Development Consent

Section 4.38 of the Environmental Planning and Assessment Act 1979

The Independent Planning Commission of NSW (the Commission), as the declared consent authority under clause 2.7 of the *State Environmental Planning Policy (Planning Systems) 2021* 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]	[Name of Commissioner]	[Name of Commissioner]
Member of the Commission	**Member of the Commission**	**Member of the Commission**

Sydney 2026

SCHEDULE 1

Application Number:	SSD 11826681
Applicant:	HV Operations Pty Ltd
Consent Authority:	The Independent Planning Commission of NSW
Site:	The land defined in Appendix 1
Development:	HVO North Open Cut Coal Mine Continuation Project

TABLE OF CONTENTS

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 D13
Applicant	HV Operations Pty Ltd, or any person carrying out any development under this consent
Approved disturbance area	The area identified as such on the Development Layout in Figure 1 of Appendix 2
ARI	Average Recurrence Interval
BAM	*Biodiversity Assessment Method*
BCA	Building Code of Australia
BC Act	*Biodiversity Conservation Act 2016*
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
CHPP	Coal handling and preparation plant
Conditions of this consent	Conditions contained in Schedule 2
Construction	• Physical works required to enable the development to be carried out, including demolition and removal of buildings, works or infrastructure, the clearing of native vegetation (excluding vegetation clearing that does not impact biodiversity values that require offsetting) and erection of buildings, works or other infrastructure permitted by this consent. • Does not include pre-construction works.
Council	Singleton Council
CPI	Consumer Price Index
CPHR	Conservation Programs, Heritage and Regulation Group within the NSW Department of Climate Change, Energy, the Environment and Water
Crown Lands Group	Crown Lands Group within the Department
Date of commencement	The date notified to the Department by the Applicant under condition A5
Day	The period from 7.00 am to 6.00 pm on Monday to Saturday, and 8.00 am to 6.00 pm on Sundays and Public Holidays
Decommissioning	The deconstruction or demolition and removal of works 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, Housing and Infrastructure
Development	The development described in the documents listed in condition A2(c), as modified by the conditions of this consent
Development Layout	The plans in Appendix 2 of this consent
EEC	Endangered ecological community, as defined under the BC Act
EIS	The Environmental Impact Statement titled *Hunter Valley Operations Continuation Project Environmental Impact Statement,* prepared by EMM Consulting Pty Limited, dated December 2022, submitted with the application for consent for the development, including: • the Applicant's Submissions Report prepared by EMM Consulting Pty Limited, dated November 2023; • Amendment Report prepared by EMM Consulting Pty Limited, dated November 2023; • Amendment Report prepared by EMM Consulting Pty Limited, dated August 2025;

	• Amendment Submissions Report prepared by EMM Consulting Pty Limited, dated November 2025; and • additional information provided by the Applicant in support of the application.
Environment	Includes all aspects of the surroundings of humans, whether affecting any human as an individual or in his or her social groupings
Environmental management document	Any strategy, study, system, plan, program, review, audit, notification, or report required by the conditions of this consent
EPA	NSW Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2021*
EPBC Act	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*
EPL	Environment Protection Licence under the POEO Act
Evening	The period from 6.00 pm to 10.00 pm
Feasible	Means what is possible and practical in the circumstances
Financial year	A period of 12 months from 1 July to 30 June
Fisheries NSW	Fisheries Branch of the NSW Department of Primary Industries and Regional Development
GDE	Groundwater Dependent Ecosystem
GPS	Global Positioning System
Heavy vehicle	A vehicle that has a combined Gross Vehicle Mass or Aggregate Trailer Mass of more than 4.5 tonnes
Heritage NSW	Heritage NSW within the NSW DCCEEW
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 *Heritage Act 1977*; • a state agency heritage and conservation register under section 170 of the *Heritage Act 1977;* • 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 Complex	The combined operations of HVO South Open Cut Coal Mine Continuation Project (SSD 11826621) and HVO North Open Cut Coal Mine Continuation Project (SSD 11826681)
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
Laden trains	Trains transporting mining products or materials to or from the site
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	As defined in section 147 of the *Protection of the Environment Operations Act 1997.* ***Notes:*** • *This definition excludes harm that is either authorised under this consent or any other statutory approval.* • *For the purposes of this definition, material harm excludes incidents captured by Work Health and Safety reporting requirements.*
MEG	Regional NSW – Mining, Exploration and Geoscience

Mine-owned land	Land owned by a mining, petroleum or extractive industry company (or its subsidiary or related party)
Mine closure	Decommissioning and final rehabilitation of the site following the cessation of mining operations
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 or saline material
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, tailings and reject material
Minister	NSW Minister for Planning and Public Spaces, or delegate
Minor	Not very large, important or serious
Mitigation	Activities associated with reducing the impacts of the development
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10.00 pm to 7.00 am on Monday to Saturday, and 10.00 pm to 8.00 am on Sundays and Public Holidays
Noise sensitive areas	Areas where mining operations are being carried out that have potential to lead to increased noise at privately-owned residences, such as elevated areas or areas near the boundary of the site
Non-compliance	An occurrence, set of circumstances or development that is a breach of this consent
NP&W Act	*National Parks and Wildlife Act 1974*
NPfI	*NSW Noise Policy for Industry 2017*
NSW DCCEEW	NSW Department of Climate Change, Energy, the Environment and Water
Over-dimensional vehicle	Class 1 load-carrying vehicles as defined under the *National Heavy Vehicle Regulator's NSW Class 1 Load Carrying Vehicle Operator's Guide*
Planning agreement	Planning agreement within the meaning of the term in section 7.4 of the EP&A Act
Planning Secretary	Planning Secretary under the EP&A Act, or nominee
POEO Act	*Protection of the Environment Operations Act 1997*
Pre-construction activities	Development activities required for site establishment or temporary services including: • surveys including property, building and road dilapidation surveys; • geotechnical investigations, including drilling and minor excavation; • installation of environmental impact mitigation measures, including monitoring equipment, fencing, and erosion and sediment controls; • archaeological investigations, including test excavations and salvage works undertaken in accordance with a strategy or salvage operation required by the conditions of this consent; • vegetation clearing that does not impact biodiversity values that require offsetting under this consent; and • establishment of minor access tracks or maintenance of existing access tracks.
Privately-owned land	Land that is not owned by a public agency or a mining, petroleum or extractive industry company (or its subsidiary or related party)
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 *National Parks and Wildlife Regulation 2009*

Rehabilitation	The restoration of land disturbed by the development to a good condition, to ensure it is safe, stable and non-polluting
Remediation	Activities associated with partially or fully repairing or rehabilitating the impacts of the development or controlling the environmental consequences of this impact
Residence	Existing or approved dwelling at the date of grant of this consent
Resources Regulator	NSW Resources Regulator, part of NSW Resources within the NSW Department of Primary Industries and Regional Development
RFS	NSW Rural Fire Service
ROM	Run-of-mine
Site	The land defined in Appendix 1
TfNSW	Transport for NSW
Water Group	The Water Group within the NSW Department of Climate Change, Energy, the Environment and Water

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, all reasonable and feasible measures must be implemented 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 Applicant must carry out the development:

(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 in Appendix 2.

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 condition A3(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 a 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.

NOTIFICATION OF COMMENCEMENT

A5. The date of commencement of each of the following phases of the development must be notified to the Department in writing via the Major Project Portal, at least two weeks prior to:

(a) commencement of development under the consent;

(b) commencement of construction under the consent;

(c) commencement of mining operations under the consent;

(d) cessation of mining operations (i.e. mine closure); and

(e) any period of suspension of mining operations (i.e. care and maintenance).

A6. If the phases of development are to be further staged, the Department must be notified in writing via the Major Project Portal at least two weeks prior to the commencement of such stages, of the date of commencement and the development to be carried out in that stage.

LIMITS OF CONSENT

Mining operations

A7. Mining operations may be carried out on the site, within the approved disturbance area, until 31 December 2045.

Notes:

- *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.*
- *Mining operations and rehabilitation are also regulated under the Mining Act 1992.*

A8. A maximum of 22 million tonnes of ROM coal may be extracted from the site in any calendar year using open cut mining.

A9. A maximum of 26 million tonnes of ROM coal may be extracted from the HVO Complex in any calendar year using open cut mining.

A10. ROM coal may be transported via private haul road to the neighbouring Ravensworth Operations for processing and transport, subject to compliance with the conditions of MP09_0176.

A11. Product coal may only be transported from the site:

(a) via rail, or by conveyor to the Bayswater Power Station; or

(b) via private haul road to the neighbouring Liddell Coal Operations for transport, subject to compliance with the conditions of DA305-11-01.

Hours of Operation

A12. Mining operations may occur 24 hours a day, 7 days a week.

***Note**: For limitations on blasting operations see condition B18.*

Identification of Approved Disturbance Area

A13. Within three months of the date of the commencement of development under this consent, the Department must be provided with a survey plan (or spatial files in a format agreed by the Planning Secretary) of the boundaries of the approved disturbance area.

SURRENDER OF EXISTING CONSENTS OR APPROVALS

A14. Within 12 months of the date of commencement of mining operations under this consent, or other timeframe agreed by the Planning Secretary, the existing development consent for the HVO North Coal Mine (DA 450-10-2003) must be surrendered in accordance with the EP&A Regulation.

A15. Upon the commencement of development under this consent, and before the surrender of existing development consents required under condition A14, the conditions of this consent prevail to the extent of any inconsistency with the conditions of those consents or approvals.

***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.*

PLANNING AGREEMENT

A16. Within twelve months of the date of commencement of mining operations under this consent, or other timeframe agreed by the Planning Secretary, the Applicant must enter into planning agreements with both Singleton Council and Muswellbrook Shire Council in accordance with:

(a) Division 7.1 of Part 7 of the EP&A Act; and

(b) the terms of the offers in Appendix 8.

A17. If the Applicant and Muswellbrook Shire Council do not enter into a Planning Agreement within the timeframe under condition A16, then within a further 3 months, the Applicant must make a contribution under Section 7.12 of the EP&A Act contribution to Muswellbrook Shire Council of $215,000 as a one off payment. The amount to be paid is to be adjusted at the time of the actual payment, in accordance with the provisions of the *Muswellbrook Shire Council Section 94A Development Contributions Plan 2010.*

A18. If there is any dispute between the Applicant and either council in regards to conditions A16 and A17 then either party may refer the matter to the Planning Secretary for resolution.

COMMUNITY CONSULTATIVE COMMITTEE

A19. The Applicant must operate a Community Consultative Committee (CCC) for the HVO Complex in accordance with the Department's *Community Consultative Committee Guidelines: State Significant Projects* (2023), unless otherwise agreed by the Planning Secretary. The CCC must continue to operate during the life of the HVO Complex, or other timeframe agreed by the Planning Secretary.

Notes:
- *The CCC is an advisory committee only.*
- *In accordance with the Guidelines, the CCC should comprise an independent chair and appropriate representation from the Applicant, Council, affected stakeholder groups and the local community.*

EVIDENCE OF CONSULTATION

A20. Any consultation with an identified party must be completed before submitting an environmental management document required by this consent to the Planning Secretary for approval. Documentary evidence and a tabulated summary of the consultation must be submitted with the environmental management document via the NSW Planning Portal, including:

(a) dates of the consultation with the identified party, copies of the identified party's response, and a summary of the issues raised; and

(b) the outcome of that consultation, including how the issues have been addressed in the subject document, including any unresolved matters.

APPLICATION OF EXISTING STRATEGIES, PLANS OR PROGRAMS

A21. Prior to the approval of management plans under this consent, any equivalent or similar management plan/s required under DA 450-10-2003 must be implemented, to the satisfaction of the Planning Secretary.

STAGING, COMBINING AND UPDATING STRATEGIES, PLANS OR PROGRAMS

A22. With the approval of the Planning Secretary, any strategy, plan or program required by this consent can be:

(a) prepared and submitted 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) combined if a clear relationship is demonstrated between the strategies, plans or programs that are proposed to be combined;

(c) updated on a regular basis and incorporate additional measures or amendments to improve the environmental performance of the development);

(d) combined with any similar strategy, plan or program required by a consent or approval for any adjoining mine subject to common, shared or related ownership or management;

(e) staged or updated without consultation being undertaken with all parties required to be consulted in the relevant condition in this consent; and

(f) staged without addressing particular requirements of the relevant condition of this consent if those requirements are not applicable to the particular stage.

A23. Requests to combine environmental management documents made to the Planning Secretary must demonstrate a clear nexus between the nominated documents, the impact of combining the nominated documents and how the nominated documents will still comply with the conditions of this consent.

PAYMENT OF RESONABLE COSTS

A24. The Applicant must pay all reasonable costs incurred by the Department to engage a suitably qualified, experienced and independent expert(s) to review the adequacy of any environmental management document required under the consent.

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[a] that is damaged by carrying out the development; and

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

[a] 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 A16 or A17 or damage that has been compensated under the Mining Act 1992.

DEMOLITION

A26. All demolition must be carried out in accordance with Australian Standard AS 2601-2001 The Demolition of Structures (Standards Australia, 2001), or its latest version.

STRUCTUAL ADEQUACY

A27. All new buildings and structures, and any alterations or additions to existing buildings and structures, that are part of the development must be constructed in accordance with the relevant requirements of the BCA.

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.*

OPERATION OF PLANT AND EQUIPMENT

A28. 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

A29. 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

A30. References in the conditions of this consent to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, Standards or policies in the form they are in as at the date of inclusion in the consent (or at the date of the later modification to the condition).

A31. Notwithstanding Condition A30, consistent with the conditions of this consent and without altering any limits or criteria in this consent, the Planning Secretary may, in respect of ongoing monitoring and management obligations, agree to or require compliance with an updated or revised version of such a guideline, protocol, Standard or policy, or a replacement of them.

CROWN LAND

A32. The Crown Lands Group must be consulted prior to undertaking any development on Crown Land or Crown Roads.

***Notes**:*

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

PART B SPECIFIC ENVIRONMENTAL CONDITIONS

GREENHOUSE GAS EMISSIONS

Greenhouse Gas Mitigation Plan

B1. Within six months of the date of commencement of development under the consent, unless otherwise agreed by the Planning Secretary, a Greenhouse Gas Mitigation Plan must be prepared for the development. The plan must:

(a) be prepared in consultation with the EPA;

(b) be consistent with the EPA's guidelines "*Emissions Reporting and Climate Change Mitigation and Adaptation Plans – Guidance for Environment Protection Licensees"* (March 2026, or latest version) and "*Greenhouse Gas Mitigation Guide for Coal Mines"* (March 2026, or latest version) and include emission goals consistent with emission reduction targets committed to in the document/s in condition A2(c);

(c) include an annual reporting framework for tracking emission reductions against emission goals, including reporting gross and net emissions, avoidance, mitigation and offsetting measures applied to meet the emission goals; and

(d) be revised every three years, unless otherwise agreed by the Planning Secretary to assess the feasibility of available greenhouse gas mitigation technology and identify measures to be applied to the development.

