

Development Consent

Section 4.36 of the Environmental Planning and Assessment Act 1979

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

These conditions are required to:

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

[Name of Commissioner]
Member of the Commission

[Name of Commissioner]
Member of the Commission

Sydney

2020

SCHEDULE 1

Application Number: SSD 8194
Applicant: Illawarra Coal Holdings Pty Ltd
Consent Authority: Independent Planning Commission of NSW
Site: See Appendix 1
Development: Dendrobium Mine Extension Project

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DEFINITIONS

Aboriginal object	As defined under section 5 of the NP&W Act
Aboriginal place	As defined under section 5 of the NP&W Act
Adaptive Management	Adaptive management includes monitoring subsidence impacts and subsidence effects and, based on the results, modifying the mining plan as mining proceeds to ensure that the effects, impacts and/or associated environmental consequences remain within predicted and designated ranges and in compliance with the conditions of this consent
Annual Review	The review required by condition E11
Applicant	Illawarra Coal Holdings Pty Ltd, or any person carrying out any development under this consent
Approved mine plan	The plan in Error! Reference source not found. showing the area in which underground mining operations may be carried out
Approved disturbance areas	The areas identified under condition A14.
ARTC	Australian Rail Track Corporation
BC Act	<i>Biodiversity Conservation Act 2016</i>
BCA	Building Code of Australia
BCD	Biodiversity & Conservation Division within the Department
BCT	Biodiversity Conservation Trust
Built features	Includes any building or work erected or constructed on land, and includes dwellings and infrastructure such as any formed road, street, path, walk, or driveway; any pipeline, water, sewer, telephone, gas or other service main
CCC	Community consultative committee required by condition A18
Cliff	A continuous rock face, including overhangs, having a minimum length of 20 metres, a minimum height of 10 metres and a minimum slope of 2 to 1 (>63.4°)
Conditions of this consent	Conditions contained in Schedule 2
Construction	The carrying out of all physical works to enable mining operations to be carried out and decommissioning, including erection of buildings, infrastructure and other works and demolition, but not including pre-construction activities
Councils	Wollongong City Council, Wollondilly Shire Council and Wingecarribee Shire Council
CPI	Consumer Price Index
Date of commencement	The date notified to the Department by the Applicant under condition A14
Day	The period from 7 am to 6 pm on Monday to Saturday, and 8 am to 6 pm on Sundays and Public Holidays, except in conditions A9 and A10
Decommissioning	The permanent cessation of active use of the mine, including demolition of buildings, infrastructure and other works
Demolition	The deconstruction and removal of buildings, infrastructure and other works on the site
Department	NSW Department of Planning, Industry and Environment
Development	The development described in the document/s listed in condition A2(c), as modified by the conditions of this consent
Development Layout	The plans in Appendix 2
DPIE Water	Water Group within the Department
EIS	The Environmental Impact Statement titled <i>Dendrobium Mine – Plan for the Future: Coal for Steelmaking – Environmental Impact Statement</i> , prepared by Resource Strategies Pty Ltd on behalf of Illawarra Coal Holdings Pty Ltd and dated July 2019, as amended or added to by the Applicant's Submissions Report dated February 2020, the Applicant's Amendment Report dated August 2020 and the additional information provided to the Department by the Applicant on 2 June 2020 and 2 October 2020 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 consequences	The environmental consequences of subsidence impacts, including: damage to built features; loss of surface water flows to the subsurface; loss of standing pools; slope changes to streams; adverse water quality impacts; development of iron bacterial mats; cliff falls; rock falls; landslides; damage to Aboriginal heritage sites; impacts on aquatic ecology; and ponding
EPA	NSW Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPBC Act	Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPL	Environment Protection Licence under the POEO Act
Evening	The period from 6 pm to 10 pm
Feasible	Means what is possible and practical in the circumstances
Financial year	A period of 12 months from 1 July to 30 June
First workings	The extraction of coal from main headings, gateroads and cut-throughs and the like, provided that such workings are long-term stable and do not generate more than 20 mm of vertical subsidence at the surface
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 Department of Premier and Cabinet
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: <ul style="list-style-type: none"> • the State Heritage Register under the <i>Heritage Act 1977</i>; • a state agency heritage and conservation register under section 170 of the <i>Heritage Act 1977</i>; • a Local Environmental Plan under the EP&A Act; • the World Heritage List; • the National Heritage List or Commonwealth Heritage List under the EPBC Act; or • anything identified as a heritage item under the conditions of this consent
IESC	Commonwealth Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development
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
Key stream features	As defined in the EIS
KVCLF	Kemira Valley Coal Loading Facility
Land	Has the same meaning as the definition of the term in section 1.4 the EP&A Act, except for where the term is used in the noise and air quality conditions in PART B of this consent where it is defined to mean the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this consent
Material harm	Is harm to the environment that: <ul style="list-style-type: none"> • involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial, or • results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment) <p>This definition excludes “harm” that is authorised under either this consent or any other statutory approval</p>

Mine owned land	Land owned by a mining, petroleum or extractive industry company (or its subsidiary or related party)
Mine water	Water that accumulates within, or drains from, active mining and infrastructure areas and any other areas where runoff may have come into contact with carbonaceous material
Minimise	Implement all reasonable and feasible mitigation measures to reduce the impacts of the development
Mining operations	The carrying out of mining, including the extraction, processing, stockpiling and transportation of coal on the site and the associated removal, storage and/or emplacement of vegetation, topsoil, overburden and reject material; and includes underground development necessary for mining operations to be carried out (such as installation and use of electricity, water, communications and other services and infrastructure)
Mining Panel	Independent Advisory Panel for Underground Mining
Minor	Not very large, important or serious
Minor cliff	A continuous rock face, including overhangs, having a: <ul style="list-style-type: none"> • minimum length of 20 metres and a height between 5 metres and 10 metres or maximum length of 20 metres and a minimum height of 20 metres; and • a minimum slope of 2 in 1 (>63.4°)
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 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
Non-compliance	An occurrence, set of circumstances or development that is a breach of this consent
NP&W Act	<i>National Parks and Wildlife Act 1974</i>
PCT	Plant Community Type
Planning Secretary	Planning Secretary under the EP&A Act, or nominee
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Pre-construction works	Pre-construction works and activities required for the development, including surveys, acquisitions, fencing, investigative or geotechnical drilling and/or excavation, minor adjustment and/or relocation of services/utilities, and works to allow isolation of the site for construction access
Privately-owned land	Land that is not owned by a public agency or mine-owned land
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
Reasonable costs	The costs agreed between the Department and the Applicant for obtaining independent experts to review the adequacy of any aspects of an Extraction Plan, or where such costs cannot be agreed, the costs determined by a dispute resolution process
Registered Aboriginal Parties	As described in the <i>National Parks and Wildlife Regulation 2019</i>
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	Resources Regulator within the Department of Regional NSW
RFS	NSW Rural Fire Service

Rock face feature	A rock face having a: <ul style="list-style-type: none"> • minimum length of 20 metres and heights between 3 metres and 5 metres, or maximum length of 20 metres and a minimum height of 5 metres; and • a minimum slope of 2 to 1 (>63.4°)
ROM	Run-of-mine
SA NSW	Subsidence Advisory NSW
Safe, serviceable & repairable	Safe means no danger to users who are present; serviceable means available for its intended use; and repairable means damaged components can be repaired economically
Second workings	The extraction of coal from underground workings by longwall, miniwall, pillar extraction, pillar splitting or pillar reduction methods
Site	The land defined in Appendix 1
Steep slope	An area of land having a gradient between 1 in 3 (33% or 18.3°) and 2 in 1 (200% or 63.4°)
Subsidence	The totality of subsidence effects, subsidence impacts and environmental consequences of subsidence impacts
Subsidence effects	Deformation of the ground mass due to mining, including all mining-induced ground movements, such as vertical and horizontal displacement, tilt, strain and curvature
Subsidence impacts	Physical changes to the ground and its surface caused by subsidence effects, including tensile and shear cracking of the rock mass, localised buckling of strata caused by valley closure and upsidence and surface depressions or troughs
Surface facilities sites	The Dendrobium Pit Top site (including the new carpark extension site), the Kemira Valley Coal Loading Facility site, the Kemira Valley Rail Line and its easement, the Dendrobium Coal Preparation Plant site, the Cordeaux Pit Top site, the West Cliff Coal Wash Emplacement (Stage 3) site, all ventilation shaft sites and any other site subject to proposed surface disturbance (excluding subsidence impacts) associated with the development
TEC	Threatened ecological community, as defined under the BC Act and/or EPBC Act
TfNSW	Transport for NSW
Threatened species	As defined under the <i>Biodiversity Conservation Act 2016</i> and/or the <i>Environment Protection and Biodiversity Conservation Act 1999</i>
WCC	Wollongong City Council

SCHEDULE 2

PART A ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

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

TERMS OF CONSENT

- A2. The development may only be carried out:
- in compliance with the conditions of this consent;
 - in accordance with all written directions of the Planning Secretary;
 - generally in accordance with the EIS;
 - generally in accordance with the Development Layout in Appendix 2 and the approved mine plan in Appendix 3.
- A3. Consistent with the requirements in this consent, the Planning Secretary may make written directions to the Applicant in relation to:
- 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
 - 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.

LIMITS OF CONSENT

Mining operations

- A5. Underground mining operations may only be carried out within the boundaries of the area covered by the approved mine plan.
- A6. Mining operations may be carried out on the site until 31 December 2048.

Notes:

- Under this consent, the Applicant is required to decommission the mine 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.*

Coal Extraction and Transportation

- A7. A maximum of 5.2 million tonnes of ROM coal may be extracted from the site in any financial year.
- A8. Coal may only be transported from the Kemira Valley Rail Loading Facility site by rail.

Hours of Operation

- A9. Mining operations may be undertaken 24 hours a day, 7 days a week.

Construction Hours

- A10. Construction works at Ventilation Shaft Sites 5A, 5B, 6A and 6B may take place 24 hours a day, 7 days a week.
- A11. Construction of the carpark extension at the Dendrobium Pit Top facilities site must only be undertaken within standard construction hours (ie Monday to Friday: 7.00 am to 6.00 pm and Saturday: 8.00 am to 1.00 pm).
- A12. All other construction works must only be undertaken during standard construction hours (Monday to Friday: 7.00 am to 6.00 pm and Saturday: 8.00 am to 1.00 pm), unless the Planning Secretary agrees otherwise.

Identification of Approved Disturbance Areas

- A13. Within three months of commencement of development under this consent, or other timeframe agreed by the Planning Secretary, the Applicant must provide to the Department a survey plan and/or a digital plan of acceptable quality of the boundaries of the approved disturbance areas.

NOTIFICATION OF COMMENCEMENT

- A14. The date of commencement of each of the following phases of the development must be notified to the Department in writing, at least two weeks before that date:
- physical commencement of the development;
 - construction;
 - mining operations;
 - extraction of ROM coal;
 - any period of suspension of ROM coal extraction and/or processing (i.e. care and maintenance);
 - cessation of mining operations (i.e. mine closure); and
 - decommissioning.
- A15. If the phases of the development are to be further staged, the Department must be notified in writing at least two weeks before the commencement of each stage, of the date of commencement and the development to be carried out in that stage.

PLANNING AGREEMENT

- A16. Within six months of the date of commencement of development, or other timeframe agreed by the Planning Secretary, the Applicant must enter into a Planning Agreement with the Planning Secretary and the Minister for Water, Property and Housing in respect of surface water quantity and surface water quality in accordance with:
- Subdivision 2 of Division 7.1 of Part 7 of the EP&A Act; and
 - the terms of the Applicant's offer in Appendix 5.

COMMUNITY ENHANCEMENT

- A17. The Applicant must contribute \$0.04155 per tonne of saleable coal production each financial year to fund the provision of significant present and future benefits to local communities directly affected by the development. These funds must be:
- administered and expended in accordance with procedures which are to the satisfaction of WCC and the Planning Secretary;
 - provided by 30 September each year over the life of the consent;
 - based on saleable coal production in the previous financial year; and
 - indexed in accordance with the CPI, with April 2020 used as the commencement date for indexation calculations.

Any dispute over the operation of this fund must be referred to the Planning Secretary for resolution.

Note: *This condition does not apply to any saleable coal sourced from Area 3B or 3C while ever a similar condition under DA 60-3-2001 requires an equivalent payment.*

COMMUNITY CONSULTATIVE COMMITTEE

- A18. The Applicant must continue operation of the Dendrobium Community Consultative Committee (CCC) established under DA 60-3-2001 for the development. The CCC must be operated for the development in accordance with the Department's *Community Consultative Committee Guidelines: State Significant Projects (2019)*. The CCC must continue to operate during the life of the development, or other timeframe agreed by the Planning Secretary.

Notes:

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

EVIDENCE OF CONSULTATION

- A19. Where conditions of this consent require consultation with an identified party, the Applicant must:
- consult with the relevant party prior to submitting the subject document; and
 - provide details of the consultation undertaken including:
 - the outcome of that consultation, matters resolved and unresolved; and
 - details of any matters not resolved between the party consulted and the Applicant and how the Applicant has addressed the matters not resolved.

STAGING, COMBINING AND UPDATING STRATEGIES, PLANS OR PROGRAMS

A20. With the approval of the Planning Secretary, the Applicant may:

- (a) prepare and submit any strategy, plan or program required by this consent on a staged basis (if a clear description is provided as to the specific stage and scope of the development to which the strategy, plan or program applies, the relationship of the stage to any future stages and the trigger for updating the strategy, plan or program);
- (b) combine any strategy, plan or program required by this consent (if a clear relationship is demonstrated between the strategies, plans or programs that are proposed to be combined);
- (c) update any strategy, plan or program required by this consent (to ensure the strategies, plans and programs required under this consent are updated on a regular basis and incorporate additional measures or amendments to improve the environmental performance of the development); and
- (d) combine any strategy, plan or program required by this consent with any similar strategy, plan or program required by an adjoining mining consent or approval, in common ownership or management.

A21. Requirements under Part B of this consent to prepare a Water Management Plan, Biodiversity Management Plan, Aboriginal Cultural Heritage Management Plan and Historic Heritage Management Plan may be satisfied through an Extraction Plan prepared under condition C8, but only in respect of the land, values and features that may be affected by the second workings covered by that Extraction Plan.

