Applicant under condition A7
Day	The period from 7 am to 6 pm on Monday to Saturday, and 8 am to 6 pm on Sundays and Public Holidays
Decommissioning	The deconstruction or demolition and removal of works and buildings installed as part of the development
Demolition	The deconstruction and removal of buildings, sheds and other structures on the site
Department	NSW Department of Planning and Environment
Development	The development described in the document/s listed in condition A2(c), as modified by the conditions of this consent
Development Layout	The figures in Appendix 2
Dol Crown Lands	NSW Department of Industry – Crown Lands
Dol Water	NSW Department of Industry – Water
DRG	Division of Resources and Geoscience within the Department
DSC	Dams Safety Committee
Ecological Mine Rehabilitation	Rehabilitation used to satisfy biodiversity credit requirements
EEC	Endangered ecological community, as defined under the BC Act and/or EPBC Act
EIS	The Environmental Impact Statement titled <i>United Wambo Open Cut Coal Mine Project Environmental Impact Statement</i> , prepared by <i>Umwelt (Australia) Pty Limited</i> , dated August 2016, submitted with the application for consent for the development, including the Applicant's response to submissions, the Applicant's response to the Independent Planning Commission's review and the additional information responses provided by the Applicant in support of the application dated 20 September 2017, 6 November 2017, 5 December 2017, 11 October 2018 and 17 October 2018
Environment	Includes all aspects of the surroundings of humans, whether affecting any human as an individual or in his or her social groupings
EPA	NSW Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>

EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPBC Act	Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPL	Environment Protection Licence under the POEO Act
Evening	The period from 6 pm to 10 pm
Feasible	Means what is possible and practical in the circumstances
GPS	Global Positioning System
Heritage Division	Heritage Division of OEH
Heritage item	An Aboriginal object, an Aboriginal place, or a place, building, work, relic, moveable object, tree or precinct of heritage significance, that is listed under any of the following: - the State Heritage Register under the <i>Heritage Act 1977</i>; - a state agency heritage and conservation register under section 170 of the <i>Heritage Act 1977</i>; - a Local Environmental Plan under the EP&A Act; - the World Heritage List; - the National Heritage List or Commonwealth Heritage List under the EPBC Act; or - anything identified as a heritage item under the conditions of this consent
HVO	Hunter Valley Operations coal mining complex approved under MP 06_0261 (HVO South) and DA 450-10-2003 (HVO North)
Incident	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
Land	Has the same meaning as the definition of the term in section 1.4 the EP&A Act, except for where the term is used in the noise and air quality conditions in PART B of this consent where it is defined to mean the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this consent
Material harm	Is harm 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’
Mine-owned land	Land owned by a mining, petroleum or extractive industry company (or its subsidiary)
Mine water	Water that accumulates within, or drains from, active mining and infrastructure areas and any other areas where runoff may have come into contact with carbonaceous material
Mine closure	Decommissioning and final rehabilitation of the site following the cessation of mining operations
Minimise	Implement all reasonable and feasible mitigation measures to reduce the impacts of the development
Mining operations	The carrying out of mining, including the extraction, processing, stockpiling and transportation of coal on the site and the associated removal, storage and/or emplacement of vegetation, topsoil, overburden and coarse reject material
Minister	NSW Minister for Planning, or delegate
Minor	Not very large, important or serious
Mitigation	Activities associated with reducing the impacts of the development
MOP	Mining operations plan, or similar, required by a mining lease under the <i>Mining Act 1992</i>
MTW	Mount Thorley Warkworth coal mine approved under SSD 6464 and SSD 6465
Negligible	Small and unimportant, such as to be not worth considering

Night	The period from 10 pm to 7 am on Monday to Saturday, and 10 pm to 8 am on Sundays and Public Holidays
Non-compliance	An occurrence, set of circumstances or development that is a breach of this consent
NP&W Act	<i>National Parks and Wildlife Act 1974</i>
NRAR	NSW Natural Resources Access Regulator
OEH	NSW Office of Environment and Heritage
Open Woodland	50% woodland within mixed woodland/pasture areas
PA	Planning agreement within the meaning of the term in section 7.4 of the EP&A Act
Phase 1A	The phase of the development that comprises construction works at United open cut mine within the blue operational area identified in Figure 1 of Appendix 2. The construction works include: • installation of erosion and sediment controls and water management infrastructure; • establishment of a temporary mining and construction infrastructure area; • continued operation and upgrade of the existing United infrastructure constructed under DA 410-11-2002-i; • realignment of the Golden Highway, transmission lines and telecommunication lines; • extraction from a borrow pit; • construction of internal haul roads and access roads using material won on the site; and • installation of lighting and services
Phase 1B	The phase of the development that comprises mining operations at United open cut mine within the blue operational area identified in Figure 2 of Appendix 2
Phase 2	The phase of the development that comprises mining operations at United open cut mine and Wambo open cut mine within the blue operational area identified in Figure 3 of Appendix 2
Phase 3	The phase of the development following the cessation of mining operations that includes mine closure
Planning Secretary	Planning Secretary under the EP&A Act, or nominee
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Privately-owned land	Land that is not owned by a public agency or a mining, petroleum or extractive industry company (or its subsidiary)
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
Registered Aboriginal Parties	As described in the <i>National Parks and Wildlife Regulation 2009</i>
Rehabilitation	The restoration of land disturbed by the development to a good condition, to ensure it is safe, stable and non-polluting
Residence	Existing or approved dwelling at the date of grant of this consent
Resources Regulator	NSW Resources Regulator
RFS	NSW Rural Fire Service
RMS	NSW Roads and Maritime Services
ROM	Run-of-mine
SA NSW	Subsidence Advisory NSW
Site	The land defined in Appendix 1
United open cut mine	The new open cut mine approved under this consent
Wambo open cut mine	The open cut mine approved under DA 305-7-2003 that is modified by this consent and will be regulated under this consent during Phase 2 and Phase 3

Wambo mine infrastructure	The ancillary mine infrastructure and supporting facilities approved under DA 305-7-2003, including the Wambo coal handling and preparation plant and mine infrastructure area
Wambo Mining Complex	The development approved under DA 305-7-2003 and DA 177-8-2004, considered collectively
Wambo train loading facility	The train loading facility and associated facilities approved under DA 177-8-2004
Wambo underground mine	The underground mine and associated surface development approved under DA 305-7-2003

SCHEDULE 2

PART A ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

- A1. In addition to meeting the specific performance measures and criteria established under this consent, the Applicant must implement all reasonable and feasible measures to prevent, and if prevention is not reasonable and feasible, minimise, any material harm to the environment that may result from the construction and operation of the development, and any rehabilitation required under this consent.

TERMS OF CONSENT

- A2. The development may only be carried out:
- (a) in compliance with the conditions of this consent;
 - (b) in accordance with all written directions of the Planning Secretary;
 - (c) generally in accordance with the EIS; and
 - (d) generally in accordance with the Development Layout.
- A3. Consistent with the requirements in this consent, the Planning Secretary may make written directions to the Applicant in relation to:
- (a) the content of any strategy, study, system, plan, program, review, audit, notification, report or correspondence submitted under or otherwise made in relation to this consent, including those that are required to be, and have been, approved by the Planning Secretary; and
 - (b) the implementation of any actions or measures contained in any such document referred to in paragraph (a).
- A4. The conditions of this consent and directions of the Planning Secretary prevail to the extent of any inconsistency, ambiguity or conflict between them and the document/s listed in condition A2(c). In the event of an inconsistency, ambiguity or conflict between any of the document/s listed in condition A2(c), the most recent document prevails to the extent of the inconsistency, ambiguity or conflict.

STAGED DEVELOPMENT

- A5. The development must be undertaken in the following stages:
- (a) Phase 1A (as defined), including construction works at United open cut mine;
 - (b) Phase 1B (as defined), including mining operations at United open cut mine;
 - (c) Phase 2 (as defined), including mining operations at the United open cut mine and Wambo open cut mine; and
 - (d) Phase 3 (as defined), including mine closure.
- A6. Condition A5 does not prevent the continuation and completion of Phase 1A construction works during either Phase 1B or Phase 2.

NOTIFICATION OF COMMENCEMENT OR COMPLETION OF A DEVELOPMENT STAGE

- A7. The date of commencement of each of the Phases of the development must be notified to the Department in writing, at least two weeks before those dates.
- A8. The Department must be notified in writing of any period of suspension of mining operations during Phase 1B or Phase 2, immediately following both the commencement and completion of those periods.

LIMITS OF CONSENT

Mining operations

- A9. Mining operations may be carried out on the site until 31 December 2041.

Note: Under this consent, the Applicant is required to decommission and rehabilitate the site and carry out other requirements in relation to mining operations. Consequently, this consent will continue to apply in all respects other than to permit the carrying out of mining operations until the rehabilitation of the site and other requirements have been carried out to the required standard.

Coal Extraction and Transportation

- A10. During Phase 2, a maximum of 10 million tonnes of ROM coal may be extracted from the site in any calendar year.
- A11. During Phase 2, ROM coal from the site may be transferred to Wambo mine infrastructure for processing, stockpiling and transportation.

Note: Wambo mine infrastructure is separately approved under DA 305-7-2003 and despatch of product coal is separately approved under DA 177-8-2004.

- A12. During Phase 2, the Applicant may undertake highwall or auger mining on the site, within the approved disturbance areas, subject to the approval of the Resources Regulator.

- A13. During Phase 2 and Phase 3, overburden and coal reject material may be received from the Wambo Mining Complex for emplacement.

Hours of Operation

- A14. The Applicant may undertake approved mining operations 24 hours a day, 7 days a week, except during Phase 1A.

Notes:

- For limitations on blasting operations see condition B10.
- For limitation on construction hours see condition C1.

Identification of Approved Disturbance Area

- A15. Within three months of commencement of development under this consent, or other timeframe agreed by the Planning Secretary, the Applicant must provide to the Department a survey plan of the boundaries of the approved disturbance areas.

SURRENDER OF EXISTING CONSENT

- A16. Within 12 months of commencement of development under this consent, or other timeframe agreed by the Planning Secretary, the Applicant must surrender the existing development consent for United Underground Coal Mine (DA 410-11-2002-i) in accordance with the EP&A Regulation.

Note: *This requirement does not extend to the surrender of construction and occupation certificates for existing and proposed building works under the former Part 4A of the EP&A Act or Part 6 of the EP&A Act as applies from 1 September 2018. The surrender should not be understood as implying that works legally constructed under a valid consent or approval can no longer be legally maintained or used.*

- A17. Upon the commencement of development under this consent, and before the surrender of the existing development consent required under condition A16, the conditions of this consent prevail to the extent of any inconsistency with the conditions of DA 410-11-2002-i.

PLANNING AGREEMENT

- A18. Within six months of commencement of development under this consent, or other timeframe agreed by the Planning Secretary, the Applicant must enter into a PA with the Council in accordance with:

- (a) Division 7.1 of Part 7 of the EP&A Act; and
- (b) the terms of the offer in Appendix 9.

COMMUNITY CONSULTATIVE COMMITTEE

- A19. The Applicant must continue operation of the United Community Consultative Committee (CCC) established under DA 410-11-2002-I for the development. The CCC must be operated in accordance with the Department's *Community Consultative Committee Guidelines: State Significant Projects* (2016) for the life of the development, or other timeframe agreed by the Planning Secretary.

Notes:

- The CCC is an advisory committee only.
- In accordance with the Guidelines, the Committee should comprise an independent chair and appropriate representation from the Applicant, Council and the local community.

- A20. With the approval of the Planning Secretary, the Applicant may combine the CCC required by this consent with any similar CCC required by an adjoining mining consent or approval, in common, shared or related ownership or management, including DA 305-7-2003 (Wambo mine).

EVIDENCE OF CONSULTATION

- A21. Where conditions of this consent require consultation with an identified party, the Applicant must:

- (a) consult with the relevant party prior to submitting the subject document to the Planning Secretary for approval; and
- (b) provide details of the consultation undertaken to the Planning Secretary, including:
 - (i) the outcome of that consultation, matters resolved and unresolved; and
 - (ii) details of any disagreement remaining between the party consulted and the Applicant and how the Applicant has addressed the matters not resolved.

STAGING, COMBINING AND UPDATING STRATEGIES, PLANS OR PROGRAMS

- A22. With the approval of the Planning Secretary, the Applicant may:

- (a) prepare and submit any strategy, plan or program required by this consent on a staged basis (if a clear description is provided as to the specific stage and scope of the development to which the strategy, plan or program applies, the relationship of the stage to any future stages and the trigger for updating the strategy, plan or program);
- (b) combine any strategy, plan or program required by this consent (if a clear relationship is demonstrated between the strategies, plans or programs that are proposed to be combined);

- (c) update any strategy, plan or program required by this consent (to ensure the strategies, plans and programs required under this consent are updated on a regular basis and incorporate additional measures or amendments to improve the environmental performance of the development); and
- (d) combine any strategy, plan or program required by this consent with any similar strategy, plan or program required by a consent or approval for an adjoining mine subject to common, shared or related ownership or management, including DA 305-7-2003 (Wambo mine) and DA 177-8-2004 (Wambo train loading facility).

A23. If the Planning Secretary agrees, a strategy, plan or program may be staged or updated without consultation being undertaken with all parties required to be consulted in the relevant condition in this consent.

SUPPLY OF OVERBURDEN

A24. With the approval of the Planning Secretary, the Applicant may supply overburden material to regional infrastructure developments in the vicinity of the site if the use of such material in those developments is the subject of development consent granted under Part 4 of the EP&A Act, an environmental assessment carried out under Division 5.1 of Part 5 of the EP&A Act, or an approval granted under Division 5.2 of Part 5 of the EP&A Act.

PUBLIC INFRASTRUCTURE

Protection of Public Infrastructure

A25. Unless the Applicant and the applicable authority agree otherwise, the Applicant must:

- (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by carrying out the development; and
- (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.

Note: *This condition does not apply to any damage to roads caused as a result of general road usage or otherwise addressed by contributions required by condition A18 or compensation provisions under the Mining Act 1992.*

Realignment of Public Infrastructure

A26. Prior to disturbing public infrastructure, the Applicant must carry out the relevant realignment works described in the EIS, including the:

- (a) Golden Highway realignment, which must be designed and constructed in accordance the relevant Austroads guidelines, Australian Standards and RMS requirements, in consultation with and to the satisfaction of RMS;
- (b) transmission line relocation, which must be constructed in consultation with and to the satisfaction of Ausgrid and Transgrid; and
- (c) telecommunications line relocation, which must be constructed in consultation with and to the satisfaction of Telstra.

Notes:

- *Additional approvals may be required from the relevant authorities prior to commencing this construction.*
- *Refer to PART C for more construction-related requirements.*

DEMOLITION

A27. All demolition must be carried out in accordance with *Australian Standard AS 2601-2001 The Demolition of Structures* (Standards Australia, 2001).

STRUCTURAL ADEQUACY

A28. All new buildings and structures, and any alterations or additions to existing buildings and structures, that are part of the development (including the infrastructure in condition A26), must be constructed in accordance with:

- (a) the relevant requirements of the BCA; and
- (b) any additional requirements of SA NSW where the building or structure is located on land within a declared Mine Subsidence District.

Notes:

- *Under Part 6 of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works.*
- *Part 8 of the EP&A Regulation sets out the requirements for the certification of the development.*
- *Under section 21 of the Coal Mine Subsidence Compensation Act 2017, the Applicant is required to obtain the Chief Executive of SA NSW's approval before carrying out certain development in a Mine Subsidence District.*

OPERATION OF PLANT AND EQUIPMENT

A29. All plant and equipment used on site, or to monitor the performance of the development must be:

- (a) maintained in a proper and efficient condition; and
- (b) operated in a proper and efficient manner.

COMPLIANCE

- A30. The Applicant must ensure that all of its employees, contractors (and their sub-contractors) are made aware of, and are instructed to comply with, the conditions of this consent relevant to activities they carry out in respect of the development.

APPLICABILITY OF GUIDELINES

- A31. References in the conditions of this consent to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, Standards or policies in the form they are in as at the date of this consent.
- A32. However, consistent with the conditions of this consent and without altering any limits or criteria in this consent, the Planning Secretary may, when issuing directions under this consent in respect of ongoing monitoring and management obligations, require compliance with an updated or revised version of such a guideline, protocol, Standard or policy, or a replacement of them.

CROWN LAND

- A33. The Applicant must acquire Lot 170 DP 823775 from the Crown by way of an application for sale or obtain a suitable licence or agreement, prior to the Applicant undertaking any works on this lot.
- A34. Any other Crown land significantly affected by the development must be acquired by the Applicant by way of an application for sale or through a suitable licence or agreement, prior to undertaking any works on that land.
- A35. Any Crown road reserves located within the site should be purchased and closed by the Applicant.

Note: *Acquisition of Crown land would be subject to considerations under the Native Title Act 1993, the Aboriginal Land Rights Act 1983 and/or DoI Crown Lands policy on direct negotiation.*

PART B SPECIFIC ENVIRONMENTAL CONDITIONS

NOISE

Operational Noise Criteria

- B1. The Applicant must ensure that the noise generated by the development does not exceed the criteria in Table 1 at any residence on privately-owned land.

Table 1: Operational noise criteria dB(A)

Noise Assessment Location	Noise Assessment Location	Day	Evening	Night	Night
		L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{A1} (1 min)
Area 1 - North Bulga	R003	38	36	36	46
	R006	37	35	35	45
	R007, R379	36	35	35	45
	All other privately-owned residences	35	35	35	45
Area 2 - South Wambo	R025	39	38	38	48
	R035a	37	37	36	46
	All other privately-owned residences	35	35	35	45
Area 3 - Warkworth Village	R019	57	56	56	66
	All other privately-owned residences	44	44	43	53
Area 4 - Maison Dieu	All privately-owned residences	42	42	41	51
Area 5 - Moses Crossing	R039	46	46	46	56
	R016	45	45	45	55
	R017	44	44	44	54
	R043	43	43	43	53
	R050C	41	41	41	51
	R050A	41	40	40	50
	R044	41	40	39	49
	All other privately-owned residences	41	40	38	48
Area 6 - Redmanvale	R320, R343	40	40	40	50
	R033, R345	40	40	39	49
	R042	40	40	38	48
	R029	40	40	37	47
	R048	39	39	39	49
	R030, R049, R163	39	39	38	48
	R075	39	39	37	47
	R041B	38	38	38	48
	R344, R346	38	38	37	47
	R348	38	38	36	46
	R041A	37	37	37	47
	All other privately-owned residences	35	35	35	45
Area 7 - Jerrys Plains	All privately-owned residences	40	40	36	46
All other areas	All privately-owned residences	35	35	35	45

Note: To identify the locations referred to in Table 1, refer to the applicable figure in Appendix 3.