Note: As required under the EPA's guideline "Emissions Reporting and Climate Change Mitigation and Adaptation Plans – Guidance for Environment Protection Licensees, March 2026", impacted licensees will be required to prepare and implement a Climate Change Mitigation and Adaptation Plan by 31 March 2027. With the approval of the Planning Secretary, the preparation and implementation of this plan could be used to meet the requirements of condition B1.

NOISE

Hours of construction

B2. All pre-construction and construction activities must be conducted between 7 am and 6 pm Monday to Friday and between 8 am and 1 pm Saturdays and at no time on Sundays and public holidays.

B3. Pre-construction and construction activities may be carried outside the construction hours in condition B2 where they comply with the operational noise criteria in Table 1 or where they are approved in a construction noise protocol under condition B8.

Noise Criteria

B4. Except as provided for by condition B6, noise generated by the development must not exceed the criteria in Table 1 at any privately-owned land.

Table 1: *Operational noise criteria dB(A)*

Noise Assessment Group[a]	Day $L_{Aeq\ (15\ min)}$	Evening $L_{Aeq\ (15\ min)}$	Night $L_{Aeq\ (15\ min)}$	Night $L_{A1\ (1\ min)}$
NAG 1A	41	41	41	46
NAG 1B	40	40	40	46
NAG 1C	39	39	39	46
NAG 2	37	35	35	46
NAG 3	41	41	40	46
NAG 4	37	37	37	46
NAG 5A	40	40	40	46
NAG 5B	40	40	40	46
All other privately-owned residences	40	35	35	45

[a]The Noise Assessment Groups referred to in Table 1, are shown in Appendix 3.

B5. Noise generated by the development must be monitored and measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the *NSW Noise Policy for Industry* (EPA, 2017). The noise enhancing meteorological conditions determined by monitoring at the meteorological station required under condition B42 and as defined in Part D of the *NSW Noise Policy for Industry* (EPA, 2017) apply to the noise criteria in Table 1.

B6. 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.

Temporary Construction Noise Limits

B7. A construction noise protocol must be prepared for any activities that require temporary construction noise limits above the noise criteria in Table 1, including for construction works outside of standard hours. The protocol must:

(a) be submitted to the Planning Secretary prior to undertaking activities that require temporary construction noise limits;

(b) be prepared in consultation with the EPA and any residents who may be affected by the noise generated by these works;

(c) specify the construction works to which the temporary construction noise limits would apply and provide justification for these limits; and

(d) address the relevant requirements of the *Interim Construction Noise Guideline* (DECC, 2009).

B8. The development must operate in accordance with the noise criteria in Table 1 until and unless a construction noise protocol for the specified construction works is approved by the Planning Secretary.

B9. The construction noise protocol, as approved by the Planning Secretary, must be implemented for the duration of the applicable activities.

Noise Operating Conditions

B10. All reasonable and feasible mitigation and management measures must be implemented for the development to:

(a) minimise noise from construction, operational activities and mine closure activities, including low frequency noise and other audible characteristics, as well as road noise associated with the development;

(b) minimise the noise impacts of the development in noise sensitive areas during the evening and night;

(c) implement noise mitigation measures for all plant and equipment that operate in noise sensitive areas;

(d) minimise the noise impacts of the development during noise-enhancing meteorological conditions;

(e) carry out regular attended noise monitoring to determine whether the development is complying with the relevant conditions of this consent; and

(f) regularly assess the noise monitoring data and modify/ stop operations and/or implement mitigation measures on the site to ensure compliance with the relevant conditions of this consent.

B11. Attended noise monitoring must be undertaken at least once a month, to determine whether the development is complying with the relevant conditions of this consent, unless otherwise agreed by the Planning Secretary.

B12. A comprehensive noise management system that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations must be operated and implemented for the development. The monitoring data must be used to guide the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this consent.

B13. Reasonable efforts must be taken where feasible to co-ordinate noise management with nearby mines (Mt Thorley Warkworth, United Wambo, Ravensworth and HVO South) to minimise cumulative noise impacts from these mines and the development.

Noise Management Plan

B14. A Noise Management Plan must be prepared for the development. The plan must:

(a) be submitted to the Planning Secretary for approval within nine months of the date of commencement of development under this consent, or as otherwise agreed by the Planning Secretary;

(b) be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the Planning Secretary;

(c) be prepared in consultation with the EPA;

(d) describe the measures to be implemented to ensure:

   (i) compliance with the noise criteria and operating conditions of this consent;

   (ii) best practice management is being employed; and

   (iii) noise impacts of the development are minimised during noise-enhancing meteorological conditions;

(e) describe the measures to minimise development related road traffic noise generated on public roads;

(f) describe the noise management system in detail; and

(g) include a protocol that has been prepared in consultation with the owners of nearby mines (Mt Thorley Warkworth, United Wambo, Ravensworth and HVO South mines) to minimise the cumulative noise impacts of these mines and the development where feasible and where there is a reciprocal requirement in the development consent for those mines;

(h) include a monitoring program that:

  (i) uses a combination of real-time and supplementary attended monitoring to evaluate the performance of the development;

  (ii) monitors noise at locations representative of the most affected residences;

  (iii) includes a program to calibrate and validate the real-time noise monitoring results with the attended monitoring results over time;

  (iv) adequately supports the noise management system;

  (v) includes a protocol for distinguishing noise emissions of the development from any neighbouring developments; and

  (vi) 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.

B15. The Noise Management Plan must be implemented as approved by the Planning Secretary.

BLASTING

Blasting Criteria

B16. Except as provided for in condition B17, blasting from the development must not cause exceedances of the criteria at the locations in Table 2.

Table 2: *Blasting criteria*

Location	***Airblast overpressure (dB(Lin Peak))***	***Ground vibration (mm/s)***	***Allowable exceedance***
Residence on privately-owned land[a]	120	10	0%
	115	5	5% of the total number of blasts over a calendar year
St Phillips Anglican Church Archerfield Homestead and Outbuildings Old Anglican Cemetery	-	5	0%
Wambo Homestead Complex	120	5	0%
Other Heritage Items[b]	133	5	0%
Hunter Valley Gliding Club	133	25	0%
Prescribed Dams	-	50	0%
Occupied surface infrastructure at adjacent mine sites	133	25	0%
Unoccupied surface infrastructure at adjacent mine sites	133	100	0%
Public roads and bridges, Telstra tower and buried communication cables and pipelines	-	100	0%
Transmission suspension towers (<500 kV)	-	100	0%

Location	*Airblast overpressure (dB(Lin Peak))*	*Ground vibration (mm/s)*	*Allowable exceedance*
Transmission tension towers (<500 kV)	-	50	0%
500 kV transmission towers	-	100	0%
Ausgrid electrical substations	-	20	10% of the total number of blasts over a period of 12 months
	-	25	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, as agreed by the Planning Secretary)	0%

a The locations referred to in Table 2 are shown in Appendix 2 and Appendix 3.

b These limits do not apply to heritage sites located within the approved disturbance area. This also excludes the WWII Airstrip, Dog Leg Fence and Remnant Stockyards as described in the EIS.

B17. 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

B18. Blasting can only occur on the site between 8 am and 6 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

B19. Blasts must not exceed:

(a) 3 single blast events[a] a day; and

(b) 12 single blast events[a] a week, averaged over a calendar year.

B20. Condition B19 does not apply to single blast events[a] 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.

[a] *Within conditions* B19*'single blast event' means a blast which involves either a single detonation or a number of individual blasts fired in quick succession in a discrete area of the development. Should an additional blast be required after a blast misfire, this additional blast and the blast misfire are counted as a single blast event.*

Property Inspections

B21. 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.

B22. 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

B23. 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.

B24. 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.

B25. 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

B26. All reasonable and feasible steps must be taken to:

(a) ensure the safety of people and livestock from blasting impacts of the development;

(b) protect public and private infrastructure and property in the vicinity of the site from blasting damage associated with the development;

(c) minimise blast-related dust and fume emissions; and

(d) 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.

B27. Reasonable efforts must be taken to co-ordinate the timing of blasting with the timing of blasting at nearby mines (Mt Thorley Warkworth, United Wambo, Ravensworth and HVO South) to minimise cumulative blasting impacts from these mines and the development.

B28. Blasting on the site must not:

(a) damage or cause instability to the Carrington West Wing low permeability barrier (once constructed) or the Carrington In Pit Fine Reject Emplacement embankment; or

(b) damage heritage items outside the approved disturbance area.

B29. A comprehensive blast management system that uses a combination of meteorological forecasts and predictive blast modelling to guide the planning of blasts to minimise blasting impacts must be implemented for the development.

B30. A blasting information system must be operated for the development. The system must:

(a) enable interested members of the public to get up-to-date information on the proposed blasting schedule on the site and any associated road closures; and

(b) include notification via direct communications of blasting schedule and associated road closures for that day and any variations to that schedule and closures.

B31. Blasting must not be undertaken 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) 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

(b) 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.

Blast Management Plan

B32. A Blast Management Plan must be prepared for the development. The plan must:

(a) be submitted to the Planning Secretary for approval within nine months of the date of commencement of development under this consent, unless otherwise agreed by the Planning Secretary;

(b) be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the Planning Secretary;

(c) be prepared in consultation with the EPA;

(d) describe the blast management system and the measures that will be implemented to ensure compliance with the blasting criteria and conditions of this consent;

(e) include a Blast Fume Management Strategy for:

- (i) minimising blast fume emissions;
- (ii) rating and recording blast fume events; and
- (iii) reporting significant blast fume events to the Department and the EPA;

(f) 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:

- (i) minimising the duration of closures, both on a per event basis and weekly basis;
- (ii) avoiding peak traffic periods as far as reasonable; and
- (iii) co-ordinating closures with nearby mines to minimise the cumulative effect of road closures;

(g) identify any agreed alternative ground vibration limits for public or private infrastructure in the vicinity of the site (if relevant);

(h) include a strategy to manage potential blast interactions with nearby mines;

(i) include a strategy to monitor, mitigate and manage the effects of blasting on heritage items, including details of baseline (i.e. pre-blasting) and ongoing risk-based dilapidation surveys (subject to landowner access arrangements);

(j) include a monitoring program for evaluating and reporting on compliance with the relevant conditions of this consent;

(k) include a protocol for identifying any blast-related exceedance, incident or non-compliance and for notifying the Department, the EPA and relevant stakeholders of these events;

(l) include public notification procedures to enable members of the public, particularly surrounding residents, to get up-to-date information on the proposed blasting schedule; and

(m) include a protocol for investigating and responding to blast-related complaints.

B33. The blast management plan must be implemented as approved by the Planning Secretary.

AIR QUALITY

Air Quality Criteria

B34. Except as provided for in condition B35, all reasonable and feasible avoidance and mitigation measures must be implemented to ensure 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 or on more than 25 percent of any privately-owned vacant land, except for the air quality affected land in condition C1.

Table 3: *Air quality criteria*

Pollutant	***Averaging period***	***Criterion***
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

[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.*

B35. 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

B36. 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:

(a) 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;

(b) the tenant of any land owned by the Applicant can terminate their tenancy agreement without penalty at any time, subject to giving 14 days' notice;

(c) 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

(d) data from this monitoring is presented to the tenant and landowner in an appropriate format for a medical practitioner to assist the tenant and landowner in making informed decisions on the health risks associated with occupying the property.

Air Quality Operating Conditions

B37. All reasonable and feasible steps must be implemented to:

(a) avoid and minimise the generation of odour, fume and particulate matter (including PM_{10} and $PM_{2.5}$) emissions of the development, paying particular attention to minimising wheel-generated haul road emissions;

(b) eliminate or minimise the risk of spontaneous combustion;

(c) implement best practice control measures to minimise the generation of dust emissions from the development;

(d) minimise the extent of potential dust generating surfaces exposed on the site at any given point in time through implementation of progressive rehabilitation, including use of interim stabilisation and temporary vegetation strategies when areas prone to dust generation, soil erosion and weed incursion cannot be permanently rehabilitated;

(e) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see Note c to Table 3 above);

(f) carry out regular air quality monitoring to determine whether the development is complying with the relevant conditions of this consent;

(g) regularly assess meteorological and air quality monitoring data, and modify/stop operations and/or implement mitigation measures on the site to ensure compliance with the relevant conditions of this consent;

B38. A comprehensive air quality management system that uses a combination of predictive meteorological forecasting and real-time air quality monitoring data to guide the day to day planning of mining operations must be operated and implemented for the development. The monitoring data must be used to guide the implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this consent.

B39. Reasonable efforts must be taken where feasible to co-ordinate air quality management with nearby mines (Mount Thorley Warkworth, United Wambo, Ravensworth and HVO South mines) to minimise the cumulative air quality impacts of these mines and the development.

Air Quality Management Plan

B40. An air quality management plan must be prepared for the development. The plan must:

(a) be submitted to the Planning Secretary for approval within nine months of the date of commencement of development under this consent unless otherwise agreed by the Planning Secretary;

(b) be prepared by a suitably qualified and experienced person/s;

(c) be prepared in consultation with the EPA;

(d) describe the measures to be implemented to ensure:

  (i) compliance with the air quality criteria and operating conditions of this consent;

  (ii) best practice management is being employed to minimise the development's air quality impacts; and

  (iii) the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events;

(e) describe the air quality management system in detail;

(f) include a protocol that has been prepared in consultation with the owners of nearby mines (Mt Thorley Warkworth, United Wambo, Ravensworth and HVO South mines) to minimise the cumulative air quality impacts of these mines and the development where feasible and where there is a reciprocal requirement in the development consent for those mines; and

(g) include an air quality monitoring program, undertaken in accordance with the *Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales* (EPA, 2022), or its latest version, 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 mining operations;

(ii) adequately supports the air quality management system;

(iii) includes a protocol for distinguishing the dust emissions of the development from any neighbouring developments; and

(iv) 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.

B41. The air quality management plan must be implemented as approved by the Planning Secretary.

METEOROLOGICAL MONITORING

B42. Within 3 months of the date of commencement of development under this consent, a suitable meteorological station must be 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* (EPA, 2022), or its latest version; and

(b) is capable of measuring meteorological conditions in accordance with the *NSW Noise Policy for Industry* (EPA, 2017), unless a suitable alternative is approved by the Planning Secretary following consultation with the EPA.

WATER

Water Supply

B43. Sufficient water must be available for all stages of the development, and if necessary, the scale of the development must be adjusted to match its available water supply.

B44. A report on water extracted from the site each year (direct and indirect), including water taken under each water licence must be included in the Annual Review.

