# **Development Consent**

# Section 4.38 of the Environmental Planning and Assessment Act 1979

As delegate of the Minister for Planning, the Independent Planning Commission of NSW (the Commission), 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

Mary O'Kane AC
Chair of the Commission

Chris Fell AO

Member of the Commission

Snow Barlow

Member of the Commission

Luca Barlag

Sydney 1 April 2022

# **SCHEDULE 1**

Application Number: SSD-10269

Applicant: Narrabri Coal Operations Pty Ltd

Consent Authority: Independent Planning Commission

Site: See Appendix 1

**Development:** Narrabri Underground Mine Stage 3 Extension Project

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# **DEFINITIONS**

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	Narrabri Coal Operations Pty Ltd					
Approved Mine Plan	The plan in Appendix 3 showing the area in which underground mining operations may be carried out					
Approved disturbance areas	The areas identified under condition A13					
ARTC	Australian Rail Track Corporation					
BC Act	Biodiversity Conservation Act 2016					
BCA	Building Code of Australia					
BCS	Biodiversity, Conservation & Science Division within the NSW Department of Planning, Industry and Environment					
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					
Calendar year	A period of 12 months from 1 January to 31 December					
CAS	Climate and Science Branch within the NSW Department of Planning, Industry and Environment					
CCC	Community consultative committee required by condition A19					
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 $^{\circ}$ )					
CO2-e	Carbon dioxide equivalent based on a Global Warming Potential factor of 25 for emissions of methane					
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					
CPI	Consumer Price Index					
Date of commencement of development	The date notified to the Department by the Applicant under condition A14(a)					
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 A10 and A11					
Decommissioning	The permanent cessation of active use of the mine, including demolition of building infrastructure and other works					
Demolition	The deconstruction and removal of buildings, infrastructure and other works on the site					
Department	Planning and Assessment Group within the 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 Plans	The plans in Appendix 2					
DPIE Water	Water Group within the NSW Department of Planning, Industry and Environment					

	Strategies Pty Ltd on behalf of the Applicant and dated October 2020, as amended or			
	added to by the Applicant's Submissions Report submitted 31 May 2021, the Applicant's Amendment Report submitted 31 May 2021, the Applicant's final Biodiversity Development Assessment Report dated September 2021, and the Applicant's Additional Information on GHGEs dated 15 October 2021 and 17 December 2021.			
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	Environmental Planning and Assessment Act 1979			
EP&A Regulation	Environmental Planning and Assessment Regulation 2001			
EPBC Act	Commonwealth Environment Protection and Biodiversity Conservation Act 1999			
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			
First workings	The extraction of coal from main headings, gate-roads and cut-throughs and the like and by bord and pillar mining methods, provided that such workings are long-term stable and do not generate more than 20 mm of vertical subsidence at the surface			
Fugitive emissions	Fugitive emissions from carrying out mining operations			
GHGE	Greenhouse gas emissions			
Global Warming Potential	Energy that the emissions of 1 tonne of a gas will absorb over a given period of time relative to the emissions of 1 tonne of $CO_2$			
GPS	Global Positioning System			
GSC	Gunnedah Shire Council			
GSC Heavy vehicle	Gunnedah Shire Council  A vehicle that has a combined Gross Vehicle Mass or Aggregate Trailer Mass of more than 4.5 tonnes			
	A vehicle that has a combined Gross Vehicle Mass or Aggregate Trailer Mass of more			
Heavy vehicle	A vehicle that has a combined Gross Vehicle Mass or Aggregate Trailer Mass of more than 4.5 tonnes			
Heavy vehicle Heritage NSW	A vehicle that has a combined Gross Vehicle Mass or Aggregate Trailer Mass of more than 4.5 tonnes  Heritage NSW within the Department of Premier and Cabinet  Independent Advisory Panel for Underground Mining, or similar independent panel			
Heavy vehicle Heritage NSW IAPUM	A vehicle that has a combined Gross Vehicle Mass or Aggregate Trailer Mass of more than 4.5 tonnes  Heritage NSW within the Department of Premier and Cabinet  Independent Advisory Panel for Underground Mining, or similar independent panel established by the Department or NSW Government  Commonwealth Independent Expert Scientific Committee on Coal Seam Gas and			
Heavy vehicle Heritage NSW IAPUM IESC	A vehicle that has a combined Gross Vehicle Mass or Aggregate Trailer Mass of more than 4.5 tonnes  Heritage NSW within the Department of Premier and Cabinet  Independent Advisory Panel for Underground Mining, or similar independent panel established by the Department or NSW Government  Commonwealth Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development  An occurrence or set of circumstances that causes or threatens to cause material			
Heavy vehicle  Heritage NSW IAPUM  IESC  Incident	A vehicle that has a combined Gross Vehicle Mass or Aggregate Trailer Mass of more than 4.5 tonnes  Heritage NSW within the Department of Premier and Cabinet  Independent Advisory Panel for Underground Mining, or similar independent panel established by the Department or NSW Government  Commonwealth Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development  An occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance  Has the same meaning as the definition 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			
Heavy vehicle Heritage NSW IAPUM IESC Incident Land	A vehicle that has a combined Gross Vehicle Mass or Aggregate Trailer Mass of more than 4.5 tonnes  Heritage NSW within the Department of Premier and Cabinet  Independent Advisory Panel for Underground Mining, or similar independent panel established by the Department or NSW Government  Commonwealth Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development  An occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance  Has the same meaning as the definition 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			

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 (other than vegetation)
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)
Minor	Not very large, important or serious
Minor cliff	A continuous rock face, including overhangs, having a:
	<ul> <li>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</li> <li>a minimum slope of 2 in 1 (&gt;63.4°)</li> </ul>
Mitigation	Activities associated with reducing the impacts of the development
Narrabri Mine	The development approved under this consent, together with the development approved under both project approval 05_0102 and development consent 08_0144
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	National Parks and Wildlife Act 1974
NSC	Narrabri Shire Council
PCT	Plant Community Type
Planning Secretary	Planning Secretary under the EP&A Act, or nominee
POEO Act	Protection of the Environment Operations Act 1997
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, associated temporary buildings and amenities, 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 National Parks and Wildlife Regulation 2019
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	<ul> <li>A rock face having a:</li> <li>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</li> <li>a minimum slope of 2 to 1 (&gt;63.4°)</li> </ul>
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 $63.4^\circ)$
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 Narrabri Mine Pit Top Area, all ventilation complexes, the Southern Mine Water Storage, the Electricity Transmission Line corridor, all drilling sites and any other site subject to 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>

#### **SCHEDULE 2**

# PART A ADMINISTRATIVE CONDITIONS

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

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

#### **TERMS OF CONSENT**

- A2. The development may only be carried out:
  - (a) in compliance with the conditions of this consent;
  - (b) in accordance with all written directions of the Planning Secretary:
  - (c) generally in accordance with the EIS (subject to condition A6);
  - (d) generally in accordance with the Development Layout Plans 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:
  - (a) the content of any strategy, study, system, plan, program, review, audit, notification, report or correspondence submitted under or otherwise made in relation to this consent, including those that are required to be, and have been, approved by the Planning Secretary; and
  - (b) the implementation of any actions or measures contained in any such document referred to in condition A3(a).
- A4. The conditions of this consent and directions of the Planning Secretary prevail to the extent of any inconsistency, ambiguity or conflict between them and a document/s listed in condition A2(c). In the event of an inconsistency, ambiguity or conflict between any of the document/s listed in condition A2(c), the most recent document prevails to the extent of the inconsistency, ambiguity or conflict.

# **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. Bord and pillar mining operations may be carried out within the area approved for those operations under development consent 08\_0144 (MOD 7).

**Note:** Under Mod 7 to consent 08\_0144, bord and pillar mining operations were approved to be carried out in the area shown as Longwall 201 and Longwall 202 in the EIS.

A7. Mining operations may be carried out on the site until 31 December 2044.

#### 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**

- A8. A maximum of 11 million tonnes of ROM coal may be extracted from the site in any calendar year.
- A9. Coal may only be transported from the site by rail.

# **Hours of Operation**

A10. Mining operations may be undertaken 24 hours a day, 7 days a week.

#### **Construction Hours**

- A11. Drilling at ventilation shaft sites may take place 24 hours a day, 7 days a week.
- A12. All other construction works must only be undertaken during the hours of 7.00 am to 6.00 pm (Monday to Sunday), unless included within an approved Noise Management Plan or 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 areas approved to be disturbed under this consent (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:
  - (a) physical commencement of the development;
  - (b) construction;
  - (c) mining operations;
  - (d) extraction of ROM coal;
  - (e) land clearance for each of the Development Footprint Disturbance Phases specified in Table 7 (including confirmation of the retirement of all applicable biodiversity credits):
  - (f) any period of suspension of ROM coal extraction and/or processing (i.e. care and maintenance);
  - (g) cessation of mining operations (i.e. mine closure); and
  - (h) 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 such stages, of the date of commencement and the development to be carried out in that stage.