- B2. Noise generated by the development must be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the *NSW Industrial Noise Policy* (EPA, 2000). Appendix 4 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.

- B3. The noise criteria in Table 1 do not apply if the Applicant has an agreement with the owner/s of the relevant residence or land to exceed the noise criteria, and the Applicant has advised the Department in writing of the terms of this agreement.

Noise Operating Conditions

- B4. The Applicant must:
- (a) take all reasonable steps to minimise all noise from construction and operational activities, including low frequency noise and other audible characteristics, as well as road noise associated with the development, particularly during Phase 1B;
 - (b) implement reasonable and feasible noise attenuation measures on all new plant and equipment that will operate in noise sensitive areas;
 - (c) monitor and record all major equipment use and make this data readily available at the request of the Department or the EPA;
 - (d) operate a comprehensive noise management system that uses a combination of predictive meteorological and noise forecasting and real-time monitoring 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;
 - (e) take all reasonable steps to minimise the noise impacts of the development during noise-enhancing meteorological conditions when the noise criteria in this consent do not apply (see Appendix 4); and
 - (f) carry out regular attended noise monitoring (at least once a month, unless otherwise agreed by the Planning Secretary) to determine whether the development is complying with the relevant conditions of this consent.

Note: *Noise sensitive areas are areas with the potential to generate increased noise at privately-owned residences, such as areas near the boundary of the site or elevated land/overburden emplacements.*

Noise Management Plan

- B5. The Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:
- (a) be prepared by a suitably qualified and experienced person/s;
 - (b) be prepared in consultation with the EPA;
 - (c) describe the measures to be implemented to ensure:
 - (i) compliance with the noise criteria and operating conditions in this consent;
 - (ii) best practice management is being employed; and
 - (iii) noise impacts of the development are minimised during noise-enhancing meteorological conditions under which the noise criteria in this consent do not apply (see Appendix 4);
 - (d) seek to minimise road traffic noise generated by employee commuter vehicles on public roads;
 - (e) describe the noise management system in detail; and
 - (f) include a monitoring program that:
 - (i) uses a combination of real-time and supplementary attended monitoring to evaluate the performance of the development;
 - (ii) includes a program to calibrate and validate the real-time noise monitoring results with the attended monitoring results over time;
 - (iii) adequately supports the noise management system;
 - (iv) includes a protocol for distinguishing noise emissions of the development and the Wambo Mining Complex; and
 - (v) includes a protocol for identifying any noise-related exceedance, incident or non-compliance and for notifying the Department and relevant stakeholders of any such event.

- B6. The Applicant must not commence Phase 1B until the Noise Management Plan is approved by the Planning Secretary.

- B7. The Applicant must implement the Noise Management Plan as approved by the Planning Secretary.

BLASTING

Blasting Criteria

- B8. The Applicant must ensure that blasting on the site does not cause exceedances of the criteria in Table 2.

Table 2: 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 calendar year
St Phillips Church		5	0%
Wambo Homestead	120	5	0%
All other heritage items (beyond those predicted in the document/s listed in condition A2(c))	133	5	0%
Hunter Valley Gliding Club Warkworth Shooting Complex HVO infrastructure - occupied	133	25	0%
HVO surface infrastructure - unoccupied	133	100	0%
Transmission suspension towers Transmission tension towers		100 50	0%
Prescribed dams		50 (unless otherwise directed by the DSC)	0%
Public Roads Telecommunication infrastructure and cables		100	0%
All other public infrastructure		50 (or a limit determined by the structural design methodology in AS 2187.2 - 2006, or its latest version, or other alternative limit for public infrastructure, to the satisfaction of the Planning Secretary)	0%

Note: To identify the blast sensitive locations referred to in Table 2, refer to the figure in Appendix 5.

- B9. The blasting criteria in Table 2 do not apply if the Applicant has an agreement with the owner/s of the relevant residence or infrastructure to exceed the blasting criteria, and the Applicant has advised the Department in writing of the terms of this agreement.

Blasting Hours

- B10. The Applicant must only carry out blasting on the site between 9 am and 5 pm (Monday to Saturday inclusive). No blasting is allowed on Sundays, public holidays or any other time without the prior written approval of the Planning Secretary.

Blasting Frequency

- B11. The Applicant may carry out a maximum of:
- (a) 3 blasts a day; and
 - (b) 15 blasts a week, averaged over a calendar year.

- B12. Condition B11 does not apply to blasts that generate ground vibration of 0.5 mm/s or less at any residence on privately-owned land, or to 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.*

Property Inspections

- B13. If the Applicant receives a written request from the owner of any privately-owned land within 3 kilometres of any approved open cut mining pit on the site for a property inspection to establish the baseline condition of any buildings and structures on their 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:
 - (i) establish the baseline condition of any buildings and other structures on the land, or update the previous property inspection report; and
 - (ii) identify measures that should be implemented to minimise the potential blasting impacts of the development on these buildings and structures; and
 - (b) give the landowner a copy of the new or updated property inspection report.
- B14. 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

- B15. If the owner of any privately-owned land within 3 kilometres of any approved open cut mining pit on the site or any other landowner where the Planning Secretary is satisfied an investigation is warranted, claims in writing that buildings or structures on their land have been damaged as a result of blasting on the site, then within 2 months of receiving this written 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.
- B16. 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.
- B17. 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.

Blast Operating Conditions

- B18. The Applicant must:
- (a) take all reasonable steps to:
 - (i) ensure the safety of people and livestock from blasting impacts of the development;
 - (ii) protect public and private infrastructure and property in the vicinity of the site from blasting damage associated with the development; and
 - (iii) minimise the dust and fume emissions of any blasting;
 - (b) ensure that blasting on the site does not damage heritage items, beyond those predicted in the document/s listed in condition A2(c), and develop specific measures to protect heritage items outside the approved disturbance areas from any blasting damage associated with the development;
 - (c) minimise the frequency and duration of any public road closures for blasting, and use all reasonable efforts to avoid road closures during peak traffic periods;
 - (d) operate a suitable system to enable members of the public to get up-to-date information on the proposed blasting schedule on the site and associated public road closures;
 - (e) use all reasonable efforts to co-ordinate the timing of blasting at the site with nearby mines to minimise cumulative blasting impacts;
 - (f) consult with HVO prior to undertaking any blasting within 500 metres of its operations; and
 - (g) carry out regular blast monitoring to determine whether the development is complying with the relevant conditions of this consent.

Notes:

- *For the location of the heritage items referred to in paragraph (b), refer to the figure in Appendix 5.*

- *The system referred to in paragraph (d), should include the option for interested members of the public to be provided with an SMS text message alert, notifying them of the day's blasting schedule. If for any reason, the scheduled blast is to be fired 30 minutes prior to or 30 minutes after the original notification, or has been cancelled, a further text message should be sent to these individuals.*

- B19. The Applicant must not undertake blasting on the site within 500 metres of any public road or any land outside the site not owned by the Applicant, unless the blast generates ground vibration of 0.5 mm/s or less, or the Applicant has:
- a written agreement with the relevant infrastructure owner or landowner to allow blasting to be carried out closer to the public road or land, and the Applicant has advised the Department in writing of the terms of this agreement; or
 - demonstrated, to the satisfaction of the Planning Secretary, that the blasting can be carried out closer to the public road or land without compromising the safety of people or livestock or damaging the road or other buildings and structures, and updated the Blast Management Plan to include specific mitigation measures to be implemented while blasting is being carried out within 500 metres of the road or land.
- B20. The Applicant may not close the Golden Highway more than once per day due to blasting, except where required for blast misfires or blasts required to ensure the safety of the mine, its workers or the general public.

Blast Management Plan

- B21. The Applicant must prepare a Blast Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:
- be prepared by a suitably qualified and experienced person/s;
 - be prepared in consultation with the EPA;
 - describe the measures that will be implemented to ensure compliance with the blasting criteria and conditions of this consent;
 - include a Blast Fume Management Strategy for:
 - minimising blast fume emissions;
 - rating in accordance with *Visual NOx Fume Rating Scale* (AEISG, 2011), or equivalent, and recording blast fume events; and
 - reporting significant blast fume events to the Department;
 - describe the proposed blast fume trial for investigating alternative monitoring equipment and how the results would be implemented on the site;
 - include a Road Closure Management Plan for any blasting within 500 metres of a public road, that has been prepared in consultation with relevant roads authorities and includes provisions for:
 - minimising the duration of closures, both on a per event basis and weekly basis;
 - avoiding peak traffic periods as far as reasonable; and
 - co-ordinating closures with nearby mines to minimise the cumulative effect of road closures;
 - identify any agreed alternative ground vibration limits for public or private infrastructure in the vicinity of the site (if relevant);
 - include a strategy to manage potential blast interactions with nearby mines, including identifying appropriate blast criteria for nearby underground workings to ensure structural integrity and the safety of underground workers;
 - include a communication protocol with Hunter Valley Gliding Club and Warkworth Shooting Complex to notify the clubs of upcoming blasts which may impact their activities;
 - include a strategy to monitor, mitigate and manage the effects of blasting on heritage items, particularly those identified in the figure in Appendix 5, including undertaking baseline (i.e. pre-blasting) and ongoing risk-based dilapidation surveys (subject to landowner access arrangements); and
 - include a monitoring program for evaluating and reporting on compliance with the relevant conditions of this consent.
- B22. The Applicant must not undertake any blasting until the Blast Management Plan is approved by the Planning Secretary.
- B23. The Applicant must implement the Blast Management Plan as approved by the Planning Secretary.

AIR QUALITY AND GREENHOUSE GAS

Odour

- B24. The Applicant must ensure that no offensive odours, as defined under the POEO Act, are emitted from the site.

Air Quality Criteria

- B25. 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 Table 3 at any residence on privately-owned land, excluding the air quality-affected land referred to in Table 7.

Table 3: Air quality criteria

<i>Pollutant</i>	<i>Averaging period</i>	<i>Criterion</i>
Particulate matter < 10 µm (PM ₁₀)	Annual	^{a, c} 25 µg/m ³
	24 hour	^b 50 µg/m ³
Particulate matter < 2.5 µm (PM _{2.5})	Annual	^{a, c} 8 µg/m ³
	24 hour	^b 25 µg/m ³
Total suspended particulate (TSP) matter	Annual	^{a, c} 90 µg/m ³

Notes:

^a 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).

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

- B26. The air quality criteria in Table 3 do not apply if the Applicant has an agreement with the owner/s of the relevant residence or land to exceed the air quality criteria, and the Applicant has advised the Department in writing of the terms of this agreement.

Mine-owned Land

- B27. Particulate matter emissions generated by the development must not exceed the criteria listed in Table 3 at any occupied residence on mine-owned land (including land owned by another mining company) unless:
- the tenant and landowner (if the residence is owned by another mining company) have been notified of any health risks associated with such exceedances in accordance with the notification requirements under PART C of this consent;
 - the tenant of any land owned by the Applicant can terminate their tenancy agreement without penalty at any time, subject to giving reasonable notice;
 - air quality monitoring is regularly undertaken to inform the tenant and landowner (if the residence is owned by another mining company) of the likely particulate matter emissions at the residence; and
 - 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.

Air Quality Operating Conditions

- B28. The Applicant must:
- take all reasonable steps to:
 - minimise odour, fume and particulate matter (including PM₁₀ and crustal and combustion PM_{2.5}) emissions of the development;
 - eliminate or minimise the risk of spontaneous combustion;
 - improve energy efficiency and reduce greenhouse gas emissions of the development;
 - minimise any visible off-site air pollution generated by the development; and
 - minimise the extent of potential dust generating surfaces exposed on the site at any given point in time;
 - ensure that any new 'non-road' mobile diesel equipment (with engines >30 litres) commissioned for the development includes reasonable and feasible diesel emissions reduction technology;
 - operate a comprehensive air quality management system that uses a combination of predictive meteorological and air quality forecasting and real-time monitoring 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;
 - minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see Note c to Table 3 above);

- (e) carry out regular air quality monitoring to determine whether the development is complying with the relevant conditions of this consent; and
- (f) regularly assess meteorological and air quality monitoring data, and modify operations on the site to ensure compliance with the relevant conditions of this consent.

Note: For the purpose of this condition, 'non-road mobile diesel equipment' means equipment fitted with a diesel engine, that is self-propelled or portable and transportable, and which is primarily designed for off-road use.

Air Quality Management Plan

- B29. The Applicant must prepare an Air Quality Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:
- (a) be prepared by a suitably qualified and experienced person/s;
 - (b) be prepared in consultation with the EPA;
 - (c) describe the measures to be implemented to ensure:
 - (i) compliance with the air quality criteria and operating conditions in this consent;
 - (ii) best practice management is being employed; and
 - (iii) the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events;
 - (d) describe the air quality management system in detail; and
 - (e) include an air quality monitoring program, undertaken in accordance with the *Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales* (DEC, 2007), that:
 - (i) uses monitors to evaluate the performance of the development against the air quality criteria in this consent and to guide day to day planning of operations;
 - (ii) adequately supports the air quality management system; and
 - (iii) includes a protocol for identifying any air quality-related exceedance, incident or non-compliance and for notifying the Department and relevant stakeholders of these events.
- B30. The Applicant must not commence Phase 1B until the Air Quality Management Plan is approved by the Planning Secretary.
- B31. The Applicant must implement the Air Quality Management Plan as approved by the Planning Secretary.

METEOROLOGICAL MONITORING

- B32. Prior to the commencement of Phase 1B and for the remaining life of the development, the Applicant must ensure that there is a suitable meteorological station operating in the vicinity of the site that:
- (a) complies with the requirements in the *Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales* (DEC, 2007);
 - (b) is capable of continuous real-time measurement of wind speed, wind direction sigma theta and temperature; and
 - (c) is capable of measuring meteorological conditions in accordance with the *NSW Industrial Noise Policy* (EPA, 2000),
- unless a suitable alternative is approved by the Planning Secretary following consultation with the EPA.

WATER

Soil Erosion

- B33. The Applicant must install and maintain suitable erosion and sediment control measures on the site, in accordance with the relevant requirements in the guidance series *Managing Urban Stormwater: Soils and Construction – Volume 1* (Landcom, 2004) and *2E Mines and Quarries* (DECC, 2008).

Water Supply

- B34. The Applicant must ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of the development to match its available water supply.
- B35. The Applicant must report on water extracted from the site each year (direct and indirect) in the Annual Review, including water taken under each water licence.

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

Compensatory Water Supply

- B36. Prior to the commencement of mining operations, the Applicant must notify owners of privately-owned licensed groundwater bores that are predicted to have a drawdown of greater than 2 metres as a result of the development.

- B37. The Applicant must provide a compensatory water supply to any landowner of privately-owned land whose rightful water supply is adversely and directly impacted (other than an impact that is minor or negligible) as a result of the development, in consultation with DoI Water, and to the satisfaction of the Planning Secretary.
- B38. The compensatory water supply measures must provide an alternative long term supply of water that is equivalent, in quality and volume, to the loss attributable to the development. Equivalent water supply should be provided (at least on an interim basis) as soon as practicable after the loss is identified, unless otherwise agreed with the landowner.
- B39. If the Applicant and the landowner cannot agree on whether the loss of water is to be attributed to the development or 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.
- B40. If the Applicant is unable to provide an alternative long term supply of water, then the Applicant must provide compensation, to the satisfaction of the Planning Secretary.

Notes:

- The Water Management Plan (see condition B46) is required to include trigger levels for investigating potentially adverse impacts on water supplies.
- The burden of proof that any loss of surface water or groundwater access is not due to mining impacts rests with the Applicant.

Water Discharges

- B41. The Applicant must ensure that all surface discharges from the site comply with:
- discharge limits (both volume and quality) set for the development in any EPL; or
 - relevant provisions of the POEO Act or *Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002*.

Water Management

- B42. The Applicant may receive water from, and transfer water to, neighbouring mines including HVO, MTW, Ravensworth Operations and the Wambo Mining Complex.
- B43. The Applicant may integrate the site water management system with water management for the Wambo Mining Complex.

Water Management Performance Measures

- B44. The Applicant must comply with the performance measures in Table 4.