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.*

Water Management

B45. The development may receive water from, and transfer water to, neighbouring mines including HVO South, Liddell Coal Operations and Ravensworth Operations.

Carrington West Wing Low Permeability Barrier (LPB)

B46. A detailed design of the Carrington West Wing LPB must:

(a) be prepared by a suitably qualified and experienced expert/s;

(b) be prepared in consultation with Water Group and approved by the Planning Secretary, prior to construction of the LPB;

(c) achieve the relevant performance measures including:

(i) applicable permeability of $1x10^{-8}$ metres/second or less;

(ii) applicable Australian Standards (including AS 3798-2007); and

(iii) hydraulic, geomorphologic and seismic stability which will withstand any blasting-related vibrations, mining operations, fluvial and weather events, decay corrosive and biological attack.

B47. Prior to the commencement of construction of the LPB, the detailed design must be approved by the Planning Secretary.

B48. Mining operations must not commence within 100 metres of the remnant western paleochannel (as shown in Appendix 7) until the LPB is installed in accordance with the detailed design, as approved by the Planning Secretary.

B49. An as-executed report certifying that the LPB has been installed in the western arm of the remnant paleochannel must be prepared for the development. The report must:

(a) be prepared and submitted to the Planning Secretary prior to undertaking any mining operations within 100 metres of the remnant western arm of the paleochannel that remains in connection with the Hunter River (as shown in Appendix 7);

(b) be prepared by a suitably qualified and experience practising engineer;

(c) certify that the LPB has been constructed to achieve the relevant performance measures set out in condition B46(c); and

(d) prepared in consultation with Water Group.

B50. If there is evidence after its installation that the LPB is not achieving the performance measures in condition B46, mining operations within 100 metres of the western arm of the Hunter River paleochannel must cease until approval to recommence is granted by the Planning Secretary.

LPB Monitoring and Management Plan

B51. A low permeability barrier monitoring and management plan must be prepared for the development, the plan must:

(a) be submitted to the Planning Secretary for approval 18 months prior to mining within 100 metres of the western arm of the Hunter River paleochannel;

(b) be prepared by a suitably qualified and experienced expert;

(c) be prepared in consultation with Water Group;

(d) address the monitoring and management of both the Carrington West Wing LPB and the Carrington Pit Southern Extension LPB, including the stability of the high walls adjacent to the LPBs;

(e) describe the monitoring and maintenance procedures to be implemented and the scheduling of these procedures;

(f) demonstrate that the monitoring system is capable of timely detection of any failure or deficiency in either LPB;

(g) a local water balance for the alluvial aquifer in the vicinity of the Carrington West Wing low permeability barrier wall;

(h) consider the use of non-invasive methods of monitoring such as surface electrical resistivity surveys as an alternative to, or in combination with groundwater monitoring using nested piezometers.

(i) include a risk assessment informed by groundwater modelling; and

(j) include a trigger action response plan to respond to any exceedances of the performance measures in condition B46, and repair, mitigate and/or offset any adverse impacts of the exceedance.

B52. The approved monitoring and management plan must be implemented as approved by the Planning Secretary.

Water Management Performance Measures

B53. The development 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 (i.e. sediment-laden) and mine water management systems • Minimise the use of clean and potable water on the site • Maximise water recycling, reuse and sharing opportunities • Minimise the use of make-up water from external sources, including extraction from the Hunter River • Minimise the need for discharges to the Hunter River Salinity Trading Scheme • Design, install, operate and maintain water management systems in a proper and efficient manner • Minimise risks to the receiving environment and downstream water users
Alluvial aquifers	• Negligible impacts to alluvial aquifers as a result of the development, beyond those predicted in the document/s listed in condition A2(c), including: - negligible change in groundwater levels; - negligible change in groundwater quality; and - negligible impact to other groundwater users, • Maintain appropriate setbacks in accordance with the Aquifer Interference Policy (DPI, 2012) • Protect GDEs surrounding the site by maintaining negligible impacts as a result of the development, beyond those predicted in the documents listed in condition A2(c).

Feature	*Performance Measure*
Erosion and sediment control works	• Design, install and maintain erosion and sediment controls in accordance with the guidance series *Managing Urban Stormwater: Soils and Construction including Volume 1: Blue Book (Landcom, 2004), Volume 2A: Installation of Services (DECC, 2008), Volume 2C: Unsealed Roads (DECC,2008), Volume 2D: Main Road Construction (DECC, 2008) and Volume 2E: Mines and Quarries (DECC, 2008)* • Design, install and maintain any creek crossings in accordance with the *Fisheries NSW Policy and Guidelines for Fish Habitat Conservation and Management (DPI, 2013) and Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries 2003)* • Design, install and maintain any new infrastructure within 40 metres of watercourses in in accordance with the guidance series for Controlled Activities on Waterfront Land (DPI Water, 2012)
Clean water diversions and storage infrastructure	• Design, install and maintain the clean water system to capture and convey the 100 year ARI flood • 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
Flood protection works	• Design, install and maintain flood levees to protect mining areas from a 1000 year ARI flood event and to ensure no increased flooding impacts on roads or privately-owned land beyond those predicted in the documents listed in condition A2(c)
Sediment dams	• Design, install and maintain sediment dams in accordance with the guidance series *Managing Urban Stormwater: Soils and Construction – Volume 1* (Landcom, 2004) and *2E Mines and Quarries* (DECC, 2008) and the requirements under the POEO Act.
Mine water storages	• Design, install and maintain mine water storage infrastructure to avoid unlicensed or uncontrolled discharge of mine water • New storages designed to contain the 100 year ARI storm event and minimise permeability • On-site storages (including mine infrastructure dams, groundwater storage and treatment dams) are suitably designed, installed and maintained (including to minimise permeability) • Ensure adequate freeboards within all pit voids at all times to minimise the risk of discharge to surface waters
Chemical and hydrocarbon storage	• Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standard
Tailings storages	• Design and maintain tailings storage areas to prevent the movement of tailings seepage/leachate offsite
Overburden emplacements	• Design, install and maintain emplacements to encapsulate and prevent migration of 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
Aquatic and riparian ecosystems	• Negligible environmental consequences beyond those predicted in the document/s listed in condition A2(c) • Ensure mining operations do not interfere with the channel stability along the Hunter River, Wollombi Brook and creek lines located outside the area of mining operations. • Develop site-specific in-stream water quality objectives in accordance with the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZECC & ARMCANZ, 2000) and *Using the ANZECC Guidelines and Water Quality Objectives in NSW* (DEC, 2006) or its latest version

Note: *All surface water discharges must comply with the limits of any EPL, the POEO Act and the Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002.*

B54. The performance measures in Table 4 apply to the entire site, including all landforms constructed under previous development consents. However, these performance measures do not require any additional earthmoving works to be undertaken for landforms that have been approved and constructed under previous consents, except where those earthworks are required for the establishment of a stable and non-polluting landform.

Water Management Plan

B55. A Water Management Plan must be prepared for the development. The plan must:

(a) be submitted to the Planning Secretary for approval within 12 months of the date of commencement of development under this consent unless otherwise agreed by the Planning Secretary;

(b) be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the Planning Secretary;

(c) be prepared in consultation with Water Group and the EPA;

(d) describe the measures to be implemented to ensure that the development complies with the water management performance measures (see Table 4);

(e) utilise existing data from nearby mines and build on existing monitoring programs, where practicable;

(f) include a:

(i) **Site Water Balance** that includes details of:

- predicted annual inflows to and outflows from 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;
- reporting procedures, including the annual preparation of an updated site water balance; and
- a program to periodically validate the water balance for the development.

(ii) **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;
- includes a program to review the adequacy of existing flood protection works, and ensure they comply with the relevant performance measures listed in Table 4;
- 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 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;

(iii) **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;
- details of the water licensing requirements for all water storages (i.e. exempt, harvestable rights or licenced);
- detailed plans, design objectives and performance criteria for water management 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 including mine water management systems;
  - emplacement areas;
  - erosion and sediment controls;

- backfilled pits and any final voids for the development; and
- reinstated drainage networks on rehabilitated areas of the site;

- modelling of potential exceedances of the total site storage capacity including confidence limits on stored and discharged water volumes using a stochastic rainfall model;
- surface water performance criteria, including trigger levels for identifying and investigating any potentially adverse impacts (or trends) associated with the development, for:
  - water supply for other water users;
  - downstream surface water flows and quality;
  - downstream flooding impacts;
  - stream and riparian vegetation heath; and
  - post-mining water pollution from rehabilitated areas of the site;
- a program to monitor and evaluate:
  - compliance with the relevant performance measures listed in Table 4 and the performance criteria in this plan;
  - controlled and uncontrolled discharges and seepage/leachate from the site, including continuous monitoring of flow, electrical conductivity, pH and turbidity at identified discharge and overflow points;
  - impacts on water supply for other water users;
  - continuous water levels in the Hunter River to measure the hydraulic gradient from the river to the alluvial aquifer at the Carrington West Wing Low Permeability Barrier;
  - spoil hydrology, geochemistry and seepage, in order to support progressive rehabilitation and closure planning;
  - surface water inflows, outflows and storage volumes, to inform the Site Water Balance; and
  - the effectiveness of the surface water management system and the measures in the Erosion and Sediment Control Plan;
- reporting procedures for the results of the monitoring program, including notifying other water users of any elevated results; and
- a trigger action response plan to respond to any exceedances of the relevant performance measures or performance criteria, and repair, mitigate and/or offset any adverse surface water impacts of the development.

(iv) **Groundwater Management Plan** that includes:

- detailed baseline data of groundwater levels, yield and quality for groundwater resources and groundwater dependent ecosystems potentially impacted by the development, including groundwater supply for other water users;
- a detailed description of the groundwater management system;
- detailed consideration of groundwater dependent ecosystems informed by updated groundwater modelling, including:
  - assessment of the sensitivity of plant species within the Hunter River to groundwater level declines;
  - assessment of risks to GDE during prolonged drier periods; and
  - groundwater modelling and uncertainty analysis of long term risks; and
  - consideration of the historic variability of groundwater levels;
- groundwater performance criteria, including trigger levels for identifying and investigating any potentially adverse groundwater impacts (or trends) associated with the development, on:
  - regional and local aquifers (alluvial and hardrock), particularly groundwater losses from the Hunter Regulated River and alluvium;
  - groundwater supply for other water users such as licensed privately-owned groundwater bores; and;
  - groundwater dependent ecosystems, including specific thresholds for water level decline for each ecosystem
- a program to monitor and evaluate:
  - compliance with the relevant performance measures listed in Table 4 and the performance criteria in this plan;
  - water loss/seepage from water storages into the groundwater system, including from any final void;

  - the impacts of the development on the low permeability barriers;
  - base flows to the Hunter River;
  - groundwater losses from the Hunter Regulated River and alluvium;
  - groundwater inflows, outflows and storage volumes, to inform the Site Water Balance;
  - the hydrogeological setting of any nearby alluvial aquifers and the likelihood of any indirect impacts from the development;
  - impacts on groundwater dependent ecosystems, including the River Red Gum Floodplain Woodland located in the Hunter River alluvium;
  - impacts on groundwater supply for other water users;
  - the effectiveness of the groundwater management system;
- review and reporting on the groundwater model including:
  - validation of modelled groundwater levels using historic measured groundwater levels;
  - depiction of rainfall patterns using a cumulative rainfall deviation curve to interpret the effects of rainfall on groundwater levels;
  - clear links between calibration hydrographs to their location;
  - an explanation and justification for how the final calibrated model parameter values compare with previous parameter values;
  - a description of the suitability of the model for individual geological formations; and
  - a description of the physical and environmental mechanisms governing the health of the groundwater dependent ecosystems.
- reporting procedures for the results of the monitoring program, including notifying other water users of any elevated results;
- a trigger action response plan to respond to any exceedances of the relevant performance measures and groundwater performance criteria, and repair, mitigate and/or offset any adverse groundwater impacts of the development;
- a program to periodically validate the groundwater model for the development, including an independent review of the model and comparison of monitoring results with modelled predictions every 3 years (unless otherwise agreed by the Planning Secretary) until the end of mining operations.
- a protocol to report on the measures, monitoring results and performance criteria identified above, in the Annual Review referred to in condition D13.

B56. The water management plan must be implemented as approved by the Planning Secretary.

B57. Within two years of the approval of the Water Management Plan, or as otherwise agreed by the Planning Secretary, an independent review of the Water Management Plan must be prepared. The review must:

(a) be prepared by a suitably qualified and experienced independent person/s whose appointment has been endorsed by the Planning Secretary;

(b) address the adequacy of monitoring and mitigation measures in the Water Management Plan.

B58. Within six weeks of the completion of the review required in condition B57, a schedule must be prepared outlining the timing for the response to the recommendations of the review, to the satisfaction of the Planning Secretary.

Fine Reject Management Strategy

B59. A life of mine fine reject management strategy must be prepared for the development, the strategy must:

(a) be submitted to the Planning Secretary for approval within nine months of the date of commencement of development under this consent unless otherwise agreed by the Planning Secretary;

(b) be prepared in consultation with Resources Regulator and Water Group;

(c) describe potential locations and design options for the emplacement of fine reject on site;

(d) assess any material short term and long term impacts on surface and groundwater resources associated with each option;

(e) describe the measures that would be implemented to avoid, minimise, manage and monitor any adverse impacts of the fine reject emplacements over time;

(f) describe how the fine reject emplacements would be rehabilitated and describe potential options for future land uses; and

(g) be integrated with the Rehabilitation Management Plan for the mine.

B60. The fine reject management strategy must be implemented as approved by the Planning Secretary.

BIODIVERSITY

Biodiversity Credits Required

B61. The biodiversity credits specified in Table 5 below must be retired in accordance with the Biodiversity Offsets Scheme of the BC Act, including the application of any ancillary rules published under Section 6.5 of the BC Regulation. Evidence must be provided to the Department that the correct number and class of credits has been retired prior to undertaking the disturbance associated with each offset stage.