#### **SURRENDER OF STAGE 2 CONSENT**

- A16. Within 12 months of the date of commencement of development under this consent, or other timeframe agreed by the Planning Secretary, the Applicant must surrender development consent 08\_0144 for the Narrabri Coal Project Stage 2, in accordance with the EP&A Regulation.
- A17. Upon the commencement of development under this consent and before the surrender of development consent 08\_0144 as required under condition A16, the conditions of this consent prevail to the extent of any inconsistency with the conditions of development consent 08\_0144.

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

#### **PLANNING AGREEMENT**

- A18. Within six months of the date of commencement of development, or other timeframe agreed by the Planning Secretary, the Applicant must enter into Planning Agreements with the NSC and the GSC in accordance with:
  - (a) Subdivision 2 of Division 7.1 of Part 7 of the EP&A Act; and
  - (b) the terms of the Applicant's offer in Appendix 5.

### **COMMUNITY CONSULTATIVE COMMITTEE**

A19. The Applicant must continue to operate the Narrabri Mine Community Consultative Committee (CCC) established under development consent 08\_0144. The CCC must be operated 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, NSC and the local community.

# **EVIDENCE OF CONSULTATION**

- A20. Where conditions of this consent require consultation with an identified party, the Applicant must:
  - (a) consult with the relevant party prior to submitting the subject document; and
  - (b) provide details to the Department of the consultation undertaken including:
    - (i) the outcome of that consultation, matters resolved and unresolved; and
    - (ii) 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

A21. 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.
- A22. Requirements under Part B of this consent to prepare a Water Management Plan, Biodiversity Management Plan and Aboriginal Cultural 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.
- A23. If the Planning Secretary agrees, a strategy, plan or program may be staged or updated without consultation being undertaken with all parties required to be consulted in the relevant condition in this consent.

#### **PAYMENT OF REASONABLE COSTS**

A24. The Applicant must pay all reasonable costs incurred by the Department to engage a suitably qualified, experienced and independent expert(s) to review the adequacy of any strategy, plan, program or report required under this consent

#### APPLICATION OF EXISTING STRATEGIES, PLANS OR PROGRAMS

A25. The Applicant must continue to apply existing management strategies, plans or monitoring programs approved under development consent 08\_0144, until the approval of a similar plan, strategy or program under this consent.

#### PROTECTION OF PUBLIC INFRASTRUCTURE

- A26. 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**

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

# STRUCTURAL ADEQUACY

- A28. All new buildings and structures, and any alterations or additions to existing buildings and structures, that are part of the development, 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 Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021 sets
  out the requirements for the certification of the development.
- Under section 21 of the Coal Mine Subsidence Compensation Act 2017, the Applicant is required to obtain the Chief Executive of SA NSW's approval before carrying out certain development in a Mine Subsidence District.

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

- A29. All plant and equipment used on site, or to monitor the performance of the development must be:
  - (a) maintained in a proper and efficient condition; and
  - (b) operated in a proper and efficient manner.

# **COMPLIANCE**

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

# **APPLICABILITY OF GUIDELINES**

- A31. References in the conditions of this consent to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, Standards or policies in the form they are in as at the date of inclusion (or later update) in the condition.
- A32. 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.

#### 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. 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.<sup>a</sup>

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

Noise Assessment Location	Day  L <sub>Aeq (15 min)</sub>	Evening L <sub>Aeq (15 min)</sub>	Night L <sub>Aeq (15 min)</sub>	Night  LAF max
675a <sup>b</sup>	40	39	39	52
687a	40	36	36	52
Any other residential receiver	40	35	35	52

<sup>&</sup>lt;sup>a</sup> The Noise Assessment Locations referred to in Table 1 are shown in 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.

# **Noise Operating Conditions**

- B5. 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) 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;
  - (c) take all reasonable and feasible steps to minimise the noise impacts of the development during noise-enhancing meteorological conditions;
  - (d) 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:
  - (e) 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
  - (f) regularly assess the noise monitoring data, and modify or stop operations on the site to ensure compliance with the relevant conditions of this consent.

# **Noise Management Plan**

- B6. 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;

<sup>&</sup>lt;sup>b</sup> Receiver 675a is eligible for noise mitigation under condition D2.

- (iii) noise impacts of the development are minimised during noise-enhancing meteorological conditions;
- (d) describe the noise management system in detail; and
- (e) include a monitoring program that:
  - 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.
- B7. The Applicant must not commence construction until the Noise Management Plan is approved by the Planning Secretary.
- B8. The Applicant must implement the Noise Management Plan as approved by the Planning Secretary.

# AIR QUALITY AND GREENHOUSE GAS EMISSIONS

#### Odour

B9. The Applicant must ensure that no offensive odours, as defined under the POEO Act, are emitted from the site.

# **Air Quality Criteria**

B10. 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 2 at any residence on privately-owned land.

Table 2: Air quality criteria

Pollutant	Averaging period	Criterion
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	<sup>а, с</sup> 25 µg/m <sup>3</sup>
	24 hour	<sup>b</sup> 50 μg/m <sup>3</sup>
Particulate matter < 2.5 µm (PM <sub>2.5</sub> )	Annual	<sup>а, с</sup> 8 µg/m <sup>3</sup>
	24 hour	<sup>b</sup> 25 μg/m <sup>3</sup>

### Notes

### Mine-owned Land

- B11. Particulate matter emissions generated by the development must not exceed the criteria listed in Table 2 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 and Greenhouse Gas Operating Conditions

- B12. The Applicant must:
  - (a) take all reasonable and feasible avoidance and mitigation measures to:
    - (i) minimise odour, fume, and particulate matter (including PM<sub>10</sub> and PM<sub>2.5</sub>) emissions of the development;

<sup>&</sup>lt;sup>a</sup> Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources).

<sup>&</sup>lt;sup>b</sup> Incremental impact (i.e. incremental increase in concentrations due to the development on its own).

<sup>&</sup>lt;sup>c</sup> Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any other activity agreed by the Planning Secretary.

- (ii) eliminate or minimise the risk of spontaneous combustion;
- (iii) improve energy efficiency and minimise Scope 1 and Scope 2 GHGEs generated by 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 2 above);
- (d) carry out regular air quality monitoring that differentiates between the incremental contribution of the project and that attributable to background contributions, 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 Management Plan

- B13. The Applicant must prepare an Air Quality Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:
  - (a) be prepared by a suitably qualified and experienced person/s;
  - (b) be prepared in consultation with the EPA;
  - (c) describe the measures to be implemented to ensure:
    - (i) compliance with the air quality criteria and operating conditions in this consent;
    - (ii) best practice management is being employed, including in respect of energy efficiency; and
    - (iii) the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events;
  - (d) describe the air quality management system in detail; and
  - (e) include an air quality monitoring program, undertaken in accordance with the *Approved Methods for Sampling* and *Analysis of Air Pollutants in New South Wales* (DEC, 2007), that:
    - (i) uses monitors to evaluate the performance of the development against the air quality criteria in this consent and to guide day to day planning of operations;
    - (ii) adequately supports the air quality management system; and
    - (iii) includes a protocol for identifying an air quality incident and notifying the Department and relevant stakeholders of any such incident.
- B14. The Applicant must not commence construction until the Air Quality Management Plan is approved by the Planning Secretary.
- B15. The Applicant must implement the Air Quality Management Plan as approved by the Planning Secretary.

# **Minimisation of Greenhouse Gas Emissions**

B16. The Applicant must comply with the performance measures in Table 3.

Table 3: Greenhouse gas performance measures

Feature	Performance Measure				
Scope 1 - Emissions Intensity	<ul> <li>Less than 0.218 tonnes CO<sub>2</sub>-e emitted from the development per tonne of ROM coal per calendar year, or a lower emissions intensity in accordance with the emissions reduction targets approved by the Planning Secretary under conditions B18, B19 and B20</li> <li>Less than 0.160 tonnes CO<sub>2</sub>-e emitted from the development per tonne of ROM coal, or a lower emissions intensity in accordance with the emissions reduction targets approved by the Planning Secretary under condition B18, B19 and B20</li> </ul>				
Scope 2 - Electricity Consumption	Minimise GHGEs by using electricity generated by renewable or carbon neutral energy sources where reasonable and feasible				

B17. In determining compliance with the performance measures in Table 3, the Planning Secretary will take into account any atypical or abnormal operating conditions which hindered or prevented mining operations, any exceedances already offset (or required to be offset) under other applicable Commonwealth or State requirements, changes in

Global Warming Potentials and/or any voluntary offsetting of CO<sub>2</sub>-e emissions by the Applicant. If, following this consideration, the Planning Secretary determines that the Applicant has still exceeded any of these performance measures, then the Applicant must offset the excess CO<sub>2</sub>-e emissions within 6 months of the Planning Secretary's determination, using a mechanism to the satisfaction of the Planning Secretary.