Table 4: Water management performance measures

Feature	Performance Measure
Water management – General	• Maintain separation between clean, dirty and mine water • Minimise the use of clean and potable water • Maximise water recycling, reuse and sharing opportunities • Minimise the use of make-up water from external sources • Design, install, operate and maintain water management infrastructure in a proper and efficient manner
Alluvial aquifers (including Wollombi Brook alluvium)	• Negligible impacts to the alluvial aquifer beyond those predicted in the document/s listed in condition A2(c), including: – negligible change in groundwater levels; and – negligible impact to other groundwater users including, • Maintain appropriate setbacks in accordance with the <i>Aquifer Interference Policy</i> (DPI, 2012)
Erosion and sediment control works	• Design, install and maintain erosion and sediment controls in accordance with the guidance series <i>Managing Urban Stormwater: Soils and Construction – Volume 1 (Landcom, 2004) and 2E Mines and Quarries (DECC, 2008)</i> • Design, install and maintain any infrastructure within 40 metres of watercourses in accordance with the guidance series for <i>Controlled Activities on Waterfront Land</i> (DPI Water, 2012) • Design, install and maintain any creek crossings generally in accordance with the <i>Fisheries NSW 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)
Clean water diversions and storage infrastructure	• Design, install and maintain the clean water system to capture and convey the 100 year ARI flood event • Maximise, as far as reasonable, the diversion of clean water around disturbed areas on the site, except where clean water is captured for use on the site

Feature	Performance Measure
Flood Levees	Design, install and maintain appropriate flood levees to protect mining areas from a 1,000 year ARI flood event and to ensure no adverse effect on roads or privately-owned land
Sediment dams	Design, install and maintain sediment dams in accordance with the guidance series <i>Managing Urban Stormwater: Soils and Construction – Volume 1</i> (Landcom, 2004) and <i>2E Mines and Quarries</i> (DECC, 2008) and the requirements under the POEO Act or <i>Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002</i>
Above-ground mine water storages	- Design, install and maintain mine water storage infrastructure to avoid unlicensed or uncontrolled discharge of mine water - Designed to contain the 100 year ARI storm event and minimise permeability
Tailings storages	Design and maintain tailings storage areas to encapsulate and prevent the release of tailings seepage/leachate
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 out-of-pit emplacements to prevent and/or manage long term saline seepage
Chemical and hydrocarbon storage	Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standard
Creek diversion and restoration works	- Diverted creek lines are hydraulically and geomorphologically stable - Incorporate erosion control measures based on vegetation and engineering revetments - Incorporate persistent/permanent pools for aquatic habitat - Revegetate with suitable native species
Aquatic, riparian and groundwater dependent ecosystems	- Negligible environmental consequences beyond those predicted in the document/s listed in condition A2(c) - Maintain or improve baseline channel stability - Develop site-specific in-stream water quality objectives in accordance with the <i>Australian and New Zealand Guidelines for Fresh and Marine Water Quality</i> (ANZECC & ARMCANZ, 2000) and <i>Using the ANZECC Guidelines and Water Quality Objectives in NSW</i> (DEC, 2006)

Note: The performance measures of this condition do not apply to water management structures constructed under previous consents.

Groundwater Dependent Ecosystem Study

B45. Within 12 months of the commencement of development under this consent, the Applicant must undertake a Groundwater Dependent Ecosystem Study. This study must:

- be prepared by suitably qualified and experienced person/s;
- be developed in consultation with DoI Water;
- assess the hydrological and hydrogeological settings of the site;
- be integrated with the similar studies being undertaken by nearby mines (where practicable);
- further characterise groundwater dependent ecosystems (vegetation and communities) potentially impacted by the development, including the *Central Hunter Swamp Oak Forest* EEC (GDE1), *Hunter Valley River Oak Forest* (GDE2) and individual River Red Gums (GDE1 and GDE2) identified along the riparian buffers of Redbank Creek and Wollombi Brook;
- detail the reliance of groundwater dependent ecosystems on surface and groundwater resources;
- identify the potential risks to groundwater dependent ecosystems from the development and the Wambo Mining Complex, and other nearby mines (where practicable); and
- use the results of this study to develop performance criteria to achieve the performance measures in Table 4 and inform the Groundwater Management Plan in condition B46.

Water Management Plan

B46. The Applicant must prepare a Water Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:

- be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the Planning Secretary;
- be prepared in consultation with DoI Water and the EPA;
- describe the measures to be implemented to ensure that the Applicant complies with the water management performance measures (see Table 4);

- (d) utilise existing data from nearby mines and build on existing monitoring programs, where practicable;
- (e) include a:
 - (i) **Site Water Balance** that includes details of:
 - predicted annual inflows and outflows on the site;
 - sources and security of water supply for the life of the development (including authorised entitlements and licences);
 - water storage capacity;
 - water use and management on the site, including any water transfers or sharing with neighbouring mines;
 - licensed discharge points and limits; and
 - reporting procedures, including the annual preparation of an updated site water balance;
 - (ii) **Salt Balance** that includes details of:
 - sources of saline material on the site;
 - saline material and saline water management on the site;
 - measures to minimise discharge of saline water from the site; and
 - reporting procedures, including the annual preparation of an updated salt balance;
 - (iii) **Erosion and Sediment Control Plan** that:
 - is consistent with the requirements of *Managing Urban Stormwater: Soils and Construction - Volume 1: Blue Book* (Landcom, 2004) and *Volume 2E: Mines and Quarries* (DECC, 2008);
 - identifies activities that could cause soil erosion, generate sediment or affect flooding;
 - describes measures to minimise soil erosion and the potential for the transport of sediment to downstream waters, and manage flood risk;
 - describes the location, function, and capacity of permanent erosion and sediment control structures and flood management structures; and
 - describes what measures would be implemented to maintain (and if necessary decommission) the structures over time;
 - (iv) **Surface Water Management Plan** that includes:
 - detailed baseline data on surface water flows and quality of watercourses and/or water bodies potentially impacted by the development, including:
 - stream and riparian vegetation health;
 - channel stability (geomorphology); and
 - water supply for other surface water users;
 - a detailed description of the surface water management system;
 - detailed plans, design objectives and performance criteria for water infrastructure, including:
 - any approved creek diversions or restoration works associated with the development;
 - water run-off diversions and catch drains;
 - water storages and sediment dams;
 - emplacement areas; and
 - backfilled pits and any final voids for the development (see also Table 6); and
 - reinstated drainage networks on rehabilitated areas of the site;
 - detailed performance criteria, including trigger levels for identifying and investigating any potentially adverse impacts associated with the development, for:
 - downstream surface water flows and quality;
 - channel stability;
 - downstream flooding impacts;
 - stream and riparian vegetation health;
 - water supply for other water users; and
 - post-mining water pollution from rehabilitated areas of the site;
 - a program to regularly monitor:
 - compliance with the relevant performance measures listed in Table 4 and the performance criteria established above;
 - controlled and uncontrolled discharges and seepage/leachate from the site;
 - surface water inflows, outflows and storage volumes to inform the Site Water Balance; and

- the effectiveness of the surface water management systems and the measures within the Erosion and Sediment Control Plan;
 - reporting procedures for the results of the monitoring program; and
 - a plan to respond to any exceedances of the performance measures or performance criteria, and repair, mitigate and/or offset any adverse surface water impacts of the development;
- (v) **Groundwater Management Plan**, which is consistent with *Groundwater Monitoring and Modelling Plans – Introduction for prospective mining and petroleum activities* (DPI Water, 2014) and the *National Water Quality Management Strategy* (DoEE, 2015) and includes:
- detailed baseline data of groundwater levels, yield and quality for groundwater resources potentially impacted by the development, including groundwater supply for other water users and groundwater dependent ecosystems;
 - a detailed description of the groundwater management system;
 - groundwater performance criteria, including trigger levels for identifying and investigating any potentially adverse groundwater impacts associated with the development, on:
 - regional and local aquifers (alluvial and hardrock);
 - groundwater supply for other water users such as privately-owned licensed groundwater bores;
 - groundwater dependent ecosystems; and
 - aquatic habitat and stygofauna;
 - a program to monitor and evaluate:
 - compliance with the relevant performance measures listed in Table 4, and the performance criteria established above;
 - water loss/seepage from water storages into the groundwater system;
 - groundwater inflows, outflows and storage volumes to inform the Site Water Balance;
 - any hydraulic connectivity between the alluvial and hardrock aquifers; and
 - the effectiveness of the groundwater management systems;
 - reporting procedures for the results of the monitoring program;
 - a plan to respond to any exceedances of the groundwater performance criteria, and repair, mitigate and/or offset any adverse groundwater impacts of the development; and
 - a program to periodically validate the groundwater model for the development, including an independent review of the model every 3 years, and comparison of monitoring results with modelled predictions; and
- (vi) a protocol to report on the measures, monitoring results and performance criteria identified above, in the Annual Review referred to in condition E10.

Note: *If, in accordance with condition A22(a), the Water Management Plan is to be submitted on a staged basis, the Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for the particular stage.*

B47. The Applicant must not commence Phase 1A until the Water Management Plan is approved by the Planning Secretary.

B48. The Applicant must implement the Water Management Plan as approved by the Planning Secretary.

BIODIVERSITY

Biodiversity Credits Required

B49. The Applicant must retire the biodiversity credits specified in Table 5 below to offset the biodiversity impacts of the development. The retirement of credits must be carried out in consultation with OEH and in accordance with the Biodiversity Offsets Scheme of the BC Act, to the satisfaction of the BCT.

Table 5: *Biodiversity credit requirements*

Credit Type	Stage 1 Credits Required	Stage 2 Credits Required	Stage 3 Credits Required	Total Credits Required
<i>Ecosystem Credits</i>				
<i>Central Hunter Valley Eucalypt Forest and Woodland CEEC under the EPBC Act</i>	11,287	2,570	620	14,477
<i>Hunter Floodplain Red Gum Woodland EEC under the BC Act</i>	0	20	0	20

Credit Type	Stage 1 Credits Required	Stage 2 Credits Required	Stage 3 Credits Required	Total Credits Required
<i>Central Hunter Ironbark - Spotted Gum - Grey Box Forest EEC under the BC Act</i>	1,424	0	0	1,424
<i>Central Hunter Grey Box - Ironbark Woodland EEC under the BC Act</i>	356	101	0	457
HU905 - Narrow- leaved Ironbark - Grey Box Grassy Woodland of the Central and Upper Hunter	3,562	1,344	1	4,907
HU906 - Bull Oak Grassy Woodland of the Central Hunter Valley	2,973	0	0	2,973
HU945 - Swamp Oak - Weeping Grass Grassy Riparian Forest of the Hunter Valley	1,844	281	0	2,125
Total	21,446	4,316	621	26,383
<i>Species Credits</i>				
Southern myotis (<i>Myotis macropus</i>)	15	547	0	562

Notes:

- To identify the surface disturbance areas associated with each Stage in Table 5 refer to the applicable figure in Appendix 6, or as updated in the approved Biodiversity Management Plan.
- The credits in Table 5 were calculated in accordance with Framework for Biodiversity Assessment of the NSW Biodiversity Offset Policy for Major Projects (OEH, 2014) and may need to be converted to reasonably equivalent 'biodiversity credits', within the meaning of the BC Act, if the credits are to be retired in accordance with the Biodiversity Offsets Scheme of the BC Act.
- The CEEC credits in Table 5 can only be discharged through payment into the NSW Biodiversity Conservation Fund if this fund has been endorsed by the Commonwealth Minister responsible for administering the EPBC Act.

Staged Retirement

- B50. Within 12 months of commencing Phase 1A, or other timeframe agreed by the Planning Secretary, the Applicant must retire the Stage 1 credits. This excludes the Stage 1 credits to be satisfied using Ecological Mine Rehabilitation.
- B51. Prior to the commencement of surface disturbance associated with Stage 2 or Stage 3, or other timeframe agreed by the Planning Secretary, the Applicant must retire the relevant credits for these stages as specified in Table 5.
- B52. With the agreement of the Planning Secretary, the Applicant may adjust the staging of credit retirements in Table 5 and the associated surface disturbance areas. Any adjustments must be agreed, and the relevant credits must be retired, prior to the commencement of the associated surface disturbance.
- B53. The Applicant may seek the agreement of the Planning Secretary to carry over surplus retired credits to satisfy requirements of a later stage. This may occur where approved clearing for an earlier stage was not undertaken, but the impact has already been offset.
- B54. The biodiversity credits associated with any relinquished areas agreed under condition B53 may be removed from the total credit obligations in Table 5.

Rehabilitation Offsets

- B55. The Applicant must establish 1,300 hectares of Open Woodland Revegetation on the site.

Notes:

- This obligation was originally imposed under DA 305-7-2003 as 1,570 hectares. This consent has taken over 1,300 hectares of this obligation.
- The land to be used to satisfy this condition cannot be the same as the land used for Ecological Mine Rehabilitation in condition B56 or Open Woodland Revegetation under DA 305-7-2003.
- Conceptual mapping of Open Woodland Revegetation is shown in the applicable figure in Appendix 6.

- B56. Ecological Mine Rehabilitation may be used to satisfy up to 25% of the CEEC ecosystem credit requirements in Table 5.

Notes:

- The land to be used to satisfy this condition cannot be the same as the land used towards Open Woodland Revegetation under condition B55 or DA 305-7-2003.
- Conceptual mapping of Ecological Mine Rehabilitation is shown in the applicable figure in Appendix 6.

- B57. Within 10 years of the cessation of mining operations, or other timeframe agreed by the Planning Secretary, the Applicant must retire the biodiversity credits generated from Ecological Mine Rehabilitation. If the Ecological Mine Rehabilitation areas do not comply with the objectives in Table 6 then the Applicant must retire the relevant deficient biodiversity credits in consultation with OEH and in accordance with the Biodiversity Offsets Scheme of the BC Act, to the satisfaction of the BCT.

Note: *The rehabilitation offset performance and completion criteria form a component of the Rehabilitation Management Plan required under condition B90.*

Compensatory Habitat Area

- B58. Within 12 months of commencing Phase 1B, or other timeframe agreed by the Planning Secretary, the Applicant must make suitable arrangements for the long-term protection of 18.5 hectares of compensatory habitat to account for disturbing the previous compensatory habitat area for United Underground Coal Mine (DA 410-11-2002-i).

Notes:

- *This requirement is in addition to the credit requirements under condition B49.*
- *Suitable arrangements include securing the land under a Biodiversity Stewardship Agreement or by transferring the land to National Parks Estate (along with sufficient funds for ongoing management).*

Biodiversity Management Plan

- B59. The Applicant must prepare a Biodiversity Management Plan to the satisfaction of the Planning Secretary. This plan must:

- (a) be prepared by a suitably qualified and experienced person/s;
- (b) be prepared in consultation with OEH;
- (c) describe the short, medium, and long-term measures to be undertaken to manage vegetation and fauna habitat on the site;
- (d) describe how biodiversity management would be integrated with similar measures within the Water Management Plan referred to in condition B46 and the Rehabilitation Management Plan referred to in condition B90;
- (e) include a Biodiversity Offset Strategy that:
 - (i) describes how the biodiversity credits in Table 5 will be identified, secured and retired;
 - (ii) if adjustments are made to the staging of credit retirements in Table 5 (see conditions B52 and B53), detail the adjusted stages and associated surface disturbance areas; and
 - (iii) describes how significantly impacted threatened species and communities listed under the EPBC Act would be suitably offset;
- (f) describe the measures to be implemented within approved disturbance areas on the site to:
 - (i) minimise the amount of clearing and employ temporary vegetation strategies (see condition B86);
 - (ii) minimise impacts on fauna, including undertaking pre-clearance surveys;
 - (iii) provide for the salvage, transplanting and/or propagation of any threatened flora found during pre-clearance surveys, in accordance with the *Guidelines for the Translocation of Threatened Plants in Australia* (Vallee et al., 2004); and
 - (iv) maximise the salvage of resources, including tree hollows, vegetation and soil resources, for beneficial reuse, including fauna habitat enhancement;
- (g) describe the measures to be implemented on the site to:
 - (i) minimise impacts on fauna habitat resources such as hunting and foraging areas, habitat trees, fallen timber and hollow-bearing trees;
 - (ii) enhance the quality of vegetation, vegetation connectivity and wildlife corridors including through the assisted regeneration and/or targeted revegetation of appropriate canopy, sub-canopy, understorey and ground strata;
 - (iii) introduce naturally scarce fauna habitat features such as nest boxes and salvaged tree hollows and promote the use of these introduced habitat features by threatened fauna species;
 - (iv) manage any potential conflicts with Aboriginal heritage values; and
 - (v) protect vegetation and fauna habitat outside of the approved disturbance areas, including stands of Weeping Myall (*Acacia pendula*);
 - (vi) manage potential indirect impacts on threatened flora and fauna species, including Swift Parrot, Regent Honeyeater, Spotted-tail Quoll and Koala;
 - (vii) manage the collection and propagation of seed from the local area;
 - (viii) control weeds, including measures to avoid and mitigate the spread of noxious weeds;
 - (ix) control feral pests with consideration of actions identified in relevant threat abatement plans;
 - (x) control erosion;
 - (xi) manage any grazing and agriculture;

- (xii) control access to vegetated or revegetated areas; and
- (xiii) manage bushfire hazards;
- (h) include a seasonally-based program to monitor and report on the effectiveness of the above measures, progress against the detailed performance and completion criteria, and improvements that could be implemented to improve biodiversity outcomes;
- (i) identify the potential risks to the successful implementation of the Biodiversity Offset Strategy, and include a description of the contingency measures to be implemented to mitigate against these risks; and
- (j) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

Note: *If, in accordance with condition A22(a), the Biodiversity Management Plan is to be submitted on a staged basis, the Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for the particular stage.*

B60. The Applicant must not commence Phase 1A until the Biodiversity Management Plan is approved by the Planning Secretary.

B61. The Applicant must implement the Biodiversity Management Plan as approved by the Planning Secretary.

HERITAGE

Heritage Operating Conditions

B62. The Applicant must ensure that the development does not cause any direct or indirect impact on any identified heritage items located outside the approved disturbance area, beyond those predicted in the document/s listed in condition A2(c).

Note: *Identified heritage items are shown in the figures in Appendix 7.*

B63. If suspected human remains are discovered on the site, then all work surrounding the area must cease, and the area must be secured. The Applicant must immediately notify NSW Police Force and OEH, and work must not recommence in the area until authorised by NSW Police Force and OEH.

B64. If any previously unknown Aboriginal object or Aboriginal place is discovered on the site, or suspected to be on the site:

- (a) all work in the immediate vicinity of the object or place must cease immediately;
- (b) a 10 metre buffer area around the object or place must be cordoned off; and
- (c) OEH must be contacted immediately.

B65. Work in the immediate vicinity may only recommence if:

- (a) the potential Aboriginal object or Aboriginal place is confirmed by OEH, in consultation with the Registered Aboriginal Parties, not to be an Aboriginal object or Aboriginal Place;
- (b) the Aboriginal Cultural Heritage Management Plan is revised to include the Aboriginal object or Aboriginal place and appropriate measures in respect of it; or
- (c) the Planning Secretary is satisfied with the measures to be implemented in respect of the Aboriginal object or Aboriginal place and makes a written direction in that regard.

B66. The Applicant must ensure that all known Aboriginal objects or Aboriginal places on the site or within any offset areas are properly recorded, and those records are kept up to date, in the Aboriginal Heritage Information Management System (AHIMS) Register.