Table 5: *Biodiversity credit requirements*

Credit type	Credits required	
	Stage 1	Stage 2
TEC ecosystem credits		
Hunter Floodplain Red Gum Woodland in the NSW North Coast and Sydney Basin Bioregions EEC	39[a]	0
Hunter Valley Footslopes Slaty Gum Woodland in the Sydney Basin Bioregion VEC	313	0
Central Hunter Grey Box—Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions EEC	2,160	36
Non-TEC ecosystem credits		
3431 - Central Hunter Ironbark Grassy Woodland	1,956	2
4015 - Central Hunter Riparian Forest	53	12
4081 - Northwest River Oak-River Red Gum Forest	39	0
4089 - Namoi-Upper Hunter River Red Gum Forest	13	0
Species credits		
Southern myotis (*Myotis macropus*)	1,990	34
Hunter Valley delma (*Delma vescolineata*)	2,559	8
Masked owl (*Tyto novaehollandiae*)	552	0
Brush-tailed phascogale (*Phascogale tapoatafa*)	3,277	54
Eucalyptus camaldulensis population in the Hunter Catchment	17[b]	0

[a] *includes 5 ecosystem credits associated with the impacts to River Red Gum Additional Disturbance Area*

[b] *includes 11 species credits associated with impacts to the River Red Gum Additional Disturbance Area*

B62. Prior to carrying out any disturbance for the development that would directly impact on biodiversity values within the:

(a) Stage 1 area (as shown on Figure 6 in Appendix 4), the Applicant must retire the Stage 1 biodiversity credits as specified in Table 5;and

(b) Stage 2 area (as shown on Figure 6 in Appendix 4), the Applicant must retire the Stage 2 biodiversity credits as specified in Table 5.

Strategic Study Contribution

B63. If, during the development, the Department or CPHR commissions a strategic study into the regional vegetation corridor stretching from the Wollemi National Park to the Barrington Tops National Park, then the Applicant must contribute $10,000, towards the completion of this study.

River Red Gum Restoration Strategy

B64. An updated River Red Gum Rehabilitation and Restoration Strategy must be prepared for the development. The updated strategy must:

(a) be submitted to the Planning Secretary for approval within 12 months of the date of commencement of development under this consent unless otherwise agreed by the Planning Secretary;

(b) be prepared by suitably qualified expert/s;

(c) be prepared in consultation with CPHR and Water Group;

(d) include the rehabilitation and restoration objectives for the billabong and river red gum populations in the restoration areas;

(e) include a description of the short, medium and long term measures that would be implemented to rehabilitate and restore the billabong and river red gum populations in the restoration areas (including measures to address matters which affect the long term health and sustainability of the billabong and river red gums such as surface and ground water supply, and controlling weeds, livestock and feral animals);

(f) include detailed assessment and completion criteria for the rehabilitation and restoration of the billabong and river red gum populations in the restoration areas;

(g) include an Ecological Restoration Plan (ERP) developed for the Hunter Floodplain Red Gum Woodland EEC. The ERP must provide a framework for the management of the vegetation community during and post-development of the project within the development footprint. The ERP must include management actions to inform specific weed control, re-establishment of vegetation, security/protection measures and a trigger action response plan for the continued improvement of the TECs.

Note: *The billabong and river red gum populations in the restoration areas are the Carrington Billabong, river red gum restoration area and river red gum additional restoration area shown in Figure 7 in Appendix 4.*

B65. The River Red Gum Rehabilitation and Restoration Strategy must be implemented as approved by the Planning Secretary.

Biodiversity Management Plan

B66. A biodiversity management plan must be prepared for the development, to the satisfaction of the Planning Secretary. The plan must:

(a) be submitted to the Planning Secretary for approval within nine months of the date of the commencement of the development unless otherwise agreed by the Planning Secretary;

(b) be prepared:

- (i) by a suitably qualified and experienced person/s;
- (ii) in consultation with CPHR; and
- (iii) consistent with the Biodiversity Development Assessment Report for the development and the document/s listed in condition A2(c);

(c) describe how biodiversity management would be integrated with similar measures within other management plans, including the Rehabilitation Strategy referred to in condition B85;

(d) incorporate the River Red Gum Rehabilitation and Restoration Strategy referred to in condition B64;

(e) include a description of the measures and timeframes that would be implemented to:

- (i) protect the Hunter Floodplain Red Gum Woodland EEC and Warkworth Sands Woodland EEC;
- (ii) minimise impacts to TECs listed under the BC Act and contribute to conservation strategies for these communities;
- (iii) 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;
- (iv) minimise clearing and avoiding unnecessary disturbance of vegetation by the development;
- (v) minimise impacts on fauna, and implementing fauna recovery and management protocols;
- (vi) maximise the salvage of vegetative and soil resources within the approved disturbance area for beneficial reuse in the enhancement of rehabilitation of the site;
- (vii) control weeds, feral pests, and pathogens;

(f) include a program to monitor and report on the:

- (i) effectiveness of avoidance, minimisation and mitigation measures;
- (ii) impacts of the development on groundwater dependent ecosystems and riparian vegetation consistent with the groundwater monitoring program, and identify trigger levels for the remediation of any material impacts to these ecosystems;

(g) include an adaptive management process to be implemented if monitoring indicates that a mitigation measure implemented is not effective;

(h) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

B67. The biodiversity management plan must be implemented as approved by the Planning Secretary.

HERITAGE

Protection of Aboriginal and Historic Heritage

B68. The development must not cause any direct or indirect impact on any identified heritage sites located outside the approved disturbance area, beyond those predicted in the document/s listed in condition A2(c).

B69. The Applicant must ensure that all known Aboriginal objects on the site and 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 Heritage Site 37-2-1877 (CM-CD1)

B70. Mining operations (including blasting) and associated activities must not impact, or be carried out within 20 metres of, Aboriginal heritage site 37-2-1877 (CM-CD1) and the Older Stratum as shown on the plan in Appendix 6.

Note: *For clarification purposes, condition B70 does not prohibit heritage surveys and studies to be undertaken within CM-CD1 or within 20 metres of CM-CD1 and the Older Stratum.*

Aboriginal Cultural Heritage Management Plan

B71. An Aboriginal Cultural Heritage Management Plan must be prepared for the development. The plan must:

(a) be submitted to the Planning Secretary for approval within six months of the date of the commencement of development under this consent unless otherwise agreed by the Planning Secretary;

(b) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Planning Secretary;

(c) be prepared in consultation with Heritage NSW and Registered Aboriginal Parties;

(d) include a detailed plan of management for Aboriginal heritage site 37-2-1877 (CM-CD1) including a description of the measures that would be implemented to protect, monitor and manage the site from mining operations and associated activities;

(e) describe the measures to be implemented on the site to:

(i) comply with the heritage-related operating conditions of this consent;

(ii) ensure all workers receive suitable Aboriginal cultural heritage training/inductions prior to carrying out any activities which may cause impacts to Aboriginal objects, and that suitable records are kept of these inductions;

(iii) protect, monitor and manage identified Aboriginal objects and Aboriginal places (including as part of any proposed archaeological investigation of potential subsurface objects and salvage of objects within the approved disturbance area) in accordance with the commitments made in the document/s listed in condition A2(c);

(iv) protect Aboriginal objects located outside the approved disturbance area from impacts of the development;

(v) manage the discovery of suspected human remains and any new Aboriginal objects, including provisions for burials, over the life of the development;

(vi) maintain and manage reasonable access for relevant Aboriginal stakeholders to Aboriginal objects (outside of the approved disturbance area);

(vii) carry out ongoing consultation with the Heritage NSW and Registered Aboriginal Parties during salvage operations; and

(viii) facilitate ongoing consultation and involvement of Registered Aboriginal Parties in the conservation and management of Aboriginal cultural heritage on the site.

B72. Construction must not commence until the Aboriginal cultural heritage management plan is approved by the Planning Secretary.

B73. The Aboriginal cultural heritage management plan must be implemented as approved by the Planning Secretary.

VISUAL

Visual Amenity and Lighting

B74. All reasonable and feasible mitigation and management measures must be implemented for the development to:

(a) minimise the visual and off-site lighting impacts of the development;

(b) shield views of mining operations and associated equipment from users of public roads and privately-owned residences;

(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); and

(e) ensure that all external lighting associated with the development complies with relevant Australian Standards including the latest version of *Australian Standard AS/NZS 4282:2023 Standard - Control of the obtrusive effects of outdoor lighting.*

WASTE

B75. All reasonable mitigation and management measures must be implemented to minimise the waste (including coal rejects and tailings) generated by the development.

B76. All waste generated by the development must be classified in accordance with the *Waste Classification Guidelines* (EPA, 2014)(or its latest version), stored and handled in accordance with its classification.

B77. All waste must be removed from the site as soon as practicable and reused, recycled or sent to an appropriately licensed waste facility for disposal.

B78. The effectiveness of the waste minimisation and management measures must be monitored and reported in the Annual Review required by condition D13.

B79. No waste must be received, stored, treated, processed, re-processed or disposed of on the site except as expressly permitted in an applicable EPL, specific resource recovery order or exemption under the Protection of the Environment Operations (Waste) Regulation 2014.

B80. Chemicals, fuels and oils used on-site must be kept in appropriately bunded areas in accordance with the requirements of all relevant Australian Standards, and/or *Storing and Handling of Liquids: Environment Protection- Participants Manual* (EPA, 2007) (or its latest version).

DANGEROUS GOODS

B81. The storage, handling, and transport of dangerous goods must be carried out in accordance with the relevant Australian Standards, particularly *AS1940* and *AS1596*, and the *Dangerous Goods Code*.

BUSHFIRE MANAGEMENT

B82. The development must comply with the relevant asset protection and property access requirements in Planning for Bushfire Protection (RFS, 2019) and Standards for Asset Protection Zones (RFS).

Note: *The relevant asset protection requirements are included in Appendix 4 of Planning for Bushfire Protection (RFS, 2019). Table 7.4a in Planning for Bushfire Protection (RFS, 2019) outlines property access requirements.*

REHABILITATION

Rehabilitation Objectives

B83. The site must be rehabilitated in accordance with the conditions imposed on the mining lease(s) associated with the development under the *Mining Act 1992*. Rehabilitation must be generally consistent with the proposed rehabilitation activities described in the document/s listed in condition A2(c) and shown in Appendix 8, and must 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 • Establish the final landform and post-mining land use/s as soon as practicable after cessation of mining operations • Minimise post-mining environmental impacts

Feature	*Objective*
Areas proposed for native ecosystem re-establishment	• Establish/restore self-sustaining native ecosystems • Establish local plant community types • Establish: - riparian habitat within any diverted and/or re-established creek lines and retained water features; - habitat, feed and foraging resources for threatened fauna species; 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 • Re-establish agricultural land areas generally in accordance with the final landform plan in Appendix 8) • Use species found in the local area that are suitable for pasture production • Restore land capability to pre-existing productive capacity as described in the documents listed in condition A2(c) • Maintain the agricultural productivity and production of non-operational project-related land
Final Landform	• Stable and sustainable for the intended post-mining land use/s • Integrated with surrounding natural landforms and other mine rehabilitated landforms, to the greatest extent practicable • Incorporate micro-relief and drainage features that mimic natural topography and mitigate erosion, to the greatest extent practicable • Maximise surface water drainage to the natural environment i.e. free draining (excluding final void catchment) • Minimise visual impacts, where practicable
Final void(s)	• Designed as long term groundwater sink to prevent the release of saline water into the surrounding environment, unless further mine planning and final landform design processes identify a more suitable outcome for the final void (see condition B85) • Minimise to the greatest extent practicable: - the size and depth; - the drainage catchment; - any high wall instability risk; and - the risk of flood interaction • Maximise potential for beneficial reuse, where practicable
Creek restoration works	• Engineered to be hydraulically and geomorphologically stable • Incorporate erosion control measures based on vegetation and engineering revetments • Incorporate structures for aquatic habitat • Revegetate with suitable native species
Surface infrastructure of the development	• 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 reused 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

B84. The rehabilitation objectives in Table 6 apply to the entire site, including all landforms constructed under either this consent or previous consents. However, the Applicant is not required to undertake any additional earthmoving works on landforms that have been approved and constructed under previous consents, except where those earthworks are required for the establishment of a stable, non-polluting and free-draining landform.

Rehabilitation Strategy

B85. A Rehabilitation Strategy must be prepared for all land disturbed by the development, the strategy must:

(a) be submitted to the Planning Secretary for approval within nine months of the date of the commencement of development under this consent unless otherwise agreed by the Planning Secretary;

(b) be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the Planning Secretary;

(c) be prepared in consultation with the Resources Regulator and Council;

(d) include a stakeholder engagement plan to guide rehabilitation outcomes for the site, and address all aspects of rehabilitation including mine closure, final landform (including final void), post-mining land use/s and water management;

(e) build upon the Rehabilitation Objectives in Table 6, describe the overall rehabilitation outcomes for the site, and address all aspects of rehabilitation including mine closure, final landform (including final voids), post-mining land use/s and water management;

(f) align with strategic rehabilitation and mine closure objectives and address the principles of the *Strategic Framework for Mine Closure* (ANZMEC and MCA, 2000);

(g) describe how the rehabilitation measures would be integrated with the measures in the Biodiversity Management Plan referred to in condition B66;

(h) describe how rehabilitation will be integrated with the mine planning process, including a plan to address premature or temporary mine closure;

(i) investigate opportunities to refine and improve the final landform and final void outcomes over time;

(j) include an assessment of the sensitivity of groundwater modelling results to spoil hydrology to assess the risk of poor-quality spoil water entering the alluvial aquifer or Hunter River;

(k) include a post-mining land use strategy to investigate and facilitate post-mining beneficial land uses for the site (including the final void), that:

   (i) align with regional and local strategic land use planning objectives and outcomes (including the *Hunter Regional Plan 2041*);

   (ii) support a sustainable future for the local community;

   (iii) utilise existing mining infrastructure, where practicable;

   (iv) includes a description of long-term land management objectives, including bushfire management, weed and feral animal control, water quality and public safety; and

   (v) includes consideration of the integration of post-mining land uses with surrounding mining operations;

(l) investigate ways to minimise adverse socio-economic effects associated with rehabilitation and mine closure; and

(m) include a program to periodically review and update this strategy at least every three years.

B86. The rehabilitation strategy must be implemented as approved by the Planning Secretary.

Note: *A Rehabilitation Management Plan must be prepared for the development in accordance with the provisions of the Mining Act 1992*

TRANSPORT

Monitoring of Coal Transport

B87. Accurate records of the monthly volume of coal transported from the site must be kept and published in the Annual Review required by condition D13.

Road Upgrades and Closures

B88. The closure of the impacted section of Lemington Road and the redundant section of Lemington Road for the development must not occur until:

(a) Lemington Road realignment is operational dedicated as a public road;

(b) a road safety audit for the realigned Lemington Road is undertaken, and any required improvements are implemented; and

(c) a road condition report for the realigned Lemington Road is completed prior to commissioning, and any improvements are implemented.

Traffic Management Plan

B89. A Traffic Management Plan must be prepared for the development, the plan must:

(a) be submitted to the Planning Secretary for approval within nine months of the date of the commencement of development under this consent unless otherwise agreed by the Planning Secretary;

(b) be prepared in consultation with TfNSW and Council;

(c) include details of all transport routes and traffic types to be used for development-related traffic;

(d) include details of the measures to be implemented to minimise traffic safety issues and disruption to local road users during operation and decommissioning phases of the development, including:

   (i) temporary traffic controls, including detours and signage (where relevant);

(ii) notifying the local community about development-related traffic impacts;

(iii) responding to any emergency repair requirements or maintenance during construction and/or decommissioning; and

(iv) a traffic management system for managing over-dimensional vehicles; and

(e) include a Drivers' Code of Conduct that includes procedures to ensure that drivers:

(i) adhere to posted speed limits or other required travelling speeds;

(ii) adhere to the designated transport routes; and

(iii) implement safe driving practices.