# **Scope 1 Emissions Minimisation Plan**

- B18. Within 12 months of commencing development under this consent, the Applicant must prepare a Scope 1 Emissions Minimisation Plan to the satisfaction of the Planning Secretary. The plan must:
  - (a) be prepared by a suitably qualified, experienced and independent person approved by the Secretary;
  - (b) be developed in consultation with CAS, the EPA and the IAPUM;
  - (c) investigate reasonable and feasible measures to minimise Scope 1 emissions from the development, including consideration of:
    - (i) comprehensive monitoring of methane, CO<sub>2</sub> and oxygen concentrations in the pre-development coal seams, longwall development areas, longwall mining areas, goaf areas and ventilation air;
    - (ii) information on the permeability and gas saturation characteristics of the Hoskissons Seam to inform the optimisation of gas drainage;
    - (iii) an updated review of abatement measures and technologies (with a particular focus on methane) currently used or potentially available in NSW, Australia and internationally, including:
      - flaring methane and generating electricity from methane;
      - ventilation air methane (VAM) capture technologies such as regenerative thermal oxidation (RTO);
      - low concentration methane enrichment or separation technologies such as membrane separation, pressure swing adsorption (PSA) or other adsorption-based processes, gas sweetening, vortex tubes, mechanical towers and gas hydrates;
      - · carbon storage or sequestration technologies; and
      - any other emerging technologies;
    - (iv) a detailed review of CAPEX/OPEX to implement the abatement measures and technologies, including analysis of cost per tonne of CO<sub>2</sub>-e reduction and economic considerations for the development.
  - (d) describe measures to minimise Scope 1 emissions. These measures are to:
    - (i) have regard to the investigations undertaken under condition B18(c); and
    - (ii) be aimed at achieving, as soon as reasonably feasible but by 2030 at the latest, the following reduced Scope 1 emissions performance measures over the life of the project:
      - less than 0.165 tonnes CO<sub>2</sub>-e emitted from the development per tonne of ROM coal in any single calendar year; and
      - less than 0.130 tonnes CO<sub>2</sub>-e emitted from the development per tonne of ROM coal.
- B19. Every three years after commencing development under this consent, the Applicant must prepare an updated Scope 1 Emissions Minimisation Plan to the satisfaction of the Planning Secretary. The updated plan must:
  - (a) be prepared by a suitably qualified, experienced and independent person approved by the Secretary;
  - (b) be developed in consultation with CAS, the EPA and the IAPUM;
  - (c) include an assessment of the success of Scope 1 emissions reduction measures already implemented;
  - (d) provide updated investigations on opportunities to further reduce Scope 1 emissions;
  - (e) propose any revised Scope 1 emissions reduction targets; and
  - (f) for all updated plans prepared subsequent to 2035, provide reasonable and feasible measures to minimise Scope 1 emissions from the site during rehabilitation and following mine closure.
- B20. The Applicant must implement the initial Scope 1 Emissions Minimisation Plan as approved by the Planning Secretary, within three years of commencing operations. Updates to the Scope 1 Emissions Minimisation Plan approved by the Planning Secretary must be implemented as soon as reasonably feasible.

# **Spontaneous Combustion Management Plan**

- B21. The Applicant must prepare a Spontaneous Combustion 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 Resources Regulator; and
  - (c) describe the measures to be implemented to minimise the risk of spontaneous combustion on the site.
- B22. The Applicant must not commence second workings under this consent until the Spontaneous Combustion Management Plan is approved by the Planning Secretary.

B23. The Applicant must implement the Spontaneous Combustion Management Plan as approved by the Planning Secretary.

# **METEOROLOGICAL MONITORING**

- B24. 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 FPA.

### **WATER**

# **Water Supply**

- B25. 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.
- B26. The Applicant must report on water take at the site each year (whether direct or 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**

- B27. Prior to the commencement of development 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. This notification must set out the terms whereby the Applicant proposes to give effect to landowner entitlements and the Applicant's responsibilities under conditions B28 to B32 (i.e. a 'make good' agreement).
- B28. 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, to the satisfaction of the Planning Secretary. The burden of proof that any loss of surface water or groundwater access is not due to mining impacts rests with the Applicant.
- B29. 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 as soon as practicable after commencement of development under this consent, unless otherwise agreed with the landowner.
- B30. 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.

#### Note

- The Water Management Plan (see condition B35) is required to include trigger levels for investigating potentially adverse impacts on water supplies.
- B31. The Applicant must complete all measures that it is required to undertake under conditions B28 B30 within two years of the date of commencement of development under this consent.
- B32. If the Applicant and a landowner cannot agree on whether the loss of water is to be attributed to the development or the measures to be implemented under conditions B28 B31, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Planning Secretary for resolution.

#### **Water Discharges**

B33. 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**

B34. The Applicant must comply with the performance measures in Table 4.

Table 4: Water management performance measures

Feature	Performance Measure				
Namoi River	Negligible environmental consequences				
Namoi Alluvium	No subsidence impact or environmental consequence greater than predicted in the EIS				

Feature	Performance Measure
Water management – general	<ul> <li>Maintain separation between clean, dirty (i.e. sediment-laden) and mine water management systems</li> <li>Minimise the use of clean and potable water on the site</li> <li>Maximise water recycling, reuse and sharing opportunities</li> <li>Minimise the use of make-up water from external sources</li> <li>Design, install, operate and maintain water management systems in a proper and efficient manner</li> <li>Minimise risks to the receiving environment and downstream water users</li> </ul>
Erosion and sediment control works	<ul> <li>Design, install and maintain new erosion and sediment controls in accordance with the guidance series Managing Urban Stormwater: Soils and Construction including Volume 1: Blue Book (Landcom, 2004), Volume 2A: Installation of Services (DECC, 2008), Volume 2C: Unsealed Roads (DECC,2008), Volume 2D: Main Road Construction (DECC, 2008) and Volume 2E: Mines and Quarries (DECC, 2008)</li> <li>Design, install and maintain any new infrastructure located within 40 metres of watercourses in accordance with the guidance series for Controlled Activities on Waterfront Land (DPI Water, 2012)</li> <li>Design, install and maintain any new creek crossings generally in accordance with the Fisheries NSW Policy and Guidelines for Fish Habitat Conservation and Management (DPI, 2013) and Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries 2003).</li> <li>Ensure all new works on waterfront land are consistent with the guidance series for Controlled Activities on Waterfront Land (DPI Water, 2012)</li> </ul>
Clean water diversions and storage infrastructure	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	Design, install and maintain sediment dams in accordance with the guidance series Managing Urban Stormwater: Soils and Construction – Volume 1 (Landcom, 2004) and 2E Mines and Quarries (DECC, 2008)
Chemical and hydrocarbon storage	Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standard
Mine water discharges	Negligible environmental consequences beyond those predicted in the document/s listed in condition A2(c)
Treated water discharges	<ul> <li>Discharges to the Namoi River are:         <ul> <li>below 250 mg/l Total Dissolved Solids (50<sup>th</sup> percentile, all samples, volume based);</li> <li>below 350 mg/l Total Dissolved Solids (all samples, volume based); and</li> <li>pH between 6.5 and 8.5 (all samples)</li> </ul> </li> </ul>
Aquatic and riparian ecosystems	<ul> <li>Negligible environmental consequences beyond those predicted in the document/s listed in condition A2(c)</li> <li>Develop site-specific in-stream water quality objectives in accordance with the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC &amp; ARMCANZ, 2000) and Using the ANZECC Guidelines and Water Quality Objectives in NSW (DEC, 2006), or its latest version</li> </ul>

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

# Water Management Plan

B35. The Applicant must prepare a Water Management Plan for the development to the satisfaction of the Planning Secretary.