Aboriginal Cultural Heritage Management Plan

B67. The Applicant must prepare an Aboriginal Cultural Heritage Management Plan for the development. The plan must:

- (a) be prepared by suitably qualified and experienced persons;
- (b) be prepared in consultation with OEH, Registered Aboriginal Parties and other local knowledge holder groups;
- (c) describe the measures to be implemented on the site to:
 - (i) ensure all workers receive suitable Aboriginal cultural heritage inductions prior to carrying out any activities which may cause impacts to Aboriginal objects or Aboriginal places, and that suitable records are kept of these inductions;
 - (ii) protect, monitor and/or manage identified Aboriginal objects and Aboriginal places (including any proposed archaeological investigations and salvage measures) in accordance with the commitments made in the document/s listed in condition A2(c);
 - (iii) protect Aboriginal objects and Aboriginal places located outside the approved disturbance area from impacts of the development;
 - (iv) manage the discovery of human remains and any new Aboriginal objects or Aboriginal places, including detailed provisions for burials, over the life of the development;
 - (v) maintain and manage reasonable access for relevant Aboriginal stakeholders to Aboriginal objects and Aboriginal places (outside of the approved disturbance area); and

- (vi) facilitate ongoing consultation and involvement of Registered Aboriginal Parties in the conservation and management of Aboriginal cultural heritage on the site;
- (d) include a strategy for the care, control and storage of Aboriginal objects salvaged on the site, both during the life of the development and in the long term; and
- (e) include a program to fund and undertake projects in accordance with *Strengthening Aboriginal Community Wellbeing Toolkit* (OEH, 2012) to promote caring for land, bringing people together and cultural awareness/education.

Note: *If, in accordance with condition A22(a), the Aboriginal Cultural Heritage Management Plan is to be submitted on a staged basis, the Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for the particular stage.*

B68. The Applicant must not commence Phase 1A until the Aboriginal Cultural Heritage Management Plan is approved by the Planning Secretary.

B69. The Applicant must implement the Aboriginal Cultural Heritage Management Plan approved by the Planning Secretary.

Historic Heritage Management Plan

B70. The Applicant must prepare a Historic Heritage Management Plan for the development, in respect of all non-Aboriginal cultural heritage items, to the satisfaction of the Planning Secretary. This plan must:

- (a) be prepared by a suitably qualified and experienced person/s;
- (b) be prepared in consultation with the Heritage Division, Council and relevant landowners and in accordance with the relevant Heritage Division guidelines;
- (c) identify all heritage items in the vicinity of the site and include a statement of significance for each item;
- (d) include an interpretation strategy for the Dog-leg fence that includes undertaking additional research, archival recording, salvage, reconstruction and public display within 2 years of commencement of development under this consent;
- (e) describe the measures to be implemented on the site or within any offset areas to:
 - (i) ensure all workers receive suitable heritage inductions prior to carrying out any activities which may cause impacts to historic heritage, and that suitable records are kept of these inductions;
 - (ii) prepare an archaeological research design and methodology prior to undertaking any necessary archaeological excavations;
 - (iii) ensure that the archaeological excavations are undertaken by a suitably qualified and experienced archaeologist;
 - (iv) undertake photographic/archival recording of any items of heritage significance potentially impacted by the development, prior to disturbance, including recording the views to and from the Shearing Shed and Creamery;
 - (v) protect heritage items located outside the approved disturbance area from unpredicted impacts of the development and vandalism (where practicable); and
 - (vi) manage any new heritage items discovered during the life of the development; and
- (f) include a strategy for the care, control and storage of relics salvaged from any historical archaeological excavations, both during the life of the development and in the long term.

Note: *If, in accordance with condition A22(a), the Historic Heritage Management Plan is to be submitted on a staged basis, the Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for the particular stage.*

B71. The Applicant must not commence Phase 1A until the Historic Heritage Management Plan is approved by the Planning Secretary.

B72. The Applicant must implement the Historic Heritage Management Plan as approved by the Planning Secretary.

VISUAL

Visual Amenity and Lighting

B73. The Applicant must:

- (a) take all reasonable steps to minimise the visual and off-site lighting impacts of the development;
- (b) undertake roadside tree planting along the Golden Highway, in consultation with RMS, to screen views of the development from road users;
- (c) ensure no fixed outdoor lights shine directly above the horizontal or above the building line or any illuminated structure;
- (d) ensure no in-pit mobile lighting rigs shine directly above the pit wall and other mobile lighting rigs do not shine directly above the horizontal (except where required for emergency safety purposes);

- (e) ensure that all external lighting associated with the development complies with relevant Australian Standards including the latest version of *Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting*;
- (f) ensure that the visual appearance of all new buildings, structures, facilities or works (including paint colours and specifications) is aimed at blending as far as possible with the surrounding landscape; and
- (g) take all reasonable steps to shield views of mining operations and associated equipment from users of public roads and privately-owned residences.

Additional Visual Mitigation

- B74. The Applicant must consult with the owners of potentially affected residences in the Moses Crossing and South Wambo areas to identify appropriate site-specific visual mitigation measures, including tree screens or landscaping, to minimise visual impacts of the development.
- B75. If both parties agree on the measures that should be implemented to minimise the visual impact of the development, then the Applicant must implement these measures to the satisfaction of the Planning Secretary.
- B76. If the Applicant and the landowner disagree on the level of impact or the measures that should be implemented to minimise the visual impact of the development, then either party may refer the matter to the Planning Secretary for resolution.

Hunter Valley Gliding Club

- B77. Prior to the commencement of Phase 2, or other timeframe agreed by the Planning Secretary, the Applicant must enter into an agreement with Hunter Valley Gliding Club Co-operative Limited to address the potential impacts of the development on the Hunter Valley Gliding Club facilities and associated recreational activities. This agreement must take into consideration requirements under this consent and any other opportunities to minimise visual, dust, blasting and noise impacts and air safety risks, including:
- (a) adjusting operations when the facilities are in use;
 - (b) planting tree screens along the realigned section of the Golden Highway; and
 - (c) constructing new infrastructure and overburden emplacements to comply with Civil Aviation Safety Authority codes and/or guidelines, where relevant.

Note: This condition shall cease to operate if both parties agree there is no longer a need for an agreement.

- B78. If the Applicant and Hunter Valley Gliding Club Co-operative Limited cannot come to an agreement under condition B77, then either party may refer the matter to the Planning Secretary for resolution.

WASTE

- B79. The Applicant must:
- (a) take all reasonable steps to minimise the waste (including coal rejects) generated by the development;
 - (b) dispose of all waste at appropriately licensed waste facilities;
 - (c) manage on-site sewage treatment and disposal in accordance with the requirements of Council; and
 - (d) monitor and report on the effectiveness of the waste minimisation and management measures in the Annual Review referred to in condition E10.
- B80. Except as expressly permitted in an applicable EPL, specific resource recovery order or exemption under the *Protection of the Environment Operations (Waste) Regulation 2014*, the Applicant must not receive waste at the site for storage, treatment, processing, reprocessing or disposal.

DANGEROUS GOODS

- B81. The Applicant must ensure that the storage, handling, and transport of:
- (a) dangerous goods is done in accordance with the relevant Australian Standards, particularly *AS1940* and *AS1596*, and the *Dangerous Goods Code*; and
 - (b) explosives are managed in accordance with the requirements of the Resources Regulator.

BUSHFIRE MANAGEMENT

- B82. The Applicant must:
- (a) ensure that the development:
 - (i) provides for asset protection in accordance with the relevant requirements in the *Planning for Bushfire Protection* (RFS, 2006) guideline; and
 - (ii) ensure that there is suitable equipment to respond to any fires on the site; and
 - (b) assist the RFS and emergency services to the extent practicable if there is a fire in the vicinity of the site.
- B83. Prior to the commencement of Phase 1A, the Applicant must prepare a Fire Management Plan for the development in consultation with RFS. This plan must include a:

- (a) contact person and 24 hour contact phone number;
- (b) schedule and description of proposed bushfire mitigation works, including:
 - (i) location of managed and unmanaged vegetation within the site;
 - (ii) location of water supply; and
 - (iii) internal access roads;
- (c) plan identifying the location and storage of bulk flammable liquids and materials;
- (d) 'hot works' management plan, including:
 - (i) restrictions on when 'hot works' are limited and prohibited; and
 - (ii) safety measures to be implemented when 'hot works' are being conducted; and
- (e) emergency/evacuation plan in accordance with the *Guidelines for the Preparation of Emergency/Evacuation Plans* (RFS) and Australian Standard AS3745 *Planning for emergencies in facilities*.

B84. The Applicant must implement the Fire Management Plan in consultation with RFS.

REHABILITATION

Rehabilitation Objectives

B85. The Applicant must rehabilitate the site to the satisfaction of the Resources Regulator. This rehabilitation must be generally consistent with the proposed rehabilitation activities described in the document/s listed in condition A2(c) (and shown conceptually in the figure in Appendix 8), and comply with the objectives in Table 6.

Table 6: Rehabilitation objectives

Feature	Objective
All areas of the site affected by the development	- Safe, stable and non-polluting - Fit for the intended post-mining land use/s
Areas proposed for Ecological Rehabilitation under Mine condition B55	- Restore self-sustaining native woodland ecosystems that: - align with reference sites in the local area; and - use State-recognised plant communities to meet the applicable EPBC Act or BC Act listing criteria for the CEEC or EEC in Table 5
Areas proposed for native woodland	- Establish a minimum of 1,300 hectares of Open Woodland Revegetation to satisfy condition B55 - Restore self-sustaining native woodland ecosystems using species found in the local area and complement the areas proposed for Ecological Mine Rehabilitation - Establish areas of self-sustaining: - riparian vegetation, within any diverted and/or re-established creek lines and retained water features; - habitat resources for threatened flora and fauna species, particularly the Swift Parrot, Regent Honeyeater, Spotted-tailed Quoll and Koala; and - vegetation connectivity and wildlife corridors, as far as is reasonable and feasible
Areas proposed for agricultural land	- Establish/restore grassland areas to support sustainable agricultural activities - Achieve Land and Soil Capability Class IV - Locate adjacent to surrounding agriculture land
Final Landform	- Stable and sustainable for the intended post-mining land use/s - Integrated with surrounding natural landforms and rehabilitated landforms of surrounding mines, to the greatest extent practicable - Incorporate micro-relief and drainage lines that are consistent with surrounding topography, to the greatest extent practicable - Maximise surface water drainage to the natural environment (excluding final void catchment) - Minimise visual impacts, to the greatest extent practicable
Final voids	- Designed as long term groundwater sinks to maximise ground water flows across back filled pits to the final void - Minimise to the greatest extent practicable: - the size and depth of final voids; - the drainage catchment of final voids; - any high wall instability risk; and - the risk of flood interaction - Maximise potential for beneficial reuse, to the greatest extent practicable

Feature	Objective
Surface infrastructure of the development, including the United CHPP and surface infrastructure constructed under DA 410-11-2002-i	To be decommissioned and removed, unless the Resources Regulator agrees otherwise
Rehabilitation materials	Materials from areas disturbed under this consent (including topsoils, substrates and seeds) are to be recovered, managed and used as rehabilitation resources, to the greatest extent practicable
Water quality	- Water retained on the site is fit for the intended post-mining land use/s - Water discharged from the site is suitable for receiving waters and fit for aquatic ecology and riparian vegetation
Community	- Ensure public safety - Minimise adverse socio-economic effects associated with mine closure

Note: *The rehabilitation objectives detailed in Table 6 apply to the entire site, including all landforms constructed under either this consent or previous consents. However, they do not require any additional earthmoving works to be undertaken for landforms that have been approved and constructed under previous consents.*

Progressive Rehabilitation

B86. The Applicant must rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance. All reasonable steps must be taken to minimise the total area exposed at any time. Interim stabilisation and temporary vegetation strategies must be employed when areas prone to dust generation, soil erosion and weed incursion cannot 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 Strategy

B87. The Applicant must prepare a Rehabilitation Strategy for the development to the satisfaction of the Planning Secretary. This strategy must:

- be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the Planning Secretary;
- be prepared in consultation with the Resources Regulator and Council;
- include a program to periodically review and refine the final landform and final void outcomes to meet the relevant Rehabilitation Objectives in Table 6;
- build upon the Rehabilitation Objectives in Table 6 and the Rehabilitation Plans in Appendix 8 including identification of opportunities for increasing the areas of woodland and habitat connectivity within the rehabilitated landscape;
- include details of the canopy, sub-canopy, understorey and ground strata species to be established in the rehabilitation areas, with a particular focus on ensuring the achievement of an appropriate level of diversity and mix of functional groups within each target community;
- identify opportunities for the incorporation of preferred feed trees, foraging resources and habitat features for threatened fauna species; and
- include an indicative schedule for the staged rehabilitation of the development.

B88. The Applicant must not commence Phase 2 until the Rehabilitation Strategy is approved by the Planning Secretary.

B89. The Applicant must implement the Rehabilitation Strategy approved by the Planning Secretary.

Rehabilitation Management Plan

B90. The Applicant must prepare a Rehabilitation Management Plan for the development to the satisfaction of the Resources Regulator. This plan must:

- be prepared by a suitably qualified and experienced person/s;
- be prepared in consultation with the Department, DoI Water, OEH and Council;
- be prepared in accordance with any relevant DRG Guideline;
- describe how the rehabilitation of the site would achieve the objectives identified in Table 6 the outcomes described in the Rehabilitation Strategy referred to in condition B87 and be integrated with the measures in the Biodiversity Management Plan referred to in condition B59;
- included detailed mine plan and final landform designs;
- include a detailed plan for the reinstatement and review of the proposed:

- (i) Ecological Mine Rehabilitation and native woodland areas, including a protocol for progress reviews to demonstrate that the target vegetation communities are being achieved; and
- (ii) agricultural land capability of grassland areas;
- (g) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and for triggering remedial action;
- (h) describe the measures to be implemented to ensure compliance with the relevant conditions of this consent, and address all aspects of rehabilitation including mine closure, final landform (including final voids), final land use/s and water management in the final landform;
- (i) include procedures for the use of interim stabilisation and temporary vegetation strategies, where reasonable to minimise the area exposed for dust generation;
- (j) include a program to monitor, independently audit and report on the effectiveness of the measures in paragraph (h), and progress against the detailed performance and completion criteria in paragraph (g);
- (k) to the greatest extent practicable build on and integrate with the other management plans required under this consent; and
- (l) include detailed scheduling for progressive rehabilitation to be initiated, undertaken and/or completed over the next three years.

B91. The Applicant must not commence Phase 1B until the Rehabilitation Management Plan is approved by the Resources Regulator.

B92. The Applicant must implement the Rehabilitation Management Plan as approved by the Resources Regulator.

Notes:

- *The Rehabilitation Management Plan should address all land impacted by the development.*
- *The Rehabilitation Management Plan may be combined with a Mining Operations Plan, or similar plan, required under any mining lease granted for the development.*

Mine Closure

B93. At least 5 years prior to the planned cessation of mining operations, the Applicant must prepare a Mine Closure Plan for the development to the satisfaction of the Planning Secretary. This plan must:

- (a) be prepared in consultation with the Resources Regulator and Council;
- (b) integrate final rehabilitation and mine closure requirements with those of the Wambo Mining Complex, to the greatest extent practicable;
- (c) include a final land use strategy to investigate potential post-mining beneficial land uses for the site (including the final voids), that:
 - (i) align with local strategic planning instruments;
 - (ii) provide a sustainable future for the local community;
 - (iii) utilise existing mining infrastructure, where practicable; and
 - (iv) do not compromise ecological rehabilitation requirements;
- (d) investigate ways to minimise the adverse socio-economic effects associated with mine closure, including reduction in local employment levels; and
- (e) describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the development and describe how the performance of these measures would be monitored over time.

B94. The Applicant must implement the Mine Closure Plan as approved by the Planning Secretary.

SOCIAL

Social Impact Management Plan

B95. The Applicant must prepare a Social Impact Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:

- (a) be prepared by a suitably qualified and experienced person/s;
- (b) be prepared in consultation with Council, the CCC, affected communities (Jerrys Plains, Warkworth Village, Maison Dieu and Bulga) and other interested stakeholders (to the greatest extent practicable);
- (c) identify negative social impacts resulting from the development both locally and regionally;
- (d) specify adaptive management and mitigation measures to avoid, minimise, and/or mitigate negative social impacts;
- (e) identify opportunities to secure and enhance positive social impacts of the development, including opportunities to:
 - (i) assist in maintaining community services and facilities; and
 - (ii) improve the way of life, wellbeing, and social cohesion within the local community;

- (f) include a program to monitor, review, and report on the effectiveness of these measures, including:
 - (i) identifying representative parameters or indicators to be monitored, how and when data is to be collected, and who is responsible for collecting it;
 - (ii) ongoing analysis of social risks; and
 - (iii) undertaking additional research, if necessary, to reduce uncertainties; and
- (g) include a Stakeholder Engagement Plan to guide the evaluation and implementation of social impact management and mitigation measures.

B96. The Applicant must not commence Phase 1B until the Social Impact Management Plan is approved by the Planning Secretary.

PART C CONSTRUCTION SPECIFIC ENVIRONMENTAL CONDITIONS

CONSTRUCTION

Construction Hours

- C1. During Phase 1A, the Applicant may undertake approved construction works 24 hours a day, excluding the construction of the Golden Highway realignment, which must be undertaken during standard construction hours (7 am to 6 pm, Monday to Friday and 8 am to 1 pm on Saturdays), unless the Planning Secretary agrees otherwise.

Construction Noise

- C2. The Applicant must ensure that the construction noise from Phase 1A does not exceed the operational noise criteria in Table 1, except where an alternative temporary limit has been approved by the Planning Secretary for specific works or where the Applicant has an agreement with the owner/s of the relevant residence/land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.

Flood Modelling

- C3. The detailed design of the proposed flood levee and Golden Highway realignment must be based on the latest available flood data for the area.