B90. The Traffic Management Plan must be implemented as approved by the Planning Secretary.

SOCIAL

Social Impact Management Plan

B91. A Social Impact Management Plan must be prepared for the development, the plan must:

(a) be submitted to the Planning Secretary for approval within 12 months of the date of the commencement of development under this consent unless otherwise agreed by the Planning Secretary;

(b) be prepared by a suitably qualified and experienced person/s;

(c) be prepared in consultation with Muswellbrook Shire and Singleton Councils, the CCC, local affected communities and other interested stakeholders;

(d) identify both positive and negative social impacts resulting from the development and following mine closure, both locally and regionally;

(e) specify adaptive management and mitigation measures to avoid, minimise, and/or mitigate negative social impacts;

(f) identify opportunities to secure and enhance positive social impacts from the development, including:

(i) a local participation plan that identifies measures to encourage local participation in the workforce;

(ii) a Closing the Gap funding program to the value of $1,000,000 over the first 10 years of the project as described in the documents in condition A2(c); and

(iii) community grants and scholarship programs.

(g) include a stakeholder engagement plan to guide the evaluation and implementation of social impact management and mitigation measures, and

(h) include a program to monitor, review and report on the effectiveness of these measures, including updating the plan 3 years prior to mine closure.

B92. The social impact management plan must be implemented as approved by the Planning Secretary.

PART C ADDITIONAL PROCEDURES

ADDITIONAL MITIGATION UPON REQUEST

C1. Upon receiving a written request for mitigation from the owner of any residence on the privately-owned land[a] listed in Table 7, additional mitigation measures at or in the vicinity of the residence must be implemented 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 Development* (NSW Government, 2018). The measures must be reasonable and feasible, proportionate to the level of predicted impact and directed towards reducing the noise and/or air quality impacts of the development.

Table 7: *Land subject to additional mitigation upon request*

Mitigation Basis	***Land***
Noise	326, 328, 330, 437, 487
Air quality	121

[a] *The locations of the land referred to in Table 7 are shown in Appendix 3.*

C2. If within 3 months of receiving a request for additional mitigation 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.

C3. For the life of the development, the Applicant must continue to contribute to reasonable maintenance and recurrent operating costs associated with the noise mitigation measures installed at privately-owned residences in connection to the development and as described in the documents listed in condition A2(c). The contribution to ongoing maintenance and recurrent operating costs must be consistent with any existing agreement between the Applicant and the relevant landowner.

NOTIFICATION OF LANDOWNERS/TENANTS

C4. Within one month of the date of the commencement of the development, the Applicant must notify and send a copy of the fact sheet entitled *"Mine Dust and You"* (NSW Health, 2023) 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 criteria identified in condition B34 at any time during the life of the development.

C5. 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:

(a) advise the prospective tenants of the potential health and amenity impacts associated with living on the land, and give them a copy of the fact sheet entitled *"Mine Dust and You"* (NSW Health, 2017); and

(b) advise the prospective tenants of the rights they would have under this consent,

to the satisfaction of the Planning Secretary.

NOTIFICATION OF EXCEEDANCES

C6. 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, tenants and the CCC.

C7. For any exceedance of any air quality criterion in PART B of this consent, the Applicant must also provide to any affected landowners and/or tenants a copy of the fact sheet entitled "*Mine Dust and You"* (NSW Health, 2017).

INDEPENDENT REVIEW

C8. If a landowner considers the development to be exceeding any relevant noise, blasting or air quality 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.

C9. 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.

C10. 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; and

(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.

PART D ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Construction Environmental Management Plan

D1. A Construction Environmental Management Plan must be prepared for the development. The plan must:

(a) be submitted for approval to the Planning Secretary prior to the commencement of construction;

(b) be prepared in consultation with TfNSW, CPHR and Council;

(c) describe the environmental management context and outline the scope of the strategy, including:

- (i) relevant statutory criteria, performance measures or operational requirements including conditions of consent and other legislative or regulatory licences, guidelines, policies or standards;
- (ii) sensitive receivers; and
- (iii) detailed plans of the development location and development, sensitive receivers and environmental monitoring locations;

(d) list the role and responsibility of all key personnel and contractors involved in the environmental management of the development;

(e) include an environmental risk analysis to identify the key environmental performance issues associated with the construction phase;

(f) describe the specific risk management controls and mitigations to minimise the environmental impacts from construction specified in the document(s) listed in condition A2(c), or otherwise identified in the risk analysis in condition D1(e) to:

- (i) comply with statutory requirements and limits, performance measures and criteria in this consent; and
- (ii) manage the predicted impacts identified in the documents listed in condition A2(c).

(g) include a program to monitor and report on the:

- (i) impacts and construction environmental performance of the development; and
- (ii) effectiveness of the risk management controls and mitigation measures pursuant to condition D1(f);

(h) include an adaptive management process to be implemented if the review of the risk assessment indicates that any measure that has been implemented is not effective in managing the identified risk(s) and a process to update the measure;

(i) include an adaptive management process and 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;

(j) include the following sub-plans and strategies:

- (i) a Biodiversity sub-Plan that:
  - is consistent with the measures in Biodiversity Development Assessment Report for the development and the document/s listed in condition A2(c) as they relate to construction;
  - include a description of the measures and timeframes that would be implemented to:
    - protect the Hunter Floodplain Red Gum Woodland EEC and Warkworth Sands Woodland EEC;
    - minimise impacts to TECs listed under the BC Act;
    - minimise clearing and avoiding unnecessary disturbance of vegetation by the development;
    - minimise impacts on fauna, and implementing fauna recovery and management protocols;
    - maximise the salvage of vegetative and soil resources within the approved disturbance area for beneficial reuse in the enhancement of rehabilitation of the site; and
    - control weeds, feral pests, and pathogens;
- (ii) a Construction Traffic Management sub-Plan including:
  - details of all transport routes and traffic types to be used for development-related traffic;
  - a protocol for undertaking pre and post-dilapidation surveys and repairing any roads identified in the dilapidation surveys that have been damaged during construction;
  - include details of the measures to be implemented to minimise traffic safety issues and disruption to local road users during construction, including:
    - measures to restrict outbound heavy vehicles using Lemington Road during the morning peak hour;
    - directing drivers to use Liddell Station Road rather than the Old New England Highway during the morning peak hour;
    - temporary traffic controls, including detours and signage (where relevant);

    - notifying the local community about development-related traffic impacts;
    - responding to any emergency repair requirements or maintenance during construction and/or decommissioning; and
    - a traffic management system for managing over-dimensional vehicles;
  - a Drivers' Code of Conduct that includes procedures to ensure that drivers:
    - adhere to posted speed limits or other required travelling speeds;
    - adhere to the designated transport routes; and
    - implement safe driving practices.

(iii) an Erosion and Sediment Control sub-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; and
- describes measures to minimise soil erosion and the potential for the transport of sediment to downstream waters, and manage flood risk;

(iv) a Construction Workforce Accommodation Strategy that:

- proposes measures to ensure there is sufficient accommodation for the construction workforce;
- considers the cumulative accommodation impacts associated with other State significant development projects in the area;
- proposes measures to prioritise the employment of local construction workers that live within a 1 hour commute from the project site;
- proposes measures to prioritise short-term accommodation over rental accommodation to meet construction workforce requirements; and
- includes a program to monitor and review the effectiveness of the strategy during the construction period at least biannually;

(k) include processes to report and review environmental performance to:

(i) respond to any non-compliance and/or incident;

(ii) provide for adaptive management mechanisms that enable continuous improvement; and

(iii) keep the local community and relevant agencies informed about the operation and environmental performance of the development;

(l) include procedures to:

(i) receive record, handle and respond to complaints;

(ii) resolve any disputes that may arise during the course of the development; and

(iii) respond to emergencies

D2. Construction must not commence until the Construction Environmental Management Plan is approved by the Planning Secretary.

D3. The Construction Environmental Management Plan must be implemented as approved by the Planning Secretary.

Environmental Management Strategy

D4. 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) describe the measures to be implemented to manage environmental impacts associated with pre-construction activities;

(e) 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;

(v) respond to emergencies; and

(f) 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.

D5. The Applicant must not commence pre-construction activities (with the exception of any archaeological investigations, including test excavations and salvage works undertaken in accordance with an approved Aboriginal Cultural Heritage Management Plan) until the Environmental Management Strategy is approved by the Planning Secretary.

D6. The Applicant must implement the Environmental Management Strategy as approved by the Planning Secretary.

Adaptive Management

D7. The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and performance measures in this consent. Any exceedance of these criteria or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.

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

(a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;

(b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and

(c) implement reasonable remediation measures as directed by the Planning Secretary.

Management Plan Requirements

D8. Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:

(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 condition D7(c);

(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 or performance criterion;

   (ii) complaint; or

   (iii) failure to comply with other statutory requirements;

(i) public sources of information and data to assist stakeholders in understanding environmental impacts of the development; and

(j) 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.*

The Applicant must ensure that management plans prepared for the development are consistent with the conditions of this consent and any EPL issued for the site.

REVISION OF STRATEGIES, PLANS AND PROGRAMS

D9. Within three months of:

(a) the submission of an incident report under condition D11 or D12;

(b) the submission of an Annual Review under condition D13;

(c) the submission of an Independent Environmental Audit under condition D14;

(d) the approval of any modification of the conditions of this consent (unless the conditions require otherwise); or

(e) notification of a change in development phase under condition A5;

the suitability of existing strategies, plans and programs required under this consent must be reviewed by the Applicant. Where this review leads to revisions in any such document, then within six weeks of the review, unless otherwise agreed by the Planning Secretary, the revised documents must be submitted to the Planning Secretary for approval.

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

D10. The Applicant must notify the Department within 24 hours of becoming aware of an incident. The notification must be made via the NSW planning portal (Major Projects) and address details of the incident including:

(a) date, time and location;

(b) a brief description of what occurred and why it has been classified as an incident;

(c) a description of what immediate steps were taken in relation to the incident; and

(d) identifying a contact person for further communication regarding the incident.

D11. The Applicant must provide the Department with a subsequent incident report in accordance with Appendix 4 (Incident Notification and Reporting Requirements).

Non-Compliance Notification

D12. 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 and must be submitted via the NSW planning portal (Major Projects). The notification must 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, the reasons for the non-compliance (if known), and what actions have been undertaken, or will be undertaken, and when, 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

D13. 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. 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) 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);

(c) 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;

(d) 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 of this consent;

(e) identify any trends in the monitoring data over the life of the development;

(f) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and

(g) describe what measures will be implemented over the next calendar year to improve the environmental performance of the development.

Independent Environmental Audit

D14. Independent Environmental Audits of the development must be conducted and carried out in accordance with the *Independent Audit Post Approval Requirements* published on the Department's website.

ACCESS TO INFORMATION

D15. Before the date of the commencement of construction 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 documents listed in condition A2(c) of this consent;

(ii) all current statutory approvals for the development;

(iii) all approved strategies, plans and programs required under the conditions of this consent;

(iv) the proposed staging plans for the development if the construction, operation or decommissioning of the development is to be staged;

(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;

(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

Lot / DP	***Lot / DP***	***Lot / DP***
173/39513	91/733895	1/823767
175/46779	92/733895	170/823775
1/48394	1/737796	172/823775
1/48555	2/737880	182/823775
2/48555	10/740183	101/825292
3/48555	1/741544	16/848095
4/48555	53/752468	300/856881
5/48555	54/752468	1/857021
7/48555	63/752468	11/858172
1/48591	64/752468	100/858173
1/48646	65/752468	37/862517
3/48646	66/752468	304/868175
1/90727	68/752468	100/868268
7001/93617	70/752468	22/869399
1/105943	71/752468	380/869839
1/110662	79/752468	32/870789
2/111381	80/752468	1/901179
1/114966	81/752468	182/975271
2/114966	82/752468	183/975271
1/125406	83/752468	184/975271
2/125406	84/752468	192/975271
3/125406	85/752468	193/975271
4/125406	86/752468	211/975271
5/125406	92/752468	212/975271
6/125406	93/752468	217/975271
7/125406	94/752468	218/975271
8/125406	101/752468	219/975271
9/125406	102/752468	221/975271
10/125406	127/752468	1/998117
11/125406	156/752468	101/1017998
4/130831	157/752468	601/1019325
1/135459	158/752468	1/1041635
1/182139	159/752468	101/1053098
1/191982	160/752468	102/1053098
1/211043	89/752470	111/1059007
3/213065	17/752481	112/1059007
7/247239	18/752481	80/1074787

Lot / DP	Lot / DP	Lot / DP
8/247239	21/752481	1/1078618
10/247239	22/752481	20/1085391
12/247239	38/752481	1/1102213
13/247239	58/752481	102/1103268
14/247239	82/752481	103/1103268
15/247239	83/752481	1/1103396
16/247239	89/752481	1/1112847
11/247943	98/752481	1/1113789
1/252530	117/752481	2/1113789
3/252530	118/752481	3/1113789
4/252530	119/752481	4/1113789
5/252530	120/752481	5/1113789
8/252530	121/752481	6/1113789
9/252530	122/752481	7/1113789
1/403032	123/752481	3/1114623
201/544091	124/752481	33/1125285
134/566275	125/752481	34/1125285
1/574166	126/752481	181/1126510
2/574166	127/752481	1481/1129164
1420/586339	164/752481	3000/1132357
1421/586339	170/752481	73/1137954
11/586639	171/752481	1/1152619
12/586639	200/752481	2/1152619
745/597317	21/753792	3/1152619
300/597726	22/753792	4/1152619
1/616303	134/753792	1000/1153575
2/619309	135/753792	1001/1153575
2/619383	141/753792	1/1158958
1/645240	147/753792	2/1167986
1/657394	1/779625	120/1174907
1/658099	1/783484	121/1174907
1/659810	2/783484	122/1174907
100/700429	1/784446	1/1175303
10/700554	2/784446	1/1193186
11/700554	3/784446	2/1193186
152/704486	1001/785197	4/1193186
153/704486	1002/785197	14/1193430
154/704486	21/786904	150/1199745

Lot / DP	Lot / DP	Lot / DP
162/705454	22/786904	151/1199745
1/710088	1/794836	1/1231403
2/710088	1/797721	99/1284443
2/719879	1/808301	100/1284443
5/720643	2/808301	101/1284443
1/723248	1/808431	1/1293227
1/723249	2/808431	8931/1304624
1/727260	1/821127	8932/1304626
1/729048	1/822177	
Sections of Crown roads, Council roads, the New England Highway, Newdell rail spur, the bed and banks of the Hunter River and Bayswater Creek, paper road between Lots 2 and 3 DP 784446 and paper road between Lot 1 DP 1102213 and Lot 1 DP 901179		