A22. If the Planning Secretary agrees, a strategy, plan or program may be staged or updated without consultation being undertaken with all parties required to be consulted in the relevant condition in this consent.

APPLICATION OF EXISTING STRATEGIES, PLANS OR PROGRAMS

A23. The Applicant must continue to apply existing management strategies, plans or monitoring programs approved under DA 60-03-2001, until the approval of a similar plan, strategy or program under this consent.

PROTECTION OF PUBLIC INFRASTRUCTURE

A24. Unless the Applicant and the applicable authority agree otherwise, the Applicant must:

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

Note: *This condition does not apply to any damage to roads caused as a result of general road usage or otherwise addressed by contributions required under other conditions of this consent.*

DEMOLITION

A25. All demolition must be carried out in accordance with *Australian Standard AS 2601-2001 The Demolition of Structures* (Standards Australia, 2001).

STRUCTURAL ADEQUACY

A26. 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:

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

Notes:

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

OPERATION OF PLANT AND EQUIPMENT

A27. 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

A28. 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

- A29. 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 (or later update) in the condition.
- A30. However, 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.

Recommended

PART B SPECIFIC ENVIRONMENTAL CONDITIONS

NOISE

Construction Noise

- B1. The Applicant must ensure that the noise generated by construction is managed in accordance with the requirements of the *Interim Construction Noise Guideline* (DECC, 2009).

Operational Noise Criteria

- B2. Except for the carrying out of construction works, the Applicant must ensure that the noise generated by the development does not exceed the criteria in Table 1 at any residence on privately-owned land.

Table 1: Operational noise criteria dB(A)

Noise Assessment Location	Day <i>L_{Aeq}</i> (15 min)	Evening <i>L_{Aeq}</i> (15 min)	Night <i>L_{Aeq}</i> (15 min)	Night <i>L_{AF} max</i>
Residences near Dendrobium Pit Top				
R6a	41	40	40	52
D0065	40	39	39	52
D0066	41	39	39	52
D0071	41	39	38	52
Other	40	37	37	52
Residences near KVCLF				
R39a	40	40	40	52
Other	40	40	39	52
Residences near Dendrobium CPP	45	45	45	55

Note: To identify the locations referred to in Table 1, refer to Appendix 4.

- B3. 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).
- B4. 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.

Rail Haulage Impact Assessment Criteria

- B5. The Applicant must ensure that noise generated by locomotives using the Kemira Valley Rail Line does not exceed the rail noise impact assessment criteria in Table 2.

Table 2: Rail noise impact assessment criteria

Operating Condition	Measurement Conditions	Criteria <i>L_{A1}</i> (1 min)
Locomotive at idle, with compressor radiator fans and air conditioning operating at maximum load	Stationary 15 metre contour	70 dB(A)
All other throttle settings under self-load, with compressor radiator fans and air conditioning operating at maximum load	Stationary 15 metre contour	87 dB(A) 95 dB(Lin)
All service conditions	Up to 50 kilometres per hour,	87 dB(A)

	15 metres from centreline of rail track	95 dB(Lin) Must be non-tonal Linear noise levels must not exceed A-weighted noise levels by more than 15 dB
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Note: *Tonality must be assessed in accordance with the NSW Noise Policy for Industry (EPA, 2017).*

Noise Operating Conditions

B6. The Applicant must:

- (a) take all reasonable and feasible steps to minimise noise from construction and operational activities, including low frequency noise and other audible characteristics, as well as road and rail noise associated with the development;
- (b) implement reasonable and feasible noise attenuation measures on all plant and equipment that will operate in noise sensitive areas;
- (c) identify any mobile plant or equipment (other than light vehicles) that will operate in noise sensitive areas (i.e. areas with the potential to generate increased noise at privately-owned residences, such as areas near the boundary of the site) and ensure that this mobile plant or equipment is fitted with reasonable and feasible noise attenuation devices or mechanisms within 12 months of commencing development under this consent;
- (d) operate a comprehensive noise management system commensurate with the risk of impact, such as using a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations, and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this consent;
- (e) take all reasonable and feasible steps to minimise the noise impacts of the development during noise-enhancing meteorological conditions;
- (f) continue to investigate ways to reduce the noise generated by the development (including off-site road noise, noise and vibration impacts from the operation of trains on the Kemira Valley Rail Line and maximum noise levels which may result in sleep disturbance);
- (g) take all reasonable and feasible steps to minimise wheel squeal, brake squeal, flanging noise and locomotive wheel slippage arising from rail movements on the Kemira Valley Rail Line.
- (h) only use locomotives and rolling stock that are approved to operate on the NSW rail network in accordance with the noise limits in ARTC's EPL and use reasonable endeavours to ensure that rolling stock is selected to minimise noise;
- (i) carry out regular attended noise monitoring (at least every three months, unless otherwise agreed by the Planning Secretary) to determine whether the development is complying with the relevant conditions of this consent; and
- (j) regularly assess the noise monitoring data, and modify or stop operations on the site to ensure compliance with the relevant conditions of this consent.

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

Noise Management Plan

B7. The Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:

- (a) be prepared by a suitably qualified and experienced person/s;
- (b) be prepared in consultation with the EPA;
- (c) describe the measures to be implemented to ensure:
 - (i) compliance with the noise criteria and noise operating conditions in this consent;
 - (ii) best practice management is being employed;
 - (iii) noise impacts of the development are minimised during noise-enhancing meteorological conditions;
- (d) seek to minimise road traffic noise generated by employee commuter vehicles on public roads, particularly on Cordeaux Road;
- (e) describe the noise management system in detail; and
- (f) include a monitoring program that:
 - (i) uses a combination of real-time and supplementary attended monitoring to evaluate the performance of the development;

- (ii) monitors noise at the nearest and/or 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; and
- (v) includes a protocol for identifying any noise-related exceedance, incident or non-compliance and for notifying the Department and relevant stakeholders of any such event.

B8. The Applicant must not commence construction until the Noise Management Plan is approved by the Planning Secretary.

B9. The Applicant must implement the Noise Management Plan as approved by the Planning Secretary.

AIR QUALITY AND GREENHOUSE GAS

Odour

B10. The Applicant must ensure that no offensive odours, as defined under the POEO Act, are emitted from the site.

Air Quality Criteria

B11. The Applicant must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria listed in Table 3 at any residence on privately-owned land.

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

Notes:

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

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

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

Mine-owned Land

B12. 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 D of this consent;
- (b) the tenant of any land owned by the Applicant can terminate their tenancy agreement without penalty at any time, subject to giving reasonable notice;
- (c) air 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

B13. The Applicant must:

- (a) take all reasonable and feasible steps to
 - (i) minimise odour, fume, and particulate matter (including PM₁₀ and PM_{2.5}) emissions of the development;
 - (ii) eliminate or minimise the risk of spontaneous combustion;
 - (iii) improve energy efficiency and reduce greenhouse gas emissions of the development;
 - (iv) minimise any visible off-site air pollution generated by the development;
 - (v) minimise to the greatest extent practicable, the extent of potential dust generating surfaces exposed on the site at any given point in time;

- (b) operate a comprehensive air quality management system that uses a combination of predictive meteorological forecasting and real-time air quality monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this consent;
- (c) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see Note c to Table 3 above);
- (d) carry out regular air quality monitoring to determine whether the development is complying with the relevant conditions of this consent; and
- (e) regularly assess the air quality monitoring data, and modify operations on the site to ensure compliance with the relevant conditions of this consent.

Air Quality and Greenhouse Gas Management Plan

- B14. The Applicant must prepare an Air Quality and Greenhouse Gas Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:
- (a) be prepared by a suitably qualified and experienced person/s;
 - (b) be prepared in consultation with the EPA;
 - (c) describe the measures to be implemented to ensure:
 - (i) capture of methane produced by underground coal mining and flaring or beneficial use of this methane;
 - (ii) compliance with the air quality criteria and operating conditions in this consent;
 - (iii) best practice management is being employed (including in respect of minimisation of greenhouse gas emissions from the site and energy efficiency); and
 - (iv) the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events;
 - (d) describe the air quality management system in detail;
 - (e) include provisions for a detailed feasibility study of the options for beneficial use of methane produced by underground coal mining, to be completed within 2 years of commencing second workings; and
 - (f) include an air quality monitoring program, undertaken in accordance with the *Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales* (DEC, 2007), that:
 - (i) uses monitors to evaluate the performance of the development against the air quality criteria in this consent and to guide day to day planning of operations;
 - (ii) adequately supports the air quality management system; and
 - (iii) includes a protocol for identifying an air quality incident and notifying the Department and relevant stakeholders of any such incident.

Note: *“Methane produced by underground coal mining” does not include methane within mine ventilation air.*

- B15. The Applicant must not commence construction until the Air Quality and Greenhouse Gas Management Plan is approved by the Planning Secretary.
- B16. The Applicant must implement the Air Quality and Greenhouse Gas Management Plan as approved by the Planning Secretary.

METEOROLOGICAL MONITORING

- B17. Prior to the commencement of construction and for the life of the development, the Applicant must ensure that there is a suitable meteorological station operating in the vicinity of the site that:
- (a) complies with the requirements in the *Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales* (DEC, 2007); 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

- B18. The Applicant must ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of the development to match its available water supply.
- B19. The Applicant must report on water take at the site each year (whether direct and indirect and whether licensable or exempt) in the Annual Review, including water taken under each water licence.

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

Compensatory Water Supply

- B20. Prior to the commencement of mining operations under this consent, the Applicant must notify owners of licensed privately-owned groundwater bores that are predicted to have a drawdown of greater than 2 metres as a result of the development.
- B21. The Applicant must provide a compensatory water supply to any landowner of privately-owned land whose rightful water supply is adversely and directly impacted (other than an impact that is minor or negligible) as a result of the development, in consultation with DPIE Water, and to the satisfaction of the Planning Secretary.
- B22. The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent, in quality and volume, to the loss attributable to the development. Equivalent water supply should be provided (at least on an interim basis) as soon as practicable after the loss is identified, unless otherwise agreed with the landowner.
- B23. If the Applicant and the landowner cannot agree on whether the loss of water is to be attributed to the development or the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Planning Secretary for resolution.
- B24. If the Applicant is unable to provide an alternative long-term supply of water, then the Applicant must provide compensation, to the satisfaction of the Planning Secretary.

Notes:

- The Water Management Plan (see condition B27) is required to include trigger levels for investigating potentially adverse impacts on water supplies.
- The burden of proof that any loss of surface water or groundwater access is not due to mining impacts rests with the Applicant.

Water Discharges

- B25. The Applicant must ensure that all surface discharges from the site comply with all relevant provisions of the POEO Act, including any discharge limits (both volume and quality) set for the development in any EPL.

Water Management Performance Measures

- B26. The Applicant must comply with the performance measures in Table 4.

Table 4: Water management performance measures

Feature	Performance Measure
Water management – general	<ul style="list-style-type: none"> • 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 • Design, install, operate and maintain water management systems in a proper and efficient manner • Minimise risks to the receiving environment and downstream water users
Erosion and sediment control works	<ul style="list-style-type: none"> • Design, install and maintain new erosion and sediment controls in accordance with the guidance series <i>Managing Urban Stormwater: Soils and Construction</i> including <i>Volume 1: Blue Book (Landcom, 2004)</i>, <i>Volume 2A: Installation of Services (DECC, 2008)</i>, <i>Volume 2C: Unsealed Roads (DECC, 2008)</i>, <i>Volume 2D: Main Road Construction (DECC, 2008)</i> and <i>Volume 2E: Mines and Quarries (DECC, 2008)</i> • Design, install and maintain any new infrastructure located within 40 metres of watercourses in accordance with the guidance series for <i>Controlled Activities on Waterfront Land</i> (DPI Water, 2012) • Design, install and maintain any new creek crossings generally in accordance with the <i>Fisheries NSW Policy and Guidelines for Fish Habitat Conservation and Management</i> (DPI, 2013) and <i>Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings</i> (NSW Fisheries 2003). • Ensure all new works on waterfront land are consistent with the guidance series for <i>Controlled Activities on Waterfront Land</i> (DPI Water, 2012)
Clean water diversions and storage infrastructure	<ul style="list-style-type: none"> • Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on the site, except where clean water is captured for use on the site
Sediment dams	<ul style="list-style-type: none"> • Design, install and maintain sediment dams in accordance with the guidance series <i>Managing Urban Stormwater: Soils and Construction – Volume 1 (Landcom, 2004)</i> and <i>2E Mines and Quarries (DECC, 2008)</i>

Feature	Performance Measure
Chemical and hydrocarbon storage	<ul style="list-style-type: none"> Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standard
Mine water discharges	<ul style="list-style-type: none"> Negligible environmental consequences beyond those predicted in the document/s listed in condition A2(c)
Aquatic and riparian ecosystems	<ul style="list-style-type: none"> Negligible environmental consequences beyond those predicted in the document/s listed in condition A2(c). Develop site-specific in-stream water quality objectives in accordance with the <i>Australian and New Zealand Guidelines for Fresh and Marine Water Quality</i> (ANZECC & ARMCANZ, 2000) and <i>Using the ANZECC Guidelines and Water Quality Objectives in NSW</i> (DEC, 2006), or its latest version

Note: Within this condition, "new" means constructed after the grant of this consent.

Water Management Plan

B27. The Applicant must prepare a Water Management Plan for the development to the satisfaction of the Planning Secretary.

B28. This plan must:

- (a) be prepared by a suitably qualified and experienced person/s;
- (b) be prepared in consultation with WaterNSW, DPIE Water and the EPA;
- (c) describe the measures to be implemented to ensure that the Applicant complies with the water management performance measures (see Table 4);
- (d) build on existing monitoring programs and utilise existing data from nearby mines, where practicable;
- (e) 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 other industries;
 - licensed discharge points and limits; and
 - reporting procedures, including annual revision of the site water balance;
 - (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 or generate sediment;
 - describes measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;
 - describes the location, function, and capacity of erosion and sediment control 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 channel stability, water flows and water quality in the sections or parts 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 proposed metering, monitoring and modelling measures;
 - 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;
 - erosion and sediment controls;

- any water storages, including mine water management systems; and
 - reinstated drainage networks on rehabilitated areas of the site;
 - 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;
 - channel stability;
 - downstream surface water flows and quality;
 - stream and riparian vegetation health; 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;
 - 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 performance measures, and repair, mitigate and/or offset any adverse surface water impacts of the development, including measures to provide compensatory water supply to any affected water user under condition B20 of this Schedule; and
- (iv) **Groundwater Management Plan** that includes:
- detailed baseline data of groundwater levels, yield and quality for groundwater resources potentially impacted by the development; including groundwater supply for other water users;
 - a detailed description of the groundwater management system;
 - details of the proposed metering, monitoring and modelling measures;
 - 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); and
 - groundwater supply for other water users such as licensed privately-owned groundwater bores;
 - a program to monitor and evaluate:
 - compliance with the relevant performance measures listed in Table 4 and the performance criteria of this plan;
 - water loss/seepage from water storages into the groundwater system;
 - 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;
 - the effectiveness of the groundwater management system;
 - 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;
 - regular review of the groundwater model for the development, including:
 - review within two years from the grant of this consent and every three years thereafter throughout the life of the development (unless the Planning Secretary agrees otherwise) in consultation with DPIE Water and WaterNSW;
 - careful consideration of all comments received regarding the groundwater model and surface water model included in the EIS from DPIE Water, the IESC and the Mining Panel;
 - implementation of the Mining Panel's recommendations which relate to review and development of the groundwater model and surface water model;
 - independent peer review if requested by the Planning Secretary; and
 - comparison of monitoring results with modelled predictions; and

- a plan to respond to any exceedances of the performance measures
- (v) a protocol to report on the measures, monitoring results and performance criteria identified above in the Annual Review.

B29. The Applicant must not commence construction until the Water Management Plan is approved by the Planning Secretary.

B30. The Applicant must implement the Water Management Plan as approved by the Planning Secretary.

BIODIVERSITY

Biodiversity Credits Required

- B31. Except in accordance with condition B33, the Applicant must retire the biodiversity credits specified in Table 5:
- (a) in accordance with the timetable set out in Table 6, unless otherwise agreed with the Planning Secretary;
 - (b) in consultation with BCD;
 - (c) in accordance with the Biodiversity Offsets Scheme of the BC Act (including its “reasonable equivalent” requirements); and
 - (d) otherwise to the satisfaction of the BCT.

Table 5: Biodiversity credit requirements

Credit Type	Credits/Hectare	Total FBA Credits Required
Ecosystem Credits		
Red Bloodwood - Scribbly Gum heathy woodland on sandstone plateaux, Sydney Basin Bioregion (HN566/PCT 1083)	39.1	1,051
Narrow-leaved Ironbark - Broad-leaved Ironbark - Grey Gum open forest of the edges of the Cumberland Plain, Sydney Basin Bioregion (HN556/PCT 1395)	72.7	40
Sydney Peppermint - Smooth-barked Apple - Red Bloodwood shrubby open forest on slopes of moist sandstone gullies, eastern Sydney Basin Bioregion (HN651/PCT 1250)	80	68
Sydney Blue Gum x Bangalay - Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion (HN597/PCT 1245)	30	6
Needlebush - Banksia wet heath on sandstone plateaus of the Sydney Basin Bioregion (<i>Banksia Thicket</i>) (HN560/PCT 978)	13.9	237
Needlebush - Banksia wet heath swamps on coastal sandstone plateaus of the Sydney Basin (<i>Tea Tree Thicket</i>) (HN662/PCT 1804)	17.1	78
Species Credits		
Koala (<i>Phascolarctos cinereus</i>)	25.8	39
Rosenberg's Goanna (<i>Varanus rosenbergi</i>)	33.0	893
Eastern Pygmy-possum (<i>Cercartetus nanus</i>)	20.0	545
Broad-headed Snake (<i>Hoplocephalus bungaroides</i>)	32.1	9
Giant Dragonfly (<i>Petalura gigantean</i>)	77.0	1073
Littlejohn's Tree Frog (<i>Litoria littlejohni</i>)	26.0	851
Giant Burrowing Frog (<i>Heleioporus australiacus</i>)	13.0	426

Credit Type	Credits/Hectare	Total FBA Credits Required
Red-crowned Toadlet (<i>Pseudophryne australis</i>)	13.0	94

Note:

- The credits in Table 5 were calculated in accordance with Framework for Biodiversity Assessment of the NSW Biodiversity Offset Policy for Major Projects (OEH, 2014), including predicted “partial loss” being the worst-case scenario for Banksia Thicket and Tea Tree Thicket

Table 6: Biodiversity credit offset timetable

Area	Timetable	Number of Credits
Surface Disturbance		
Pit Top carpark extension	Within 12 months of commencement of its construction	<ul style="list-style-type: none"> 6 credits of HN597/PCT 1245 5 credits for Koala
Ventilation Shaft Site 5A and associated infrastructure (including service boreholes)	Within 12 months of commencement of its construction	<ul style="list-style-type: none"> 681 credits of HN566/PCT 1083 40 credits of HN651/PCT 1250 347 credits for Eastern Pygmy Possum 13 credits for Koala 550 credits for Rosenberg’s Goanna
Ventilation Shaft Site 5B and associated infrastructure	Prior to commencement of its construction	<ul style="list-style-type: none"> 20 credits of HN566/PCT 1083 40 credits of HN556/PCT 1395 19 credits for Eastern Pygmy Possum 12 credits for Koala 45 credits for Rosenberg’s Goanna
Ventilation Shaft Site 6A and associated infrastructure	Prior to commencement of its construction	<ul style="list-style-type: none"> 170 credits of HN566/PCT 1083 86 credits for Eastern Pygmy Possum 142 credits for Rosenberg’s Goanna
Ventilation Shaft Site 6B and associated infrastructure	Prior to commencement of its construction	<ul style="list-style-type: none"> 180 credits of HN566/PCT 1083 28 credits of HN651/PCT 1250 93 credits for Eastern Pygmy Possum 9 credits for Koala 156 credits for Rosenberg’s Goanna
Subsidence		
Upland swamps	Within 2 years of the grant of this consent	<ul style="list-style-type: none"> 237 credits of HN560/PCT 978 78 credits of HN662/PCT 1804
Mining Area 5	Prior to commencement of longwall extraction in Area 5	<ul style="list-style-type: none"> 274 credits for Giant Burrowing Frog 548 credits for Littlejohn’s Tree Frog 9 credits for Broad-headed Snake 440 credits for Giant Dragonfly 75 credits for Red-crowned Toadlet
Mining Area 6	Prior to commencement of longwall extraction in Area 6	<ul style="list-style-type: none"> 152 credits for Giant Burrowing Frog 303 credits for Littlejohn’s Tree Frog 633 credits for Giant Dragonfly 19 credits for Red-crowned Toadlet

B32. If the Applicant identifies that it will not proceed with particular development (eg development of Ventilation Shaft Site 5B, diminishing the size of the service boreholes site associated with Ventilation Shaft Site 5A from that proposed in the EIS, shortening or not developing particular longwall panels, or impacts on upland swamp Den02), then the Applicant may seek the agreement of the Planning Secretary to reduce the associated ecosystem and/or species credit requirements specified in Table 5 and Table 6 in proportion to the number of hectares no longer impacted and the credits/hectare requirements specified in Table 5.

Threatened Species

- B33. The Applicant must ensure that the Rehabilitation Strategy for the development includes the regeneration, enhancement and/or re-establishment of:
- (a) significant and/or threatened flora communities, including Sydney Blue Gum x Bangalay - Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion (HN597/PCT 1245); and
 - (b) habitat and/or foraging resources for other significant and/or threatened flora and fauna species, including Koala.

Biodiversity Management Plan

- B34. The Applicant must prepare a Biodiversity Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:
- (a) be prepared by a suitably qualified and experienced person/s;
 - (b) be prepared in consultation with BCD and WaterNSW;
 - (c) describe the short, medium, and long-term measures to be undertaken to manage the remnant vegetation and fauna habitat on the site;
 - (d) describe how biodiversity management would be integrated with similar measures within other management plans, including the Rehabilitation Management Plan referred to in condition B57;
 - (e) describe the measures to be implemented within the approved disturbance areas to:
 - (i) minimise the amount of clearing;
 - (ii) minimise impacts on fauna, including undertaking pre-clearance surveys;
 - (iii) provide for the reasonable and feasible salvage, transplanting and/or propagation of any threatened flora found during pre-clearance surveys, in accordance with the *Guidelines for the Translocation of Threatened Plants in Australia* (Vallee et al., 2004); and
 - (iv) maximise the salvage of resources, including tree hollows, vegetation and soil resources, for beneficial reuse, including fauna habitat enhancement;
 - (f) provide for additional breeding season surveys for Koala, using the methodologies set out in Part B(i) of Appendix C of the *Koala Habitat Protection Guideline* (DPIE, October 2020), across all proposed disturbance areas containing HN566/PCT 1083, and
 - (i) report the results of those surveys to the Department and BCD; and
 - (ii) identify and make provision for the retirement of any necessary additional species credits for Koala; before commencing surface disturbing activities within those disturbance areas;
 - (g) describe the measures to be implemented on the site to:
 - (i) minimise impacts to threatened ecological communities listed under the BC Act and EPBC Act, and contribute to conservation strategies for these communities;
 - (ii) minimise impacts on fauna habitat resources such as hunting and foraging areas, habitat trees, fallen timber and hollow-bearing trees;
 - (iii) introduce naturally scarce fauna habitat features such as nest boxes and salvaged tree hollows and promote the use of these introduced habitat features by threatened fauna species;
 - (iv) manage any potential conflicts with Aboriginal heritage values; and
 - (v) protect vegetation and fauna habitat outside of the approved disturbance areas;
 - (vi) manage the collection and propagation of seed from the local area;
 - (vii) control weeds, including measures to avoid and mitigate the spread of noxious weeds;
 - (viii) control feral pests with consideration of actions identified in relevant threat abatement plans;
 - (ix) control erosion;
 - (x) control access to vegetated or revegetated areas; and
 - (xi) manage bushfire hazards;
 - (h) include a seasonally-based program to monitor and report on the effectiveness of the above measures, progress against the detailed performance indicators and completion criteria, and identify improvements that could be implemented to improve biodiversity outcomes; and
 - (i) include details of who would be responsible for monitoring, reviewing, and implementing the plan.
- B35. The Applicant must not commence construction until the Biodiversity Management Plan is approved by the Planning Secretary.
- B36. The Applicant must implement the Biodiversity Management Plan as approved by the Planning Secretary.

Note: *The Biodiversity Management Plan and Rehabilitation Management Plan need to be substantially integrated to ensure biodiversity objectives are achieved through rehabilitation of the site.*

HERITAGE

Protection of Aboriginal Heritage

B37. The Applicant must ensure that the development does not cause any direct or indirect impact on any identified Aboriginal object located outside the approved disturbance area, beyond those predicted in the document/s listed in condition A2(c).

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

B38. If any previously unknown Aboriginal object or Aboriginal place is discovered on the site, or suspected to be on the site:

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

B39. Work in the immediate vicinity may only recommence if:

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

B40. The Applicant must ensure that all known Aboriginal objects or Aboriginal places 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).

Aboriginal Cultural Heritage Management Plan

B41. The Applicant must prepare an Aboriginal Cultural Heritage Management Plan for the development. The plan must:

- (a) be prepared by suitably qualified and experienced person/s;
- (b) be prepared in consultation with Heritage NSW and Registered Aboriginal Parties;
- (c) describe the measures to be implemented on the site or within any offset area to:
 - (i) comply with the Aboriginal cultural 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 or Aboriginal places, and that suitable records are kept of these inductions;
 - (iii) protect, monitor and manage identified Aboriginal objects and Aboriginal places within the approved disturbance area in accordance with the commitments made in the document/s listed in condition A2(c);
 - (iv) provide for appropriate archaeological investigation and recording of all identified Aboriginal objects within the approved disturbance area, with a particular focus on sites 52-2-1780 and 52-2-1456;
 - (v) undertake appropriate archaeological surveys along proposed electricity transmission line (ETL) easements and report the results of those surveys to Heritage NSW before commencing surface disturbing activities associated with construction of the relevant ETL;
 - (vi) protect Aboriginal objects and Aboriginal places located outside the approved disturbance areas from impacts of the development;
 - (vii) manage the discovery of suspected human remains and any new Aboriginal objects, including provisions for burials, over the life of the development;
 - (viii) maintain and manage reasonable access for relevant Aboriginal stakeholders to visit Aboriginal objects and Aboriginal places located on land owned or controlled by the Applicant;
 - (ix) not restrict reasonable access for relevant Aboriginal stakeholders to visit Aboriginal objects and Aboriginal places located on land owned or controlled by WaterNSW; and
 - (x) facilitate ongoing consultation and involvement of Registered Aboriginal Parties in the conservation and management of Aboriginal cultural heritage on the site;
- (d) include a strategy for the care, control and storage of Aboriginal objects salvaged on the site, both during the life of the development and in the long-term.

B42. The Applicant must not commence construction until the Aboriginal Cultural Heritage Management Plan is approved by the Planning Secretary.

B43. The Applicant must implement the Aboriginal Cultural Heritage Management Plan approved by the Planning Secretary.

Historic Heritage Management Plan

B44. The Applicant must prepare a Historic Heritage Management Plan for the development, in respect of all non-Aboriginal cultural heritage items, to the satisfaction of the Planning Secretary. This plan must:

- (a) be prepared by a suitably qualified and experienced person/s;
- (b) be prepared in consultation with Heritage NSW, WCC and any relevant landowners and in accordance with relevant Heritage NSW guidelines;
- (c) describe how historic heritage values of the site would be recorded and preserved;
- (d) identify all heritage items on the site and include a statement of significance for each item;
- (e) describe the measures to be implemented on the site or within any offset area to:
 - (i) ensure all workers on the site receive suitable heritage inductions prior to carrying out any activities which may cause impacts to historic heritage, and that suitable records are kept of these inductions;
 - (ii) protect heritage items located outside the approved disturbance areas from the impacts of the development, beyond those predicted in the document/s listed in condition A2(c);
 - (iii) undertake photographic/archival recording of any items of heritage significance predicted to be impacted by the development, prior to disturbance;
 - (iv) manage any new heritage items discovered during the life of the development; and
- (f) include a strategy for the care, control and storage of heritage relics salvaged from the site.

B45. The Applicant must not commence construction until the Historic Heritage Management Plan is approved by the Planning Secretary.

B46. The Applicant must implement the Historic Heritage Management Plan as approved by the Planning Secretary.

VISUAL

Visual Amenity and Lighting

B47. The Applicant must:

- (a) take all reasonable and feasible steps to minimise the visual and off-site lighting impacts of the development (in particular, impacts of construction and operation of ventilation shaft buildings on viewers from the curtilage of Cordeaux Dam);
- (b) take all reasonable and feasible steps to 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 that all external lighting associated with the development complies with relevant Australian Standards including the latest version of *Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting*; and
- (e) ensure that the visual appearance of all buildings, structures, facilities or works (including paint colours and specifications) is aimed at blending as far as possible with the surrounding landscape;

to the satisfaction of the Planning Secretary.

WASTE

B48. The Applicant must:

- (a) take all reasonable and feasible steps to minimise the waste (including coal rejects and tailings) generated by the development;
- (b) classify all waste in accordance with the *Waste Classification Guidelines* (EPA, 2014);
- (c) dispose of all waste at appropriately licensed waste facilities;
- (d) manage on-site sewage treatment and disposal in accordance with the requirements of WCC;
- (e) monitor and report on the effectiveness of the waste minimisation and management measures in the Annual Review.

B49. Except as expressly permitted in an applicable EPL, specific resource recovery order or exemption under the *Protection of the Environment Operations (Waste) Regulation 2014*, the Applicant must not receive waste at the site for storage, treatment, processing, reprocessing or disposal.

DANGEROUS GOODS

B50. The Applicant must ensure that the storage, handling, and transport of:

- (a) dangerous goods are done in accordance with the relevant Australian Standards, particularly AS1940 and AS1596, and the *Dangerous Goods Code*; and
- (b) explosives are managed in accordance with the requirements of the Resources Regulator.

BUSHFIRE MANAGEMENT

B51. The Applicant must:

- (a) ensure that the development:
 - (i) provides for asset protection in accordance with the relevant requirements in *the Planning for Bushfire Protection* (RFS, 2019) guideline; and
 - (ii) ensure that there is suitable equipment to respond to any fires on the site; and
- (b) assist the RFS and emergency services to the extent practicable if there is a fire in the vicinity of the site.

B52. Prior to commencing construction under this consent, the Applicant must prepare a Bushfire Management Plan for the development in consultation with RFS. This plan must include a:

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

B53. The Applicant must implement the Bushfire Management Plan in consultation with RFS.

MINOR SURFACE INFRASTRUCTURE

Gas Drainage

B54. The Applicant must ensure that all gas drainage pipelines (other than connection points, monitoring points, dewatering facilities, regulation or isolation points) between gas drainage plants are buried, unless otherwise agreed with the relevant landowner or unless burial is inappropriate for safety or other reasons, to the satisfaction of the Planning Secretary.

REHABILITATION

Rehabilitation Objectives

B55. The Applicant must rehabilitate the site in accordance with the conditions imposed on the mining lease(s) associated with the development under the *Mining Act 1992*. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EIS, and must comply with the objectives in Table 7.

Table 7: Rehabilitation objectives

Feature	Objective
All areas of the site affected by the development	<ul style="list-style-type: none"> • 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
Areas proposed for native ecosystem re-establishment	<ul style="list-style-type: none"> • Establish/restore self-sustaining native woodland ecosystems • Establish local plant community types • Establish: <ul style="list-style-type: none"> - 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

Feature	Objective
Final Landform	<ul style="list-style-type: none"> • Stable and sustainable for the intended post-mining land use/s • Consistent with surrounding topography to minimise visual impacts • Incorporate relief patterns and design principles consistent with natural drainage that mimic natural topography and mitigate erosion to the greatest extent practicable
Rehabilitation materials	<ul style="list-style-type: none"> • Soil and vegetative materials from areas disturbed under this consent (including topsoils, substrates and seeds) are recovered, managed and used as rehabilitation resources
Surface facilities sites	<ul style="list-style-type: none"> • To be decommissioned, unless the Resources Regulator agrees otherwise • All surface facilities sites are to be revegetated with suitable local native plant species to a landform consistent with the surrounding environment or the intended post mining land use(s)
Portals and vent shafts of the development	<ul style="list-style-type: none"> • To be decommissioned and made safe and stable • Retain habitat for threatened species (e.g. bats), where practicable
Watercourse subject to approved mine water discharges (Allans Creek)	<ul style="list-style-type: none"> • Hydraulically and geomorphologically stable • Aquatic ecology and riparian vegetation that is the same or better than prior to grant of this consent
Mine water discharges following mine closure (from any location)	<ul style="list-style-type: none"> • Negligible environmental consequence
Avon and Cordeaux Rivers Donalds Castle and Wongawilli Creeks Key stream features subject to subsidence impacts Unnamed 3 rd order streams subject to subsidence impacts	<ul style="list-style-type: none"> • Remediate physical damage as soon as reasonably practicable, unless the environmental impacts of remediation exceed the environmental benefits
Water quality	<ul style="list-style-type: none"> • Water retained on the site is fit for the intended post-mining land use/s • Water management is consistent with the regional catchment management strategy
Built features damaged by mining operations	<ul style="list-style-type: none"> • Repair to pre-mining condition or equivalent unless the: <ul style="list-style-type: none"> ○ owner agrees otherwise; or ○ damage is fully restored, repaired or compensated for under the <i>Coal Mine Subsidence Compensation Act 2017</i>
Cliffs, minor cliffs, rock face features and steep slopes	<ul style="list-style-type: none"> • No additional risk to public safety compared to prior to mining
Community	<ul style="list-style-type: none"> • Ensure public safety • Minimise adverse socio-economic effects associated with mine closure

Notes:

- *These rehabilitation objectives apply to all subsidence impacts and environmental consequences caused by all underground mining of the development and to all surface infrastructure components of the development.*
- *Classification of streams in accordance with Strahler stream order system.*

Progressive Rehabilitation

B56. The Applicant must rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance, including construction disturbance. All reasonable and feasible steps must be taken to minimise the total area exposed at any time. Interim stabilisation and temporary vegetation strategies must be employed when areas prone to dust generation, soil erosion and weed incursion cannot be permanently rehabilitated.

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

Rehabilitation Management Plan

- B57. The Applicant must prepare a Rehabilitation Management Plan for the development, in accordance with the conditions imposed on the mining lease(s) associated with the development under the *Mining Act 1992*. This plan must:
- be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the Planning Secretary;
 - be prepared in consultation with the Department, WaterNSW, DPIE Water, BCD, Resources Regulator and Councils;
 - be prepared in accordance with any relevant Resources Regulator Guideline;
 - include detailed performance indicators and completion criteria for each rehabilitation domain, and triggers for remedial actions;
 - describe the measures to be implemented on the site to achieve the Rehabilitation Objectives in Table 7 and the criteria in paragraph (d);
 - include detailed mine plans and scheduling for progressive rehabilitation to be initiated, undertaken and/or completed over the next three years, or other suitable time period as agreed with the Resources Regulator;
 - include procedures for the reasonable and feasible use of interim stabilisation and temporary vegetation strategies to minimise the area exposed for dust generation;
 - include a program to monitor, independently audit and report on progress against the criteria in paragraph (d) and the effectiveness of the measures in paragraph (e); and
 - describe any further studies, work, research or consultation that will be undertaken to expand the site-specific rehabilitation knowledge base, reduce uncertainty and improve rehabilitation outcomes.
- B58. The Applicant must not commence construction (other than in respect of the Pit Top carpark extension) until the Rehabilitation Management Plan is approved by the Planning Secretary.
- B59. The Applicant must implement the Rehabilitation Management Plan as approved by the Planning Secretary.

Notes:

- The Rehabilitation Management Plan should address all land impacted by the development.*
- The Rehabilitation Management Plan may be combined with a Mining Operations Plan, or similar plan, required under mining lease/s granted for the development.*
- The Biodiversity Management Plan and Rehabilitation Management Plan require substantial integration to achieve the biodiversity objectives for the rehabilitated site.*

Mine Closure Plan

- B60. The Applicant must prepare a Mine Closure Plan for the Dendrobium Mine, which must be prepared:
- by a suitably qualified and experienced person/s whose appointment has been endorsed by the Planning Secretary;
 - in consultation with the Department, WaterNSW, DPIE Water, Resources Regulator, WCC and (if requested by the Planning Secretary) the Mining Panel; and
 - in accordance with any relevant Resources Regulator Guideline;
 - be subject to peer review and submitted for approval within three years of commencing development under this consent;
 - contain a detailed mine closure strategy for Dendrobium Mine, which includes:
 - detailed consideration of all issues associated with sealing or not sealing mine entrances, with particular reference to groundwater re-pressurisation, developing hydraulic pressure heads within main headings and long-term emergence of mine waters within the Metropolitan Special Area and/or the Illawarra Escarpment;
 - consideration of other underground mines hydraulically connected to Dendrobium Mine (including options regarding isolating those other mines);
 - consideration of the most up-to-date groundwater and surface water inflow modelling for Dendrobium Mine, including improved modelling of points of anticipated groundwater outflow;
 - a robust risk assessment that fully and objectively identifies the potential hazards associated with mine closure, the likelihood and consequences associated with these hazards materialising, the extent to which consequences can be controlled should the hazards materialise, and the residual risks after control measures have been put in place; and
 - options for managing residual risks, such as ongoing mine water discharges and surface leakages of contaminated mine water, should the Dendrobium Mine not be able to be effectively sealed, and any requirement for water treatment prior to discharge; and
 - be fully reviewed and revised every three years following approval, unless the Planning Secretary agrees otherwise.

- B61. The Applicant must not commence longwall mining until the Mine Closure Plan is approved by the Planning Secretary, unless otherwise agreed by the Planning Secretary.
- B62. The Applicant must implement the Mine Closure Plan as approved by the Planning Secretary.

Notes:

- *The Mine Closure Plan should address all land impacted by the development.*
- *The Mine Closure Plan may be combined with the Rehabilitation Management Plan and with any Mining Operations Plan, or similar plan, required under mining lease/s granted for the development.*
- *The Rehabilitation Management Plan and Mine Closure Plan require substantial integration to achieve all objectives for the rehabilitated site.*

TRANSPORT

Rail Transport of Coal

- B63. Trains must not travel on the Kemira Valley Rail Line between 11 pm and 6 am, unless written approval is obtained from the EPA or in an emergency related to mine safety.

Monitoring of Coal Transport

- B64. The Applicant must:
- (a) keep accurate records of the:
 - (i) amount of coal transported from the site (on a daily basis); and
 - (ii) date and time of each train movement generated by the development; and
 - (b) publish a detailed summary of these results in the Annual Review.

Road Maintenance

- B65. The Applicant must:
- (a) prepare a pre-dilapidation survey of public roads to be used as transport routes prior to the commencement of decommissioning, or other timeframe agreed by the applicable roads authority;
 - (b) prepare a post-dilapidation survey of public roads used as transport routes within 1 month of the completion of decommissioning, or other timeframe agreed by the applicable roads authority; and
 - (c) rehabilitate and/or make good any development-related damage identified in the post-dilapidation survey prepared under paragraph (b) within 2 months of completing the post-dilapidation survey, or other timing as may be agreed by the applicable roads authority,
- to the satisfaction of the applicable roads authority.
- B66. If decommissioning is to be staged, the obligations in this condition apply to each stage.
- B67. If there is a dispute about the scope of any remedial works or the implementation of the works, then either party may refer the matter to the Planning Secretary for resolution.
- B68. The Applicant must enter into an agreement with WaterNSW, to the satisfaction of the Planning Secretary, to share the reasonable costs of maintenance of all non-public roads (ie fire trails), bridges and creek crossings located on land controlled by WaterNSW and used by the Applicant.
- B69. The Applicant must establish an agreement with WCC to share the reasonable costs of maintenance of Stones Road for the life of the development. Prior to decommissioning, Stones Road must be inspected, to the satisfaction of WCC, and the road restored by the Applicant to a standard not less than its condition prior to the development's approval. If roadworks are not carried out by the Applicant within one month of being informed by WCC that these works are required under the maintenance agreement, WCC shall be entitled to carry out such maintenance work at the Applicant's cost. Any dispute over implementation of this condition is to be referred to the Planning Secretary for resolution.

Note: *This condition does not require an additional agreement with WCC while ever a similar condition under DA 60-3-2001 requires an equivalent agreement.*

Traffic Management Plan

- B70. The Applicant must prepare a Traffic Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:
- (a) be prepared by a suitably qualified and experienced person/s;
 - (b) be prepared in consultation with WCC, Mt Kembla Primary School and the CCC;
 - (c) include details of all transport routes and traffic types to be used for development-related traffic;
 - (d) include a protocol for undertaking pre- and post-dilapidation surveys and repairing any roads identified in the dilapidation surveys to have been damaged during decommissioning;

- (e) include details of the measures to be implemented to minimise traffic safety issues and disruption to local road users during construction or decommissioning, including:
 - (i) temporary traffic controls, including detours and signage;
 - (ii) notifying the local community about development-related traffic impacts;
 - (iii) provide that mine shift changeover times and deliveries by heavy vehicle to the pit top facilities and KVCLF do not conflict with pick-up and drop-off times for Mt Kembla Primary School students;
 - (iv) responding to any emergency repair requirements or maintenance during construction and/or decommissioning; and
 - (v) a traffic management system for managing over-dimensional vehicles; and
- (f) include a Drivers' Code of Conduct to be applied to the Applicant's employees and contractors working at the development that includes procedures to ensure that drivers:
 - (i) adhere to posted speed limits or other required travelling speeds;
 - (ii) adhere to any designated transport routes; and
 - (iii) implement safe driving practices.

B71. If construction and/or decommissioning is to be staged, the obligations in this condition apply to each stage of construction and/or decommissioning.

B72. The Applicant must not commence construction until the Traffic Management Plan is approved by the Planning Secretary.

B73. The Applicant must implement the Traffic Management Plan as approved by the Planning Secretary.

Social Impact Management Plan

B74. The Applicant must prepare a Social Impact Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:

- (a) be prepared by a suitably qualified and experienced person/s;
- (b) be prepared in consultation with WCC, the CCC, local affected communities and other interested stakeholders;
- (c) be submitted to the Planning Secretary for approval within six months of commencing development under this consent;
- (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 opportunities to assist in maintaining community services and facilities;
- (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 anticipated mine closure.

B75. The Applicant must not commence construction until the Social Impact Management Plan is approved by the Planning Secretary.

B76. The Applicant must implement the Social Impact Management Plan as approved by the Planning Secretary.

PART C SPECIFIC ENVIRONMENTAL CONDITIONS – UNDERGROUND MINING

SUBSIDENCE

Performance Measures – Natural and Heritage Features etc

- C1. The Applicant must ensure that the development does not cause any exceedances of the performance measures in Table 8.

Table 8: *Subsidence impact performance measures – natural and heritage features etc*

Feature	Performance Measures
<i>Key Water Resources</i>	
Lake Cordeaux Lake Avon	<ul style="list-style-type: none"> Negligible reduction in the quality or quantity of surface water or groundwater inflows to the reservoir
Cordeaux River	<ul style="list-style-type: none"> Negligible reduction in the quality or quantity of surface water flows at its confluence with Wongawilli Creek
<i>Watercourses</i>	
Avon River Cordeaux River	<ul style="list-style-type: none"> No subsidence impact greater than predicted in the EIS Negligible environmental consequences
Donalds Castle Creek Wongawilli Creek Unnamed 1 st , 2 nd and 3 rd order streams	<ul style="list-style-type: none"> No subsidence impact or environmental consequence greater than predicted in the EIS
<i>Biodiversity</i>	
Threatened ecological communities Threatened species	<ul style="list-style-type: none"> No environmental consequence greater than has been offset in accordance with Table 5 and Table 6
<i>Mine workings</i>	
First workings	<ul style="list-style-type: none"> To remain long-term stable and non-subsiding, except insofar as they may be impacted by approved second workings
Second workings	<ul style="list-style-type: none"> To be carried out only within the approved mine plan, in accordance with an approved Extraction Plan

Notes:

- Classification of streams in accordance with Strahler stream order system.
- The Applicant will be required to define more detailed performance indicators (including impact assessment criteria) for each of these performance measures in the various management plans that are required under this consent (see condition C8).

- C2. Measurement and monitoring of compliance with performance measures and performance indicators in this consent is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans and monitoring programs. In the event of a dispute over the appropriateness of proposed methods, the Planning Secretary will be the final arbiter.

Additional Offsets

- C3. If the Applicant exceeds the performance measures in Table 8 and the Planning Secretary determines that:
- it is not reasonable or feasible to remediate the subsidence impact or environmental consequence; or
 - remediation measures implemented by the Applicant have failed to satisfactorily remediate the subsidence impact or environmental consequence,

then the Applicant must provide a suitable offset to compensate for the subsidence impact or environmental consequence, to the satisfaction of the Planning Secretary.

- C4. The offset must give priority to like-for-like physical environmental offsets, but may also consider other offsets under the Biodiversity Offsets Scheme of the BC Act, such as the Biodiversity Conservation Fund established by BCT, or funding or implementing supplementary measures, such as:

- actions outlined in threatened species recovery programs;

- (b) actions that contribute to threat abatement programs;
- (c) biodiversity research and survey programs; and/or
- (d) rehabilitating degraded habitat.

Note: Any offset required under this condition must be proportionate with the significance of the impact or environmental consequence.

Performance Measures – Built Features

C5. The Applicant must ensure that the development meets the performance measures in Table 9.

Table 9: Subsidence impact performance measures – built features

Feature	Performance Measures
<i>Key Public Infrastructure</i>	
<ul style="list-style-type: none"> • Cordeaux Dam Wall • Avon Dam Wall 	<ul style="list-style-type: none"> • Always safe and serviceable. • Negligible damage, which (if occurring) must be repaired to the satisfaction of DSNSW.
<ul style="list-style-type: none"> • Electricity transmission lines and towers • Natural gas pipelines 	<ul style="list-style-type: none"> • Always safe and serviceable. • Damage that does not affect safety or serviceability must be fully repairable, and must be fully repaired.
<i>Other Infrastructure</i>	
<ul style="list-style-type: none"> • Electricity distribution lines, poles and associated towers • Maldon-Dombarton railway corridor (disused) • Picton Road • Unsealed roads and road culverts, fire trails, fences and other built features • Other public infrastructure 	<ul style="list-style-type: none"> • Always safe. • Serviceability should be maintained wherever practicable. • Loss of serviceability must be fully compensated. • Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.
<i>Heritage structures</i>	
<ul style="list-style-type: none"> • Built structures within the State-listed heritage curtilage of Cordeaux Dam 	<ul style="list-style-type: none"> • Always safe. • Damage that does not affect safety or serviceability must be fully repairable, and must be fully repaired.
<i>Public safety</i>	
<ul style="list-style-type: none"> • Public Safety 	<ul style="list-style-type: none"> • Negligible additional risk.

Notes

- The Applicant will be required to define more detailed performance measures in the Built Features Management Plans or Public Safety Management Plan (see condition **Error! Reference source not found.**).
- Requirements regarding safety or serviceability do not prevent preventative or mitigatory actions being taken prior to or during mining in order to achieve or maintain these outcomes.
- Requirements under this condition may be met by measures undertaken in accordance with the Coal Mine Subsidence Compensation Act 2017.

C6. Any dispute between the Applicant and the owner of any built feature over the interpretation, application or implementation of the performance measures in Table 9 is to be settled by the Planning Secretary, following consultation with SA NSW. Any decision by the Planning Secretary shall be final.

First Workings

C7. The Applicant may carry out first workings within the area of the approved mine plan, other than in accordance with an approved Extraction Plan, provided that the Resources Regulator is satisfied that first workings are designed to remain stable and non-subsiding in the long-term, and do not generate more than 20mm of vertical subsidence at the surface, except insofar as they may be impacted by approved second workings.

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

Extraction Plan

- C8. The Applicant must prepare an Extraction Plan (or Plans) for all second workings within the area of the approved mine plan to the satisfaction of the Planning Secretary. Each Extraction Plan must:
- (a) be prepared in consultation with WaterNSW, the Resources Regulator, DPIE Water and (if requested by the Planning Secretary) the Mining Panel, by a suitably qualified and experienced person/s whose appointment has been endorsed by the Planning Secretary;
 - (b) be approved by the Planning Secretary before the Applicant carries out any second workings covered by the plan;
 - (c) include detailed plans of existing and proposed first and second workings and any associated surface development, including any applicable adaptive management measures;
 - (d) include detailed performance indicators for each of the performance measures in Table 8 and Table 8;
 - (e) provide revised predictions of the potential subsidence effects, subsidence impacts and environmental consequences of the proposed second workings, incorporating any relevant information obtained since this consent;
 - (f) describe the measures that would be implemented to ensure compliance with the performance measures in Table 8 and Table 8, and manage or remediate any impacts and/or environmental consequences to meet the rehabilitation objectives in Table 7;
 - (g) include a:
 - (i) **Subsidence Monitoring Program** which has been prepared in consultation with the Resources Regulator, to:
 - describe the ongoing conventional and non-conventional subsidence monitoring program, including consideration of contemporary subsidence monitoring methods such as InSAR (Interferometric Synthetic Aperture Radar) and LIDAR (Light Detection and Ranging);
 - provide data to assist with the management of the risks associated with subsidence;
 - validates the conventional and non-conventional subsidence predictions;
 - addresses far-field horizontal subsidence effects on the walls of Cordeaux Dam and Avon Dam;
 - analyses the relationship between the predicted and resulting subsidence effects and predicted and resulting impacts under the plan and any ensuing environmental consequences; and
 - informs the contingency plan and adaptive management process;
 - (ii) **Built Features Management Plan**, which has been prepared in consultation with the Resources Regulator and the owners of affected public infrastructure, to manage the potential subsidence impacts and/or environmental consequences of the proposed second workings, and which:
 - addresses in appropriate detail all items of public infrastructure (in particular, key public infrastructure listed in Table 9) and all classes of other built features;
 - provides for subsidence risk assessments for all key public infrastructure;
 - has been prepared following appropriate consultation with the owner/s of potentially affected feature/s;
 - recommends appropriate pre-mining mitigation measures to reduce subsidence impacts;
 - recommends appropriate remedial measures and includes commitments to mitigate, repair, replace or compensate all predicted impacts on potentially affected built features in a timely manner; and
 - in the case of all key public infrastructure, and other public infrastructure as appropriate, reports external auditing for compliance with ISO 31000 (or alternative standard agreed with the infrastructure owner), and provides for annual auditing of compliance and effectiveness during extraction which may impact the infrastructure;
 - (iii) **Water Management Plan**, which has been prepared in consultation with WaterNSW, which provides for the management of potential impacts and/or environmental consequences of the proposed second workings on watercourses and aquifers, including:
 - detailed baseline data on:
 - surface water flows and quality in watercourses and other water bodies that could be affected by subsidence;
 - groundwater levels, yield and quality in the region;
 - surface and groundwater impact assessment criteria, including trigger levels for investigating any potentially adverse impacts on water resources or water quality;
 - a surface water monitoring program to monitor and report on:
 - stream flows and quality;
 - stream and riparian vegetation health; and
 - channel and bank stability;
 - a groundwater monitoring program to monitor and report on:
 - springs, their discharge quantity and quality, as well as associated groundwater dependent ecosystems;
 - groundwater inflows to the underground mining operations;

- the height of groundwater depressurisation;
 - background changes in groundwater yield/quality against mine-induced changes, in particular, on groundwater bore users in the vicinity of the site;
 - permeability, hydraulic gradient, flow direction and connectivity of the deep and shallow groundwater aquifers; and
 - impacts of the development on upland swamps (refer to paragraph (v) below) and other groundwater dependent ecosystems;
 - a description of any adaptive management practices implemented to guide future mining activities in the event of greater than predicted impacts on aquatic habitat;
 - a program to continually improve and refine modelling of surface water losses, including provision for annual recalibration of the development's groundwater model to incorporate all new relevant data (eg groundwater pressures, surface water flows, rainfall, evaporation and mine inflows);
 - a program to update the development's surface water and groundwater models, to improve their integration and compare monitoring results with modelled predictions; and
 - a plan to respond to any exceedances of the surface water and groundwater assessment criteria;
- (iv) **Biodiversity Management Plan** which has been prepared in consultation with BCD and DPIE Water, which establishes baseline data for existing habitat, including water table depth, vegetation condition, stream morphology and threatened species habitat, and provides for the management of potential impacts and/or environmental consequences on aquatic and terrestrial flora and fauna, with a specific focus on threatened species, populations and their habitats, TECs and water dependent ecosystems;
- (v) **Swamp Monitoring Program** which has been prepared in consultation with BCD and WaterNSW, and which includes (as a minimum):
- detailed identification of the 'headwater', 'valley infill' and 'hybrid' characteristics of each potentially impacted and control swamp, including special consideration of swamps likely to be at increased risk of erosional scour, or gullying or peat burns during bushfires;
 - outcome of updated surveys of existing biodiversity, species distribution and swamp condition for potentially impacted and control swamps;
 - consideration of the location of shallow piezometers, including consideration of upslope and downslope piezometers, in order to understand movements of shallow groundwater;
 - installation of flow monitoring points and nested monitoring bores and potential use of environmental water tracers to define hydraulic connection between swamps and associated aquifers;
 - measures to record the nature and condition of terrestrial and aquatic flora and fauna within all potentially impacted and control swamps;
 - measures to characterise soils or peat layers within swamps to determine:
 - porosity;
 - a basis for relating water levels to rainfall and evapotranspiration; and
 - the presence, or absence, of clay materials at the interface with the underlying bedrock;
 - a program for monthly review of the water balance of all monitored swamps based on recorded rainfall, estimated evapotranspiration and recorded surface and shallow groundwater levels and outflow measurements;
 - use of a minimum of 2 years of baseline data for swamp hydrology and swamp vegetation;
 - hydrological and vegetative monitoring which fully satisfies Before After Control Impact (BACI) design principles;
 - consideration of post-mining swamp monitoring, including for the initial 12 month post-mining period and longer-term monitoring for inclusion into regional data bases;
 - a program for consideration of long-term monitoring data for swamp hydrology and swamp vegetation (including baseline, during and post mining) to identify any statically significant changes;
 - provision of raw piezometer and other monitoring data to the Department, BCD and WaterNSW, if requested; and
 - incorporation of any relevant findings from swamp research developments into the swamp monitoring program;
- (vi) **Trigger Action Response Plan/s** addressing all features listed in Table 8 and Table 9, which contain:
- appropriate triggers to warn of increased risk of exceedance of any performance measure;
 - specific actions to respond to high risk of exceedance of any performance measure to ensure that the measure is not exceeded;
 - adaptive management where monitoring indicates that there has been an exceedance of any performance measure in Table 8 and Table 9, or where any such exceedance appears likely; and
 - an assessment of remediation measures that may be required if exceedances occur and the capacity to implement those measures;
- (vii) **Land Management Plan** which has been prepared in consultation with WaterNSW, which provides for the management of potential impacts and/or environmental consequences of the proposed

underground workings on land in general, with a specific focus on cliffs, minor cliffs, rock face features, steep slopes and gorges;

- (viii) **Heritage Management Plan** which has been prepared in consultation with Heritage NSW and relevant stakeholders for both Aboriginal and non-Aboriginal heritage, which provides for the management of potential environmental consequences of the proposed second workings on Aboriginal and non-Aboriginal heritage;
 - (ix) **Public Safety Management Plan**, which has been prepared in consultation with the Resources Regulator and WaterNSW, to ensure public safety and manage access on the site; and
 - (x) **Contingency Plan** that expressly provides for adaptive management where monitoring indicates that there has been an exceedance of any performance measure in Table 8 and Table 9, or where any such exceedance appears likely;
- (h) propose appropriate revisions to the Rehabilitation Management Plan required under condition B57;
 - (i) take into account the Mine Closure Plan required under condition B57; and
 - (j) include a program to collect sufficient baseline data for future Extraction Plans.

C9. The Applicant must not undertake second workings until the applicable Extraction Plan is approved by the Planning Secretary.

C10. The Applicant must implement Extraction Plans as approved by the Planning Secretary.

Notes:

- *In accordance with condition A20, the preparation and implementation of Extraction Plans may be staged, with each plan covering a defined area of underground workings.*
- *In accordance with condition A20, Extraction Plans may address requirements under Part B of this consent in respect of a Water Management Plan, Biodiversity Management Plan, Aboriginal Cultural Heritage Management Plan and Historic Heritage Management Plan.*

End of Panel Reporting

C11. Within 4 months of the completion of each longwall panel, or as otherwise agreed by the Planning Secretary, the Applicant must:

- (a) prepare an end-of-panel report:
 - (i) reporting all subsidence effects (both individual and cumulative) for the panel and comparing subsidence effects with predictions;
 - (ii) describing in detail all subsidence impacts (both individual and cumulative) for the panel;
 - (iii) discussing the environmental consequences for watercourses, swamps, water yield, water quality, aquatic ecology, terrestrial ecology, groundwater, cliffs and steep slopes; and
 - (iv) comparing subsidence impacts and environmental consequences with predictions; and
- (b) submit the report to the Department, Resources Regulator, WaterNSW, BCD, DPIE Water and any other relevant agency, to the satisfaction of the Planning Secretary.

C12. The Applicant must include a comprehensive summary, analysis and discussion of the results of monitoring of subsidence effects, subsidence impacts and environmental consequences in each Annual Review.

Payment of Reasonable Costs

C13. The Applicant must pay all reasonable costs incurred by the Department to engage a suitably qualified, experienced and independent experts to review the adequacy of any aspect of an Extraction Plan.

PART D ADDITIONAL PROCEDURES

ADDITIONAL MITIGATION UPON REQUEST

- D1. Upon receiving a written request for mitigation from the owner of any residence on the land listed in **Error! Reference source not found.**, the Applicant must implement additional mitigation measures at or in the vicinity of the residence in consultation with the landowner. These measures must be consistent with the measures outlined in the *Voluntary Land Acquisition and Mitigation Policy for State Significant Mining, Petroleum and Extractive Industry Development* (NSW Government, 2014). They must also 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. The Applicant must also be responsible for the reasonable costs of ongoing maintenance of these additional mitigation measures until the cessation of mining operations.

Table 10: Land subject to additional mitigation upon request

Mitigation Basis	Land
Noise	R6a

Note: The location of the land referred to in Table 10: is shown on the figure in Appendix 4.

- D2. If within 3 months of receiving this request from the owner, the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Planning Secretary for resolution.

NOTIFICATION OF LANDOWNERS/TENANTS

- D3. Within one month of commencing development under this consent, the Applicant must:
- notify in writing the owner of the residences on the land listed in **Error! Reference source not found.** that they are entitled to ask the Applicant to install additional mitigation measures at the residence; and
 - notify the tenants of any mine-owned land of their rights under this consent.
- D4. Prior to entering into any tenancy agreement for any land owned by the Applicant that is predicted to experience exceedances of the recommended noise criteria, the Applicant must advise the prospective tenants of the rights they would have under this consent, to the satisfaction of the Planning Secretary.

NOTIFICATION OF EXCEEDANCES

- D5. As soon as practicable and no longer than 7 days after obtaining monitoring results showing an exceedance of any noise or air quality criterion in PART B of this consent, the Applicant must provide the details of the exceedance to any affected landowners and/or tenants. For any exceedance of any air quality criterion in PART B of this consent, the Applicant must also provide to any affected land owners and tenants a copy of the fact sheet entitled "*Mine Dust and You*" (NSW Health, 2017).

INDEPENDENT REVIEW

- D6. If a landowner considers the development to be exceeding any air quality or noise relevant 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.
- D7. 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.
- D8. 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:
- commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Planning Secretary, to:
 - consult with the landowner to determine their concerns;
 - conduct monitoring to determine whether the development is complying with the relevant criteria in PART B; and
 - if the development is not complying with the relevant criterion, identify measures that could be implemented to ensure compliance with the relevant criterion; and
 - give the Planning Secretary and landowner a copy of the independent review; and
 - comply with any written requests made by the Planning Secretary to implement any findings of the review.

PART E ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

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

Adaptive Management

- E4. 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;
- (c) within 14 days of the exceedance occurring (or other timeframe agreed by the Planning Secretary), submit a report to the Planning Secretary describing these remediation options and any preferred remediation measures or other course of action; and
- (d) implement reasonable remediation measures as directed by the Planning Secretary.

to the satisfaction of the Planning Secretary.

Management Plan Requirements

- E5. Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:
- (a) 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 management measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;
 - (e) a program to monitor and report on the:
 - (i) impacts and environmental performance of the development; and

- (ii) effectiveness of the management measures set out pursuant to paragraph (d);
- (f) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;
- (g) a program to investigate and implement ways to improve the environmental performance of the development over time;
- (h) a protocol for managing and reporting any:
 - (i) incident, non-compliance or exceedance of any impact assessment criterion 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.*

- E6. Management plans prepared for the development must be consistent with the conditions of this consent and any EPL issued for the site.

REVISION OF STRATEGIES, PLANS AND PROGRAMS

- E7. Within three months of:
- (a) the submission of an incident report under condition E9;
 - (b) the submission of an Annual Review under condition E11;
 - (c) the submission of an Independent Environmental Audit under condition E12;
 - (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 A14,

the suitability of existing strategies, plans and programs required under this consent must be reviewed by the Applicant.

- E8. If necessary, to either improve the environmental performance of the development, cater for a modification or comply with a direction, the strategies, plans and programs required under this consent must be revised, to the satisfaction of the Planning Secretary. Where revisions are required, the revised document must be submitted to the Planning Secretary for approval within six weeks of the review.

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

REPORTING AND AUDITING

Incident Notification

- E9. The Applicant must immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must be in writing to compliance@planning.nsw.gov.au and identify the development (including the development application number and name) and set out the location and nature of the incident.

Non-Compliance Notification

- E10. Within seven days of becoming aware of a non-compliance, the Applicant must notify the Department of the non-compliance. The notification must be in writing to compliance@planning.nsw.gov.au and identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, why it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.

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

Annual Review

- E11. By the end of September in each year after the commencement of the development, or other timeframe agreed by the Planning Secretary, a report must be submitted to the Department reviewing the environmental performance of the development, to the satisfaction of the Planning Secretary. This review must:
- (a) describe the development (including any rehabilitation) that was carried out in the previous financial year, and the development that is proposed to be carried out over the current financial/calendar year;
 - (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous financial 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 financial 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 financial year to improve the environmental performance of the development.

E12. Copies of the Annual Review must be submitted to the Councils and regulatory agencies and made available to the CCC and any interested person upon request.

Independent Environmental Audit

E13. Within one year of commencement of development under this consent, and every three years after, unless the Planning Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. The audit must:

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

Note: *The Independent Environmental Audit is able to be integrated with any similar audit required by DA 60-03-2001.*

E14. Within three months of commencing an Independent Environmental Audit, or other timeframe agreed by the Planning Secretary, the Applicant must submit a copy of the audit report to the Planning Secretary, and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations. The recommendations must be implemented to the satisfaction of the Planning Secretary.

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

Monitoring and Environmental Audits

E15. Any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification, compliance report and independent audit.

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

E16. Noise and/or air quality monitoring under this consent may be undertaken at suitable representative monitoring locations instead of at privately-owned residences or other locations listed in Part B, providing that these representative monitoring locations are set out in the respective management plan/s.

ACCESS TO INFORMATION

E17. Before 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 referred to 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 construction, mining operations or decommissioning 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
7318	1164103
212	1176205
16	1190354
21	1190749
2711	1190953
34	DP7960
41	DP36130
43	DP36130
38	DP36130
39	DP36130
40	DP36130
23	DP36411
30	DP36411
28	DP36411
25	DP36411
29	DP36411
37	DP36411
35	DP36411
27	DP36411
36	DP36411
33	DP36411
34	DP36411
26	DP36411
24	DP36411
5	DP38313
3	DP38313
7	DP38313
11	DP38313
10	DP38313
9	DP38313
6	DP38313
4	DP38313
8	DP38313
1	DP41756
2	DP41756
1	DP44334

1	DP45861
1	DP60361
1	DP156003
1	DP156521
2	DP157009
3	DP157009
1	DP157009
1	DP158575
1	DP158694
2	DP158694
1	DP159797
2	DP159797
3	DP159797
15	DP162288
1	DP164689
1	DP171969
28	DP191115
1	DP191695
1	DP193941
3	DP196371
2	DP196371
1	DP196406
3	DP196426
2	DP196426
1	DP196426
1	DP196473
2	DP196766
1	DP196766
2	DP196993
1	DP196993
4	DP203034
3	DP203034
1	DP203263
1	DP203687
2	DP208440
1	DP208743
2	DP208744
2	DP214572
3	DP214572

14	DP216637
25	DP216637
15	DP216637
23	DP216637
22	DP216637
2	DP217891
1	DP221602
1	DP227274
2	DP227274
1	DP230082
7	DP238832
76	DP241837
8	DP250762
12	DP250762
11	DP250762
1	DP255281
18	DP255285
14	DP255285
16	DP255285
15	DP255285
68	DP259919
7	DP259921
20	DP259921
22	DP259921
18	DP259921
343	DP263444
345	DP263444
344	DP263444
342	DP263444
350	DP263444
341	DP263444
347	DP263444
2	DP263531
13	DP401354
7	DP401354
12	DP401354
8	DP401354
70	DP432516
21	DP548951

1	DP553102
1	DP553538
2	DP555020
1	DP560813
1	DP569400
1	DP575707
101	DP602229
102	DP602229
1	DP606430
1	DP606431
1	DP606434
1	DP615178
36	DP650174
27	DP655448
25	DP663885
451	DP708415
1	DP713256
1	DP716852
1	DP724278
1	DP740795
1	DP745811
1	DP745812
1	DP745816
1	DP745817
23	DP751278
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284	DP751278
289	DP751278
30	DP751278
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216	DP751278
217	DP751278

24	DP751278
13	DP751278
276	DP751278
278	DP751278
1	DP770473
1	DP782097
1557	DP807879
11	DP814237
6	DP867936
7	DP867936
160	DP874580
161	DP874580
26	DP876910
25	DP876910
24	DP876910
811	DP881172
1	DP907377
213	DP914738
212	DP914738
1990	DP914739
2140	DP914740
2000	DP914741
1	DP920893
1	DP920894
1	DP986723
1	DP1000997
1	DP1001013
1	DP1001210
1	DP1006994
1	DP1012600
1	DP1061983
2	DP1061983
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1	DP1098046
142	DP1098209
29	DP1100139
135	DP1101894

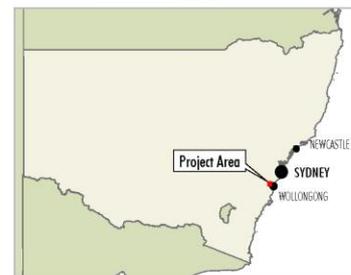
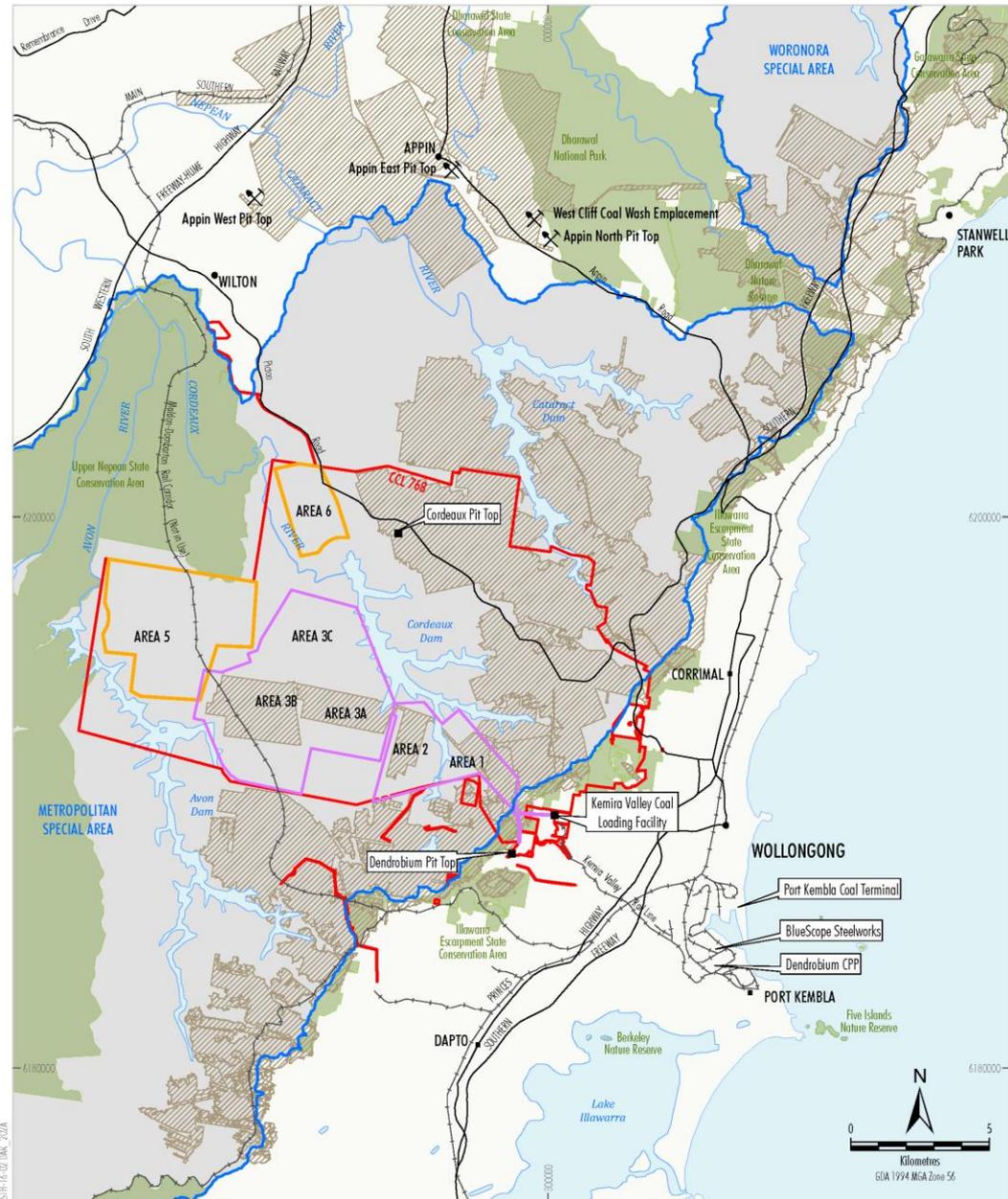
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1	DP1103781
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18	DP1111734
32	DP1115382
31	DP1115419
30	DP1115425
50	DP1115767
23	DP1120351
24	DP1120351
114	DP1127132
22	DP1128396
19	DP1131362
103	DP1141089
302	DP1148391
2	DP1157196
3	DP1157196
81	DP1170187
1920	DP1176023
701	DP1177300
23	DP1181877
22	DP1181877
12	DP1182111
11	DP1182111
4	DP1185541
7	DP1185541
8	DP1185541
6	DP1185541
3	DP1185541
64	DP1188514
45	DP1189567
1	DP1190181
2	DP1190181
1	DP1190306
2	DP1190306
138	DP1190404

21	DP1190621
1	DP1190768
115	DP1190868
2	DP1191281
1	DP1191281
171	DP1193240
1	DP1193744
815	DP1193843
161	DP1196124
100	DP1207784
74	DP1218449
2	DP1220569
1802	DP1223063
103	DP1232284
104	DP1232284
14	DP1233164
-	SP53017
-	SP73645
-	SP77561
-	SP95821

Other	
Kemira Valley Rail Line	-
State Rail Authority (Crown)	Railway lands located between or adjacent to the above parcels of land
Wollondilly Shire Council, Wingecarribee Shire Council, Wollongong City Council or Crown	Other roads located between or adjacent to the above parcels of land
Crown	Creeks or streams located between or adjacent to the above parcels of land
Unidentified	Plan Labels 124-1521 and 259-672 (NSW Government), Closed Road (Crown), Un-surveyed Lands (NSW Government)

In addition to the above, the Development Application Area includes all land shown within the boundaries of the Development Application Area in Figure A3 regardless of whether said land is listed in the Schedule of Lands or not. The land parcels within the Development Application Area (listed above) were extracted from the NSW Digital Cadastral Database (DCDB) via GIS. The DCDB was downloaded from <https://maps.six.nsw.gov.au/clipship.html> on 09/01/2019. No guarantee can be made regarding the accuracy of this data.

APPENDIX 2 DEVELOPMENT LAYOUT PLANS



- LEGEND**
- Dendrobium Mining Lease
 - Road
 - Railway
 - National Park, Nature Reserve and State Conservation Area
 - Historic Mine Workings
 - Declared Catchment Area
 - Dendrobium Underground Mining Area - Proposed Project
 - Dendrobium Underground Mining Area - Existing Mine (DA 60-03-2001)

Source: Geoscience Australia, (2006); Department of Industry (2018); Department Finance, Services & Innovation (2018);



ILLAWARRA COAL
DENDROBIUM MINE
Regional Location

Figure 1

Figure 1: Regional Location

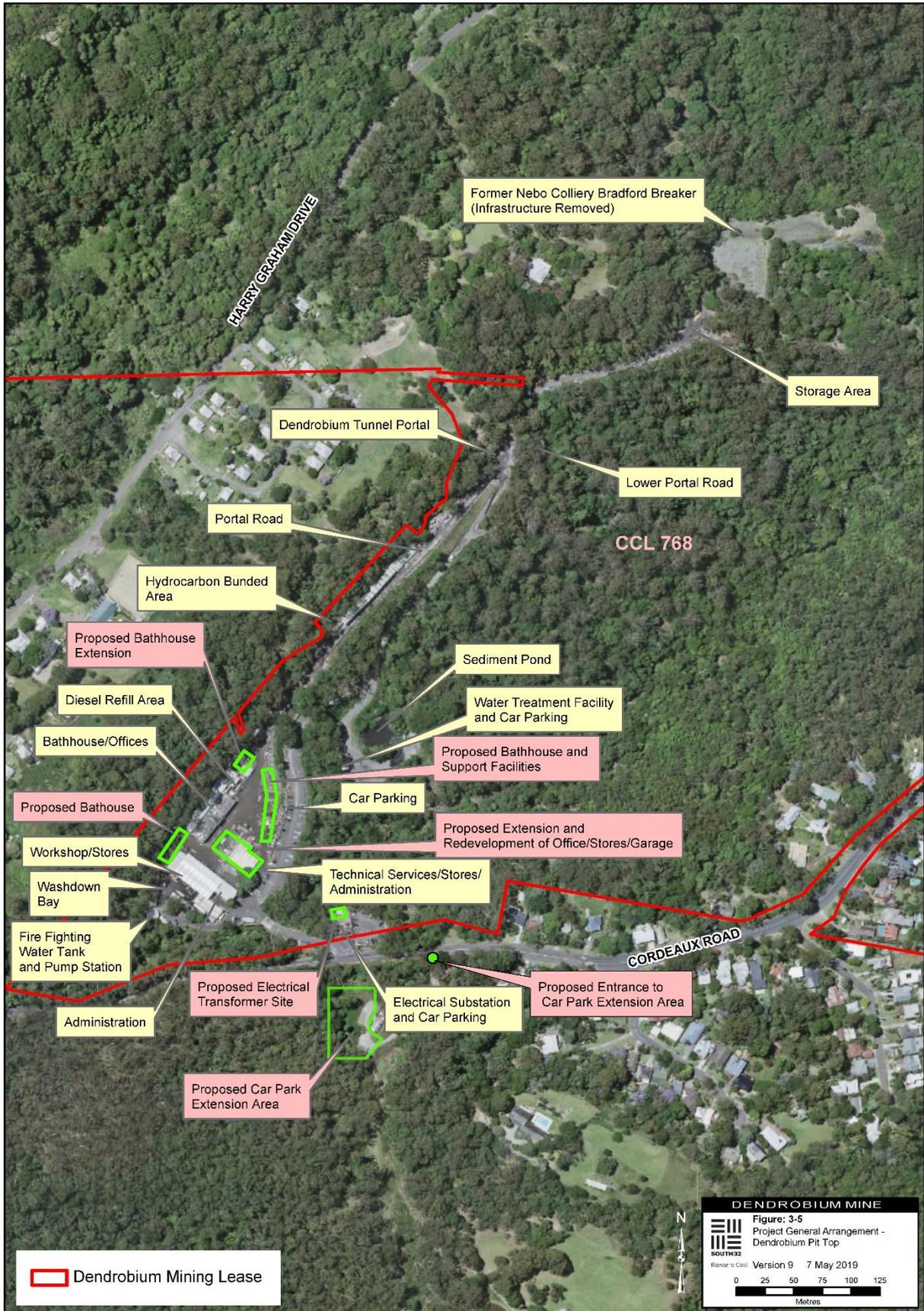


Figure 2: General Project Arrangement – Dendrobium Pit Top

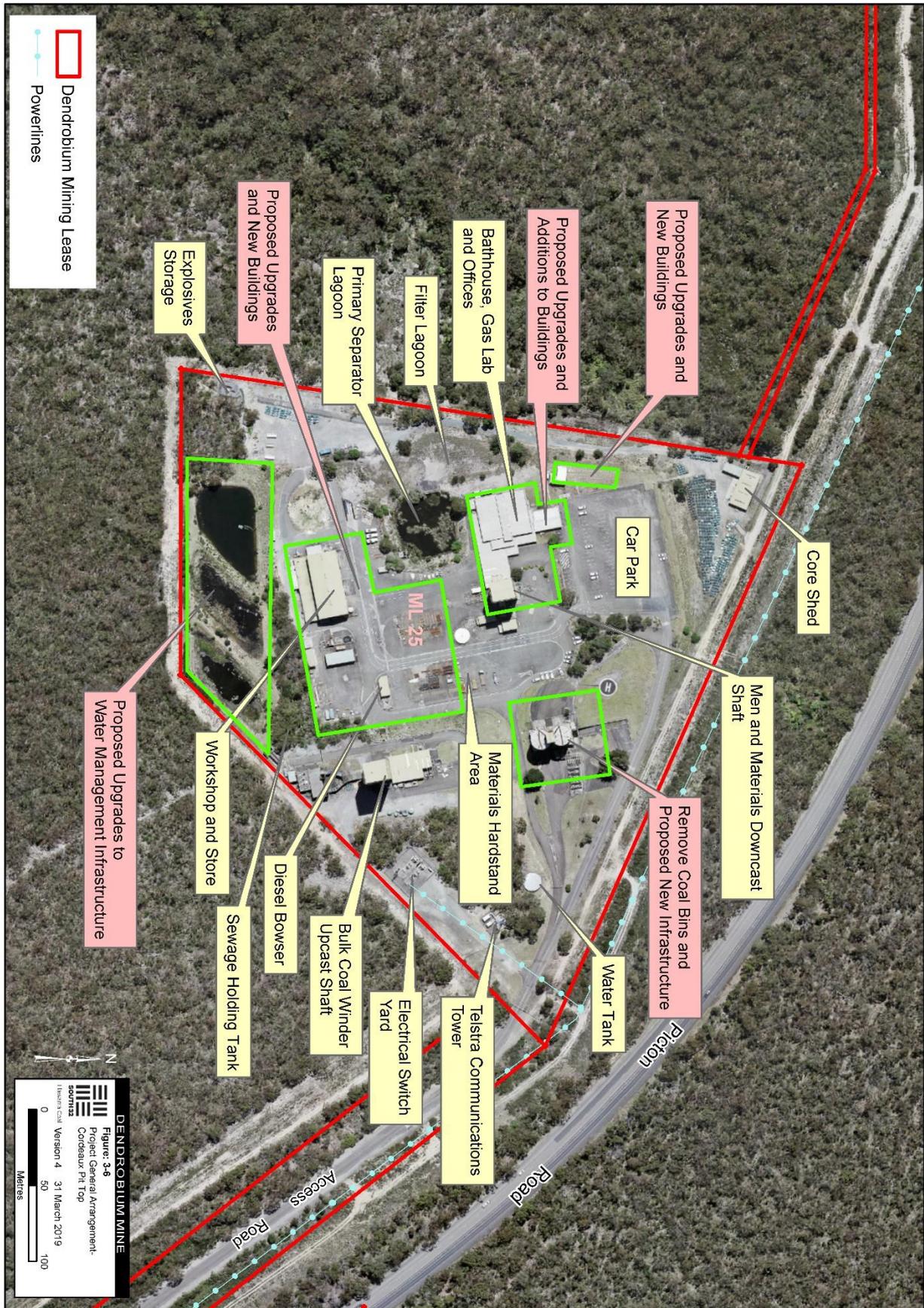


Figure 3: General Project Arrangement – Cordeaux Pit Top

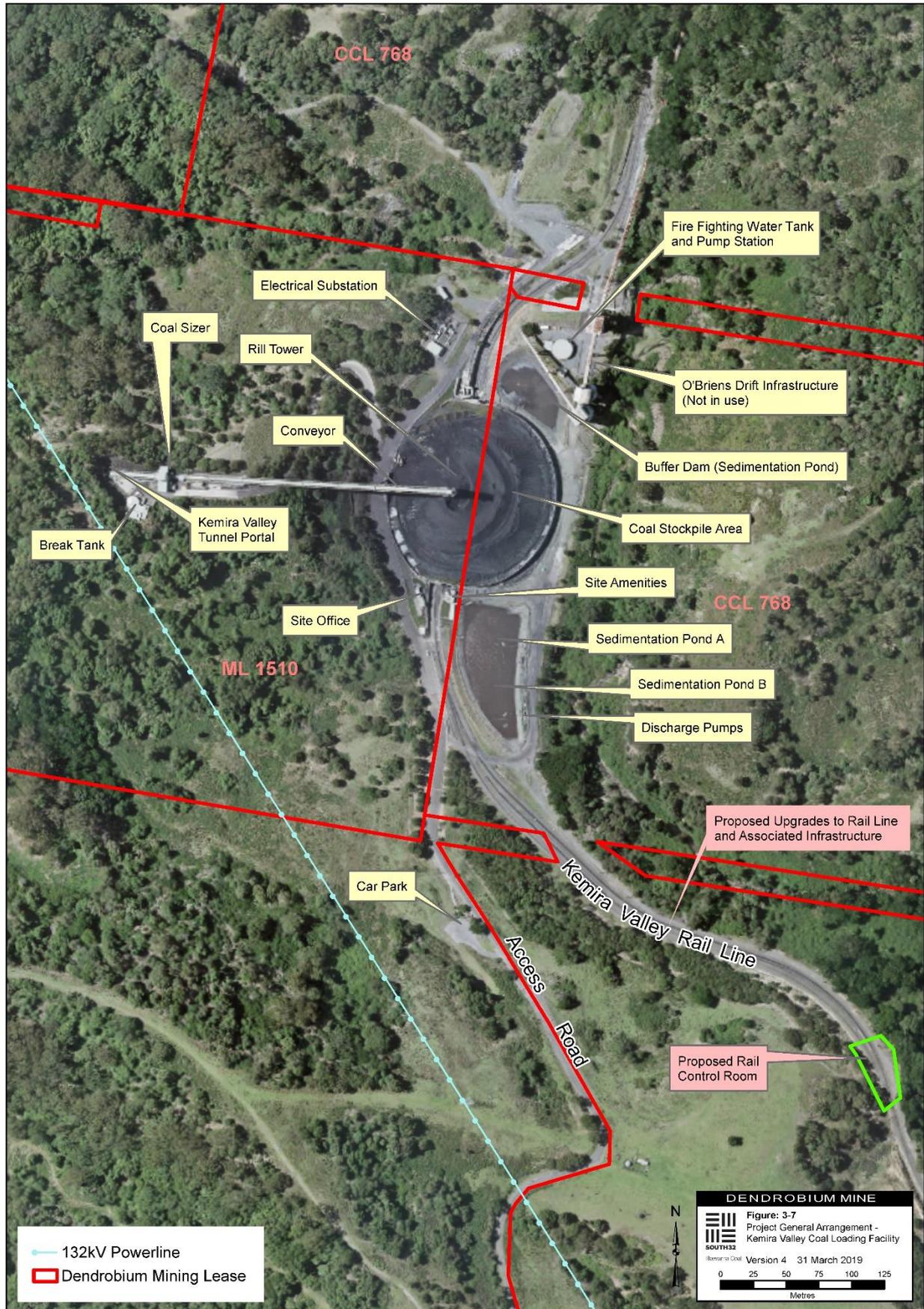


Figure 4: General Project Arrangement – Kemira Valley Coal Loading Facility

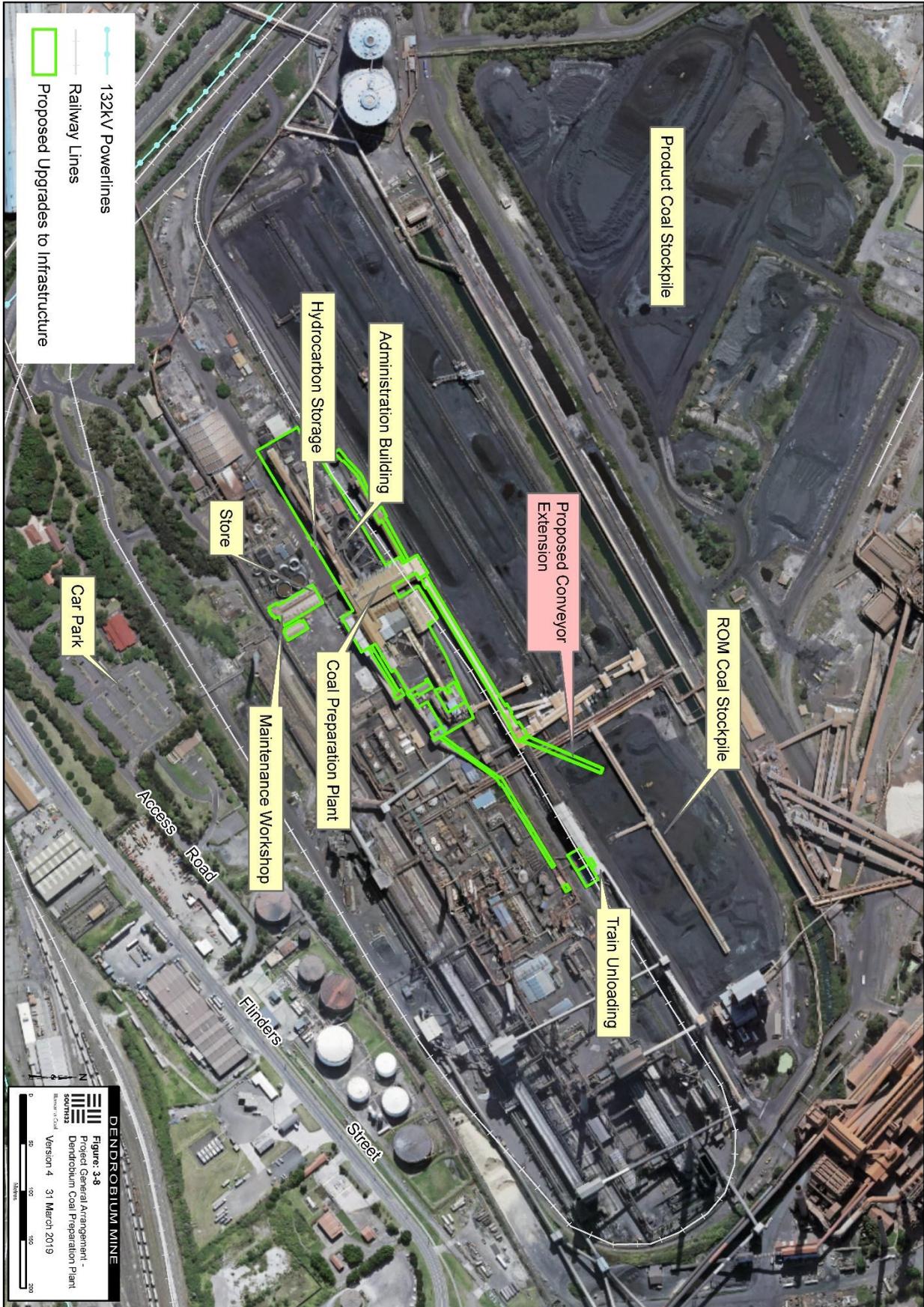


Figure 5: General Project Arrangement – Dendrobium Coal Preparation Plant

APPENDIX 3 APPROVED MINE PLAN

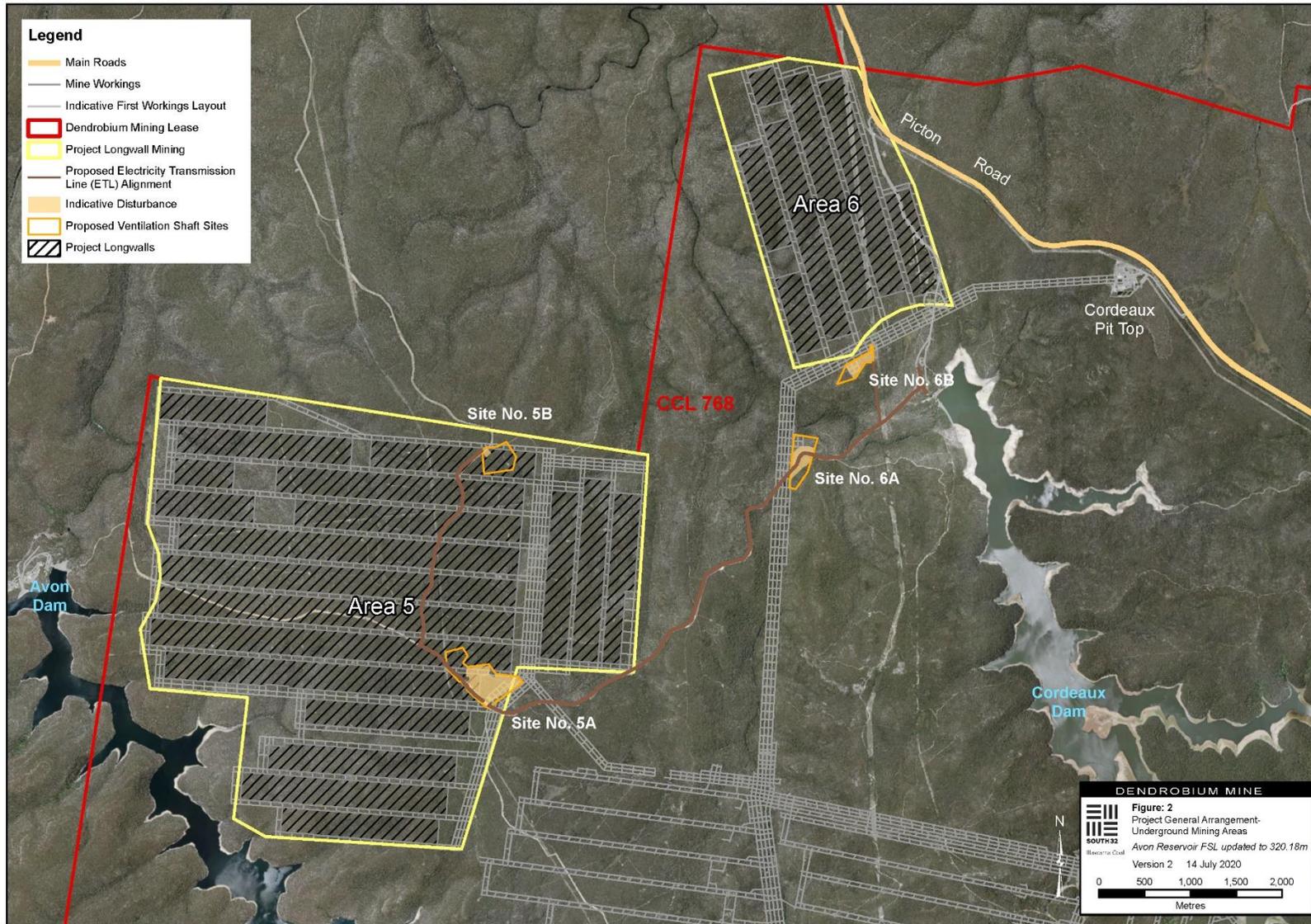


Figure 6: Approved Underground Mine Plan

APPENDIX 4 RECEIVER ZONES AND LOCATIONS

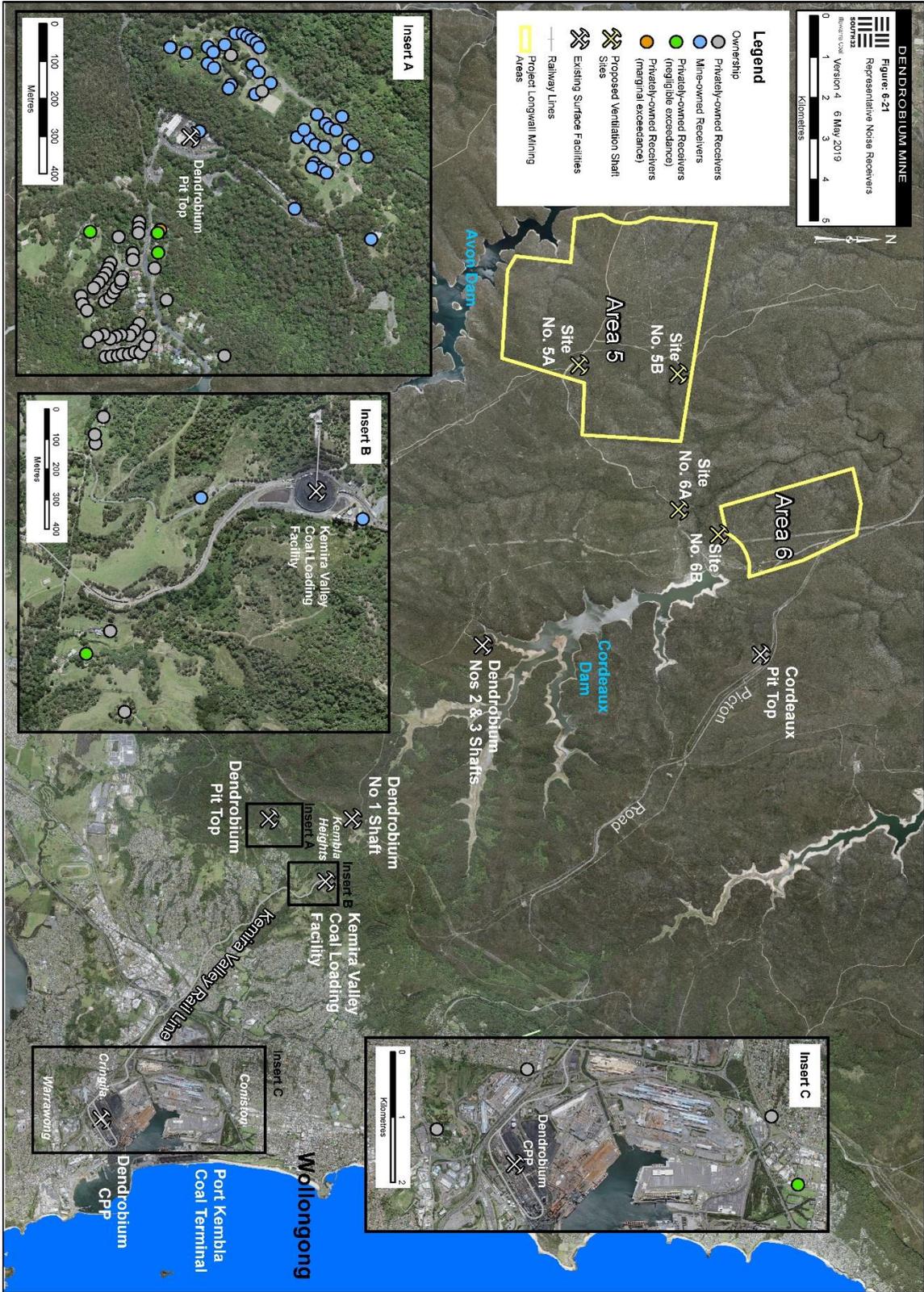


Figure 7: Receiver Zones and Locations

APPENDIX 5 TERMS OF APPLICANT'S OFFER FOR A PLANNING AGREEMENT

Applicant's Contribution	Intended Use	Payment Details
Surface Water Quantity		
<p>Throughout the period in which second workings are undertaken – annual payments based on annually varying surface water losses and IPART retail price</p>	<p>Use by NSW Government to invest in water infrastructure that has intergenerational benefits and achieves a net gain to metropolitan water supplies</p>	<p>Annual payments based on actual surface water loss taken (as modelled annually using an annually recalibrated groundwater model) due to the Project for each water year</p> <p>Annual payments priced at the actual IPART retail price for that water year</p> <p><i>Note: Actual surface water losses calculated at the end of each water year.</i></p> <p><i>IPART retail price would vary over time to reflect inflation and drought/non-drought year prices.</i></p>
<p>Up-front payment – \$16,700,000</p> <p><i>Note: This figure is in 2020 dollars. It is to be indexed (using CPI – General, with an annual cap equivalent to the 10-year average for this index over the period 2010-20) and paid at the rate applicable at the date of approval of the first Extraction Plan.</i></p>		<p>Up-front payment made upon approval of the first Extraction Plan for the Project to account for predicted post-mining surface water losses</p> <p>Value of payment based on the present value of modelled post-mining losses and IPART prices</p>
Surface Water Quality		
<p>Fire management measures within the Special Catchment Areas – \$371,500</p>	<p>Additional catchment management measures and transfer of land to WaterNSW to improve water quality in the Special Catchment Areas (and achieve net neutral or beneficial effects to water quality as a result of the Project)</p>	<p>Up-front payment made upon approval of the first Extraction Plan for the Project</p>
<p>Maintenance of unsealed road network in the Special Catchment Areas – \$146,000</p>		
<p>Installation and maintenance of barriers and fencing in the Special Catchment Areas – \$100,000</p>		
<p>Transfer of 28.5 ha of South32-owned land within the Metropolitan Special Area</p>		<p>Transfer of land to WaterNSW within 2 years of commencement of the development</p>