Golden Highway Realignment

- C4. The Applicant must submit detailed design drawings for the proposed realignment of the Golden Highway, including a Design Report in accordance with Austroads Guidelines, relevant Australian Standards and to RMS requirements. The design must be submitted to RMS for review prior to issue of a construction certificate for the Golden Highway realignment and be in accordance with the *RMS CADD Manual*.
- C5. The Applicant shall enter into a Works Authorisation Deed (WAD) prior to the Construction Certificate for the realignment & construction of the Golden Highway. RMS would exercise its powers and functions of the roads authority, to undertake road works in accordance with sections 64, 71, 72 and 73 of the *Roads Act 1993*, as applicable, for all works under the WAD.
- C6. All road works associated with the Golden Highway realignment works associated with the subject development shall be undertaken at full cost to the Applicant and at no cost to RMS or Council.
- C7. Following the completion of the Golden Highway realignment works, the Applicant shall enact the closure of the redundant section of the Golden Highway in accordance with the *Roads Act 1993*, by submitting the road closure to Council for approval.

Construction Traffic Management Plan

- C8. The Applicant must prepare a Construction Traffic Management Plan for the Golden Highway realignment to the satisfaction of RMS. This plan must:
- (a) describe the measures to be implemented to minimise traffic safety issues and disruption to other road users;
 - (b) include a vehicle movement plan and traffic control plan for:
 - (i) managing light, heavy and over-dimensional vehicles during construction works;
 - (ii) transporting construction waste materials; and
 - (iii) restricting construction or transportation hours to avoid road user conflicts;
 - (c) include a plan to ensure that suitable access is maintained for all properties affected by the construction works; and
 - (d) include procedures for notifying other road users of any construction works that may disrupt their usual use of the road.
- C9. The Applicant must not commence construction works associated with the Golden Highway until the Construction Traffic Management Plan is accepted by RMS.

Construction Environmental Management Plan

- C10. The Applicant must prepare a Construction Environmental Management Plan for Phase 1A to the satisfaction of the Planning Secretary. This plan must:
- (a) be prepared in consultation with the EPA and the relevant roads or utilities authorities;
 - (b) provide the specific environmental management measures for Phase 1A construction works (excluding the Golden Highway realignment); and
 - (c) describe the measures to be implemented to minimise construction-related traffic, noise, dust and visual impacts, including minimising surface disturbance.
- C11. The Applicant must not commence Phase 1A until the Construction Environmental Management Plan is approved by the Planning Secretary.
- C12. The Applicant must implement the Construction Environmental Management Plan as approved by the Planning Secretary.

PART D ADDITIONAL PROCEDURES

ACQUISITION UPON REQUEST

- D1. Upon receiving a written request for acquisition from the owner of the privately-owned land listed in Table 7, the Applicant must acquire the land in accordance with the procedures in conditions D11 to D18, inclusive.

Table 7: Land subject to acquisition upon request

Acquisition Basis	Land
Noise, Air Quality	R019
Noise	R016, R017, R039, R043

Notes: The location of the land referred to in Table 7 is shown on the applicable figure in Appendix 3.

ADDITIONAL MITIGATION UPON REQUEST

- D2. Upon receiving a written request from the owner of any residence on the privately-owned land listed in Table 7 or Table 8, the Applicant must implement additional 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 for State Significant Mining, Petroleum and Extractive Industry Developments* (NSW Government, 2018). They must also be reasonable and feasible, proportionate to the level of predicted impact and directed towards reducing the relevant noise and/or air quality impacts of the development. The Applicant must also be responsible for the reasonable costs of ongoing maintenance of these additional mitigation measures until the cessation of mining operations.

Table 8: Land subject to additional mitigation upon request

Mitigation Basis	Land
Noise	R003, R025, R029, R030, R033, R041B, R042, R048, R049, R050C, R075, R163, R320, R343, R344, R345, R346, R348

Note: The location of the land referred to in Table 8 is shown on the applicable figure in Appendix 3.

- D3. 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.

NOTIFICATION OF LANDOWNERS/TENANTS

- D4. Within one month of the date of this consent, the Applicant must:
- notify in writing the owner of:
 - the land listed in Table 7 that they have the right to require the Applicant to acquire their land at any stage during the development;
 - the residences on the land listed in Table 7 and Table 8 that they are entitled to ask the Applicant to install additional mitigation measures at the residence; and
 - any privately-owned land within 3 kilometres of the approved open cut mining pit/s that they are entitled to ask the Applicant 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;
 - notify the tenants of any mine-owned land of their rights under this consent; and
 - send a copy of the NSW Health fact sheet entitled *"Mine Dust and You"* (NSW Health, 2017) to the owners and/or existing tenants of any land (including mine-owned land) where the predictions in the document/s listed in condition A2(c) identify that dust emissions generated by the development are likely to be greater than the relevant air quality criterion in PART B of this consent at any time during the life of the development.
- D5. Prior to entering into any tenancy agreement for any land owned by the Applicant that is predicted to experience exceedances of the recommended dust and/or noise criteria, the Applicant must:
- 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"* (NSW Health, 2017); and
 - advise the prospective tenants of the rights they would have under this consent,
- to the satisfaction of the Planning Secretary.

NOTIFICATION OF EXCEEDANCES

- D6. As soon as practicable and no longer than 7 days after obtaining monitoring results showing an exceedance of any noise, blasting or air quality criterion in PART B of this consent, the Applicant must provide the details of the exceedance to any affected landowners and tenants.
- D7. For any exceedance of any air quality criterion in PART B, the Applicant must also provide to any affected land owners and tenants a copy of the NSW Health fact sheet entitled "*Mine Dust and You*" (NSW Health, 2017).

INDEPENDENT REVIEW

- D8. If a landowner considers the development to be exceeding any relevant air quality, noise or blasting criterion in PART B of this consent, they may ask the Planning Secretary in writing for an independent review of the impacts of the development on their residence or land.
- D9. If the Planning Secretary is not satisfied that an independent review is warranted, the Planning Secretary will notify the landowner in writing of that decision, and the reasons for that decision, within 21 days of the request for a review.
- D10. If the Planning Secretary is satisfied that an independent review is warranted, within 3 months, or other timeframe agreed by the Planning Secretary and the landowner, of the Planning Secretary's decision, the Applicant must:
- (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Planning Secretary, to:
 - (i) consult with the landowner to determine their concerns;
 - (ii) conduct monitoring to determine whether the development is complying with the relevant criterion in PART B of this consent; and
 - (iii) if the development is not complying with the relevant criterion, identify measures that could be implemented to ensure compliance with the relevant criterion;
 - (b) give the Planning Secretary and landowner a copy of the independent review; and
 - (c) comply with any written requests made by the Planning Secretary to implement any findings of the review.

LAND ACQUISITION

- D11. Within 3 months of receiving a written request for acquisition from a landowner with acquisition rights, the Applicant must make a binding written offer to the landowner based on:
- (a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the development, having regard to the:
 - (i) existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
 - (ii) 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 D2;
 - (b) the reasonable costs associated with:
 - (i) relocating within the Singleton local government area, or to any other local government area determined by the Planning Secretary; and
 - (ii) obtaining independent 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.
- D12. If, within 2 months of the binding written offer being made under condition D11, 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.
- D13. Upon receiving a request under condition D12, the Planning Secretary will request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:
- (a) consider submissions from both parties;
 - (b) determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in condition D11;
 - (c) prepare a detailed report setting out the reasons for any determination; and
 - (d) provide a copy of the report to both parties.
- D14. 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.
- D15. However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, either party 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 condition D11, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions.

- D16. 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.
- D17. If the landowner refuses to accept the Applicant's binding written offer under this condition within 6 months of the offer being made, then the Applicant's obligations to acquire the land shall cease, unless the Planning Secretary determines otherwise.
- D18. The Applicant must pay all reasonable costs associated with the land acquisition process described in conditions D11 to D17 inclusive, 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.

PART E ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

- E1. The Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Planning Secretary. This strategy must:
- (a) provide the strategic framework for environmental management of the development;
 - (b) identify the statutory approvals that apply to the development;
 - (c) set out the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;
 - (d) set out the procedures to be implemented to:
 - (i) keep the local community and relevant agencies informed about the operation and environmental performance of the development;
 - (ii) receive record, handle and respond to complaints;
 - (iii) resolve any disputes that may arise during the course of the development;
 - (iv) respond to any non-compliance and any incident; and
 - (v) respond to emergencies; and
 - (e) include:
 - (i) references to any strategies, plans and programs approved under the conditions of this consent; and
 - (ii) a clear plan depicting all the monitoring to be carried out under the conditions of this consent.
- E2. The Applicant must not commence Phase 1B until the Environmental Management Strategy is approved by the Planning Secretary.
- E3. The Applicant must implement the Environmental Management Strategy as approved by the Planning Secretary.

Management Plan Requirements

- E4. Management plans required under this consent must be prepared in accordance with relevant guidelines, and include where relevant:
- (a) summary of relevant background or baseline data;
 - (b) details of:
 - (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);
 - (ii) any relevant limits or performance measures and criteria; and
 - (iii) 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) any relevant commitments or recommendations identified in the document/s listed in condition A2(c);
 - (d) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;
 - (e) a program to monitor and report on the:
 - (i) impacts and environmental performance of the development; and
 - (ii) effectiveness of the management measures set out pursuant to paragraph (d);
 - (f) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;
 - (g) a program to investigate and implement ways to improve the environmental performance of the development over time;
 - (h) a protocol for managing and reporting any:
 - (i) incident, non-compliance or exceedance of any impact assessment criterion and performance criterion;
 - (ii) complaint; or
 - (iii) failure to comply with other statutory requirements; and
 - (i) 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.*

REVISION OF STRATEGIES, PLANS AND PROGRAMS

- E5. Prior to commencement of Phase 2, the Applicant must review and, where necessary, update and resubmit to the Planning Secretary for approval, all strategies, plans and programs required under this consent.

- E6. Within three months of:
- (a) the submission of an incident report under condition E8;
 - (b) the submission of an Annual Review under condition E10;
 - (c) the submission of an Independent Environmental Audit under condition E11; or
 - (d) the approval of any modification of the conditions of this consent,
- the suitability of existing strategies, plans and programs required under this consent must be reviewed by the Applicant.
- E7. If necessary, to either improve the environmental performance of the development, cater for a modification or comply with a direction, the strategies, plans and programs required under this consent must be revised, to the satisfaction of the Planning Secretary. Where revisions are required, the revised document must be submitted to the Planning Secretary for approval within six weeks of the review.

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

REPORTING AND AUDITING

Incident Notification

- E8. 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 to compliance@planning.nsw.gov.au and identify the development (including the development application number and name) and set out the location and nature of the incident.

Non-Compliance Notification

- E9. 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 to compliance@planning.nsw.gov.au and identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, why it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.

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

Annual Review

- E10. By the end of March each year, after the commencement of development, or other timeframe agreed by the Planning Secretary, a report must be submitted to the Department reviewing the environmental performance of the development, to the satisfaction of the Planning Secretary. This review must:
- (a) describe the development (including any rehabilitation) that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year;
 - (b) report on the progress of biodiversity credits retirements and the associated actual versus proposed surface disturbance for each stage;
 - (c) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, including a comparison of these results against the:
 - (i) relevant statutory requirements, limits or performance measures/criteria;
 - (ii) requirements of any plan or program required under this consent;
 - (iii) monitoring results of previous years; and
 - (iv) relevant predictions in the document/s listed in condition A2(c);
 - (d) identify any non-compliance or incident which occurred in the previous calendar year, and describe what actions were (or are being) taken to rectify the non-compliance and avoid reoccurrence;
 - (e) evaluate and report on:
 - (i) the effectiveness of the noise and air quality management systems; and
 - (ii) compliance with the performance measures, criteria and operating conditions in this consent;
 - (f) identify any trends in the monitoring data over the life of the development;
 - (g) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
 - (h) describe what measures will be implemented over the next calendar year to improve the environmental performance of the development.

Independent Environmental Audit

- E11. Within one year of commencement of development under this consent, and every three years after, unless the Planning Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. The audit must:

- (a) be led and conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Planning Secretary;
- (b) be carried out in consultation with the relevant agencies and the CCC;
- (c) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent, water licences and mining leases for the development (including any assessment, strategy, plan or program required under these approvals);
- (d) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals and this consent;
- (e) recommend appropriate measures or actions to improve the environmental performance of the development and any assessment, strategy, plan or program required under the abovementioned approvals and this consent; and
- (f) be conducted and reported to the satisfaction of the Planning Secretary.

E12. Within three months of commencing an Independent Environmental Audit, or other timeframe agreed by the Planning Secretary, the Applicant must submit a copy of the audit report to the Planning Secretary, and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations. The recommendations must be implemented to the satisfaction of the Planning Secretary.

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

Monitoring and Environmental Audits

E13. Any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification, compliance report and independent audit.

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

E14. Noise, blast and air quality monitoring under this consent is not required at all privately-owned residences and the use of representative monitoring locations can be used to demonstrate compliance with criteria.

ACCESS TO INFORMATION

E15. Before the commencement of Phase 1A, until the completion of all rehabilitation required under this consent, the Applicant must:

- (a) make the following information and documents (as they are obtained, approved or as otherwise stipulated within the conditions of this consent) publicly available on its website:
 - (i) the document/s listed in condition A2(c);
 - (ii) all current statutory approvals for the development;
 - (iii) all approved strategies, plans and programs required under the conditions of this consent;
 - (iv) detailed plans for the Phases of the development;
 - (v) minutes of CCC meetings;
 - (vi) regular reporting on the environmental performance of the development in accordance with the reporting requirements in any plans or programs approved under the conditions of this consent;
 - (vii) 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;
 - (viii) a summary of the current phase and progress of the development;
 - (ix) contact details to enquire about the development or to make a complaint;
 - (x) a complaints register, updated monthly;
 - (xi) the Annual Reviews of the development;
 - (xii) audit reports prepared as part of any Independent Environmental Audit of the development and the Applicant's response to the recommendations in any audit report; and
 - (xiii) any other matter required by the Planning Secretary; and
- (b) keep such information up to date, to the satisfaction of the Planning Secretary.

APPENDIX 1 SCHEDULE OF LAND

State Significant Development Application			
Lot Sec DP	Status	Lot Sec DP	Status
7//3030	Wambo Coal	63//753792	Wambo Coal
B//33149	Wambo Coal	64//753792	Wambo Coal
C//33149	Wambo Coal	95//753792	Wambo Coal
A//33149	Wambo Coal	100//753792	CFMEU
1//241316	Wambo Coal	101//753792	CFMEU
5//247239	CFMEU	103//753792	Wambo Coal
6//247239	CFMEU	104//753792	Wambo Coal
7//247239	CFMEU	109//753792	Wambo Coal
8//247239	CFMEU	110//753792	Wambo Coal
1//300990	CFMEU	111//753792	Wambo Coal
2//300990	CFMEU	112//753792	Wambo Coal
4//542226	Wambo Coal	118//753792	Wambo Coal
5//542226	Wambo Coal	134//753792	CFMEU
83//548749	Wambo Coal	135//753792	CFMEU
134//566275	CFMEU	147//753792	Private
1//583524	Hunter Valley Operations	148//753792	CFMEU
2//583524	Wambo Coal	149//753792	CFMEU
1//616303	CFMEU	18//753817	Wambo Coal
2//616303	Wambo Coal	22//753817	Wambo Coal
2//617852	CFMEU	66//753817	Wambo Coal
4//635392	CFMEU	67//753817	Wambo Coal
1//709722	CFMEU	71//753817	Wambo Coal
2//709722	Wambo Coal	113//753817	Wambo Coal
1//720683	Hunter Valley Operations	160//753817	Wambo Coal
1//720705	Wambo Coal	161//753817	Wambo Coal
2//720705	Wambo Coal	1//783484	Hunter Valley Operations
3//720705	Wambo Coal	2//783484	Hunter Valley Operations
4//720705	Wambo Coal	170//823775	Crown Land
91//733895	Hunter Valley Operations	175//823775	Crown Land
7//753792	CFMEU	179//823775	Hunter Valley Operations
38//753792	CFMEU	9//835812	CFMEU
39//753792	CFMEU	11//843432	Hunter Valley Operations
43//753792	CFMEU	1//857021	Hunter Valley Operations
45//753792	Wambo Coal	79//1074787	Wambo Coal
46//753792	Wambo Coal	57//1074788	Wambo Coal
49//753792	Wambo Coal	2//1085145	Wambo Coal
50//753792	Wambo Coal	3//1085145	Wambo Coal
51//753792	Wambo Coal	4//1085145	Wambo Coal
52//753792	Wambo Coal	5//1085145	Hunter Valley Operations
53//753792	CFMEU	131//1089157	Wambo Coal
54//753792	CFMEU	3//1177768	Wambo Coal
55//753792	CFMEU	1//1174490	Wambo Coal
56//753792	CFMEU	2//1174490	Wambo Coal
58//753792	Wambo Coal	1//1177768	CFMEU
60//753792	CFMEU	2//1177768	Wambo Coal
61//753792	CFMEU	Road Reserves	
62//753792	Wambo Coal		