APPENDIX 2 DEVELOPMENT LAYOUT PLANS

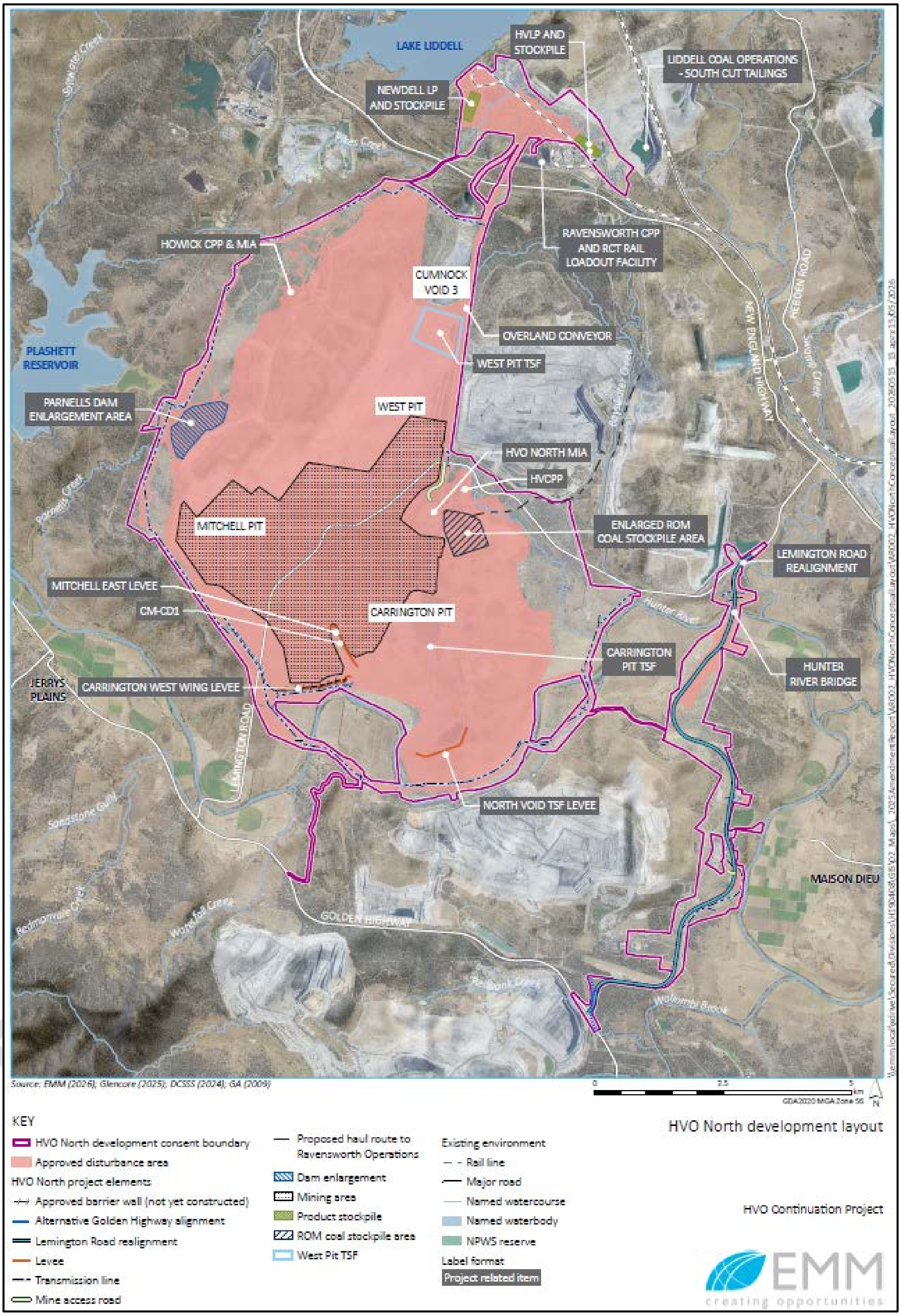

Figure 1 - HVO North Development Layout

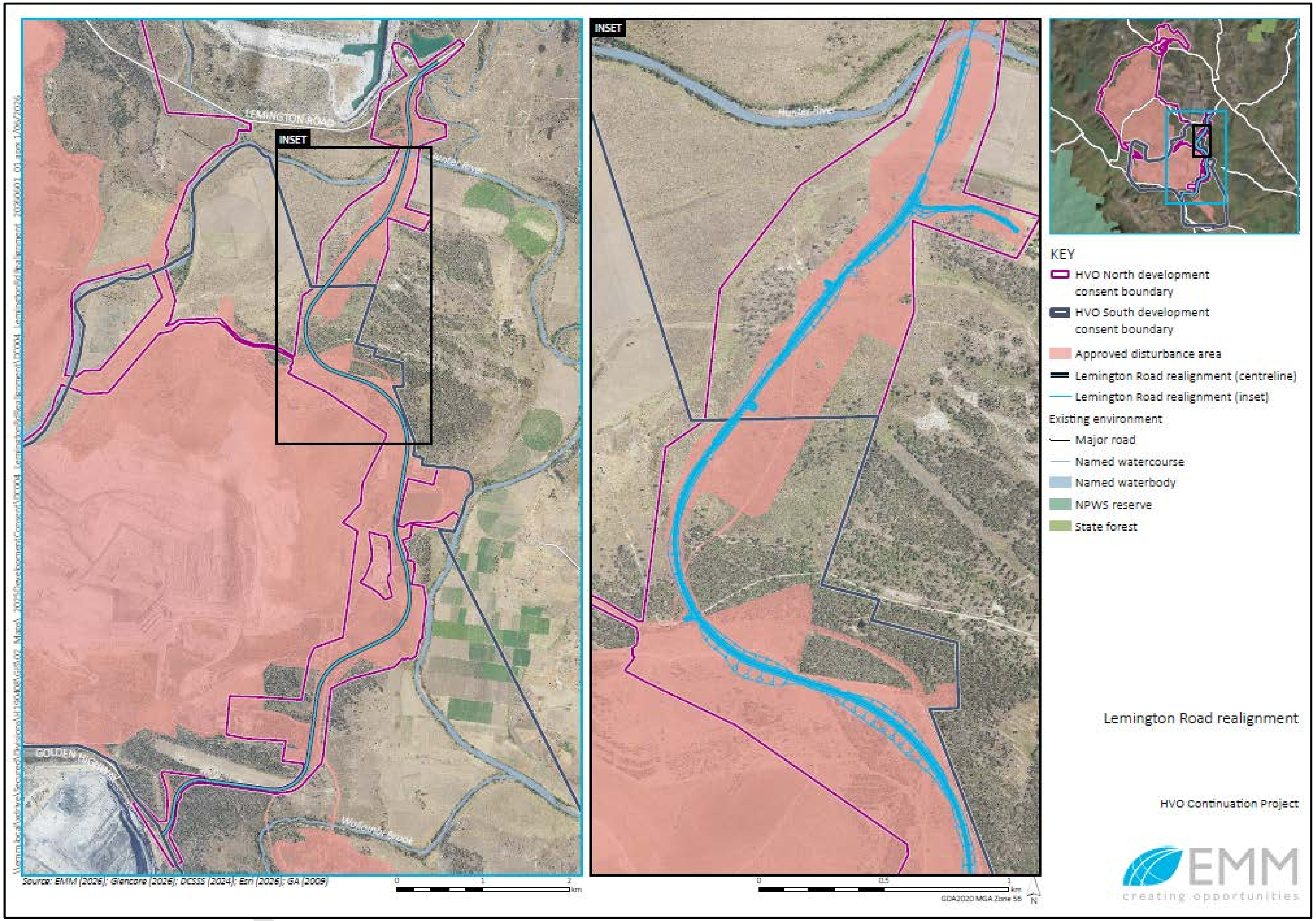

Figure 2 - Lemington Road Realignment

APPENDIX 3 RECEIVER ZONES AND LOCATIONS

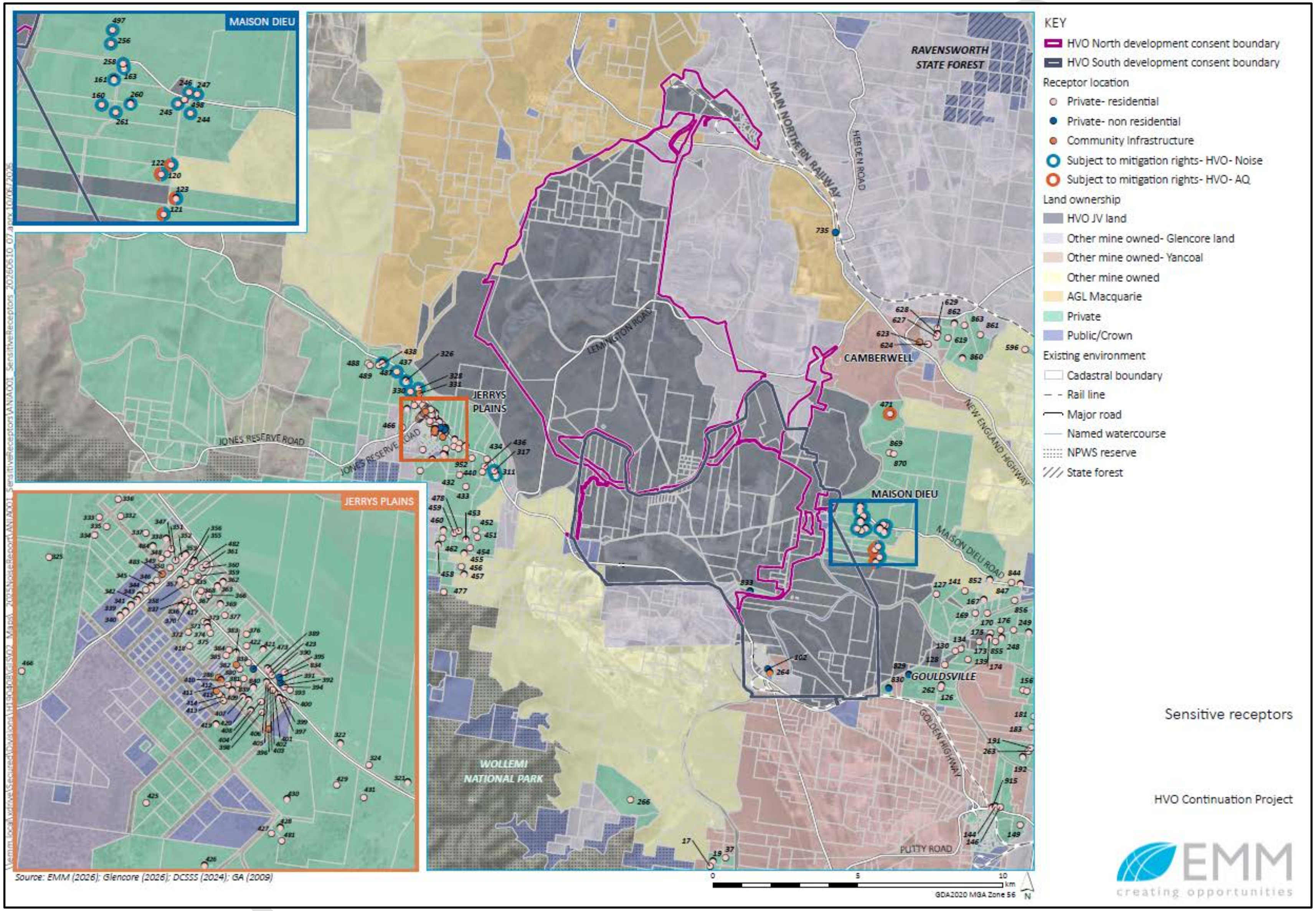

Figure 3 - Receiver Zones and Locations (HVO Complex)

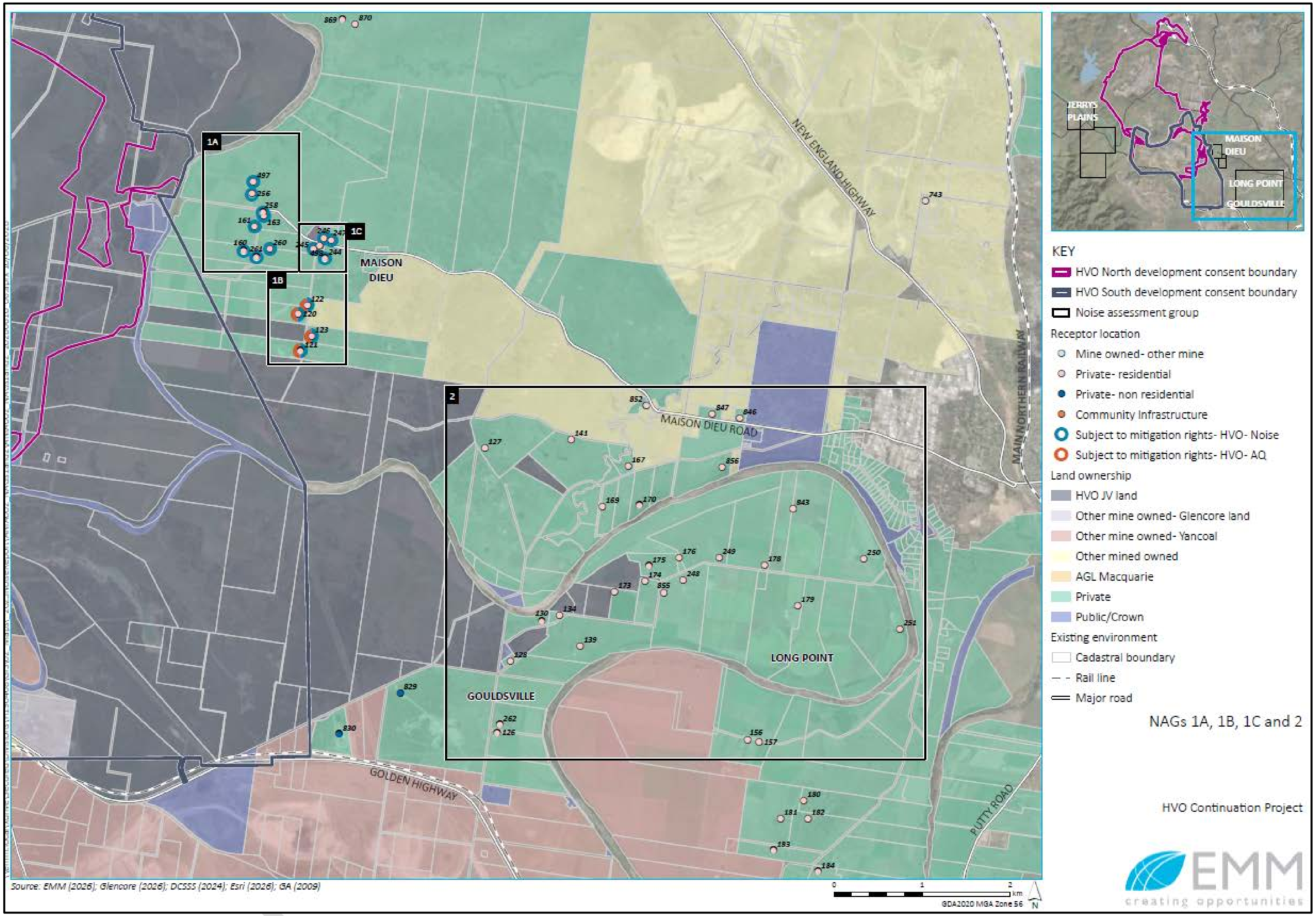

Figure 4 - Receiver Zones and Locations (East)

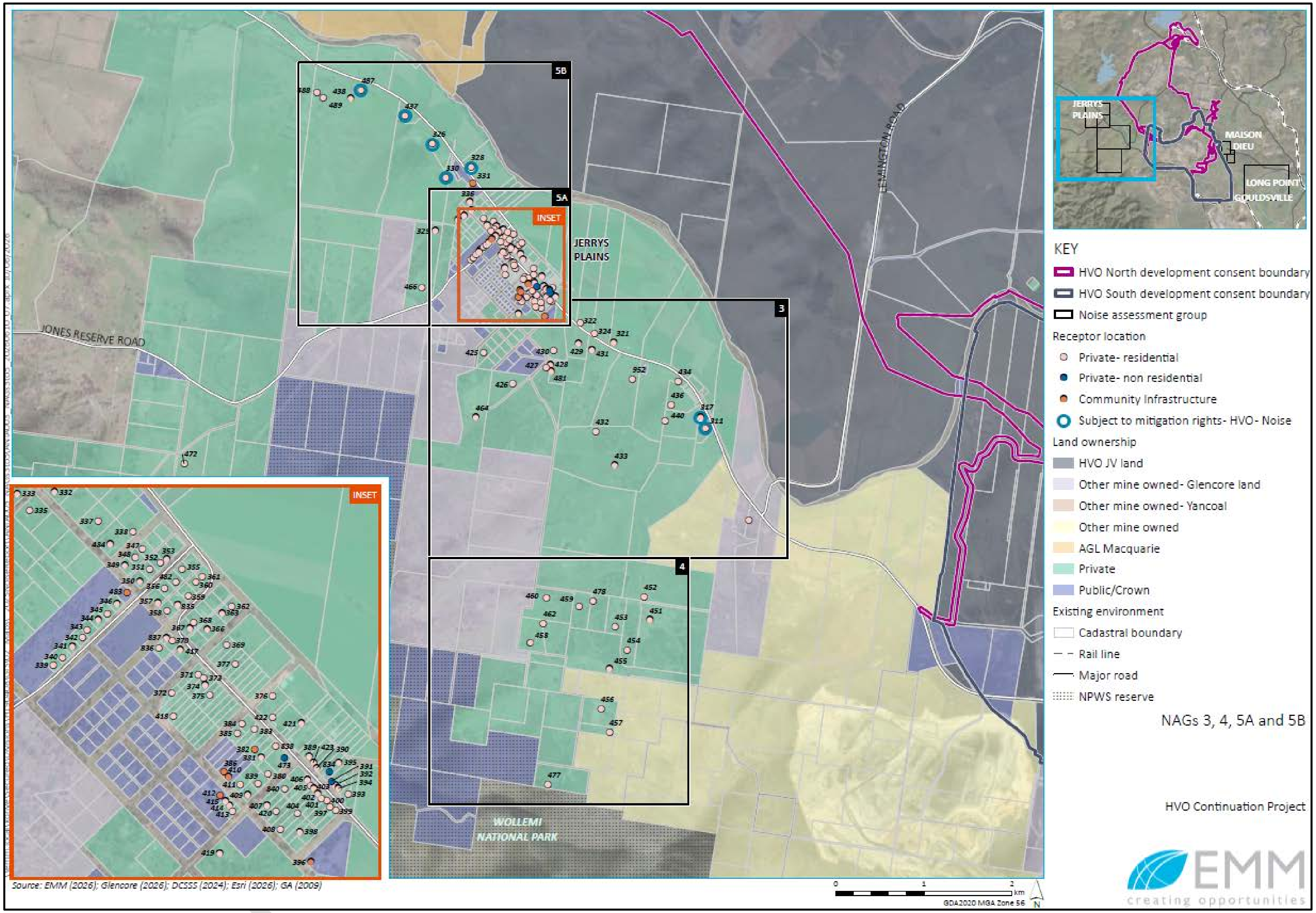

Figure 5 - Receiver Zones and Locations (West)

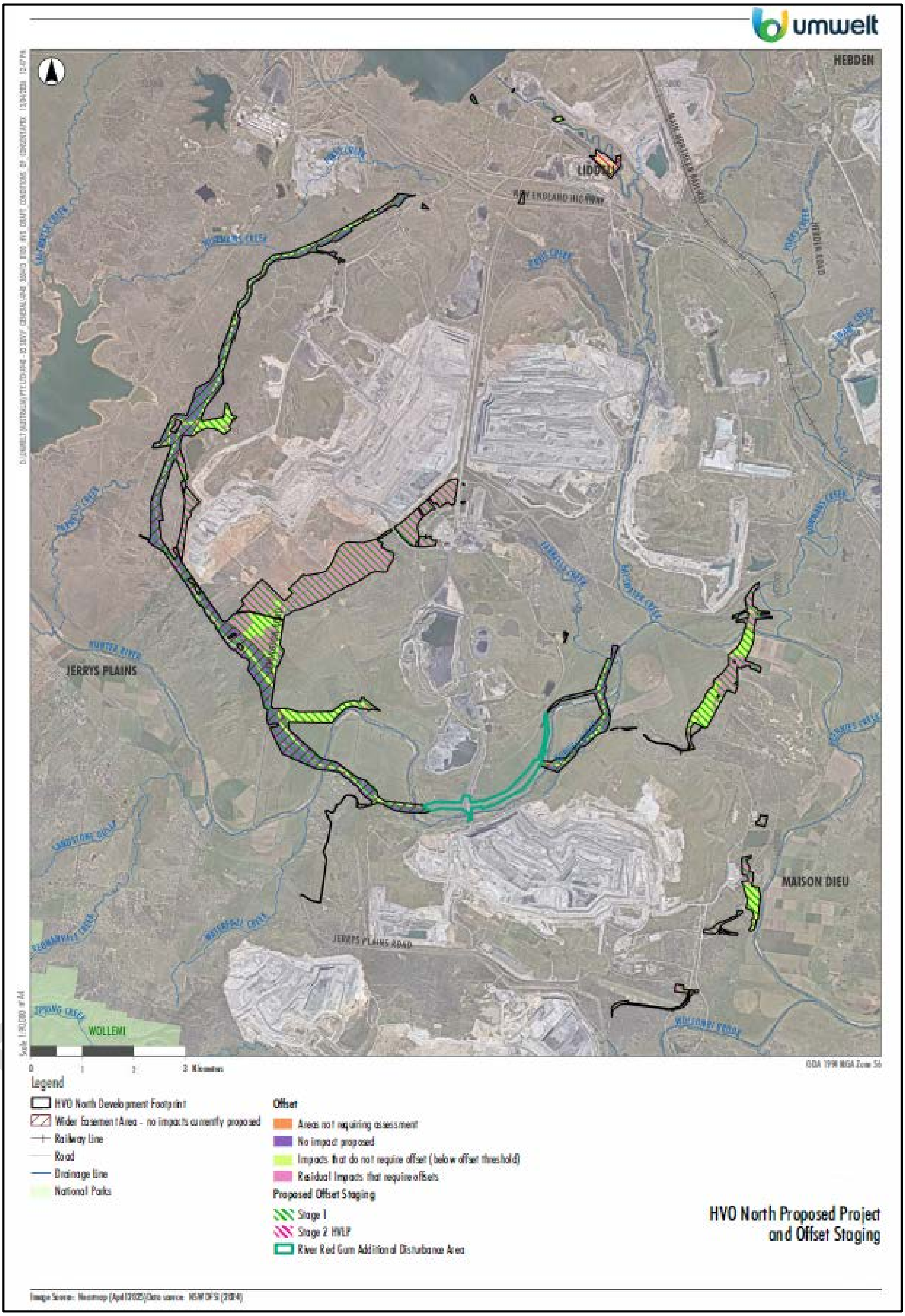

Figure 6 - HVO North Offset Staging

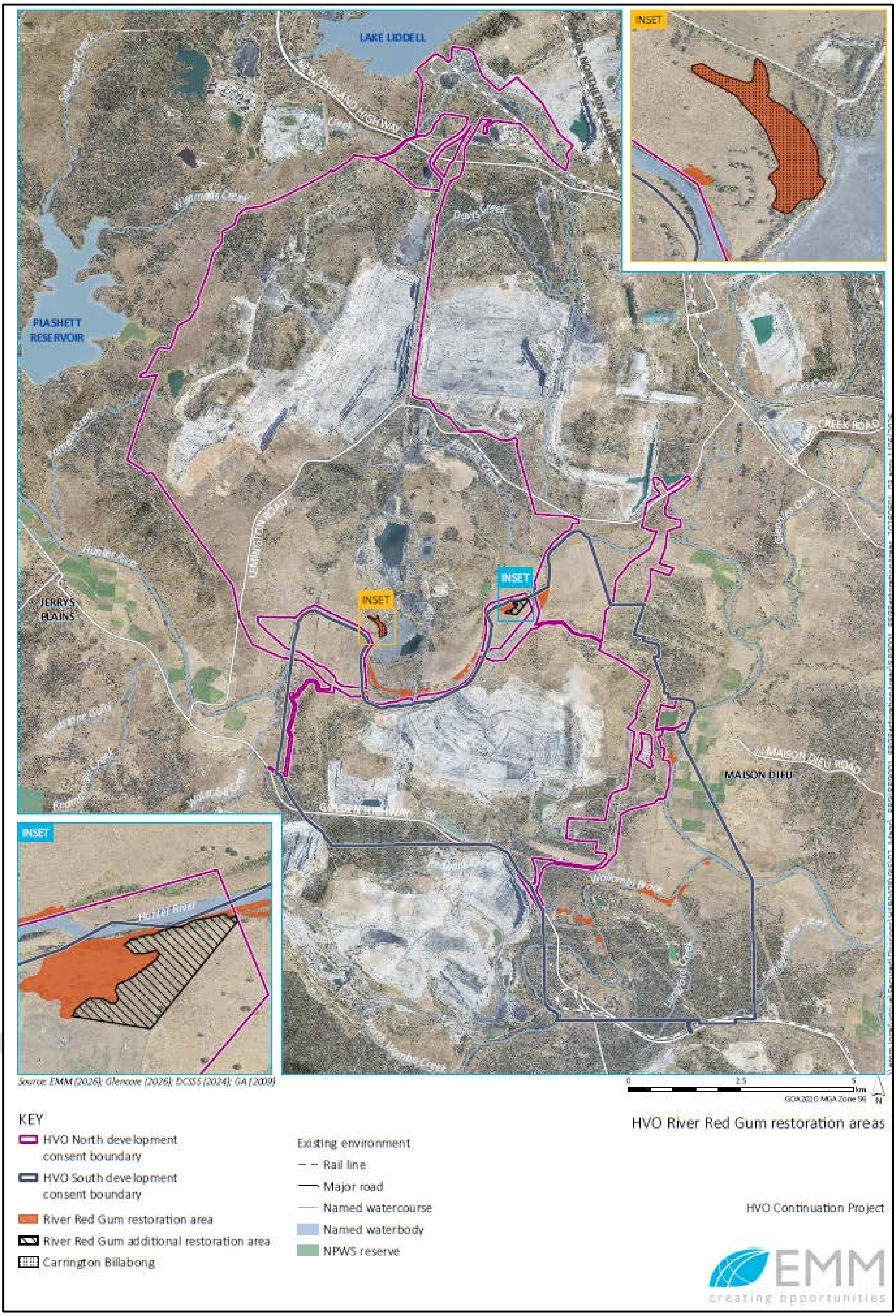

Figure 7 – River Red Gum restoration areas

APPENDIX 5 INCIDENT NOTIFICATION AND REPORTING REQUIREMENTS

1. All incident notifications and reports must be submitted via the NSW planning portal (Major Projects).
2. The Applicant must provide notification as required under these requirements, even if the Applicant fails to give the notification required under condition D12 of this consent or, having given such notification, subsequently forms the view that an incident has not occurred.
3. Within seven days (or as otherwise agreed by the Planning Secretary) of the Applicant making the incident notification (in accordance with condition D12 of this consent), the Applicant is required to submit a subsequent incident report that:
   (a) identifies how the incident was detected;
   (b) identifies when the Applicant became aware of the incident;
   (c) identifies any actual or potential non-compliance with conditions of consent;
   (d) identifies further action(s) that will be taken in relation to the incident; and
   (e) a summary of the incident;
   (f) outcomes of an incident investigation, including identification of the cause of the incident;
   (g) details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence, including the period for implementing any corrective and/or preventative actions; and
   (h) details of any communication with other relevant stakeholders regarding the incident.
4. The Applicant must submit any further reports as directed by the Planning Secretary.

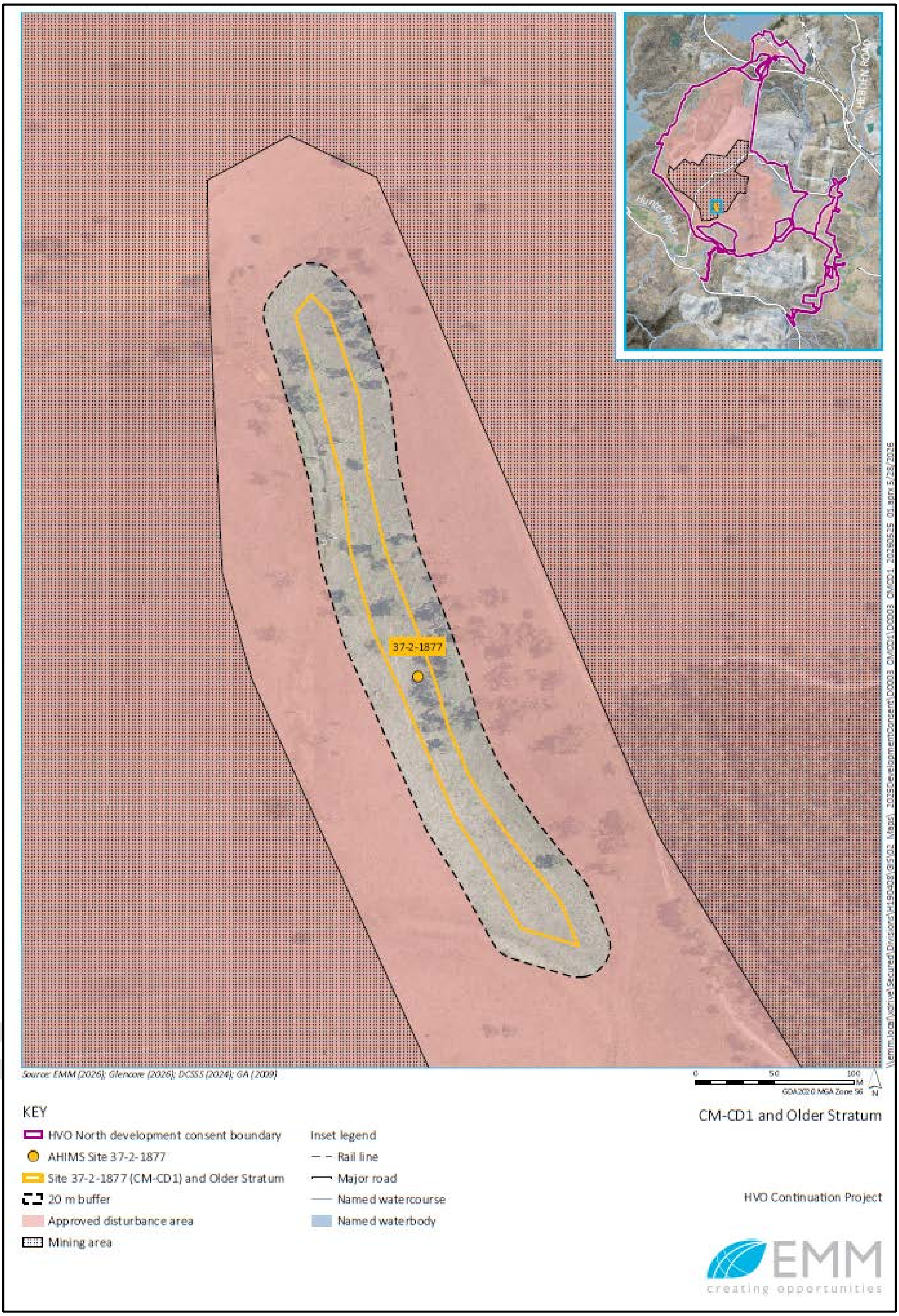

Figure 8 - Aboriginal heritage site CM-CD1

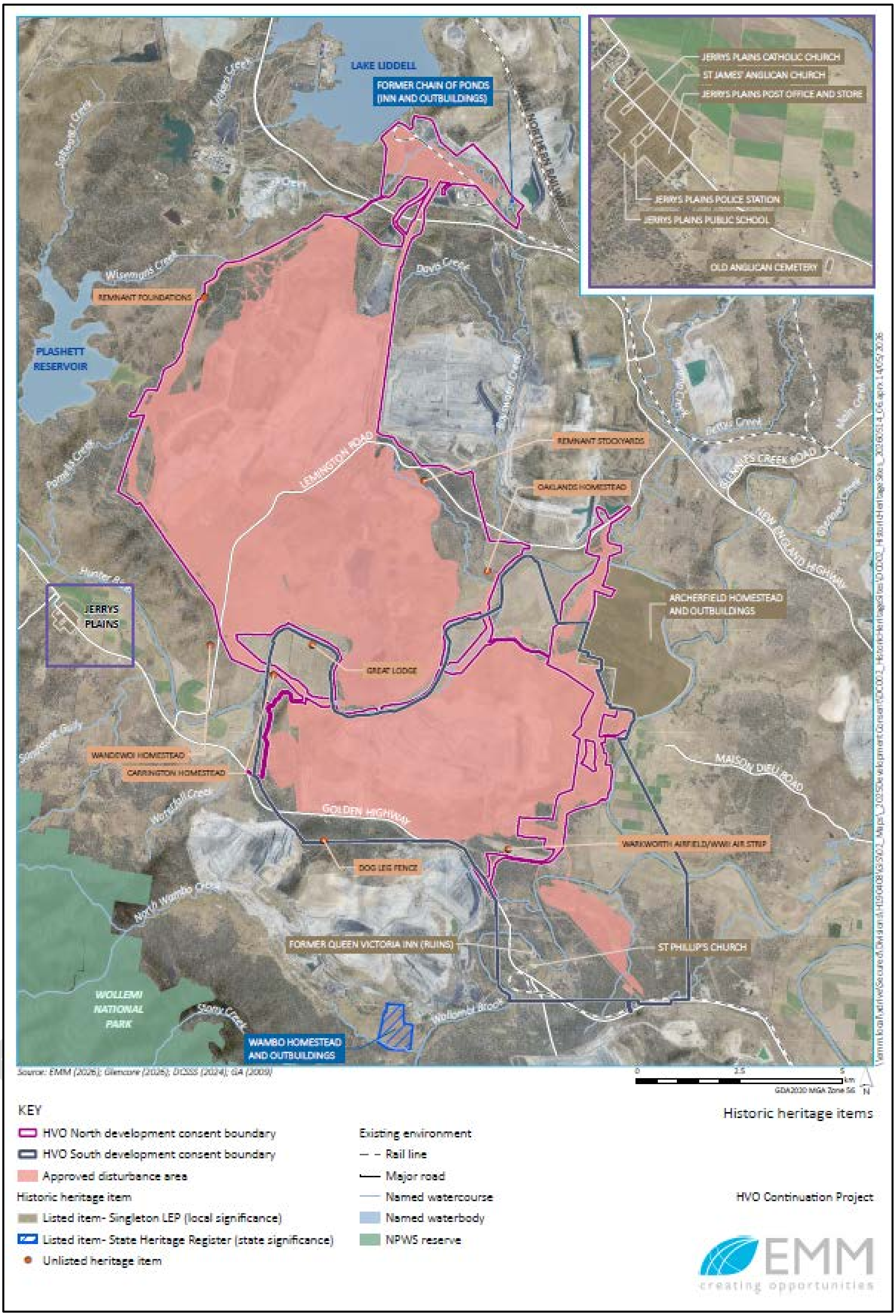

Figure 9 - Historic Heritage Sites

APPENDIX 7 HUNTER RIVER PALEOCHANNEL

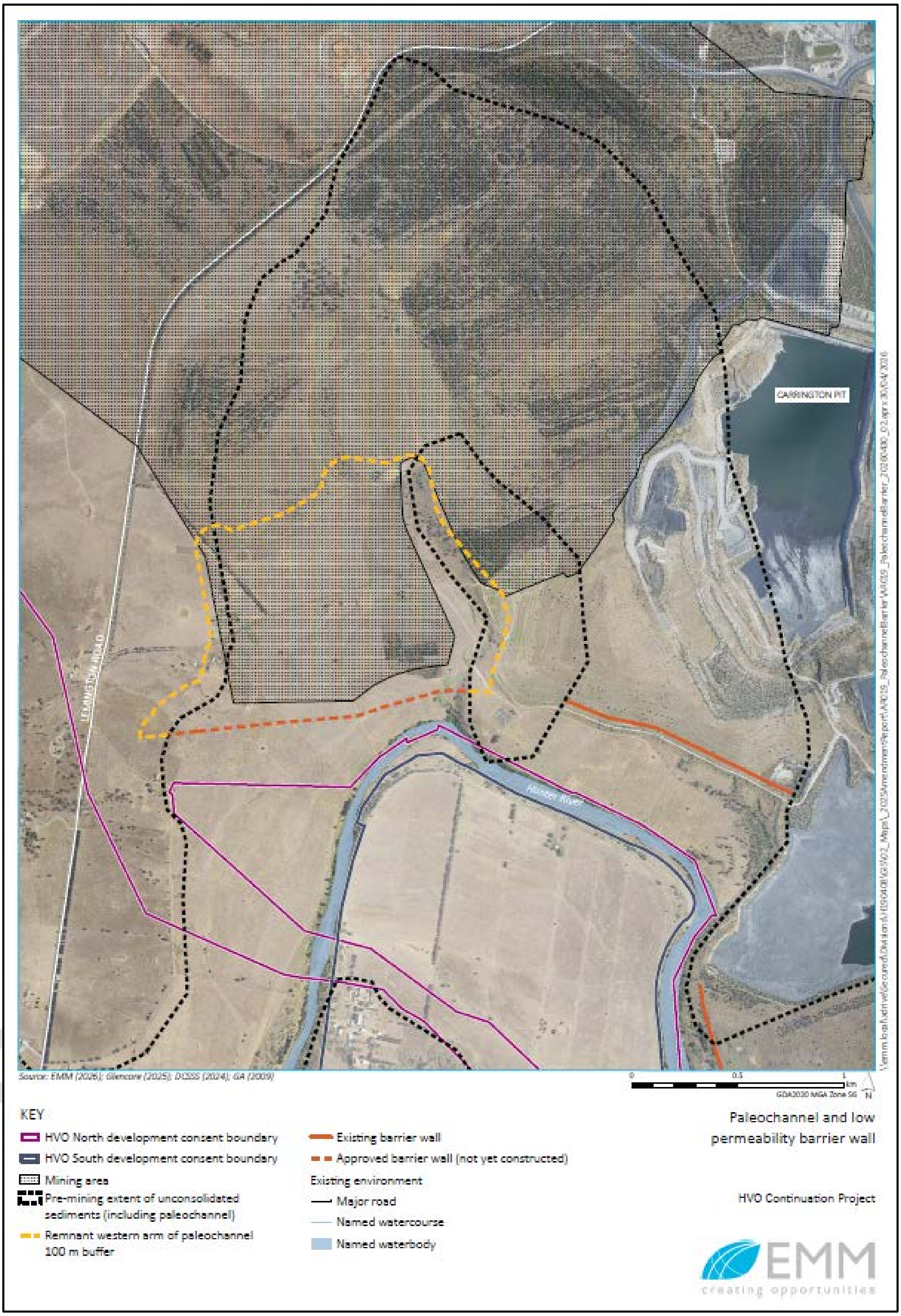

Figure 10 - Hunter River Paleochannel

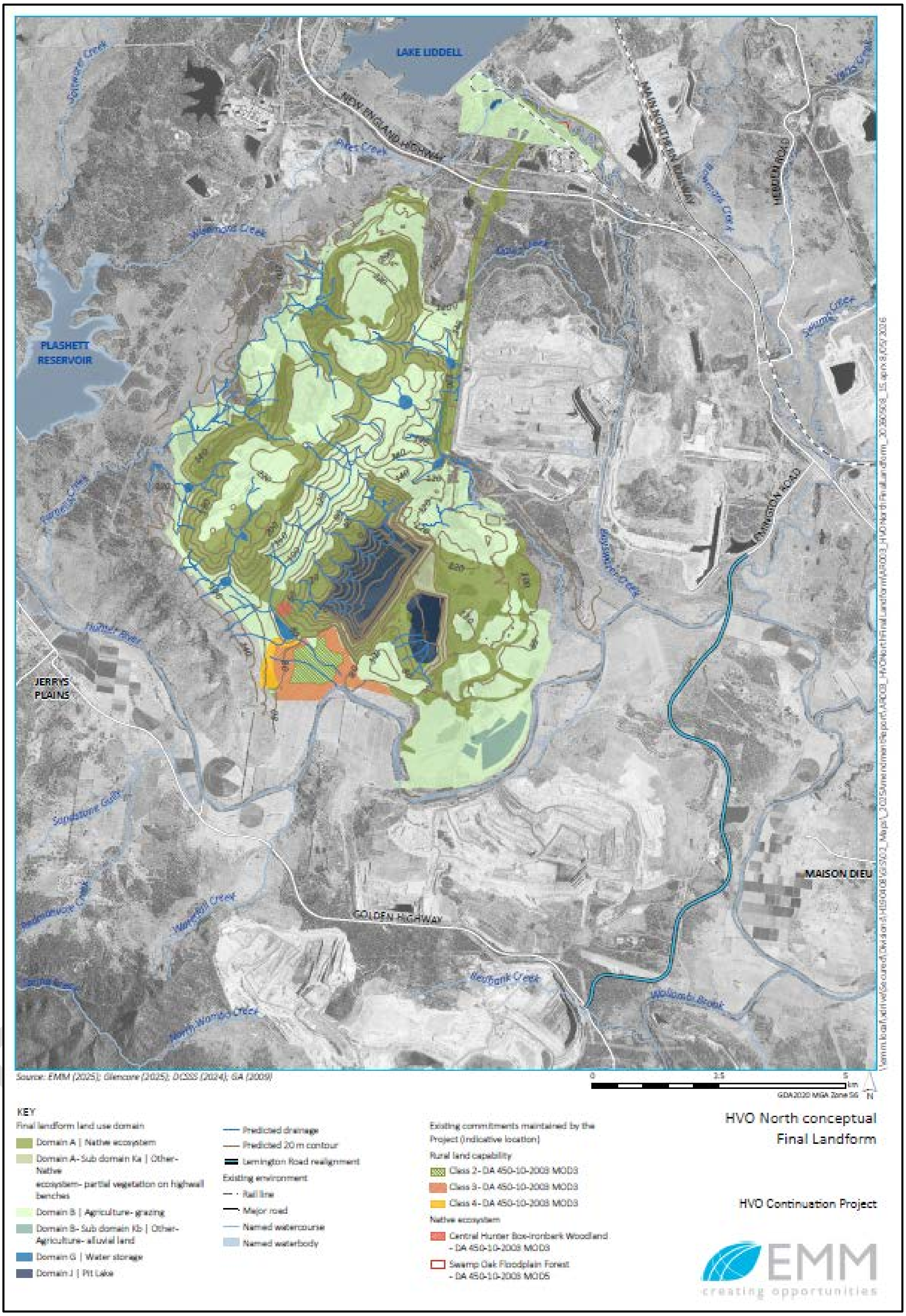

Figure 11 - HVO North Conceptual Final Landform

APPENDIX 9 GENERAL TERMS OF APPLICANT'S VPA OFFER

Council	***Applicant's Contribution***	***Intended Use***	***Payment Details***
Singleton Council	$6.56 million	Funding of community infrastructure and services, or similar via the Singleton Community and Economic Development Fund.	Within 12 months of the date of commencement of development
Muswellbrook Shire Council	$215,000	Contribution to the Community Benefit Fund for community infrastructure and services, or similar, within the local government area.	Within 12 months of the date of commencement of development