# B36. This plan must:

- (a) be prepared by a suitably qualified and experienced person/s;
- (b) be prepared in consultation with 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;
- a program to regularly review modelling of the likelihood of uncontrolled discharges from the site;
- · 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:
  - formal records of creek flow conditions should be initiated at selected sites;
  - 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 any proposed discharges of treated water to the Namoi River, including:
  - measures for the continuous monitoring and recording of volumes of water discharged to the Namoi River; and
  - a water quality monitoring program for discharged waters;
- consideration of alternatives to direct measurement or prediction of creek flows to support surface water take licensing;
- 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 heath; and
  - post-mining water pollution from rehabilitated areas of the site;
- a program to regularly review brine management and identify any beneficial use options for brine, treated water and mine water;
- 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 B27 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;
- measures to identify relationships between measured electrical conductivity and total dissolved solids in mine water and groundwater in the Hoskissons Seam and adjoining aguifers;
- a monitoring program for groundwater dependent ecosystems which may be impacted by the development, including (but not limited to) mapped 'high priority' features on the Namoi River floodplain, Tulla Mullen Creek and Little Sandy Creek and the Mayfield, Hardys and Eather Springs;
- · 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 (including for
  brine re-injection), on
  - regional and local aquifers (alluvial and hardrock); and
  - groundwater supply for other water users such as licensed privately-owned groundwater bores;
- implementation of the IAPUM's recommendations concerning installation of multilevel piezometer nests above longwalls 111, 203 and 204;
- 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;
  - the impact of any brine re-injection on salt concentrations in surrounding aquifers, for a period of 10 years following any such re-injection or such other period as required by the Planning Secretary;
- 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 commencement of longwall mining under this consent and every five years thereafter throughout the life of the development (unless the Planning Secretary agrees otherwise) in consultation with DPIE Water;
  - during the first review, consideration of all comments received regarding the groundwater model included in the EIS from DPIE Water, the IESC and the IAPUM; and
  - implementation of the IAPUM's recommendations which relate to review and development of the groundwater model (including that the five-year groundwater model review period be shortened to three years if greater than predicted impacts on groundwater are identified above the mine);
  - 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; and
- (v) a protocol to report on the measures, monitoring results and performance criteria identified above in the Annual Review.

- B37. The Applicant must not commence construction until the Water Management Plan is approved by the Planning Secretary.
- B38. The Applicant must implement the Water Management Plan as approved by the Planning Secretary.

# **BIODIVERSITY**

# **Biodiversity Credits**

B39. The Applicant must retire the biodiversity credits specified in Table 5 and Table 6 in accordance with the timetable set out in Table 7 and in accordance with the Biodiversity Offsets Scheme of the BC Act.

Table 5: Biodiversity Credit Requirements - Ecosystem Credits

Credit Type	Credits Required						
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Total
PCT 88 Pilliga Box – White Cypress Pine – Buloke shrubby woodland in the Brigalow Belt South Bioregion	640	722	66	222	81	207	1,938
PCT 141 Broombush – wattle very tall shrubland of the Pilliga to Goonoo regions, Brigalow Belt South Bioregion	0	0	0	0	0	8	8
PCT 435 White Box – White Cypress Pine shrub grass hills woodland in the Brigalow Belt South Bioregion and Nandewar Bioregion	74	270	0	90	33	91	558
PCT 399 Red gum – Rough-barked Apple +/- tea tree sandy creek woodland (wetland) in the Pilliga to Goonoo sandstone forests, Brigalow Belt South Bioregion	0	0	36	30	172	94	332
PCT 401 Rough-barked Apple – Blakely's Red Gum – Black Cypress Pine woodland on sandy flats, mainly in the Pilliga Scrub region	20	0	79	8	4	0	111
PCT 404 Red Ironbark – White Bloodwood +/- Burrows Wattle heathy woodland on sandy soil in the Pilliga forests	220	0	864	113	586	3439	5,222
PCT 405 White Bloodwood – Red Ironbark – Black Cypress Pine shrubby sandstone woodland of the Pilliga Scrub and surrounding regions	0	0	220	196	738	971	2,125
PCT 406 White Bloodwood – Motherumbah – Red Ironbark shrubby sandstone hill woodland / open forest mainly in east Pilliga forests	18	0	0	283	302	249	852
PCT 408 Dirty Gum (Baradine Gum)  – Black Cypress Pine – White Bloodwood shrubby woodland of the Pilliga forests and surrounding region	0	0	0	0	3	0	3

Credit Type	Credits Required						
PCT 244 Poplar Box grassy woodland on alluvial clay-loam soils mainly in the temperate (hot summer) climate zone of central NSW (wheatbelt)	31	111	0	0	0	301	443
PCT 55 Belah woodland on alluvial plains and low rises in the central NSW wheatbelt to Pilliga and Liverpool Plains regions	144	514	0	29	0	120	807
PCT 206 Dirty Gum – White Cypress Pine tall woodland of alluvial sand (sand monkeys) in the Darling Riverine Plains Bioregion and Brigalow Belt South Bioregion	0	0	0	48	0	0	48

 Table 6: Biodiversity Credit Requirements - Species Credit Requirements

Credit Type	Credits Required						
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Total
Bertya Opponens (Coolabah Bertya)	-	-	60	-	-	45975	46,035
Lepidium aschersonii (Spiny Peppercress)	285	887	30	258	45	226	1,731
Tylophora linearis	620	1,059	1,617	1,191	2,490	6,630	13,607
Hoplocephalus bitorquatus (Paleheaded Snake)	852	1,252	1,663	1,272	2,542	6,871	14,452
Calyptorhynchus lathami (Glossy Black Cockatoo)	-	949	1663	1,289	2,542	6,879	13,322
Phascolarctos cinereus (Koala)	986	1,421	1,663	1,289	2,542	6,895	14,796
Cercartetus nanus (Eastern Pygmy-possum)	464	729	1,617	1,143	2,452	6,545	12,950
Petaurus norfolcensis (Squirrel Glider)	560	1,252	529	1,121	1,848	2,740	8,050
Chalinolobus dwyeri (Large-eared Pied Bat)	-	1,451	-	1,519	3,185	4,985	11,140
Vespadelus troughtoni (Eastern Cave Bat)	-	1,509	-	803	1,456	2,266	6,034

Table 7: Timetable for Retirement of Biodiversity Credits

Development Footprint Disturbance Phase (EIS/BDAR)	BAM-C Case Identifier (BDAR)	Retirement Required Prior to Commencement of:
Phase 1	00021836/BAAS17080/20/000 21837	Land clearance for development of longwall 203 and longwall 204 within ML 1609
Phase 2	00022109/BAAS17080/20/000 22110	Land clearance for development of the southern part of longwall 203
Phase 3	00022111/BAAS17080/20/000 22112	Land clearance for development of longwall 205 and longwall 206 within ML 1609
Phase 4	00022113/BAAS17080/20/000 22114	Land clearance for development of the southern part of longwall 204
Phase 5	00022115/BAAS17080/20/000 22116	Land clearance for development of the southern part of longwall 205 and longwall 206
Phase 6	00022117/BAAS17080/20/000 22118	Land clearance for development of longwalls 207 to 210

Note: The Indicative Development Footprint Disturbance Phases are shown in Appendix 2.

# B40. If the Applicant:

- (a) identifies that it will not proceed with particular development (eg shortening or not developing particular longwalls or reducing the area of surface disturbance); and/or
- (b) undertakes further targeted surveys for the Glossy-black Cockatoo that demonstrate that the credits required in Table 6 for that species exceed the impact of the development,

then the Applicant may seek the agreement of the Planning Secretary (following consultation with BCS) to reduce the associated ecosystem credits specified in Table 5 and/or the number of Glossy-black Cockatoo credits specified in Table 6 equivalent to the number of credits that would be no longer required.

- B41. An application to the Planning Secretary under condition B40 must be:
  - (a) in writing and addressed to the Planning Secretary;
  - (b) submitted prior to the retirement of the relevant credits under Table 5 and Table 6;
  - (c) supported by a report which:
    - (i) sets out the:
      - reduction in previously predicted impacts within the area of development to be no longer undertaken;
      - findings of any additional surveys for the Glossy-black Cockatoo; and
      - requested reduction/s in the credits required under Table 5 and/or Table 6; and
    - (ii) has been prepared:
      - by a person/s accredited to apply the Biodiversity Assessment Method;
      - in accordance with the Biodiversity Assessment Method; and
      - · in consultation with BCS,

to the satisfaction of the Planning Secretary.

# **Biodiversity Management Plan**

- B42. 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 BCS;
  - (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 Strategy referred to in condition B63 and the Rehabilitation Management Plan referred to in condition B65:
- (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 Third Edition* (Commander et al., 2018); and
  - (iv) maximise the salvage of resources, including tree hollows, vegetation and soil resources, for beneficial reuse, including fauna habitat enhancement;
  - (v) re-establish habitat for threatened species;
- (f) describe the measures to be implemented on the site to:
  - 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;
  - (xii) otherwise give effect to all Biodiversity Measures referenced within Section 7 of the Applicant's final Biodiversity Development Assessment Report, dated September 2021;
- (g) 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 required under conditions of this consent, and identify improvements that could be implemented to improve biodiversity outcomes; and
- (h) include details of who would be responsible for monitoring, reviewing, and implementing the plan.
- B43. The Applicant must not commence construction until the Biodiversity Management Plan is approved by the Planning Secretary.
- B44. The Applicant must implement the Biodiversity Management Plan as approved by the Planning Secretary.

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

# Stage 2 Biodiversity Offset Strategy

- B45. The Applicant must implement the approved Biodiversity Offset Strategy prepared under development consent 08\_0144 for Stage 2 of the Narrabri Mine throughout the life of the development, subject to the following:
  - (a) with the approval of the Planning Secretary (following consultation with BCS), the Strategy may be incorporated into the Biodiversity Management Plan required under condition B42;
  - (b) with the approval of the Planning Secretary (following consultation with BCS), the Strategy may be amended;
  - (c) in recognition of the Applicant's decision to forego its right to disturb 14.1 ha of the Stage 2 disturbance footprint (the 'impact reduction area') the Strategy's requirement for the Applicant to conduct mine site rehabilitation over 2,832.79 ha and to secure this area under a long-term security mechanism is reduced by 36.66 ha, to 2,796.13 ha.

**Note:** The Stage 2 Biodiversity Offset Strategy, Rehabilitation Strategy and Rehabilitation Management Plan need to be substantially integrated to ensure biodiversity objectives are achieved through rehabilitation of the site.

B46. The Applicant must make suitable arrangements to provide appropriate long-term security for the offset areas required by the Biodiversity Offset Strategy within 3 years of commencing development under this consent, or other date agreed by the Secretary, to the satisfaction of the Planning Secretary.

#### **HERITAGE**

# **Protection of Aboriginal Heritage**

- B47. 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 areas, beyond those predicted in the document/s listed in condition A2(c).
- B48. 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.
- B49. Work in the immediate vicinity may only recommence if:
  - 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.
- B50. The Applicant must ensure that all known Aboriginal objects or Aboriginal places on the site and within any offset areas are properly recorded, those records are kept up to date and are reported to the Aboriginal Heritage Information Management System (AHIMS).

# **Aboriginal Cultural Heritage Management Plan**

- B51. 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 areas 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 areas, with a particular focus on site Mayfield GG01;
    - (v) protect Aboriginal objects and Aboriginal places located outside the approved disturbance areas from impacts of the development;
    - (vi) manage the discovery of suspected human remains and any new Aboriginal objects, including provisions for burials, over the life of the development;
    - (vii) 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;
    - (viii) not restrict reasonable access for relevant Aboriginal stakeholders to visit Aboriginal objects and Aboriginal places located on land owned or controlled by the Applicant; and
    - (ix) 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.
- B52. The Applicant must not commence construction until the Aboriginal Cultural Heritage Management Plan is approved by the Planning Secretary.
- B53. The Applicant must implement the Aboriginal Cultural Heritage Management Plan approved by the Planning Secretary.

# **VISUAL**

# **Visual Amenity and Lighting**

B54. The Applicant must:

- (a) take all reasonable and feasible steps to minimise the visual and off-site lighting impacts of the development;
- (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) 2019 – 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**

- B55. 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 NSC;
  - (e) monitor and report on the effectiveness of the waste minimisation and management measures in the Annual Review.
- B56. Except as expressly permitted in an 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**

- B57. 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**

- B58. 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.
- B59. 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*.
- B60. The Applicant must implement the Bushfire Management Plan in consultation with RFS.

# **REHABILITATION**

# **Rehabilitation Objectives**

B61. The Applicant must rehabilitate the Narrabri Mine 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 8.

Table 8: Rehabilitation objectives

Feature	Objective
All areas of the site affected by the development	<ul> <li>Safe, stable and non-polluting</li> <li>Fit for the intended post-mining land use/s</li> <li>Establish the final landform and post-mining land use/s as soon as practicable after cessation of mining operations</li> <li>Minimise post-mining environmental impacts</li> </ul>
Areas proposed for native ecosystem re-establishment	<ul> <li>Establish/restore self-sustaining native woodland ecosystems</li> <li>Establish local plant community types</li> <li>Establish:         <ul> <li>riparian habitat within any diverted and/or re-established creek lines and retained water features;</li> <li>habitat, feed and foraging resources for threatened fauna species; and</li> <li>vegetation connectivity and wildlife corridors, as far as is reasonable and feasible</li> </ul> </li> </ul>
Watercourses	<ul> <li>Remediation of subsidence impacts and environmental consequences that are not 'negligible'</li> </ul>
Final Landform	<ul> <li>Stable and sustainable for the intended post-mining land use/s</li> <li>Consistent with surrounding topography to minimise visual impacts</li> <li>Incorporate relief patterns and design principles consistent with natural drainage that mimic natural topography and mitigate erosion to the greatest extent practicable</li> </ul>
Rehabilitation materials	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> <li>To be decommissioned, unless the Resources Regulator agrees otherwise</li> <li>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)</li> </ul>
Portals and vent shafts of the development	To be decommissioned and made safe and stable
Mine water discharges following mine closure (from any location)	Negligible environmental consequence
Water quality	<ul> <li>Water retained on the site is fit for the intended post-mining land use/s</li> <li>Water management is consistent with the regional catchment management strategy</li> </ul>
Built features damaged by mining operations	Repair to pre-mining condition or equivalent unless the:     owner agrees otherwise; or     damage is fully restored, repaired or compensated for under the Coal Mine Subsidence Compensation Act 2017
Cliffs, minor cliffs, rock face features and steep slopes	No additional risk to public safety compared to prior to mining
Community	<ul> <li>Ensure public safety</li> <li>Minimise adverse socio-economic effects associated with mine closure</li> </ul>
GHGEs	Effective sealing of the mine at closure to minimise future GHGEs

**Note**: 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.

# **Progressive Rehabilitation**

B62. The Applicant must rehabilitate the Narrabri Mine 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 Strategy**

- B63. The Applicant must prepare a Rehabilitation Strategy for the Narrabri Mine to the satisfaction of the Planning Secretary. This strategy must:
  - (a) be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the Planning Secretary;
  - (b) be prepared in consultation with the Resources Regulator, DPIE Water, BCS and NSC;
  - (c) be submitted to the Planning Secretary for approval within six months of the date of commencement of development under this consent;
  - (d) build upon the Rehabilitation Objectives in Table 7, describe the overall rehabilitation outcomes for the site, and address all aspects of rehabilitation including mine closure, final landform, post-mining land use/s and water management;
  - (e) align with strategic rehabilitation and mine closure objectives and address the principles of the *Strategic Framework for Mine Closure* (ANZMEC and MCA, 2000);
  - (f) describe how the rehabilitation measures would be integrated with the measures in the Biodiversity Management Plan required under condition B42 and the Stage 2 Biodiversity Offset Strategy referred to in condition B45;
  - (g) describe how rehabilitation will be integrated with the mine planning process, including a plan to address premature or temporary mine closure;
  - (h) include details of
    - (i) target vegetation communities and species to be established within the proposed revegetation areas, including habitat for threatened fauna;
    - (ii) the design of the surface water drainage network on the final landform; and
    - (iii) the capping design of the reject emplacement area as well as the quantity and source of capping material:
  - (i) investigate opportunities to refine and improve the final landform over time, including the configuration of the reject emplacement area;
  - (j) include a post-mining land use strategy to investigate and facilitate post-mining beneficial land uses for the site, that:
    - (i) align with regional and local strategic land use planning objectives and outcomes;
    - (ii) support a sustainable future for the local community;
    - (iii) utilise existing mining infrastructure, where practicable; and
    - (iv) avoid disturbing self-sustaining native ecosystems, where practicable;
  - (k) include a stakeholder engagement plan to guide rehabilitation and mine closure planning processes and outcomes:
  - investigate ways to minimise adverse socio-economic effects associated with rehabilitation and mine closure;
     and
  - (m) include a program to report on the outcomes of the investigations required under this condition and review and update this strategy at least every five years.
- B64. The Applicant must implement the Rehabilitation Strategy approved by the Planning Secretary.

# **Rehabilitation Management Plan**

- B65. 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 Narrabri Mine under the *Mining Act 1992*. This plan must:
  - (a) include a life of mine rehabilitation and mining schedule which outlines the key progressive rehabilitation milestones from the commencement of operations through to decommissioning and mine closure;

- (b) include Rehabilitation Objectives, Rehabilitation Completion Criteria and a Final Landform and Rehabilitation Plan:
- (c) include detailed performance indicators and completion criteria for each rehabilitation domain, and triggers for remedial actions, including actions to be undertaken in the event that vegetation establishment is impacted by spontaneous combustion;
- (d) include an overview of the identified risks to achieving successful rehabilitation;
- (e) describe the measures to be implemented on the site to achieve the Rehabilitation Objectives in Table 7 and to address the identified risks;
- (f) include a program to monitor, independently audit and report on progress against the criteria in paragraph (c) and the effectiveness of the measures in paragraph (e);
- (g) 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; and
- (h) outline intervention and adaptive management techniques to ensure rehabilitation remains on a trajectory of achieving the Rehabilitation Objectives, Rehabilitation Completion Criteria and the Final Landform and Rehabilitation Plan as soon as reasonably practical.

#### Notes:

- The Rehabilitation Management Plan should address all land impacted by the Narrabri Mine.
- 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, Stage 2 Biodiversity Offset Strategy, Rehabilitation Strategy and Rehabilitation Management Plan require substantial integration to achieve the biodiversity objectives for the rehabilitated site.

#### **TRANSPORT**

(b)

# **Monitoring of Coal Transport**

B66. 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, including the duration of each movement through the Kurrajong Creek Road railway level crossing (LX534); and,
  - publish a detailed summary of these results in the Annual Review.

### Mine Access Road Intersection

# B67. The Applicant must:

- (a) as soon as is reasonable and feasible following the date of commencement of development, upgrade the intersection of the Mine Access Road with Kurrajong Creek Road and Kamilaroi Highway (or alternative measures acceptable to the Planning Secretary and TfNSW) to a standard that prevents queuing of vehicles into the Highway's through lanes arising from mine traffic queuing at the Kurrajong Creek Road railway level crossing (LX534) while also providing sufficient deceleration space for vehicles outside of the Highway's through lanes;
- (b) use its best endeavours to expeditiously come to agreements with TfNSW over the design principles, final design and timing of construction of this intersection upgrade (or approved alternative measures);
- (c) within three months of the date of commencement of development, submit a draft design to TfNSW for this intersection upgrade (or approved alternative measures) that accords with all applicable Austroads guidelines and other relevant standards;
- (d) within three months of the approval of a final design by TfNSW, enter into a Works Authorisation Deed with TfNSW that provides for the full funding, timing of construction and construction of this intersection upgrade (or approved alternative measures), to the satisfaction of the Planning Secretary and TfNSW; and
- (e) implement conditions 25A and 25B of development consent 08\_0144 (as conditions of this approval) until this intersection upgrade (or approved alternative measures) is completed to the satisfaction of the Planning Secretary.

# Notes:

- If there is a dispute between the Applicant and TfNSW about the implementation of this condition, then either party may refer the matter to the Planning Secretary for resolution.
- Following completion of the intersection upgrade (or replacement), conditions 25A and 25B of consent 08\_0144 would no longer apply under this condition.
- B68. The Applicant must maintain the intersection of the Mine Access Road with Kurrajong Creek Road and the Kamilaroi Highway throughout the life and decommissioning of the development, in consultation with NSC and to the satisfaction of TfNSW.

# **Greylands and Scratch Roads**

B69. The Applicant must, prior to using Greylands Road and/or Scratch Road to construct or decommission the development, enter into an agreement with NSC to fund the maintenance of the affected road sections to an all-weather unsealed road standard.

#### Decommissioning

- B70. 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.

- B71. If decommissioning is to be staged, the obligations in condition B70 apply to each stage.
- B72. 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.

# **Traffic Management Plan**

- B73. 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 TfNSW, NSC and the CCC;
  - (c) include details of all transport routes and traffic types to be used for development-related traffic;
  - (d) include details of the measures to be implemented to comply with condition B68 and B69;
  - (e) 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;
  - (f) include details of the measures to be implemented to minimise traffic safety issues and disruption to local road users, including during decommissioning, including:
    - (i) temporary traffic controls, including detours and signage;
    - (ii) notifying the local community about development-related traffic impacts;
    - (iii) ensuring that mine shift changeovers do not (so far as is reasonable and feasible) interact with use of the Kurrajong Creek Road railway level crossing (LX534) by arriving and departing coal trains;
    - (iv) encouraging car-pooling and considering the ongoing use of shuttle buses from regional centres;
    - (v) responding to any requirements for emergency repairs or maintenance; and
    - (vi) a traffic management system for managing over-dimensional vehicles; and
  - (g) 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 adhere to:
    - (i) posted speed limits or other required travelling speeds;
    - (ii) any designated transport routes;
    - (iii) safe and responsible driving practices, particularly at the Kurrajong Creek Road railway level crossing (LX534) and the intersection of the Mine Access Road with the Kamilaroi Highway; and
    - (iv) safe and responsible fatigue management practices.
- B74. The Applicant must not commence construction until the Traffic Management Plan is approved by the Planning Secretary.
- B75. The Applicant must implement the Traffic 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 9.

Table 9: Subsidence impact performance measures – natural and heritage features etc

Feature	Performance Measures	
Watercourses		
All 3 <sup>rd</sup> order watercourses, including Kurrajong Creek, Kurrajong Creek Tributary 1 and Tulla Mullen Creek Tributary I	No subsidence impact or environmental consequence greater than predicted in the EIS	
Landform features		
Cliffs, rock face features and steep slopes	No subsidence impact or environmental consequence greater than predicted in the EIS	
Biodiversity		
Threatened species	No environmental consequence greater than has been offset in accordance with Table 5	
Mine workings		
First workings	To remain long-term stable and non-subsiding, except insofar as they may be impacted by approved second workings	
Second workings	To be carried out only within the area of 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 9 and the Planning Secretary determines that:
  - (a) it is not reasonable or feasible to remediate the subsidence impact or environmental consequence; or
  - (b) 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, or funding or implementing supplementary measures, such as:
  - (a) 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 10.

Table 10: Subsidence impact performance measures – built features

Feature	Performance Measures
Public Infrastructure	
<ul> <li>Electricity distribution lines, poles and associated towers</li> <li>Unsealed roads, road culverts and fire trails</li> <li>Other public infrastructure</li> </ul>	<ul> <li>Always safe.</li> <li>Serviceability should be maintained wherever practicable.</li> <li>Loss of serviceability must be fully compensated.</li> <li>Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.</li> </ul>
Private Infrastructure	
<ul> <li>Private roads and fences</li> <li>Other private infrastructure</li> </ul>	<ul> <li>Always safe.</li> <li>Serviceability should be maintained wherever practicable.</li> <li>Loss of serviceability must be fully compensated.</li> <li>Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.</li> </ul>
Public safety	
Public Safety	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 C8).
- 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 10 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 20 mm 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 the Resources Regulator, DPIE Water and the IAPUM (via the Department as Secretariat), 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 9 and Table 10;
- (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 9 and Table 10, and manage or remediate any impacts and/or environmental consequences to meet the rehabilitation objectives in Table 8;
- (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;
    - 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 and all classes of other built features:
    - provides for subsidence risk assessments for all built features;
    - has been prepared following appropriate consultation with the owner/s of potentially affected built feature/s;
    - · recommends appropriate pre-mining mitigation measures to reduce subsidence impacts; and
    - 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;
  - (iii) Water Management Plan, which has been prepared in consultation with DPIE Water 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:
      - surface water take associated with subsidence;
      - stream flows and quality;
      - stream and riparian vegetation health; and
      - channel and bank stability;
    - a groundwater monitoring program to monitor and report on:
      - 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 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; 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 BCS 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) Trigger Action Response Plan/s addressing all features listed in Table 9 and Table 10, 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 9 and Table 10, 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;
- (vi) Land Management Plan 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;
- (vii) Gas Extraction Management Plan which has been prepared in consultation with CAS and the EPA which provides comprehensive details of proposed mine gas management strategies, including measures to capture, concentrate, flare and/or generate electricity from methane (including predrainage gas, goaf drainage gas and MVA). The Gas Extraction Plan should incorporate the most recent Scope 1 Emissions Minimisation Plan approved under condition B18,B19 and B20;
- (viii) Aboriginal Heritage Management Plan which has been prepared in consultation with relevant stakeholders for Aboriginal heritage, which provides for the management of potential environmental consequences of the proposed second workings on Aboriginal heritage;
- (ix) **Public Safety Management Plan**, which has been prepared in consultation with the Resources Regulator and 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 9 and Table 10, or where any such exceedance appears likely;
- (h) propose appropriate revisions to the Rehabilitation Strategy required under condition B63 and the Rehabilitation Management Plan required under condition B65; and
- 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 A21, the preparation and implementation of Extraction Plans may be staged, with each plan covering a defined area of underground workings.
- In accordance with condition A21, Extraction Plans may address requirements under Part B of this consent in respect of a Water Management Plan, Biodiversity Management Plan, Scope 1 Emissions Minimisation Plan and Aboriginal Cultural 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:
    - 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, 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, BCS, DPIE Water and any other relevant agency, to the satisfaction of the Planning Secretary.

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.

#### PART D ADDITIONAL PROCEDURES

# **ACQUISITION UPON REQUEST**

D1. Upon receiving a written request for acquisition from the owner of the privately-owned land<sup>a</sup> listed in Table 11, the Applicant must acquire the land in accordance with the procedures in conditions D10 to D17, inclusive.

Table 11: Land subject to acquisition upon request

Acquisition Basis	Land
Noise	601a

<sup>&</sup>lt;sup>a</sup> The location of the land referred to in Table 11 is shown in Appendix 4.

#### ADDITIONAL MITIGATION UPON REQUEST

D2. Upon receiving a written request for mitigation from the owner of any residence on the privately-owned land<sup>a</sup> listed in Table 11 or Table 12, 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 12: Land subject to additional mitigation upon request

Mitigation Basis	Land
Noise	670a, 675a

<sup>&</sup>lt;sup>a</sup> The locations of the land referred to in Table 12 are shown in Appendix 4.

D3. If within 3 months of receiving this request from the owner, the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Planning Secretary for resolution.

# **NOTIFICATION OF LANDOWNERS/TENANTS**

- D4. Within one month of the date of commencement of development under this consent, the Applicant must:
  - (a) notify in writing the owner of the residences on the land listed in Table 11 and Table 12 that they are entitled to ask the Applicant to install additional mitigation measures at the residence; and
  - (b) notify the tenants of any mine-owned land of their rights under this consent.
- D5. 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**

D6. 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

- D7. 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.
- D8. 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.
- D9. If the Planning Secretary is satisfied that an independent review is warranted, within 3 months, or other timeframe agreed by the Planning Secretary and the landowner, of the Planning Secretary's decision, the Applicant must:
  - (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Planning Secretary, to:
    - (i) consult with the landowner to determine their concerns:

- (ii) conduct monitoring to determine whether the development is complying with the relevant criteria in PART B; and
- (iii) if the development is not complying with the relevant criterion, identify measures that could be implemented to ensure compliance with the relevant criterion; and
- (b) give the Planning Secretary and landowner a copy of the independent review; and
- (c) comply with any written requests made by the Planning Secretary to implement any findings of the review.

#### LAND ACQUISITION

- D10. Within 3 months of receiving a written request for acquisition from a landowner with acquisition rights, the Applicant must make a binding written offer to the landowner based on:
  - (a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the development, having regard to the:
    - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
    - (ii) presence of improvements on the land and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the additional noise and/or air quality mitigation measures in condition D2;
  - (b) the reasonable costs associated with:
    - (i) relocating within the Narrabri or Gunnedah local government areas, or to any other local government area determined by the Planning Secretary; and
    - (ii) obtaining independent legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and
  - (c) reasonable compensation for any disturbance caused by the land acquisition process.
- D11. If, within two months of the binding written offer being made under condition D10, the Applicant and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Planning Secretary for resolution.
- D12. Upon receiving such a request, the Planning Secretary will request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:
  - (a) consider submissions from both parties;
  - (b) determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in condition D10;
  - (c) prepare a detailed report setting out the reasons for any determination; and
  - (d) provide a copy of the report to both parties.
- D13. Within 14 days of receiving the independent valuer's report, the Applicant must make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.
- D14. However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, either party may refer the matter to the Planning Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Planning Secretary will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in condition D10, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions.
- D15. Within 14 days of this determination, the Applicant must make a binding written offer to the landowner to purchase the land at a price not less than the Planning Secretary's determination.
- D16. If the landowner refuses to accept the Applicant's binding written offer under this condition within 6 months of the offer being made, then the Applicant's obligations to acquire the land shall cease, unless the Planning Secretary determines otherwise.
- D17. The Applicant must pay all reasonable costs associated with the land acquisition process described in conditions D10 to D16 inclusive, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.

# PART E ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

# **ENVIRONMENTAL MANAGEMENT**

#### **Environmental Management Strategy**

- E1. The Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Planning Secretary. This strategy must:
  - (a) provide the strategic framework for environmental management of the development;
  - (b) identify the statutory approvals that apply to the development;
  - (c) set out the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;
  - (d) set out the procedures to be implemented to:
    - 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; and
- (c) 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
    - 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:
- 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. The Applicant must ensure that management plans prepared for the development are consistent with the conditions of this consent and any EPL issued for the site.

# **REVISION OF STRATEGIES, PLANS AND PROGRAMS**

- E7. Within three months of the:
  - (a) submission of an incident report under condition E9 or E10;
  - (b) submission of an Annual Review under condition E11;
  - (c) submission of an Independent Environmental Audit under condition E13;
  - (d) 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 via the Department's Major Projects Website and identify the development (including the development application number and name) and set out the location and nature of the incident.

# **Non-Compliance Notification**

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 via the Department's Major Projects Website and identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, why it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the 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 March 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 calendar year, and the development that is proposed to be carried out over the current calendar year;
  - (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, including a comparison of these results against the:
    - (i) relevant statutory requirements, limits or performance measures/criteria;
    - (ii) requirements of any plan or program required under this consent;
    - (iii) monitoring results of previous years; and
    - (iv) relevant predictions in the document/s listed in condition A2(c);

- (c) identify any non-compliance or incident which occurred in the previous calendar year, and describe what actions were (or are being) taken to rectify the non-compliance and avoid reoccurrence;
- (d) evaluate and report on:
  - (i) the effectiveness of the noise and air quality management systems; and
  - (ii) compliance with the performance measures, criteria and operating conditions of this consent;
- (e) include an addendum report on Scope 1 and Scope 2 GHGE, which reports:
  - (i) annual methane and annual total CO<sub>2</sub>-e emissions (both categorised by source) and emissions intensity (based on ROM coal production);
  - (ii) overall annual emissions intensity, benchmarked against representative industry sectors and the predictions in the EIS, and performance measures in Table 3; and
  - (iii) measures undertaken to minimise Scope 1 and Scope 2 GHGE, including actions under conditionB19, and estimated reductions in CO<sub>2</sub>-e as a result of measures implemented;
- (f) identify any trends in the monitoring data over the life of the development;
- identify any discrepancies between the predicted and actual impacts of the development, and analyse the
  potential cause of any significant discrepancies; and
- (h) describe what measures will be implemented over the next calendar year to improve the environmental performance of the development.
- E12. Copies of the Annual Review must be submitted to the IAPUM (via the Department as Secretariat), NSC and GSC 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.
- 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;
    - 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.

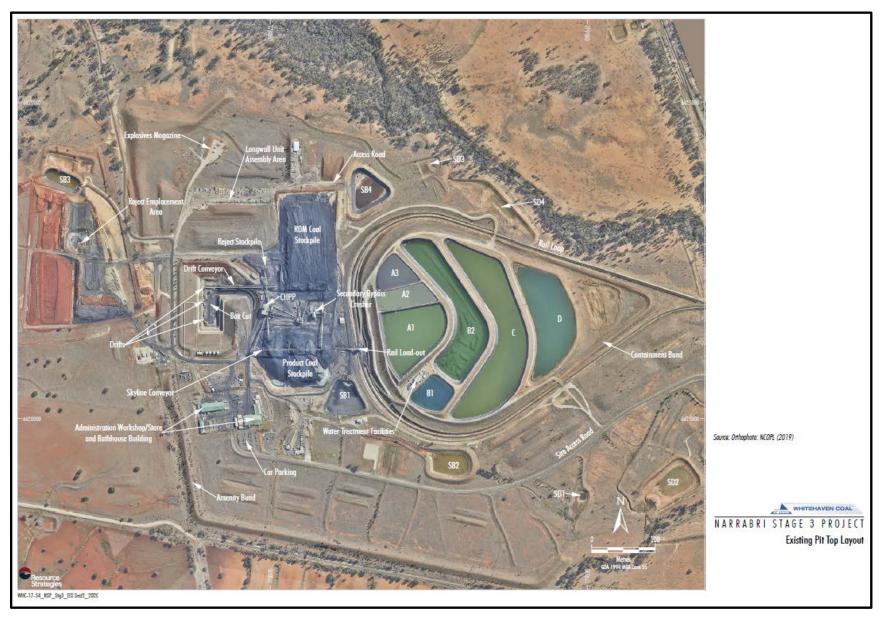
APPENDIX 1 SCHEDULE OF LAND IN THE DEVELOPMENT APPLICATION AREA

Tenure Type	Lot Number	Deposited Plan Number
Freehold	1	254523
Freehold	1	659899
Freehold	25	755525
Freehold	27	755525
Freehold	28	755525
Freehold	50	755525
Freehold	3	757104
Freehold	6	757104
Freehold	7	757104
Freehold	8	757104
Freehold	10	757104
Freehold	18	757104
Freehold	20	757104
Freehold	21	757104
Freehold	22	757104
Freehold	23	757104
Freehold	25	757104
Freehold	27	757104
Freehold	67	757104
Freehold	68	757104
Freehold	57	757114
Crown Land (Jacks Creek State Forest)	58	757114
Freehold	63	757114
Freehold	64	757114
Freehold	65	757114
Freehold	5	757119
Freehold	7	757119
Freehold	8	757119
Freehold	60	757124
Freehold	61	757124
Freehold	81	757124
Freehold	83	757124
Freehold	89	757124
Freehold	115	757124
Freehold	1	798487
Freehold	1	811171
Freehold	2	811171
Freehold	151	816020
Freehold	152	816020
Freehold	3	1005608
Freehold	381	1028753
Freehold	382	1028753
Freehold	1	1124652
Freehold	2	1124652
Freehold	841	1134385

Tenure Type	Lot Number	Deposited Plan Number
Freehold	842	1134385
Freehold	1	1206684
Freehold	2	1206684
Freehold	1	1207324
Freehold	1	1208522
Freehold	1	1210797
Freehold	1	1215178

Other		
Narrabri Shire Council or Crown Roads located between or adjacent to the above parcels of land	Other roads located between or adjacent to the above parcels of land	
Part of the Pilliga East State Forest and Jacks Creek State Forest	Creeks or streams located between or adjacent to the above parcels of land	

#### **APPENDIX 2 DEVELOPMENT LAYOUT PLANS**



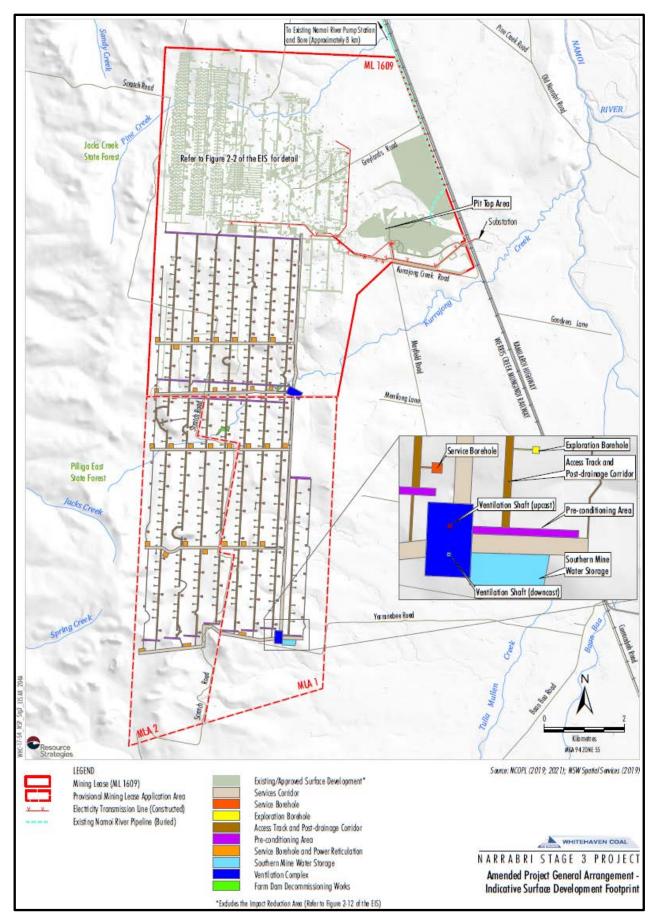


Figure 2: : Indicative Development Footprint Disturbance Area

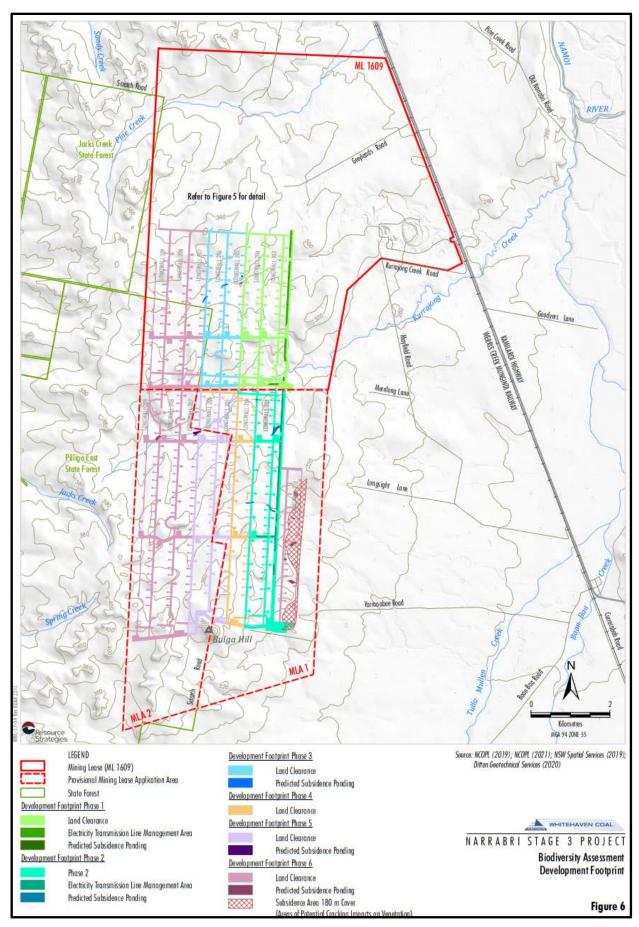


Figure 3: Project Phasing for Offsets

# **APPENDIX 3 APPROVED MINE PLAN**

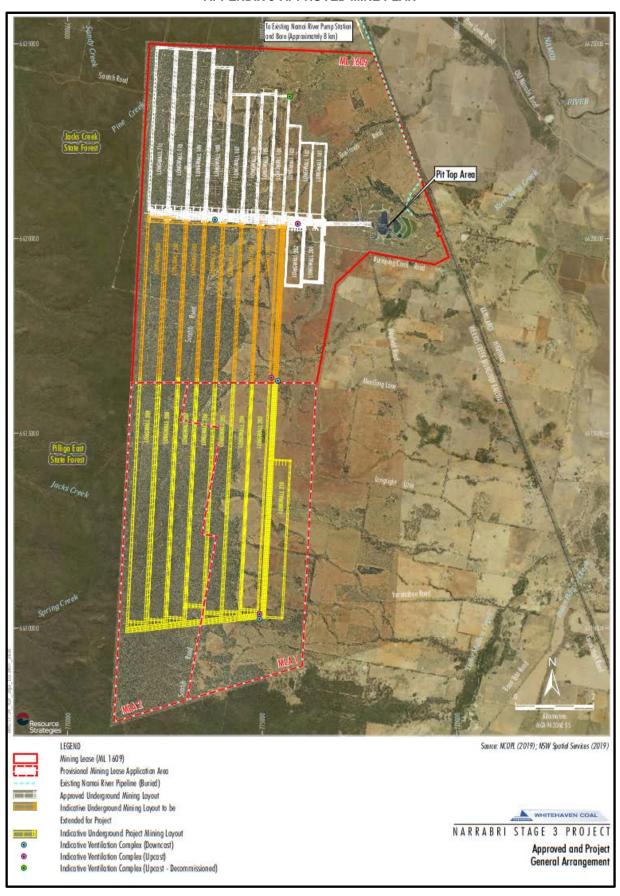


Figure 4: Approved Underground Mine Plan

# APPENDIX 4 RECEIVER LOCATIONS

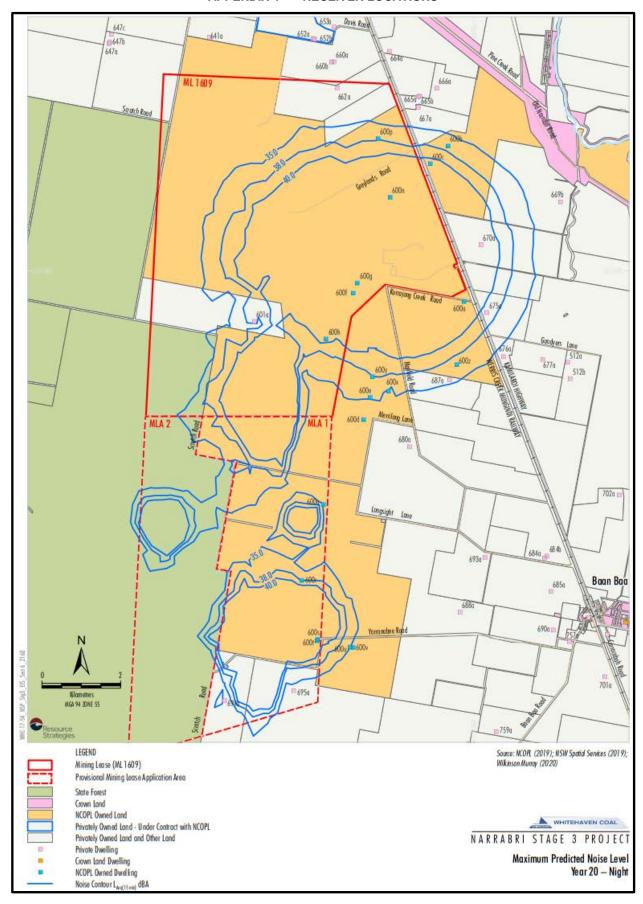


Figure 5: Receiver Locations

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

Applicant's Contribution	Payment Details
Narrabri Shire Council	
\$1,301,988	12 months after commencement of development
\$1,301,988	24 months after commencement of the development
Gunnedah Shire Council	
\$716,360	12 months after commencement of development
\$716,360	24 months after commencement of the development

Note: The total contribution of 4,036,696 based on 1% of capital investment value (CIV) of 403 million proportionally split between the two councils based on location of the project, residence of workforce and vehicle movements.