APPENDIX 2 DEVELOPMENT LAYOUT PLANS

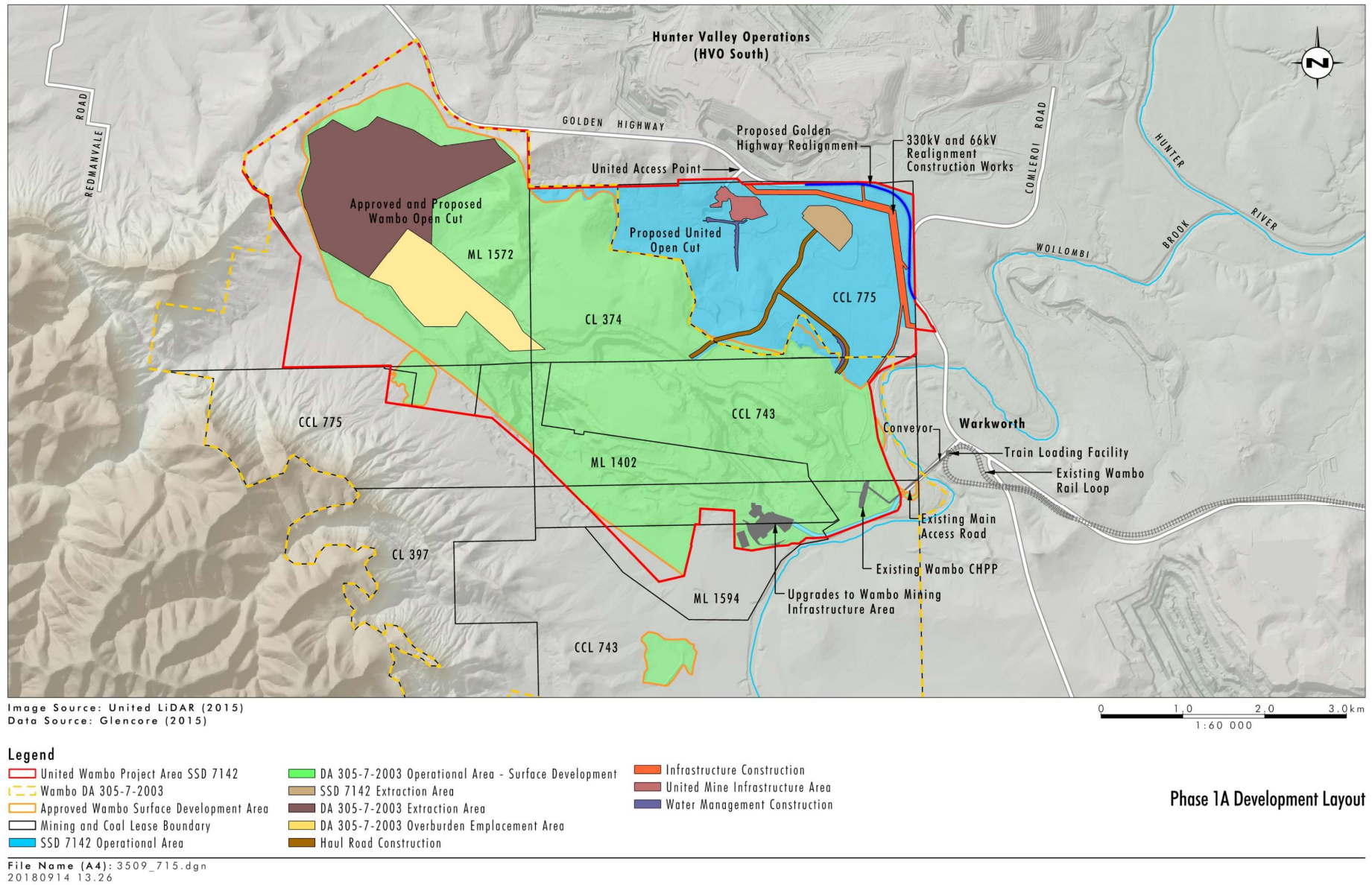
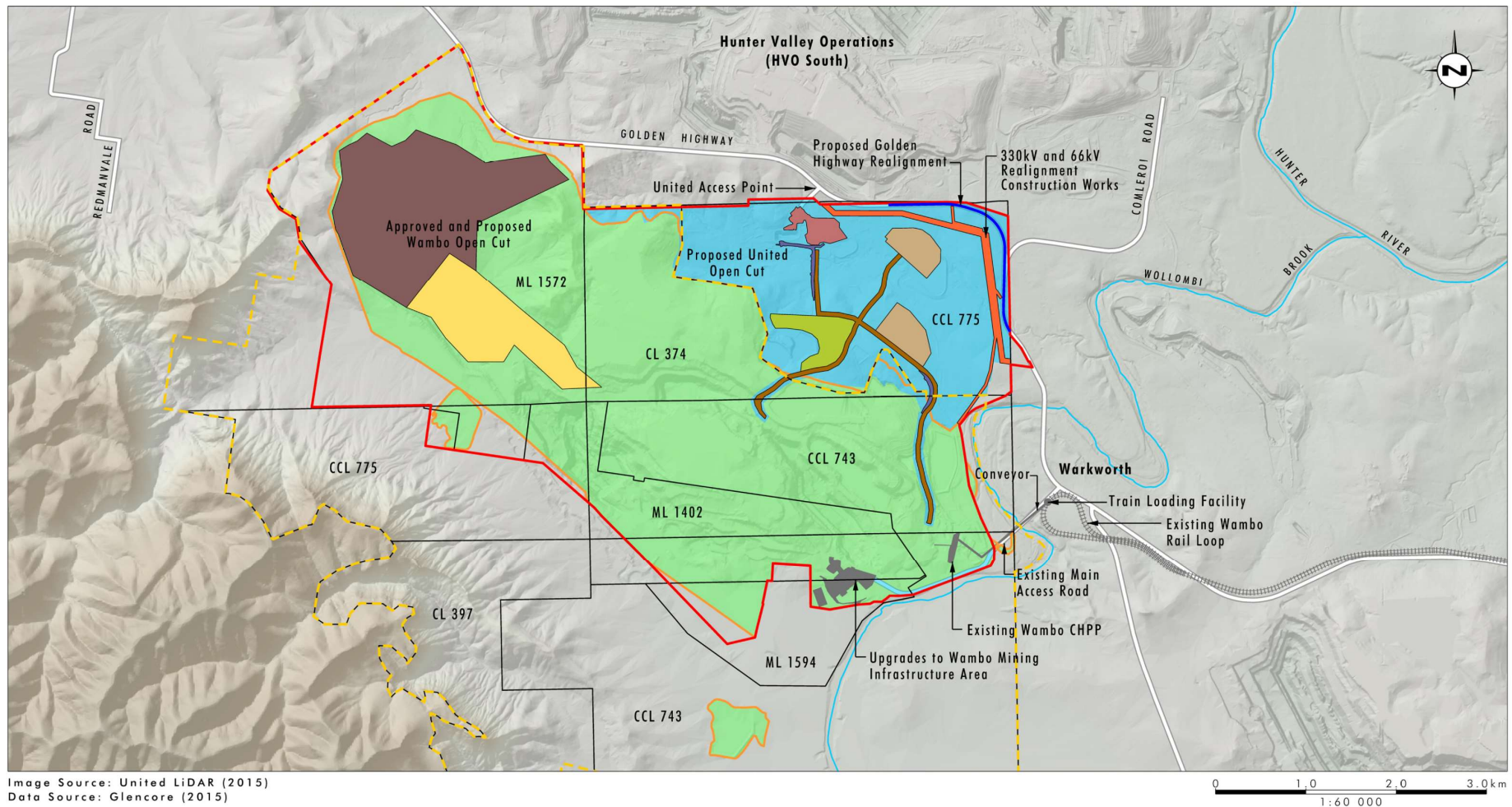


Figure 1: Development Layout – Phase 1A



Legend

United Wambo Project Area SSD 7142	DA 305-7-2003 Operational Area - Surface Development	Haul Road Construction
Wambo DA 305-7-2003	SSD 7142 Extraction Area	Infrastructure Construction
Approved Wambo Surface Development Area	DA 305-7-2003 Extraction Area	United Mine Infrastructure Area
Mining and Coal Lease Boundary	SSD 7142 Overburden Emplacement Area	Water Management Construction
SSD 7142 Operational Area	DA 305-7-2003 Overburden Emplacement Area	

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Phase 1B Development Layout

Figure 2: Development Layout – Phase 1B

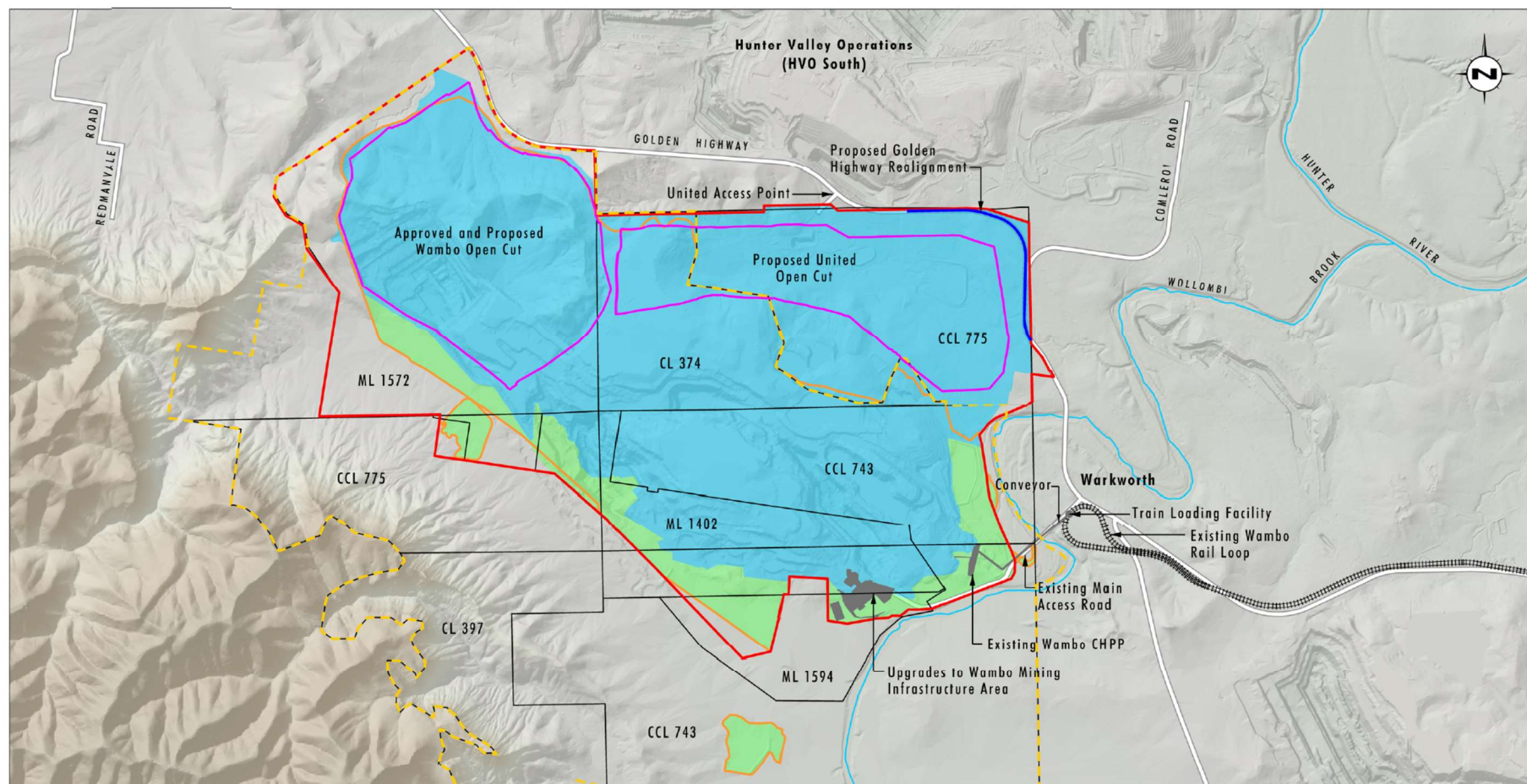


Image Source: United LiDAR (2015)
Data Source: Glencore (2015)

0 1.0 2.0 3.0 km
1:60 000

Legend

- United Wambo Project Area SSD 7142
- Wambo DA 305-7-2003
- Approved Wambo Surface Development Area
- Proposed Conceptual Extraction Area
- Mining and Coal Lease Boundary
- SSD 7142 Operational Area
- DA 305-7-2003 Operational Area - Surface Development

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Phase 2 Development Layout

Figure 3: Development Layout – Phase 2

APPENDIX 3 RECEIVER ZONES AND LOCATIONS

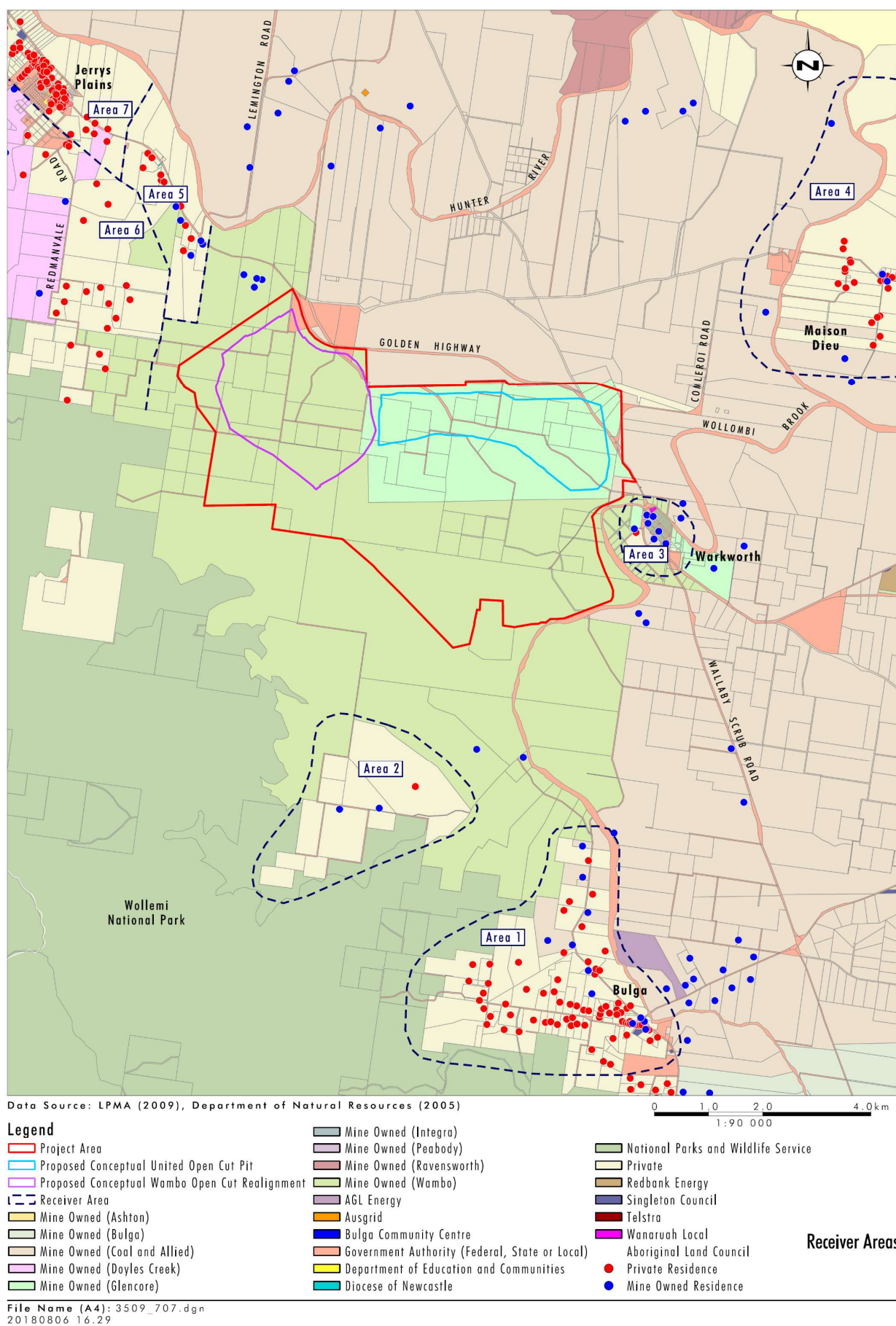
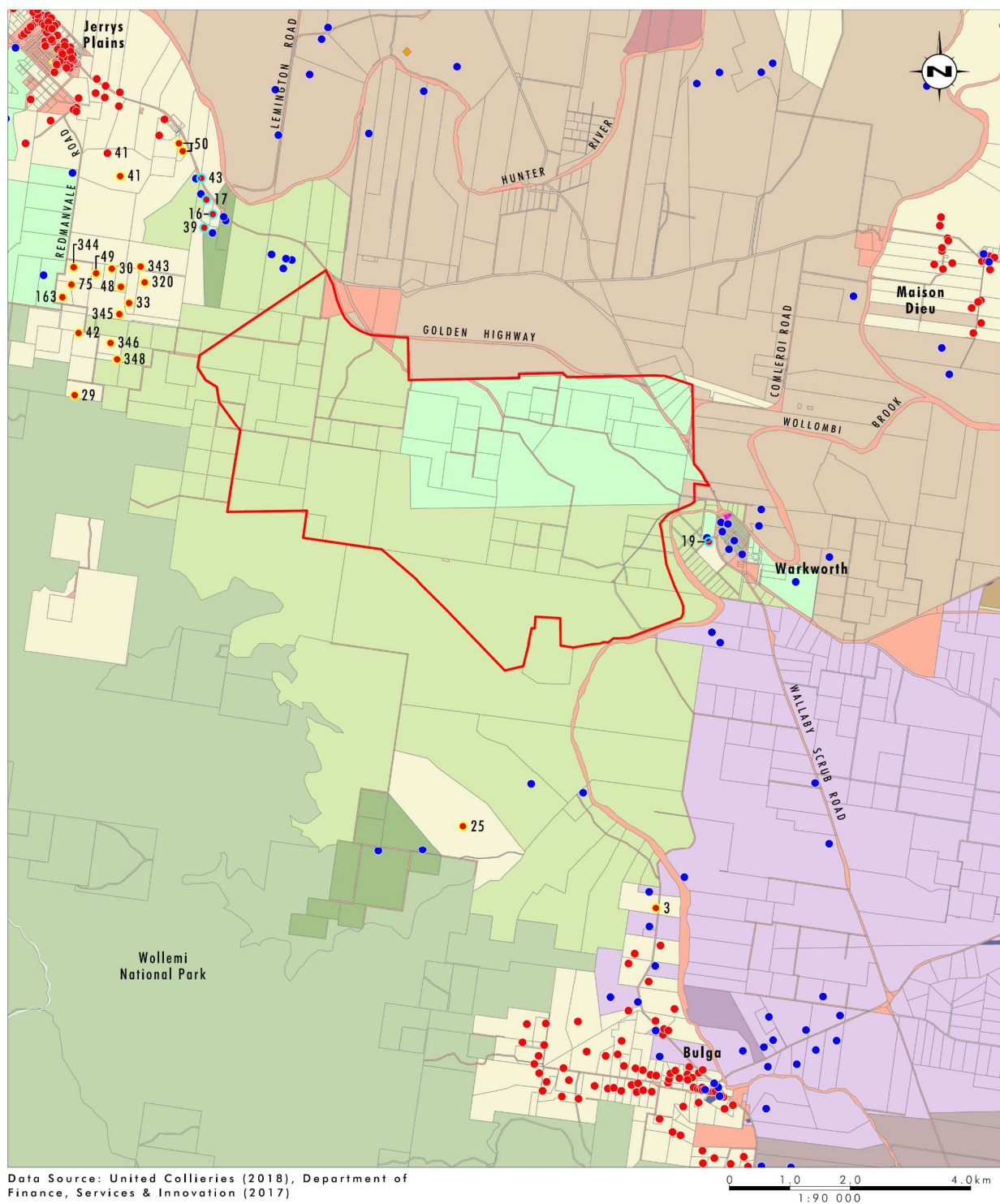


Figure 4: Receiver Zones and Locations



Legend

- | | | |
|---|--|---|
| Project Area | Bulga Community Centre | ● Private Residence |
| Mine Owned (Bulga) | Government Authority (Federal, State or Local) | ● Mine Owned Residence |
| Mine Owned (HVO) | Department of Education and Communities | Acquisition Rights |
| Mine Owned (Glencore) | Diocese of Newcastle | Mitigation Rights |
| Mine Owned (Ravensworth) | National Parks and Wildlife Service | |
| Mine Owned (Wambo) | Private | |
| Mine Owned (Yancoal) | Redbank Energy | |
| Mine Owned (United Wambo Joint Venture) | Singleton Council | |
| AGL Energy | Telstra | |
| Ausgrid | Wanaruah Local Aboriginal Land Council | |

**Aquisition and
Management Rights**

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20180904 15.54

Figure 5: Receivers with Acquisition and/or Mitigation Rights

APPENDIX 4 NOISE COMPLIANCE ASSESSMENT

Applicable Meteorological Conditions

1. The noise criteria in condition B1 are to apply under all meteorological conditions except the following:
 - (a) where 3°C/100 metres (m) lapse rates have been assessed, then:
 - (i) wind speeds greater than 3 metres/second (m/s) measured at 10m above ground level;
 - (ii) temperature inversion conditions between 1.5°C and 3°C/100m and wind speeds greater than 2m/s measured at 10m above ground level; or
 - (iii) temperature inversion conditions greater than 3°C/100m.
 - (b) where Pasquill Stability Classes have been assessed, then:
 - (i) wind speeds greater than 3m/s at 10m above ground level;
 - (ii) stability category F temperature inversion conditions and wind speeds greater than 2m/s at 10m above ground level;
 - (iii) stability category G temperature inversion conditions.

Determination of Meteorological Conditions

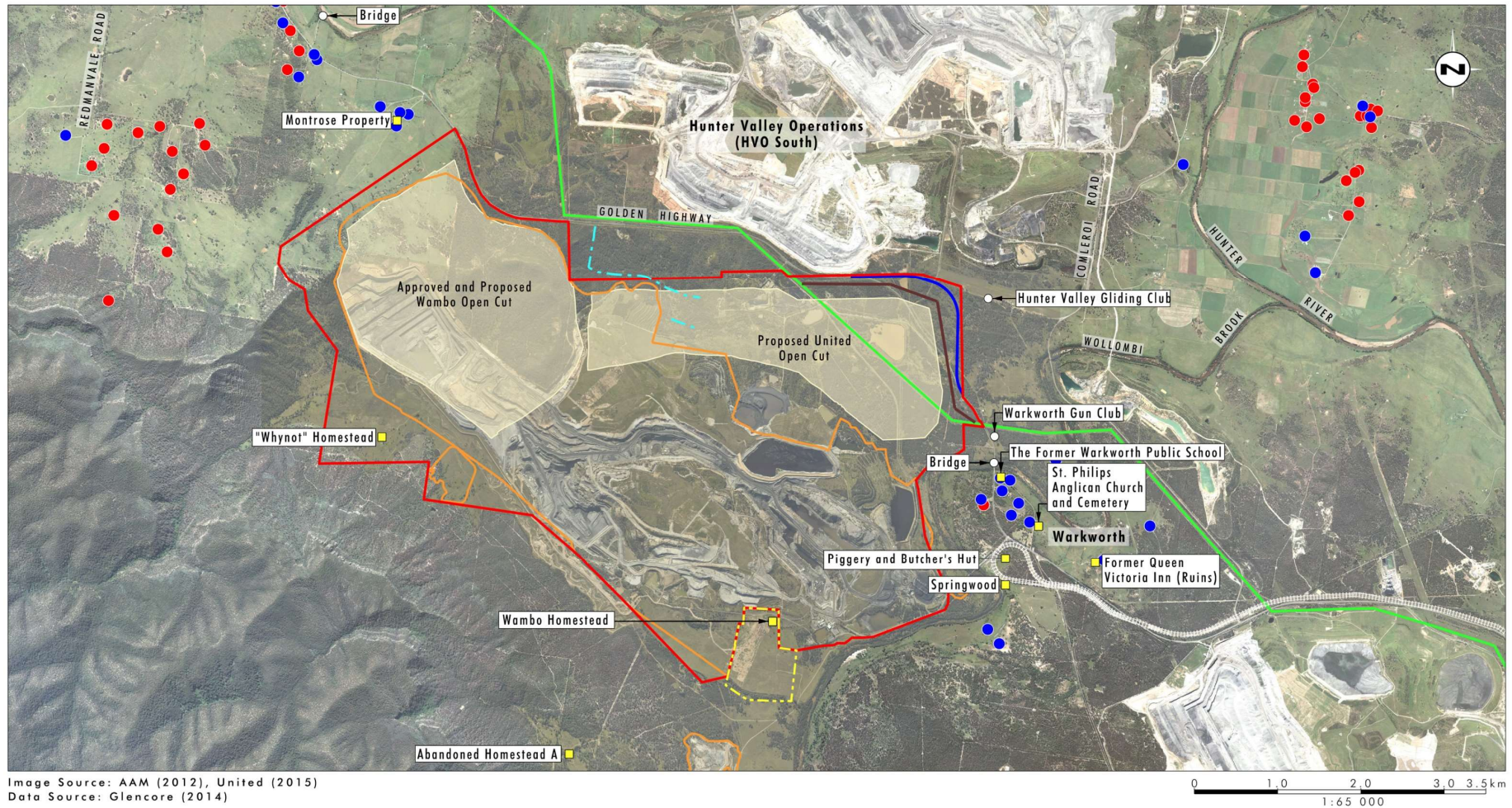
2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions shall be that recorded by the meteorological station required under condition B32.

Compliance Monitoring

3. Unless otherwise agreed by the Planning Secretary, the attended compliance monitoring must be carried out in accordance with the relevant requirements for reviewing performance set out in the *NSW Industrial Noise Policy* (EPA, 2000), in particular the requirements relating to:
 - (a) monitoring locations for the collection of representative noise data;
 - (b) meteorological conditions during which collection of noise data is not appropriate;
 - (c) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and
 - (d) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration,

with the exception of applying appropriate modifying factors for low frequency noise during compliance testing. This should be undertaken in accordance with Fact Sheet C of the *NSW Noise Policy for Industry* (EPA, 2017).

APPENDIX 5 BLAST SENSITIVE LOCATIONS



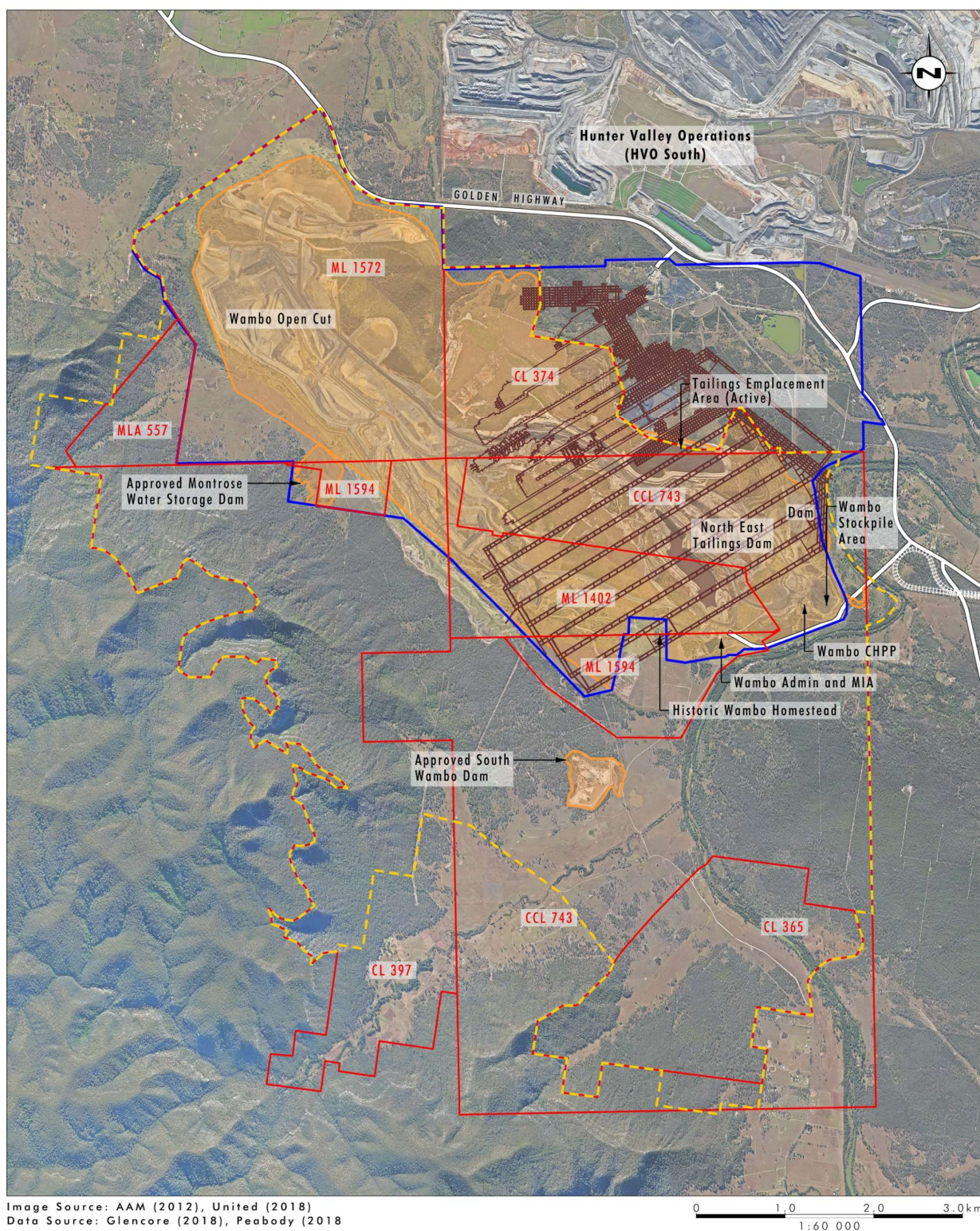
Legend

- | | |
|---|---|
| Project Area | Proposed Golden Highway Realignment |
| Proposed Conceptual Extraction Area | Listed and/or Potential Heritage Sites |
| Approved Wambo Surface Development Area | Dog Leg Fence |
| Existing 330kV Transmission Line | ● Mine Owned Residence |
| Proposed Relocated 330kV Transmission Line | ● Private Residence |

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20180914 12.43

Blast Sensitive Locations

Figure 6: Blast Sensitive Locations



Legend

- Mining and Coal Lease Boundary
- United Wambo Project Area
- Wambo DA 305-7-2003
- Approved Wambo Surface Development Area
- Approved United Colliery (Woodland Hill Seam) (Complete)

**United Historic
Underground Workings**

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Figure 7: United Historic Underground Workings

APPENDIX 6 BIODIVERSITY OFFSETS

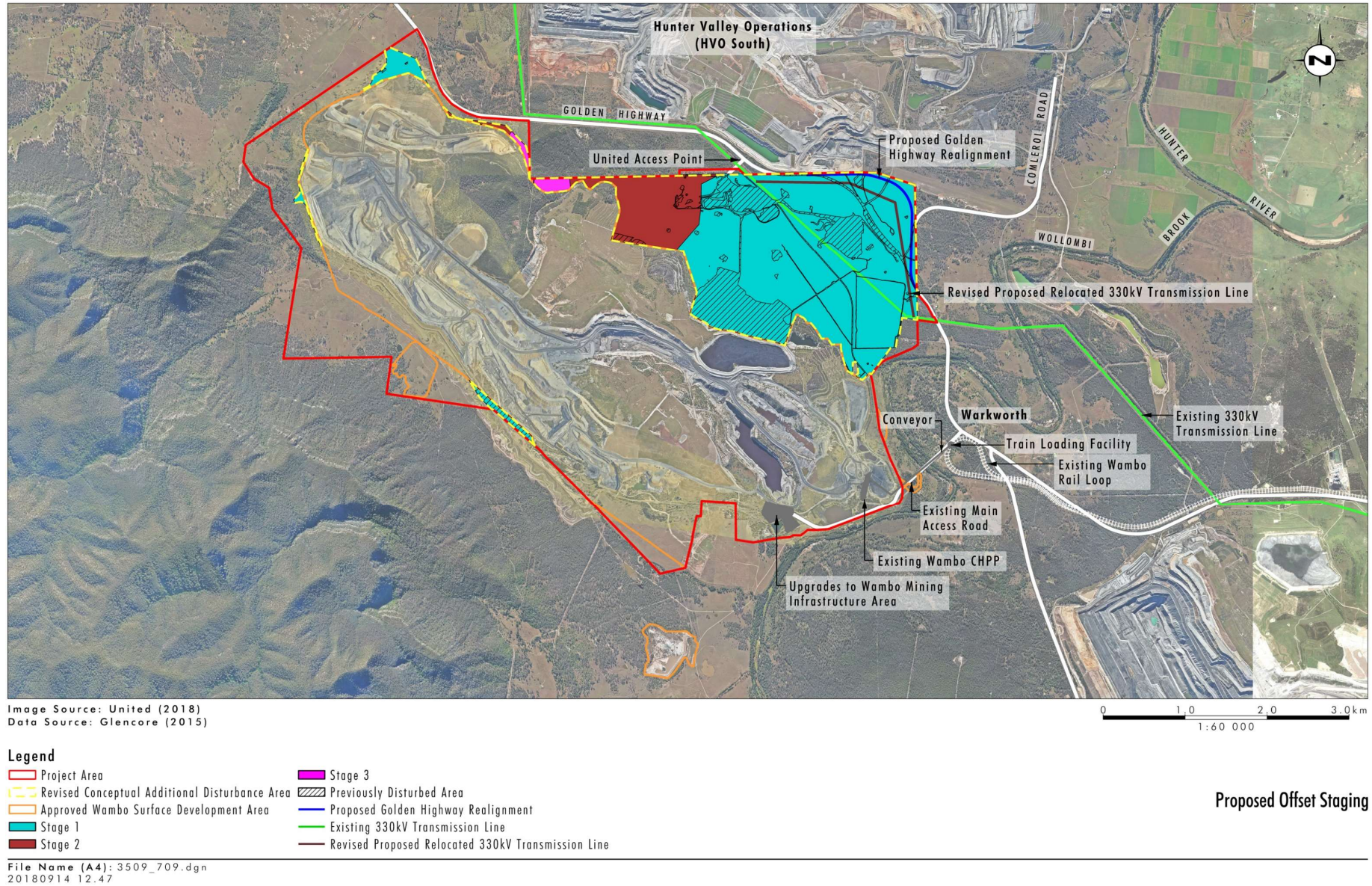


Figure 8: Conceptual Staged Surface Disturbance

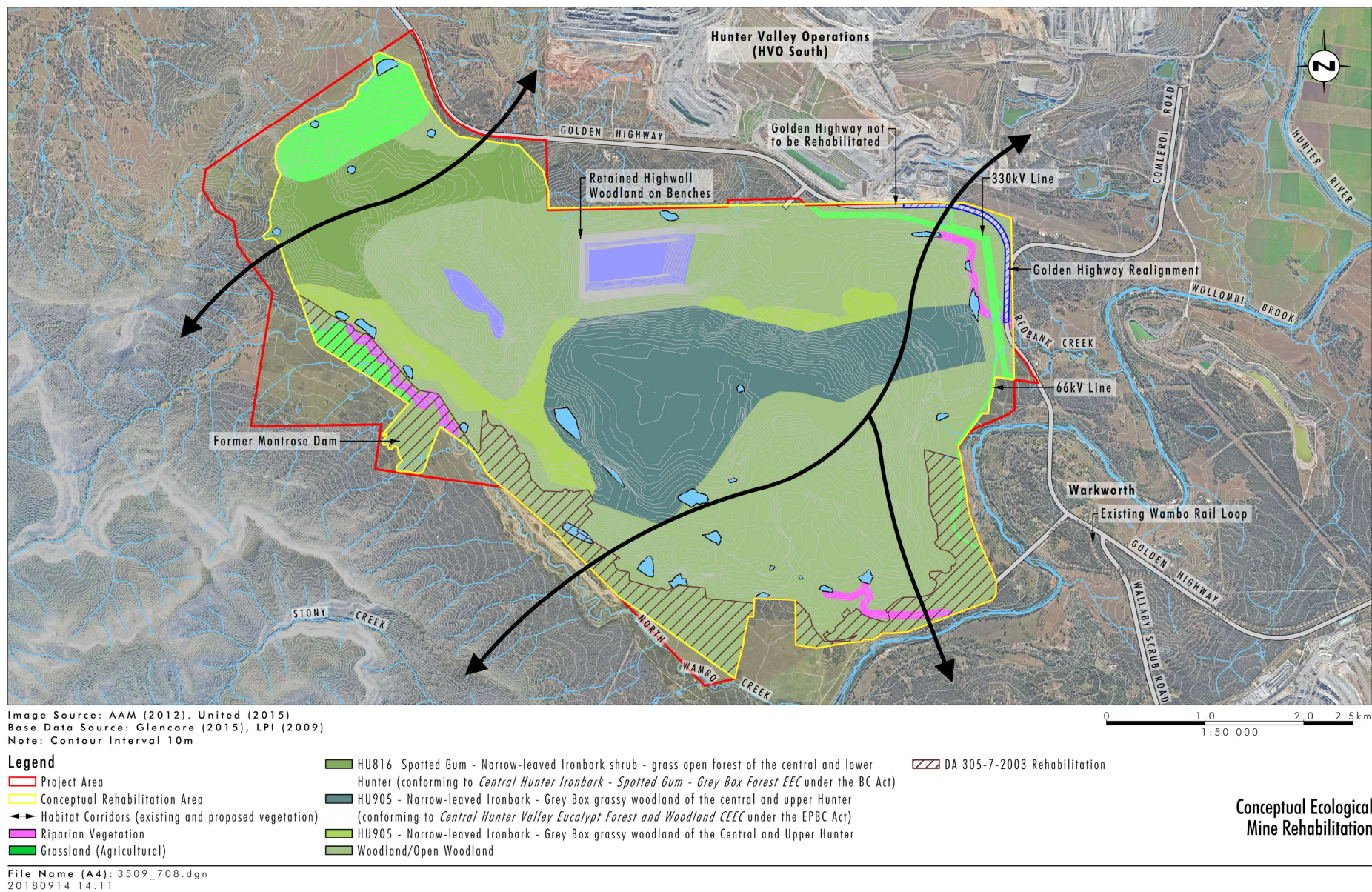
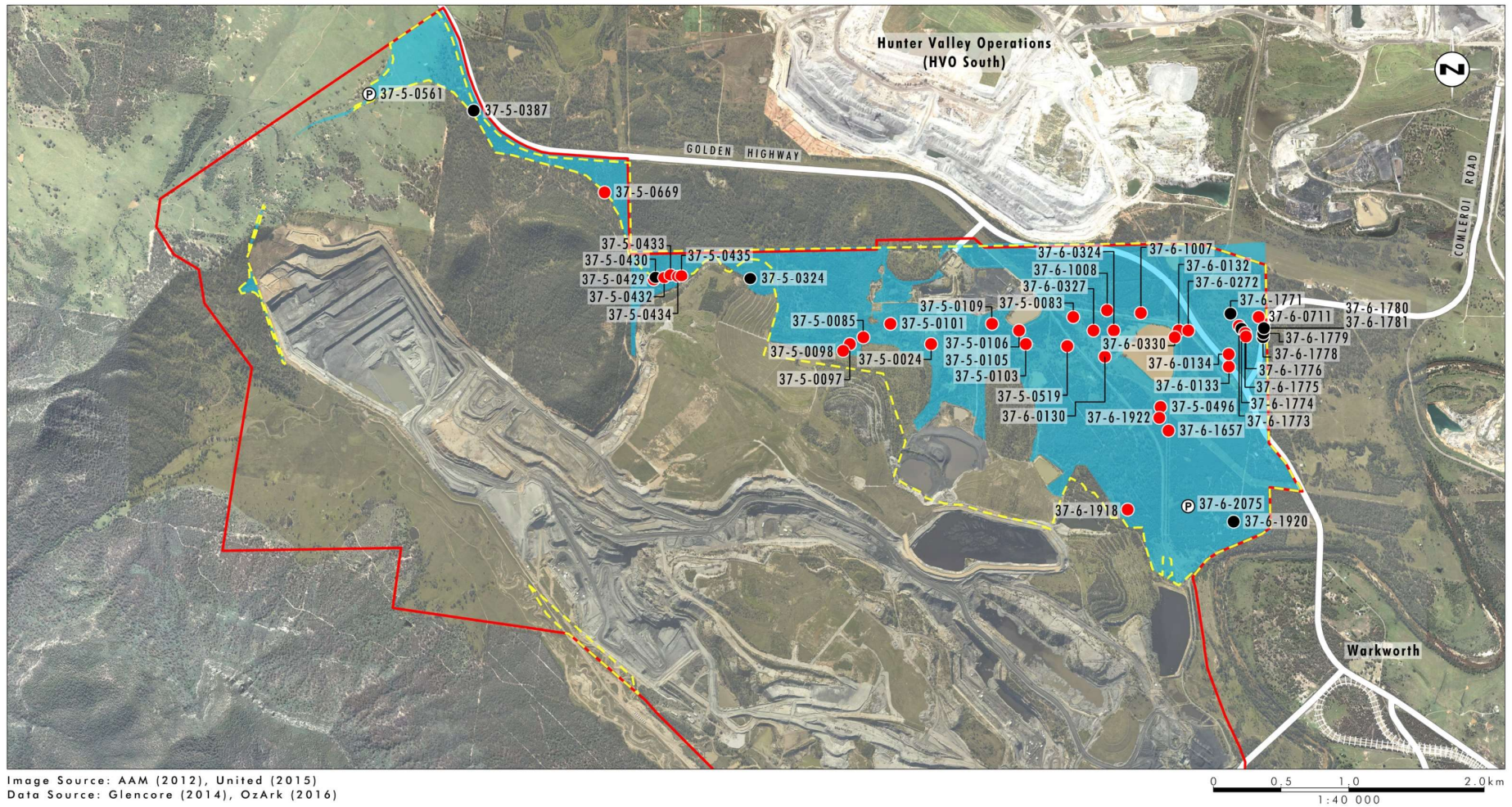


Figure 9: Conceptual Ecological Rehabilitation

APPENDIX 7 HERITAGE SITES



Legend

- Project Area
- Conceptual Additional Disturbance Area
- Survey Area
- Artefact Scatter
- Isolated Find
- P Potential Archaeological Deposit

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20180802 14.19

Previously Recorded Aboriginal
Archaeological Sites

Figure 10: Previously Recorded Aboriginal Archaeological Sites

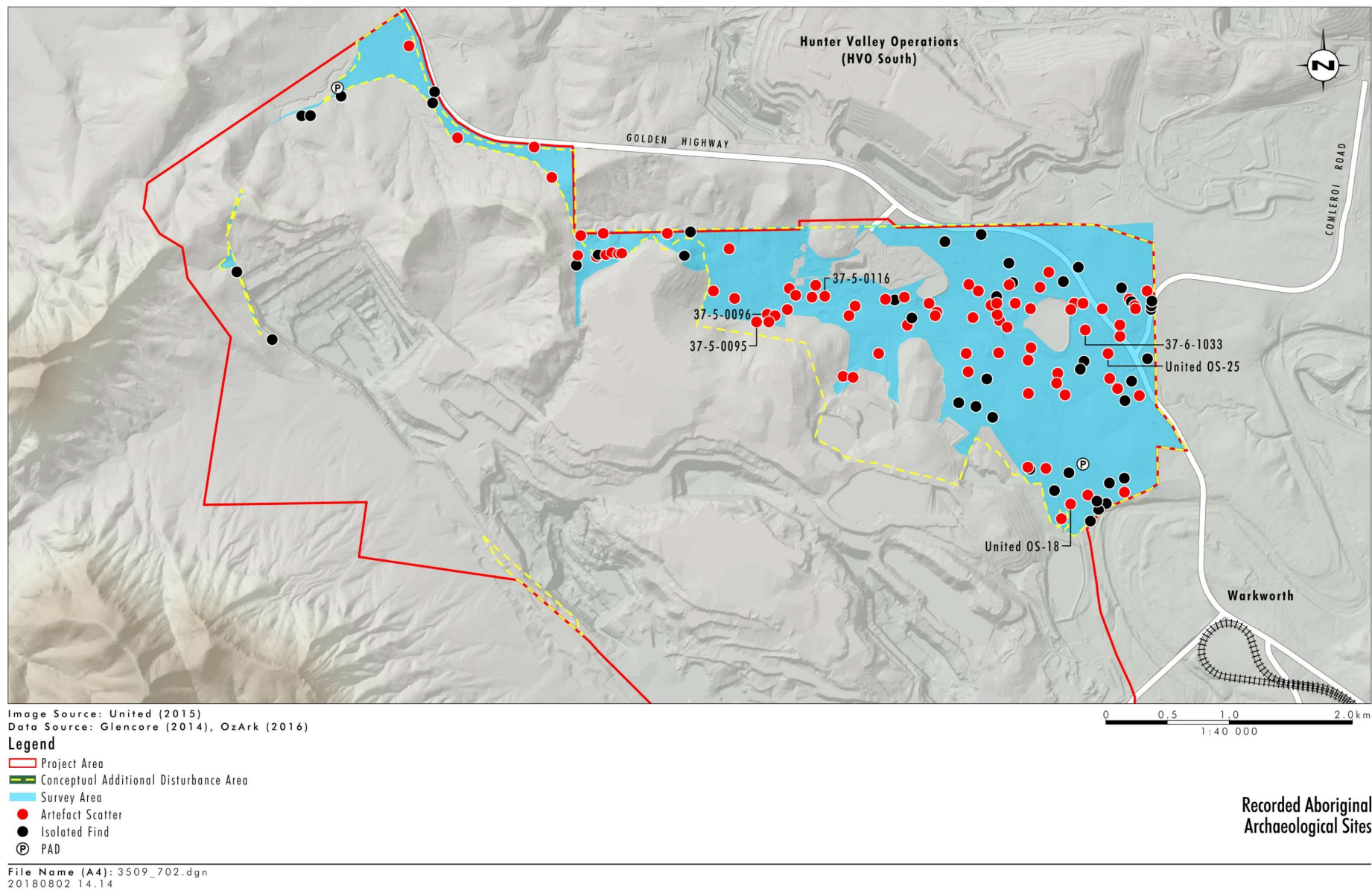
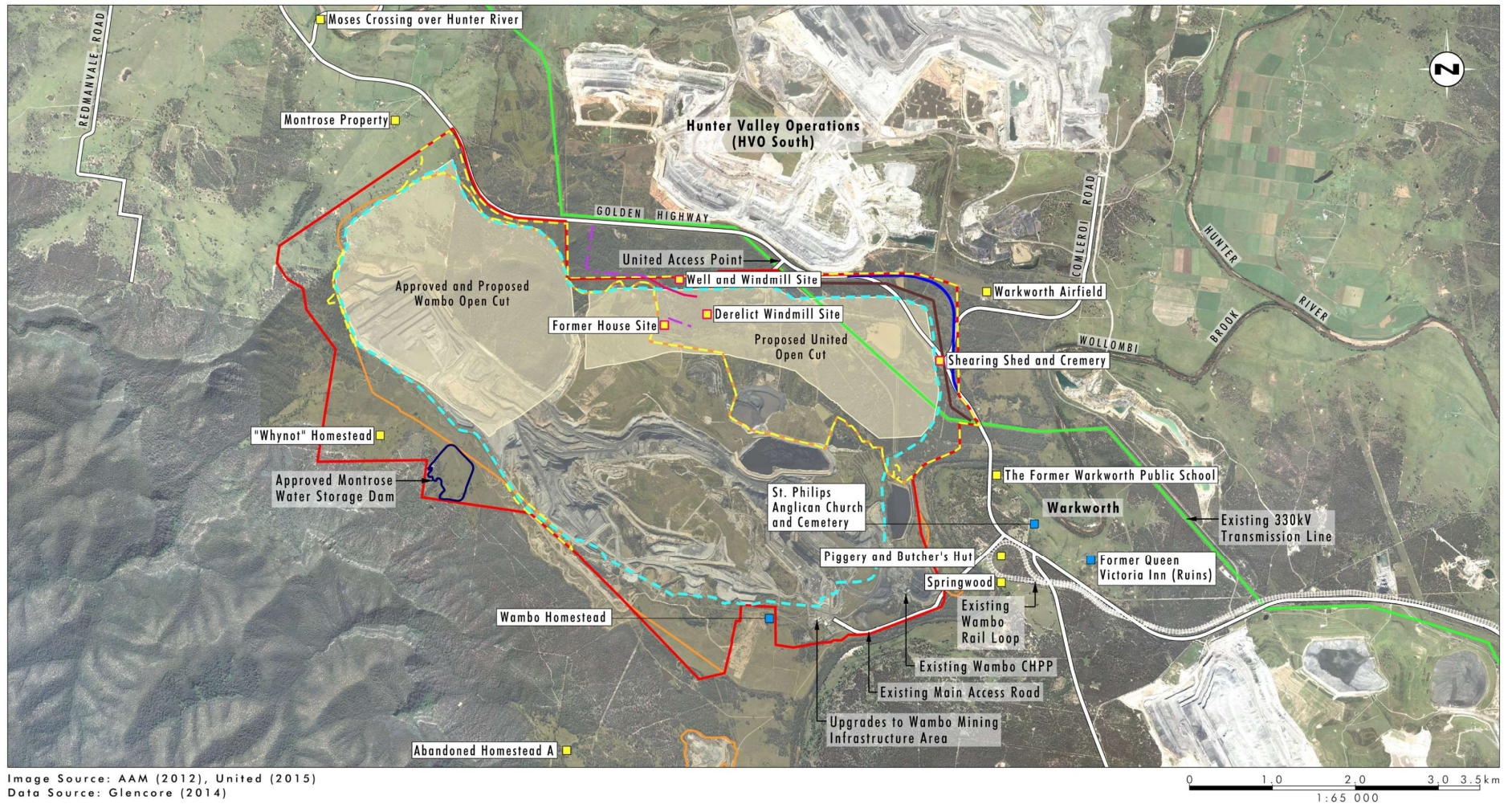


Figure 11: Aboriginal Archaeological Sites Identified in the EIS



Legend

- | | | |
|--|--|--|
| — Project Area | — Existing 330kV Transmission Line | Non State Listed Historic Heritage Site |
| — Conceptual Additional Disturbance Area | — Proposed Relocated 330kV Transmission Line | Destroyed as part of SSD 7142 |
| — Approved Wambo Surface Development Area | — Overburden Emplacement Area | — Dog-leg Fence |
| — Proposed Conceptual Extraction Area | — Approved Montrose Water Storage Dam | |
| — Proposed Golden Highway Realignment | State Listed Historical Heritage Site | |

Historical Heritage Sites

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20180914 12.49

Figure 12: Historic Heritage Sites

APPENDIX 8 REHABILITATION PLAN

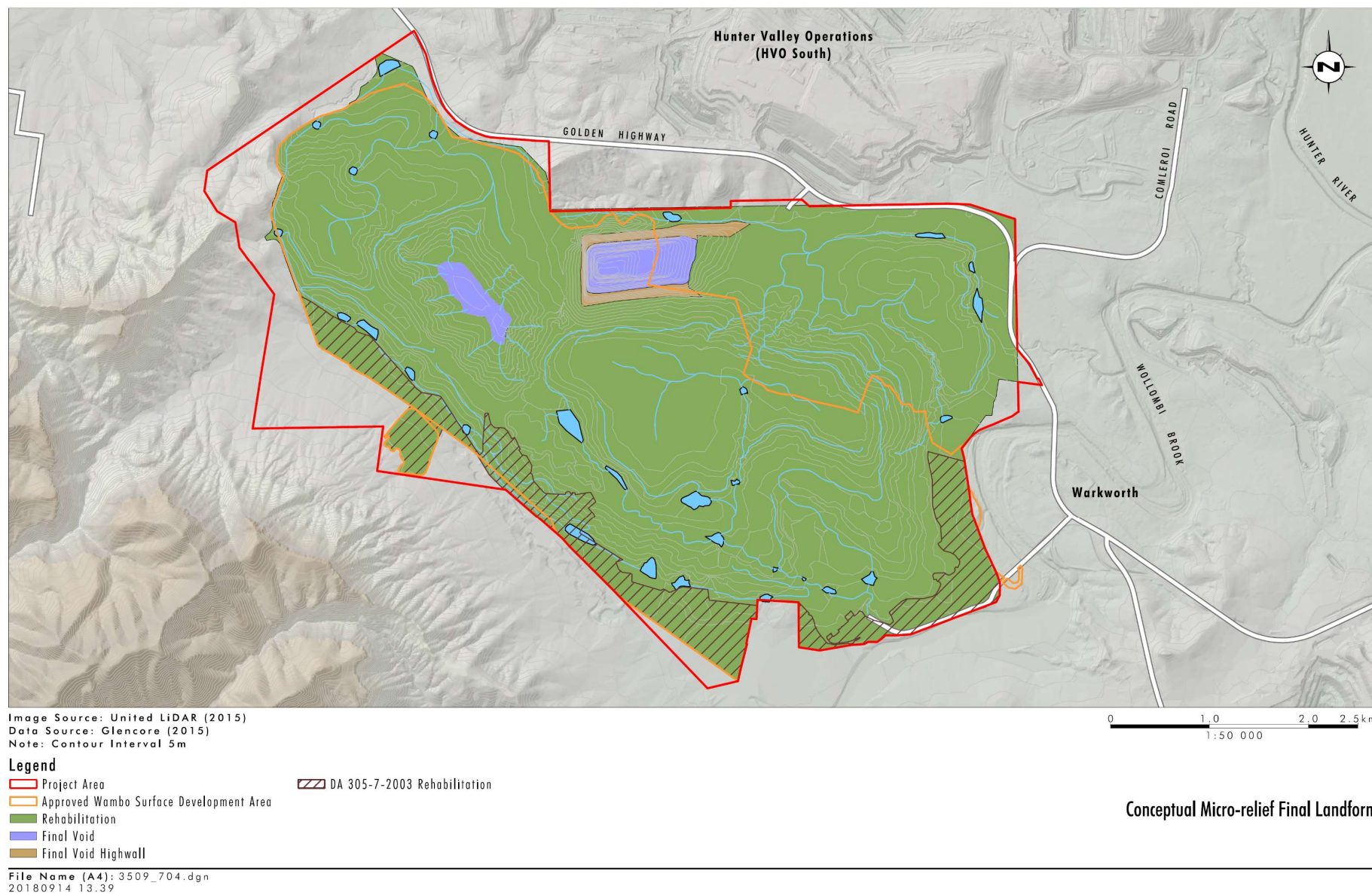


Figure 13: Conceptual Rehabilitation Plan

APPENDIX 9 GENERAL TERMS OF APPLICANT'S VPA OFFER

<i>Applicant's Contribution</i>	<i>Intended Use</i>	<i>Payment Details</i>
\$X,XXX,XXX	XXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX
\$X,XXX,XXX	XXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX
\$X,XXX,XXX	XXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX