

Notice of Modification

Section 75W of the *Environmental Planning and Assessment Act 1979*

As delegate of the Minister for Planning, the Planning Assessment Commission modifies the project approval referred to in Schedule 1, as set out in Schedule 2.



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Member of the Commission



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Sydney

2 February 2018

SCHEDULE 1

The project approval (07_0127) granted by the Minister for Planning for the Invincible Colliery on 4 December 2008.

SCHEDULE 2

1. Delete the reference to "Coalpac Pty Limited" in Schedule 1 and replace with "Shoalhaven Coal Pty Limited".
2. Delete Schedules 2-5 and all Appendices and replace with the following:

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DEFINITIONS

Annual review	The review required by condition 4 of schedule 5
BCA	Building Code of Australia
Blast misfire	The failure of one or more holes in a blast pattern to initiate
BVT	Biometric Vegetation Type
CCC	Community Consultative Committee
CHPP	Coal Handling and Preparation Plant
Conditions of this consent	Conditions contained in schedules 1 to 5 inclusive
Council	Lithgow City Council
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and public holidays
Department	Department of Planning and Environment
DPI	Department of Primary Industries
DPI Water	The Division of Water within DPI
DRG	Division of Resources and Geoscience within the Department
EA	Environmental Assessment titled <i>Environmental Assessment of the Proposed Extension to the Invincible Colliery Open Cut Mine and Production Increase and Specialist Consultant Studies Compendium</i> , dated April 2008, as modified by the: <ul style="list-style-type: none"> • <i>Response to Public and Government Agency Submissions</i> dated 27 June 2008; • the modification application (07_0127 – MOD 2) and associated documentation including the '<i>Proposed Modification to Project Approval 07_0127 for the Invincible Colliery Open Cut Mine, May 2009</i>' and '<i>Addendum to the Proposed Modification to Project Approval 07_0127 for the Invincible Colliery Open Cut Mine, July 2009</i>'; and • modification application (07_0127 – MOD 3) and associated Environmental Assessment prepared by Hansen Bailey and dated June 2010; • the modification application ((07_0127 – MOD 4) and associated documentation including the document titled <i>Environmental Assessment Modifications to PA 07_127 and DA 200-5-2003</i>, prepared by Hansen Bailey and dated March 2014, and associated response to submissions dated June 2014 • the modification application (07_0127 – MOD 5) and associated documentation including the document titled <i>Invincible Southern Extension Project Environmental Assessment Section 75W Modification</i>, dated September 2016; associated response to submissions dated February 2017; and supplementary information titled <i>Invincible Southern Extension Modification, Additional Information Required for Assessment</i>, dated May 2017.
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence issued under the <i>Protection of the Environment Operations Act</i>
Evening	The period from 6pm to 10pm
Feasible	Feasible relates to engineering considerations and what is practical to build or implement
Heritage Division	Heritage Division of OEH
Heritage Item	an item as defined under the <i>Heritage Act 1977</i> and/or an Aboriginal Object or Aboriginal Place as defined under the <i>National Parks and Wildlife 1974</i>
Incident	A set of circumstances that: <ul style="list-style-type: none"> • causes or threatens to cause material harm to the environment; and/or; • breaches or exceeds the limits or performance measures/criteria in this approval
Land	As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions in Schedule 3 of this approval where it is defined to mean the whole of a lot, or contiguous lots owned by the

	same landowner, in a current plan registered at the Land Titles Office at the date of this consent
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Mine water	Water that accumulates within, or drains from, active mining and infrastructure areas and any other areas where run-off may have come into contact with carbonaceous material
Minimise	Reduce adverse impacts to the smallest extent practicable by implementing all reasonable and feasible mitigation measures
Mining operations	Includes the removal and emplacement of overburden and the extraction, processing, handling, storage and transport of coal on site
Minister	Minister for Planning and Environment, or delegate
Minor	Not very large, important or serious
Mitigation	Activities associated with reducing the impacts of the development
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm and 8am on Sundays and Public Holidays
OEH	Office of Environment and Heritage
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Privately-owned land	Land that is not owned by a public agency or a mining company or its subsidiary
Proponent	Shoalhaven Coal Pty Limited, or any person who seeks to carry out the development under this approval
Project	The project described in the EA
Public infrastructure	Linear and related infrastructure and the like that provides services to the general public, such as roads, railways, water supply, drainage, sewerage, gas supply, electricity, telephone, telecommunications, etc
RAPs	The six Registered Aboriginal Parties for the development as identified in section 2.0 of Appendix 7 of the document titled <i>Invincible Southern Extension Project Environmental Assessment Section 75W Modification</i> , dated September 2016
Reasonable	Reasonable relates to the application of 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
Resumption of mining operations	The date notified to the Department by the Proponent under condition 11 of Schedule 2
Rehabilitation	The restoration of land disturbed by the development to a good condition to ensure it is safe, stable and non-polluting
RFS	Rural Fire Service
RMS	Roads and Maritime Service
ROM	Run-of-mine
Secretary	Secretary of the Department, or nominee
Site	The land defined in schedule 1
Shoalhaven Starches Plant	The Shoalhaven Starches Plant located at Bomaderry
Southern Extension Area	The area described in the EA, as shown in Appendix 1.
TSC Act	NSW <i>Threatened Species Conservation Act 1995</i>

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

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

TERMS OF APPROVAL

2. The Proponent must carry out the project:
 - (a) generally in accordance with the EA; and
 - (b) in accordance with the conditions of this approval.

Note: The general layout of the project is shown in the figures in Appendix 1.

3. If there is any inconsistency between documents listed in condition 2(a) above, the more recent document must prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.
4. The Proponent must comply with any reasonable requirements of the Secretary arising from the Department's assessment of:
 - (a) any strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with the conditions of this approval;
 - (b) any reviews, reports or audits commissioned by the Department regarding compliance with this approval; and
 - (c) the implementation of any actions or measures contained in these documents.

LIMITS ON APPROVAL

Mining Operations

5. The Proponent may carry out mining operations on the site until 31 December 2025.

Note: Under this approval, the Proponent is required to rehabilitate the site and carry out additional undertakings to the satisfaction of the Secretary. Consequently, this approval will continue to apply in all other respects other than the right to conduct mining operations until the site has been rehabilitated and the additional undertakings have been carried out to a satisfactory standard.

Mining Restrictions

6. The Proponent must not carry out mining operations within the hatched area shown in Appendix 2.

Coal Extraction & Transport

7. The Proponent must not:
 - (a) extract or transport more than 1.2 million tonnes of product coal per calendar year from the site;
 - (b) permit more than 146 laden coal truck movements from the site per day, averaged over a week, with a maximum of 16 laden coal truck movements per hour;
 - (c) permit more than 10 laden coal truck movements to the Shoalhaven Starches Plant per day, averaged over a week.

Hours of Operation

8. The Proponent:
 - (a) must only undertake the removal and emplacement of overburden and the extraction of coal, excluding the activities referred to in (c) below, during the day;
 - (b) must only process coal on site and/or transport coal from the site during the day and evening; and
 - (c) may undertake maintenance activities, and safety procedures as directed by DRG, at any time.

Pagoda Formations, Cliff Lines and Escarpments

9. The Proponent must ensure that the project does not impact pagoda formations, cliff lines and escarpments.

FINAL LAYOUT PLANS

10. Prior to the recommencement of mining operations, the Proponent must prepare a detailed final mine plan and rehabilitation plan to the satisfaction of the Secretary.
11. The Proponent must carry out the project in accordance with the approved mine plan and rehabilitation plan.

NOTIFICATION OF RECOMMENCEMENT

12. The Proponent must notify the Department in writing of the date on which it will recommence mining operations following the mine being placed in care and maintenance in 2013.

STRUCTURAL ADEQUACY

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

Notes:

- Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.
- Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.

DEMOLITION

14. The Proponent must ensure that all demolition work is carried out in accordance with *Australian Standard AS 2601-2001: The Demolition of Structures*, or its latest version.

OPERATION OF PLANT AND EQUIPMENT

15. The Proponent must ensure that all plant and equipment used on site, or used off site to monitor the environmental performance of the project, is:
- (a) maintained in a proper and efficient condition; and
 - (b) operated in a proper and efficient manner.

PROTECTION OF PUBLIC INFRASTRUCTURE

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

Note: This condition does not apply to any damage to roads caused as a result of general road usage.

PLANNING AGREEMENT

17. Within 6 months of recommencing mining operations, unless the Secretary agrees otherwise, the Proponent must enter into a Voluntary Planning Agreement (VPA) with Council in accordance with Division 6 of Part 4 of the EP&A Act to reflect the terms in Appendix 6.

SCHEDULE 3 SPECIFIC ENVIRONMENTAL CONDITIONS

NOISE

Acquisition Upon Request

1. If a written request for acquisition was made by the owner of the land listed in Table 1, before the approval of Modification 5, the Proponent must acquire the land in accordance with the procedures in conditions 5 and 6 of schedule 4.

Table 1: Land subject to acquisition upon request

<i>Residence</i>
Billabong, Hillview

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

Noise Criteria

2. The Proponent must ensure that the noise generated by the project does not exceed the criteria in Table 2 at any residence on privately-owned land.

Table 2: Noise criteria dB(A)

<i>Location</i>	<i>Day</i>	<i>Evening</i>	<i>Night</i>	
	<i>L_{Aeq}(15 minute)</i>	<i>L_{Aeq}(15 minute)</i>	<i>L_{Aeq}(15 minute)</i>	<i>L_{A1}(1 minute)</i>
<i>393 (Billabong)</i>	40	40	35	45
<i>394 (Hillview)</i>	43	43	35	45
<i>All other privately owned land</i>	35	35	35	45

Note: To interpret the locations referred to in Table 2, see the applicable figures in Appendix 3.

Noise generated by the project is to be measured in accordance with the relevant requirements of the *NSW Industrial Noise Policy* (as may be revised from time to time). Appendix 4 sets out the meteorological conditions under which these criteria apply, and the requirements for evaluating compliance with these criteria.

However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the noise criteria, and the Proponent has advised the Department in writing of the terms of this agreement.

Operating Conditions

3. The Proponent must:
 - (a) implement all reasonable and feasible measures to minimise the operational, low frequency and road noise of the project;
 - (b) minimise the noise impacts of the project during meteorological conditions when the noise criteria in this consent do not apply (see Appendix 4);
 - (c) co-ordinate noise management at the site with the Cullen Valley and Baal Bone mines, to minimise any cumulative noise impacts; and
 - (d) carry out regular monitoring to determine whether the development is complying with the relevant conditions of this approval.

Noise Management Plan

4. Prior to recommending mining operations, unless the Secretary agrees otherwise, the Proponent must prepare a Noise Management Plan for the project to the satisfaction of the Secretary. This plan must:
 - (a) be prepared in consultation with the EPA;
 - (b) describe the measures that would be implemented to ensure compliance with the relevant noise criteria and operating conditions in this approval;
 - (c) describe the proposed noise management system in detail; and

- (d) include a noise monitoring program that:
 - evaluates and reports on:
 - the effectiveness of the noise management system;
 - compliance against the noise criteria in this approval; and
 - compliance against the noise operating conditions; and
 - defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.
5. The Noise Management Plan approved by the Secretary must be implemented.

BLASTING

Blasting Criteria

6. The Proponent must ensure that blasting on the site does not cause exceedances of the criteria in Table 3.

Table 3: Blasting criteria

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

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

Blasting Hours

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

Blasting Frequency

8. The Proponent must not carry out more than:
- (a) 1 blast a day; and
 - (b) 5 blasts a week, averaged over a calendar year, at the site.

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

Notes:

- For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine.
- For the avoidance of doubt, should an additional blast be required after a blast misfire, this additional blast and the blast misfire are counted as a single blast.
- In circumstances of recurring unfavourable weather conditions (following planned but not completed blast events), to avoid excess explosive sleep times and minimise any potential environmental impacts, the Proponent may seek agreement from the Secretary for additional blasts to be fired on a given day.

Property Inspections

9. If the Proponent receives a written request from the owner of any privately-owned land within 2 kilometres of the Southern Extension Area for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection updated, then within 2 months of receiving this request the Proponent must:
- (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to:
 - establish the baseline condition of any buildings and other structures on the land, or update the previous property inspection report; and

- identify reasonable and feasible measures that should be implemented to minimise the potential blasting impacts of the project on these buildings and/or structures; and
- (b) give the landowner a copy of the new or updated property inspection report.

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

Property Investigations

10. If the owner of any privately-owned land within 2 kilometres of the Southern Extension Area, claims that buildings and/or structures on his/her land have been damaged as a result of blasting on the site, then within 2 months of receiving this claim the Proponent must:
- (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to investigate the claim; and
 - (b) give the landowner a copy of the property investigation report.

If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent must repair the damage to the satisfaction of the Secretary.

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

Operating Conditions

11. During mining operations on site, the Proponent must:
- (a) implement reasonable and feasible measures to:
 - protect the safety of people and livestock in the surrounding area;
 - protect public and/or private infrastructure/property both on the site and in the surrounding area from any damage; and
 - minimise the dust and fume emissions of any blasting;
 - (b) ensure that blasting does not impact pagoda formations, cliff lines and escarpments;
 - (c) ensure that blasting causes no more than a negligible impact to public infrastructure, including the Castlereagh Highway, Boulder Road, and any electricity transmission lines;
 - (d) minimise the frequency and duration of any road closures, and avoid road closures school bus times;
 - (e) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site and any associated road closures;
 - (f) co-ordinate the timing of blasting on site with the timing of blasting at the Cullen Valley mine to minimise any cumulative blasting impacts; and
 - (g) carry out regular monitoring to determine whether the project is complying with the relevant blasting conditions of this approval.
12. The Proponent must not undertake blasting on site within 500 metres of:
- (a) any public road; or
 - (b) any land outside the site that is not owned by the Proponent,
- unless :
- the Proponent has a written agreement with the applicable roads authority or landowner to allow blasting to be carried out closer to the public road or land, and the Proponent has advised the Department in writing of the terms of this agreement; or
 - the Proponent has:
 - demonstrated to the satisfaction of the Secretary that the blasting can be carried out closer to the road or land without compromising the safety of people or livestock, or damaging buildings and/or structures; and
 - updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the road or land outside the site that is not owned by the Proponent.

Blast Management Plan

13. Prior to recommencing mining operations, unless the Secretary agrees otherwise, the Proponent must prepare a Blast Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with the EPA;

- (b) describe the measures that would be implemented to ensure compliance with the blasting criteria and operating conditions of this approval;
- (c) include a road closure management plan for blasting within 500 m of a public road, that has been prepared in consultation with RMS and Council;
- (d) include a monitoring program for evaluating the performance of the development, including:
 - compliance with the operating conditions; and
 - minimising the fume emissions from the site.

14. The Blast Management Plan approved by the Secretary must be implemented.

AIR QUALITY

Odour

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

Air Quality Criteria

16. The Proponent must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that the particulate emissions generated by the project do not exceed the criteria listed in Tables 4, 5 and 6 at any residence on privately-owned land.

Table 4: Long term criteria for particulate matter

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

Table 5: Short term criterion for particulate matter

Pollutant	Averaging period	^d Criterion
Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³

Table 6: Long term criteria for deposited dust

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

Notes for Tables 4 to 6:

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

Mine-owned Land

17. The Proponent must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not cause exceedances of the criteria in Tables 4-6 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) has been notified of any health risks associated with such exceedances in accordance with the notification requirements in schedule 4 of this consent;
- (b) the tenant of any land owned by the Proponent can terminate their tenancy agreement without penalty at any time, subject to giving reasonable notice;

- (c) air mitigation measures (such as air filters, a first flush roof water drainage system and/or air condition) are installed at the residence, if requested by the tenant or landowner (if the residence is owned by another mining company)
- (d) air quality monitoring is regularly undertaken to inform the tenant or landowner (if the residence is owned by another mining company) of the likely concentrations of particulate emissions at the residence; and
- (e) data from this monitoring is presented to the tenant or landowner (if the residence is owned by another mining company) in an appropriate format for a medical practitioner to assist the tenant or landowner in making informed decisions on the health risks associated with occupying the residence, to the satisfaction of the Secretary.

Operating Conditions

18. The Proponent must:
- (a) implement all reasonable and feasible measures to minimise the odour, fume and dust emissions of the project (including those generated by spontaneous combustion) and the release of greenhouse gas emissions from the site.
 - (b) minimise any visible off-site air pollution generated by the project;
 - (c) ensure that all loaded trucks leaving the site are adequately covered at all times;
 - (d) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see note d to Tables 4-6 above),
 - (e) co-ordinate the air quality management on site with the air quality management at the Cullen Valley mine to minimise any cumulative air quality impacts; and
 - (f) carry out regular monitoring to determine whether the development is complying with the relevant conditions of this approval.

Air Quality Management Plan

19. Prior to recommencing mining operations, unless the Secretary agrees otherwise, the Proponent must prepare a Air Quality Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with the EPA;
 - (b) describe the measures that would be implemented to ensure compliance with air quality criteria and operating conditions of this approval;
 - (c) describe the proposed air quality management system in detail;
 - (d) include a review of all air quality management measures against best practice guidelines; and
 - (e) include an air quality monitoring program that:
 - evaluates and reports on:
 - the effectiveness of the air quality management system;
 - compliance with the air quality criteria;
 - compliance with the air quality operating conditions; and
 - defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents.
20. The Air Quality Management Plan approved by the Secretary must be implemented.

METEOROLOGICAL MONITORING

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

WATER

Water Supply

22. The Proponent must ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of operations on site to match its available water supply.

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

Compensatory Water Supply

23. The Proponent must provide a compensatory water supply to any landowner of privately owned land whose water supply is adversely and directly impacted (other than an impact that is negligible) as a result of the project, in consultation with DPI Water, and to the satisfaction of the Secretary.

The compensatory water supply measures must provide an alternative long term supply of water that is equivalent to the loss attributed to the project. Equivalent water supply should be provided (at least on an interim basis) within 24 hours of the loss being identified.

If the Proponent and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.

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

Discharge Limits

24. Any water discharged from the site must comply with Section 120 of the POEO Act and, unless expressly provided by an EPL, must not exceed:
- the default ANZECC electrical conductivity trigger value for lowland rivers; and
 - all other default ANZECC trigger values for 95% species protection and relevant potential contaminants.

Clean Water Diversion Strategy

25. Prior to recommending mining operations, unless the Secretary agrees otherwise, the Proponent must prepare a Clean Water Diversion Strategy for the project to the satisfaction of the Secretary. This strategy must:
- be prepared in consultation with DPI Water;
 - investigate all reasonable and feasible measures to minimise the capture of clean water on site; and
 - include a detailed description of the measures to be implemented and a plan for the implementation of these measures.

Water Management Performance Measures

26. The Proponent must comply with the performance measures in Table 7 to the satisfaction of the Secretary.

Table 7: Water Management Performance Measures

Feature	Performance Measure
General	<ul style="list-style-type: none"> Maintain separation between clean, dirty and mine water management systems. minimise the use of clean water on site. No direct discharge of water dewatered from the Ivanhoe No. 2 workings. Design, install operate and maintain water management systems in a proper and efficient manner.
Clean water diversion & storage infrastructure	Maximise, as far as reasonable and feasible, the diversion of clean water around the disturbed areas on site.
Sediment dams	Design, install and maintain the dams generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction – Volume 1 and Volume 2E Mines and Quarries</i> .
Mine water storages	Design, install and/or maintain mine water storage infrastructure to ensure no unlicensed or uncontrolled discharge of mine water off-site.
Overburden, CHPP reject materials	Design, install and maintain emplacements to prevent or minimise the migration of pollutants due to seepage
Chemical and hydrocarbon storage	Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standards.

Water Management Plan

27. Prior to recommencing mining operations, unless the Secretary agrees otherwise, the Proponent must prepare a Water Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with DPI Water and the EPA, by suitably qualified and experienced persons whose appointment has been approved by the Secretary;
 - (b) include detailed performance criteria and describe measures to ensure that the Proponent complies with the water management performance measures;
 - (c) in addition to the standard requirements for management plans (see Condition 3 of schedule 6), this plan must include a:
 - (i) Site Water Balance that:
 - includes details of:
 - sources and security of water supply, including contingency planning for future reporting periods;
 - water use and management on site, including details of water sharing between neighbouring mining operations;
 - any off-site water transfers and discharges;
 - reporting procedures, including the preparation of a site water balance for each calendar year; and
 - investigates and implements all reasonable and feasible measures to minimise water use on site;
 - (ii) Surface Water Management Plan, that includes:
 - detailed baseline data on surface water flows and quality in creeks and other waterbodies that could be affected by the project;
 - a program to augment the baseline data over the life of the project;
 - a detailed description of the relevant discharge limits as required by condition 24 of schedule 3;
 - a detailed description of the water management system on site, including the,
 - clean water diversions, as informed by condition 25 of this schedule;
 - sediment dams and associated infrastructure;
 - mine water management system;
 - measures to be implemented to ensure that water from Ivanhoe No.2 workings is not directly discharged off-site; and
 - reinstatement of drainage lines on the rehabilitated areas of the site;
 - detailed objectives and performance criteria, including trigger levels for investigating any potential or actual adverse impacts associated with the project for:
 - dewatering the Ivanhoe No 2 workings;
 - downstream surface water quality;
 - stream and riparian vegetation health;
 - channel stability;
 - design and management for the emplacement of coal reject materials;
 - reinstatement of drainage lines on the rehabilitated areas of the site; and
 - control of any potential water pollution from the rehabilitated areas of the site;
 - a program to monitor and report on:
 - the effectiveness of the water management system; and
 - surface water flows and quality in the watercourses that could be affected by the project;
 - the performance measures listed in Table 7;
 - impacts on water users;
 - reporting procedures for the results of the monitoring program; and
 - a plan to respond to any exceedances of the trigger levels/ and or performance criteria, and mitigate and/or offset any adverse surface water impacts of the project;
 - (iii) Groundwater Management Plan, that includes:
 - detailed baseline data on groundwater levels, yield and quality in the region that could be affected by the development, including privately-owned groundwater bores and groundwater dependent ecosystems: groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts;
 - a program to monitor and report on:
 - groundwater supply of potentially affected landowners;
 - groundwater inflows to the open cut mining operations;
 - the seepage/leachate from water storages, emplacements and backfilled voids;
 - background changes in groundwater yield/quality against mine-induced changes;
 - impacts of the project on:

- regional and local (including alluvial) aquifers;
 - groundwater supply of potentially affected landowners; and
 - groundwater dependent ecosystems and riparian vegetation;
 - a program to validate the groundwater model for the project, and compare the monitoring results with modelled predictions; and
 - a plan to respond to any exceedances of the trigger levels and/or performance criteria, and mitigate and/or offset any adverse groundwater impacts of the development;
- (iv) a protocol that has been prepared in consultation with the owner of the Baal Bone mine to ensure all ground water take, including increased inflows to the Baal Bone underground workings, is appropriately licensed.

28. The Water Management Plan approved by the Secretary must be implemented.

BIODIVERSITY

Biodiversity Offset Strategy

29. The Proponent must implement the biodiversity offset strategy for the project, as summarised in Table 8 and shown in Appendix 5:

Table 8: Biodiversity Offset Strategy

ID	Offset Area	Minimum Size(ha)
1	Lot 112, DP 877190	114.5
2	"Renown Farm" (Lot 1, DP 180294)	
3	Lot 113, DP 877190	
4	Hillcroft Offset Site	NA

30. Within 2 years of the recommencement of mining operations, unless the Secretary agrees otherwise, the Proponent must make suitable arrangements to provide appropriate long-term security for Offset Areas 1-3 as identified in Table 8, to the satisfaction of the Secretary.

Note: The long-term security of Offset Areas 1-3 may be achieved through one or a combination of the following: Deed of agreement with the Minister, rezoning the land under the Lithgow Environment Plan, caveats on the title under the Conveyancing Act 1919, or another mechanism as agreed by the Secretary.

Retirement of Credits

31. Prior to the recommencement of mining operations, the Proponent must review and update the ecosystem and species credit requirements in Table 9 and 10 to reflect the final mine plan, in consultation with OEH and to the satisfaction of the Secretary.

Table 9: Ecosystem Credit Requirements

Biometric Vegetation Type	Code (BVT)	Code (PCT)	Credits Required
Brittle Gum – Broad-leaved Peppermint – Red Stringybark open forest in the north-western part (Yass to Orange) of the South Eastern Highlands Bioregion	CW117	PCT351	542
Inland Scribbly Gum grassy open forest on hills in the Mudgee Region, NSW central western slopes	CW263	PCT324	2893

Table 10: Species Credit Requirements

Species	Credits Required
<i>Eucalyptus Cannonii</i> (Capertee Stringybark)	468
<i>Petaurus norfolcensis</i> (Squirrel Glider)	1047
<i>Hoplocephalus bungaroides</i> (Broad-headed Snake)	388
<i>Paralucia spinifera</i> (Bathurst Copper Butterfly)	15

Notes:

1. The review and update of ecosystem and species credits is to be undertaken in accordance with the NSW Offsets Policy for Major Projects.

2. *The Ecosystem and Species Credits identified in Table 9 and Table 10 were calculated using the Framework for Biodiversity Assessment.*

32. Within two years of the recommencement of mining operations, unless otherwise agreed by the Secretary, the Proponent must retire the biodiversity credits of a number and class identified in the review carried out under condition 31 above.

The retirement of these credits must be carried out using the Hillcroft Biobanking Site, as shown in Appendix 5. Any residual offset requirements not achieved by the retirement of the Hillcroft Biobanking Site must be retired in accordance with the *NSW Offsets Policy for Major Projects* and can be achieved by:

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

Biodiversity Management Plan

33. Prior to recommencing mining operations, unless the Secretary agrees otherwise, the Proponent must prepare a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with OEH;
 - (b) describe how the implementation of the biodiversity offset strategy would be integrated with the overall rehabilitation of the site;
 - (c) establish baseline data for the existing habitat in the offsite biodiversity offset area and on the site;
 - (d) describe the short, medium, and long term measures that would be implemented to:
 - manage the remnant vegetation and habitat on the site; and
 - translocate the *Bursaria spinosa* located within the Southern Extension Area
 - implement the biodiversity offset strategy;
 - (e) include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary);
 - (f) include a detailed description of the measures that would be implemented to:
 - enhance the quality of existing vegetation and fauna habitat in the biodiversity offset areas;
 - maximising the salvage of resources within the approved disturbance area;
 - collecting and propagating seed to be used for rehabilitation;
 - minimising the impacts on fauna on site, including undertaking pre-clearance surveys;
 - managing any potential conflicts between the proposed restoration works in the biodiversity areas and any Aboriginal heritage values (both cultural and archaeological);
 - manage salinity;
 - control weeds and feral pests;
 - control erosion;
 - control access; and
 - manage bushfire risk
 - (g) include a seasonally-based program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria;
 - (h) include a translocation plan for the *Bursaria spinosa* that includes:
 - an investigation into translocation options, including rehabilitated areas of the site, and areas off site;
 - describes the measure that would be undertaken to translocate the species; and
 - a detailed description of a monitoring and maintenance program.
 - (i) identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate these risks; and
 - (j) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

Notes:

- *With the approval of the Secretary, the Biodiversity Management Plan may exclude offset areas secured under a Biobanking Agreement.*
- *The Biodiversity Management Plan and Rehabilitation Management Plan need to be substantially integrated for achieving biodiversity objectives for the rehabilitated mine site.*

34. The Biodiversity Management Plan approved by the Secretary must be implemented.

Conservation Bond

35. Within 6 months of the approval of the Biodiversity Management Plan, the Proponent must lodge a conservation bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria described in the Biodiversity Management Plan.

The sum of the bond shall be determined by:

- (a) calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and
- (b) employing a suitably qualified quantity surveyor, whose appointment has been endorsed by the Secretary, to verify the calculated costs.

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

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

Note:

- *Alternative funding arrangements for long term management of the biodiversity offset strategy, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement or transfer to conservation reserve estate can be used to reduce the liability of the conservation and biodiversity bond.*
- *The sum of the bond may be reviewed in conjunction with any revision to the biodiversity offset strategy.*

HERITAGE

Management of Aboriginal Heritage Site Invincible OS1

36. The Proponent must prevent any further disturbance to the Aboriginal heritage site Invincible OS1, unless:
- (a) the Secretary agrees otherwise; and
 - (b) the disturbance is undertaken in accordance with the procedures recommended by the Bathurst Local Aboriginal Land Council in its letter dated 17 June 2007 and reproduced in the EA.

Aboriginal Cultural Heritage Management Plan

37. Prior to recommencing mining operations, unless the Secretary agrees otherwise, the Proponent must prepare an Aboriginal Cultural Heritage Management Plan for the project to the satisfaction of the Secretary. The plan must:
- (a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;
 - (b) be prepared in consultation with OEH and the RAPs;
 - (c) include the following for the management of Aboriginal heritage:
 - ensure any workers on site receive suitable heritage inductions prior to carrying out any project on site, and that suitable records are kept of these inductions;
 - a program and description of the measures/procedures that would be implemented for:
 - protecting, monitoring and/or managing Aboriginal cultural heritage on site including collection and salvage of sites, including artefact scatters, isolated finds and modified trees;
 - maintaining and managing reasonable access to cultural heritage sites for Aboriginal stakeholders;
 - managing the discovery of human remains or previously unidentified Aboriginal artefacts; and
 - protocol for the ongoing consultation and involvement of the Aboriginal community in the conservation and management of the Aboriginal heritage of the objects/sites on site;
 - ongoing consultation with and involvement of RAPs in the conservation and/or management of Aboriginal cultural heritage in site;
 - a strategy for the storage of heritage items salvaged on site, both during the project and in the long term.
38. The Aboriginal Cultural Heritage Management Plan approved by the Secretary must be implemented.

TRANSPORT

Coal Haulage

39. The Proponent must ensure that all coal haulage from the project within the Lithgow local government area is conveyed only on the Castlereagh Highway, the Great Western Highway and Boulder Road, except with the approval of the Secretary.
40. The Proponent must:
- (a) keep accurate records of the:
 - amount of coal transported from the project in each calendar year (on a monthly basis);
 - number of coal truck movements generated by the project to the Mt Piper Power Station and the Shoalhaven Starches Plant (on a daily basis); and
 - (b) include these records in the Annual Review.

Operating Conditions

41. The Proponent must:
- (a) implement all reasonable and feasible mitigation measures to minimise the traffic impacts of the project on public roads;
 - (b) ensure all laden vehicles leaving the site are covered;
 - (c) ensure that all trucks leaving the site pass through an effective and operating wheel cleaning facility to minimise any dust/debris on public roads; and
 - (d) minimise haulage during school bus times.

Transport Management Plan

42. Prior to recommencing mining operations, unless the Secretary agrees otherwise, the Proponent must prepare a Transport Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with RMS and Council;
 - (b) include a driver's code of conduct for the project;
 - (c) describe the measures that would be implemented to ensure:
 - compliance with the operating conditions in this approval;
 - drivers are aware of potential safety issues along the haulage route;
 - drivers of project-related vehicles comply with the driver's code of conduct;
 - compliance with the relevant conditions of this consent; and
 - (d) include a program to monitor and report on the effectiveness of the implementation of these measures and compliance with the operating conditions.
43. The Proponent must implement the approved Transport Management Plan for the Project.

VISUAL

44. The Proponent must:
- (a) implement all reasonable and feasible measures to minimise the visual and off site lighting impacts of the project;
 - (b) ensure no fixed outdoor lights shine above the horizontal or above the building line or any illuminated structure;
 - (c) ensure no in-pit lighting rigs shine directly above the pit wall and other mobile lighting does not shine above the horizontal;
 - (d) ensure that all external lighting associated with the project complies with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*, or its latest version;
- to the satisfaction of the Secretary.

WASTE

45. The Proponent must:
- (a) implement all reasonable and feasible measures to minimise the waste generated by the project (including coal rejects and tailings);
 - (b) ensure that the waste generated by the project is appropriately stored, handled and disposed of;
 - (c) manage on-site sewage treatment and disposal in accordance with the requirements of Council;
 - (d) only dispose of building and demolition wastes and tyres on-site in accordance with an EPL; and
 - (e) monitor and report on effectiveness of the waste minimisation and management measures in the Annual Review.

BUSHFIRE MANAGEMENT

46. The Proponent must:
- ensure that the project is suitably equipped to respond to any fires on site; and
 - assist the RFS and emergency services as much as practicable if there is a fire in the vicinity of the site.

REHABILITATION

Rehabilitation Objectives

47. The Proponent must rehabilitate the site to the satisfaction of the Secretary. This rehabilitation must be consistent with the final layout plans required under condition 10 of schedule 2, and comply with the objectives in Table 11.

Table 11: Rehabilitation Objectives

Feature	Objective
Mine site (as a whole)	<ul style="list-style-type: none"> Safe, stable and non-polluting Final landforms designed to minimise visual impacts as far as is reasonable and feasible, and integrate with surrounding landforms Slopes of final landforms are minimised as far as is reasonable and feasible Free draining Constructed landforms to drain to the natural environment via natural drainage lines
Final Voids	<ul style="list-style-type: none"> No final voids on site
Rehabilitation areas and other vegetated land	<ul style="list-style-type: none"> Restore self-sustaining woodland ecosystems on the site that comprise flora species from locally occurring vegetation communities. Establish areas of self-sustaining habitat for threatened flora and fauna species.
Surface infrastructure	<ul style="list-style-type: none"> To be decommissioned and removed, unless the Secretary agrees otherwise
Community	<ul style="list-style-type: none"> Ensure public safety Minimise the adverse socio-economic effects associated with mine closure

Progressive Rehabilitation

50. The Proponent must rehabilitate the site progressively as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim rehabilitation strategies must be employed when areas prone to dust generation cannot 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. It is also accepted that delays in rehabilitation due to extended wet or dry conditions may occur.

Rehabilitation Strategy

51. By the end of May 2018, unless the Secretary agrees otherwise, the Proponent must prepare a Rehabilitation Strategy to the satisfaction of the Secretary. This strategy must:
- investigate options to backfill the Northern and Eastern voids as soon as practicable;
 - investigate options to avoid the disturbance of vegetation in proximity to the Eastern Void; and
 - include a detailed description of the measures to be implemented and a plan for the implementation of these measures.
52. The Rehabilitation Strategy approved by the Secretary must be implemented.

Rehabilitation Management Plan

52. Prior to recommencing mining operations, unless the Secretary agrees otherwise, the Proponent must prepare a Rehabilitation Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with DPI Water, OEH, Council and the CCC;
 - (b) be prepared in accordance with any relevant DRG guideline and be consistent with the rehabilitation objectives in the EA and in Table 11;
 - (c) describe how the rehabilitation of the site would be integrated with the implementation of the biodiversity offset strategy;
 - (d) include a detailed rehabilitation schedule for the life of the mine and an annual program for reviewing and revising this schedule, as informed by condition 51 of this schedule;
 - (e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);
 - (f) describe the measures that would be implemented to ensure compliance with the relevant conditions of this consent, and address all aspects of rehabilitation including mine closure, final landform, and final land use;
 - (g) provide for detailed mine closure planning, including measures to minimise socio-economic effects due to mine closure, to be conducted prior to the site being placed on care and maintenance;
 - (h) include interim rehabilitation where necessary to minimise the area exposed for dust generation;
 - (i) include a program to monitor and report on the effectiveness of the rehabilitation of the site, and progress against the detailed performance and completion criteria; and
 - (j) be integrated with the other management plans required under this consent.

Note: The Biodiversity Management Plan and Rehabilitation Management Plan need to be substantially integrated for achieving biodiversity objectives for the rehabilitated mine-site.

51. The Rehabilitation Management Plan approved by the Secretary must be implemented.

SCHEDULE 4 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS/TENANTS

1. Prior to the recommencement of mining operations, the Proponent must:
 - (a) notify in writing the owners of any privately-owned land within 2 kilometres of the Southern Extension Area that they are entitled to ask for an inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated;
 - (b) notify the tenants of any mine-owned land of their rights under this approval; and
 - (c) send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the owners and/or existing tenants of any land (including mine-owned land) where the predictions in the EA identify that dust emissions generated by the project are likely to be greater than the relevant air quality criteria in schedule 3 at any time during the life of the project.

2. Prior to entering into any tenancy agreement for any land owned by the Proponent that is predicted to experience exceedances of the recommended dust and/or noise criteria, the Proponent must:
 - (a) advise the prospective tenants of the potential health and amenity impacts associated with living on the land, and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time); and
 - (b) advise the prospective tenants of the rights they would have under this consent.

3. As soon as practicable after obtaining monitoring results showing:
 - (a) an exceedance of any relevant criteria in Schedule 3, the Proponent must notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the project is again complying with the relevant criteria; and
 - (b) an exceedance of any relevant air quality criteria in Schedule 3, the Proponent must send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land).

INDEPENDENT REVIEW

4. If an owner of privately-owned land considers the project to be exceeding the relevant criteria in schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the project on his/her land.

If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision the Proponent must:

- (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:
 - consult with the landowner to determine his/her concerns;
 - conduct monitoring to determine whether the project is complying with the relevant criteria in schedule 3; and
 - if the project is not complying with these criteria then identify the measures that could be implemented to ensure compliance with the relevant criteria; and
- (b) give the Secretary and landowner a copy of the independent review.

Note: Where the independent review finds that the development is not complying with applicable criteria, the Department may take enforcement action under the EP&A Act to ensure compliance with the approval.

LAND ACQUISITION

5. Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent 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 project, having regard to the:
 - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
 - presence of improvements on the land and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date;
 - (b) the reasonable costs associated with:

- relocating within the Lithgow local government area, or to any other local government area determined by the Secretary; and
 - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and
- (c) reasonable compensation for any disturbance caused by the land acquisition process.

However, if at the end of this period, the Proponent 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 Secretary for resolution.

Upon receiving such a request, the Secretary will request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:

- consider submissions from both parties;
- determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above;
- prepare a detailed report setting out the reasons for any determination; and
- provide a copy of the report to both parties.

Within 14 days of receiving the independent valuer's report, the Proponent must make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.

However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the 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 Secretary will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions.

Within 14 days of this determination, the Proponent must make a binding written offer to the landowner to purchase the land at a price not less than the Secretary's determination.

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

6. The Proponent must pay all reasonable costs associated with the land acquisition process described in condition 5 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.

SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

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

Adaptive Management

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

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

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

Management Plan Requirements

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

- non-compliances with statutory requirements; and
 - exceedances of the impact assessment criteria and/or performance criteria; and
- (h) a protocol for periodic review of the plan.

Annual Review

4. By the end of March each year, or other timing as may be agreed by the Secretary, the Proponent must review the environmental performance of the project to the satisfaction of the Secretary. This review must:
- (a) describe the project (including any rehabilitation) that was carried out in the past financial year, and the project that is proposed to be carried out over the next year;
 - (b) include a comprehensive review of the monitoring results and complaints records of the project over the past financial year, which includes a comparison of these results against the:
 - relevant statutory requirements, limits or performance measures/criteria;
 - requirements of any plan or program required under this approval;
 - monitoring results of previous years; and
 - relevant predictions in the EA;
 - (c) identify any non-compliance over the past financial year, and describe what actions were (or are being) taken to ensure compliance;
 - (d) identify any trends in the monitoring data over the life of the project;
 - (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and
 - (f) describe what measures will be implemented over the current financial year to improve the environmental performance of the project.

Note: The "Post Approval Requirements for State Significant Developments - Annual Review Guideline 2015, NSW Government, October 2015" (or its latest version) provides a reporting framework to integrate the reporting requirements of the Annual Review required by the Department under the development consent and the Annual Environment Management Report (AEMR) required by DRE under the Mining Lease.

Revision of Strategies, Plans and Programs

5. Within 3 months of:
- the submission of an annual review under condition 4 above;
 - the submission of an incident report under condition 7 below;
 - the submission of an audit report under condition 9 below; or
 - any modification to the conditions of this approval, (unless the conditions require otherwise),
- the Proponent must review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review, unless the Secretary agrees otherwise, the revised document must be submitted to the Secretary for approval.

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

Updating and Staging Strategies, Plans or Programs

6. To ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project, the Proponent may submit revised strategies, plans or programs required under this approval at any time. With the agreement of the Secretary, the Proponent may also submit any strategy, plan or program required by this consent on a staged basis.
7. The Secretary may approve a revised strategy, plan or program required under this consent, or the staged submission of any of these documents, at any time. With the agreement of the Secretary, the Proponent may prepare the revised or staged strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition in this consent.

Community Consultative Committee

8. The Proponent must operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Secretary. This CCC must be operated in general accordance with the *Community Consultative Committee Guidelines for State Significant Project* (Department of Planning and Environment, 2016, or its latest version).

Within the agreement of the Secretary, the operation of this CCC may be combined with the operation of the CCC for the Cullen Valley mine.

Notes:

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

REPORTING

Incident Reporting

9. The Proponent must immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

Regular Reporting

10. The Proponent must provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.

INDEPENDENT ENVIRONMENTAL AUDIT

11. Within 1 year of recommending mining operations, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent must commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
 - (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
 - (b) include consultation with the relevant agencies;
 - (c) assess the environmental performance of the project and assess whether it is complying with the requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);
 - (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and
 - (e) recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under the abovementioned approvals.

Note: The "Post Approval Requirements for State Significant Developments - Independent Audit Guideline, NSW Government, October 2015" (or its latest version) provides an audit and reporting framework for the independent audit that will guide compliance with this condition.

12. Within 3 months of commissioning this audit, or as otherwise agreed by the Secretary, the Proponent must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of these recommendations as required. The Proponent must implement these recommendations, to the satisfaction of the Secretary.

ACCESS TO INFORMATION

13. The Proponent must:
 - (a) make copies of the following publicly available on its website:
 - the EA;
 - current statutory approvals for the project;
 - approved strategies, plans and programs required under the conditions of this approval;
 - a comprehensive summary of the monitoring results of the project, reported in accordance with the specifications in any conditions of this approval, or any approved plans and programs;
 - a complaints register, which is to be updated monthly;
 - minutes of CCC meetings;
 - the annual reviews of the project;
 - any independent environmental audit of the project, and the Proponent's response to the recommendations in any audit;
 - any other matter required by the Secretary; and
 - (b) keep this information up-to-date.

APPENDIX 1 PROJECT LAYOUT

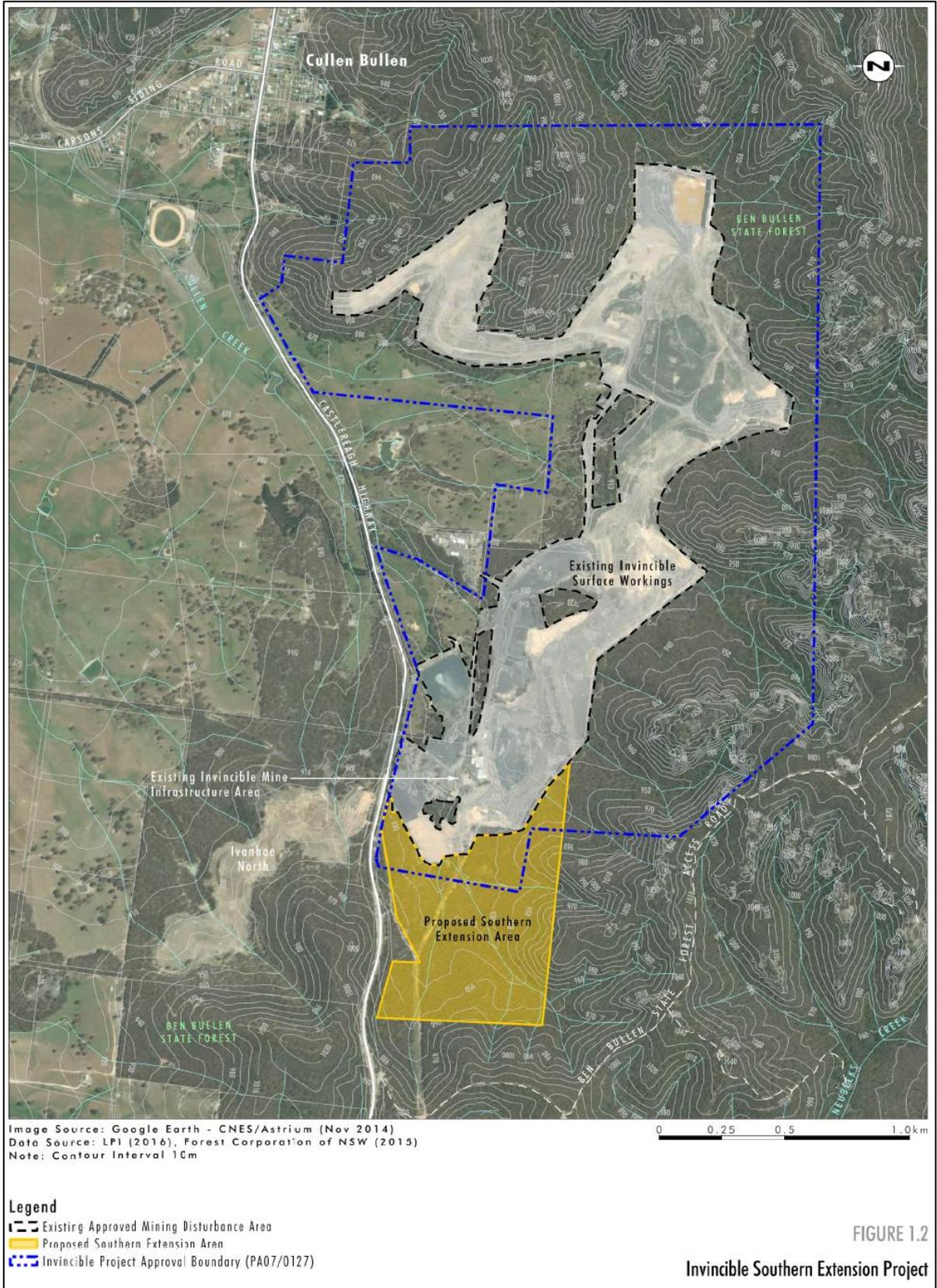


Figure 1: Project Layout

**APPENDIX 2
MINING RESTRICTION AREA**

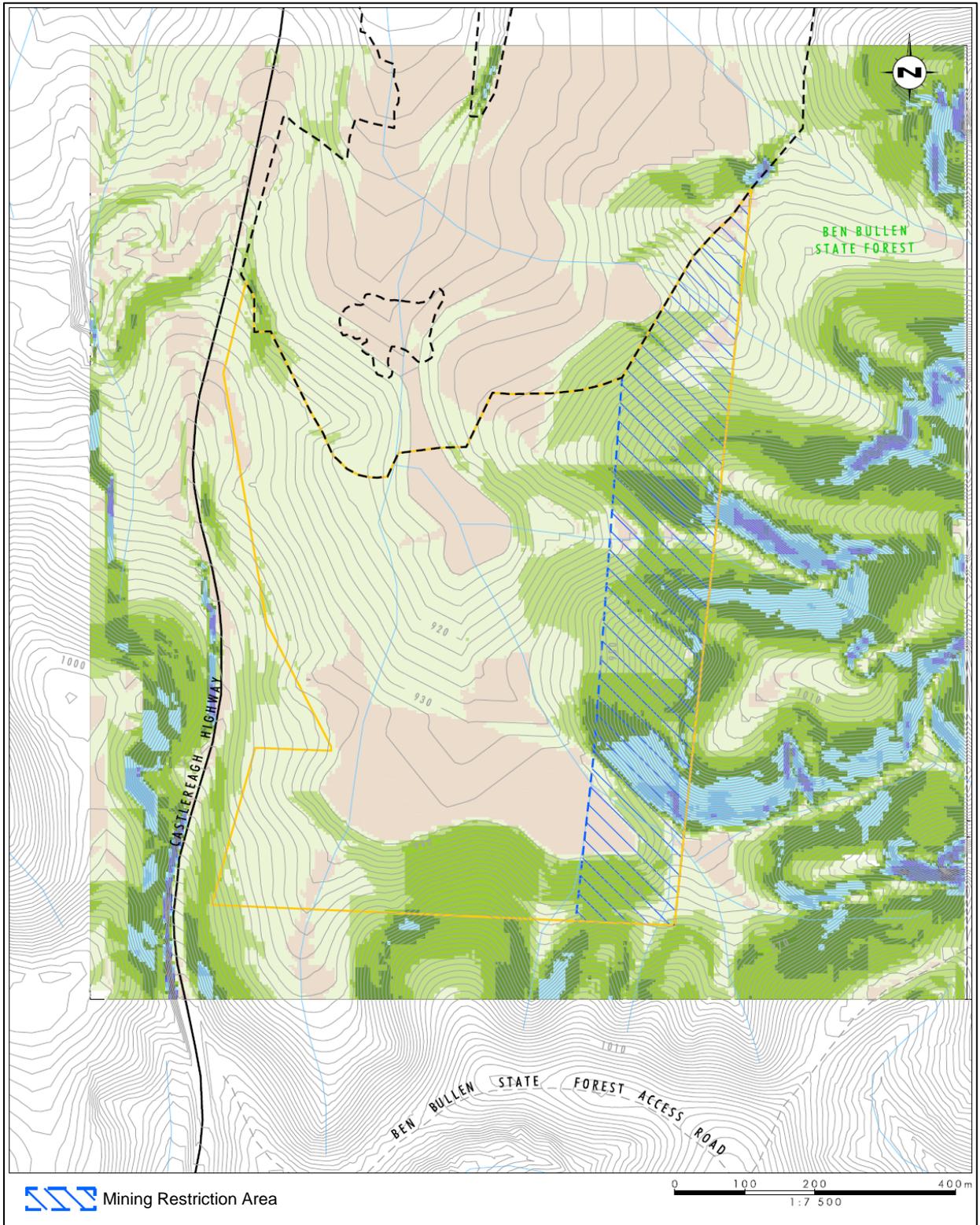


Figure 2: Mining Restriction Area

APPENDIX 3 LAND OWNERSHIP

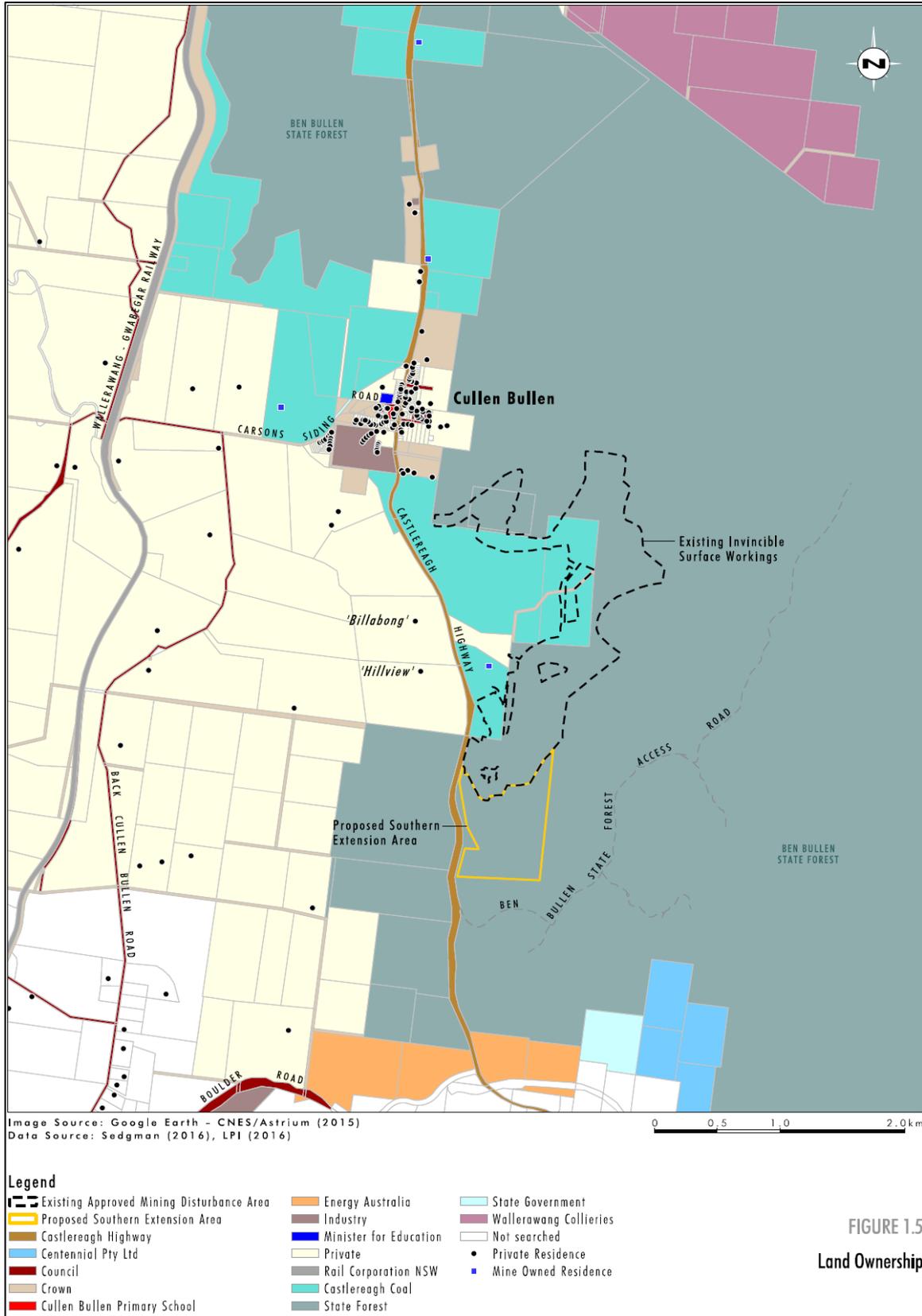


FIGURE 1.5
Land Ownership

Figure 3: Land Ownership

APPENDIX 4 NOISE COMPLIANCE ASSESSMENT

Applicable Meteorological Conditions

1. The noise criteria in Table 1 of schedule 3 are to apply under all meteorological conditions except the following:
 - b) wind speeds greater than 3 m/s at 10 m above ground level; or
 - c) temperature inversion conditions between 1.5 °C and 3°C/100 m and wind speeds greater than 2 m/s at 10 m above ground level; or
 - d) temperature inversion conditions greater than 3°C/100 m.

Determination of Meteorological Conditions

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

Compliance Monitoring

3. Attended monitoring is to be used to evaluate compliance with the relevant conditions of this consent.
4. This monitoring must be carried out at least 4 times a year, unless the Secretary directs otherwise.
5. Unless otherwise agreed with the Secretary, this monitoring is to be carried out generally in accordance with the relevant requirements for reviewing performance set out in the *NSW Industrial Noise Policy* (as amended from time to time), in particular the requirements relating to:
 - a) monitoring locations for the collection of representative noise data;
 - b) meteorological conditions during which collection of noise data is not appropriate;
 - c) equipment used to collect noise data, and conformance with Australian Standards relevant to such equipment; and
 - d) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration and low frequency noise.
6. The assessment of excessive levels of low frequency noise generated by the mine shall be as follows: Measure/assess C- and A-weighted Leq,T levels over same time period. Where the C minus A level is 15dB or more and:
 - where any of the 1/3 octave noise levels in Table 4-1 are exceeded by up to 5dB and cannot be mitigated, a 2 dB(A) positive adjustment to measured/predicted A weighted levels applies for the evening/night period.
 - where any of the 1/3 octave noise levels in Table 4-1 are exceeded by more than 5dB and cannot be mitigated, a 5 dB(A) positive adjustment to measured/predicted A weighted levels applies for the evening/night period and a 2dB positive adjustment applies for the daytime period.

Table 4-1: One-third octave low frequency noise thresholds

Hz/dB(Z)	One-third octave $L_{Zeq,15minute}$ threshold level												
Frequency (Hz)	10	12.5	16	20	25	31.5	40	50	63	80	100	125	160
dB(Z)	92	89	86	77	69	61	54	50	50	48	48	46	44

**APPENDIX 5
BIODIVERSITY OFFSET STRATEGY**

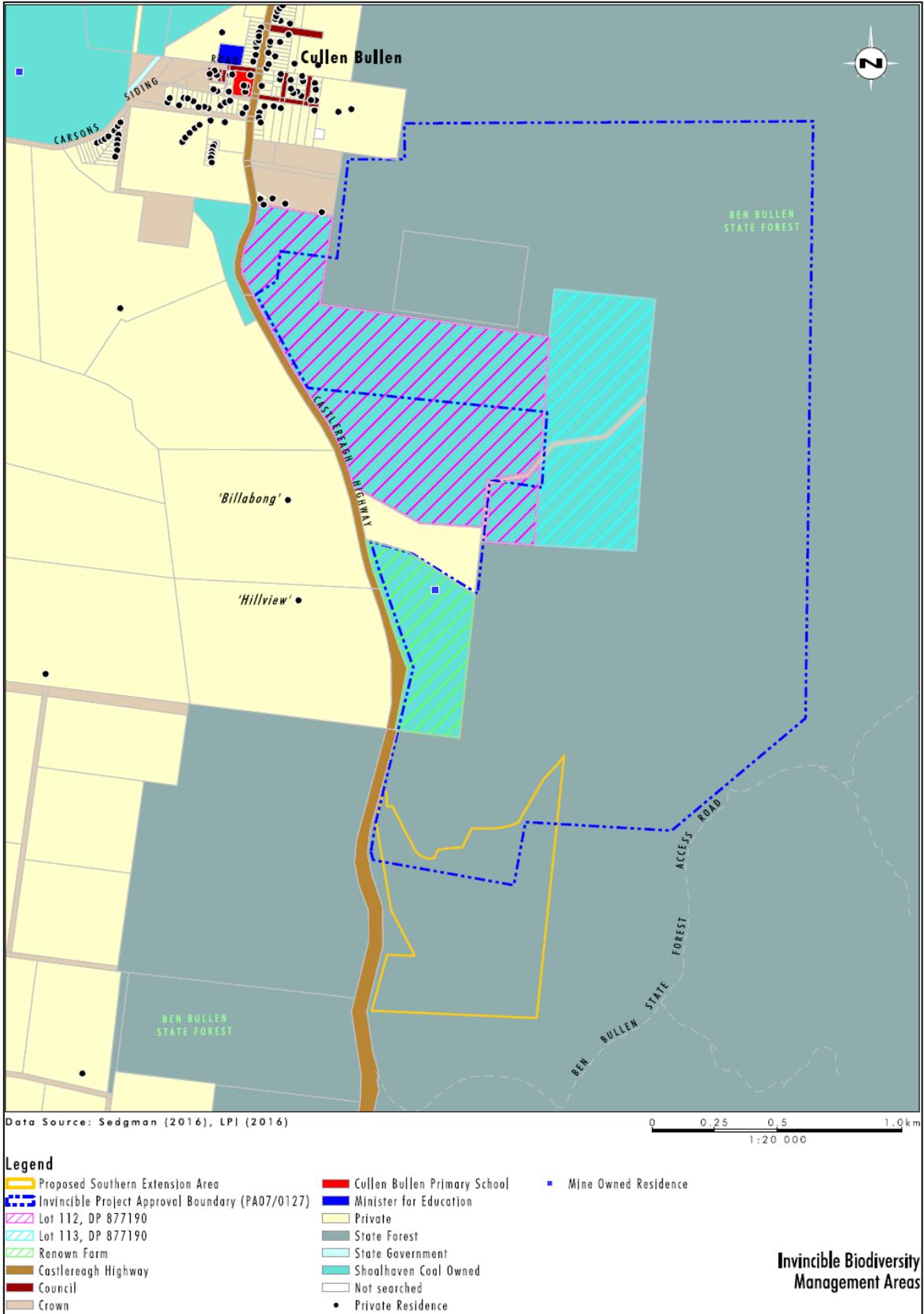
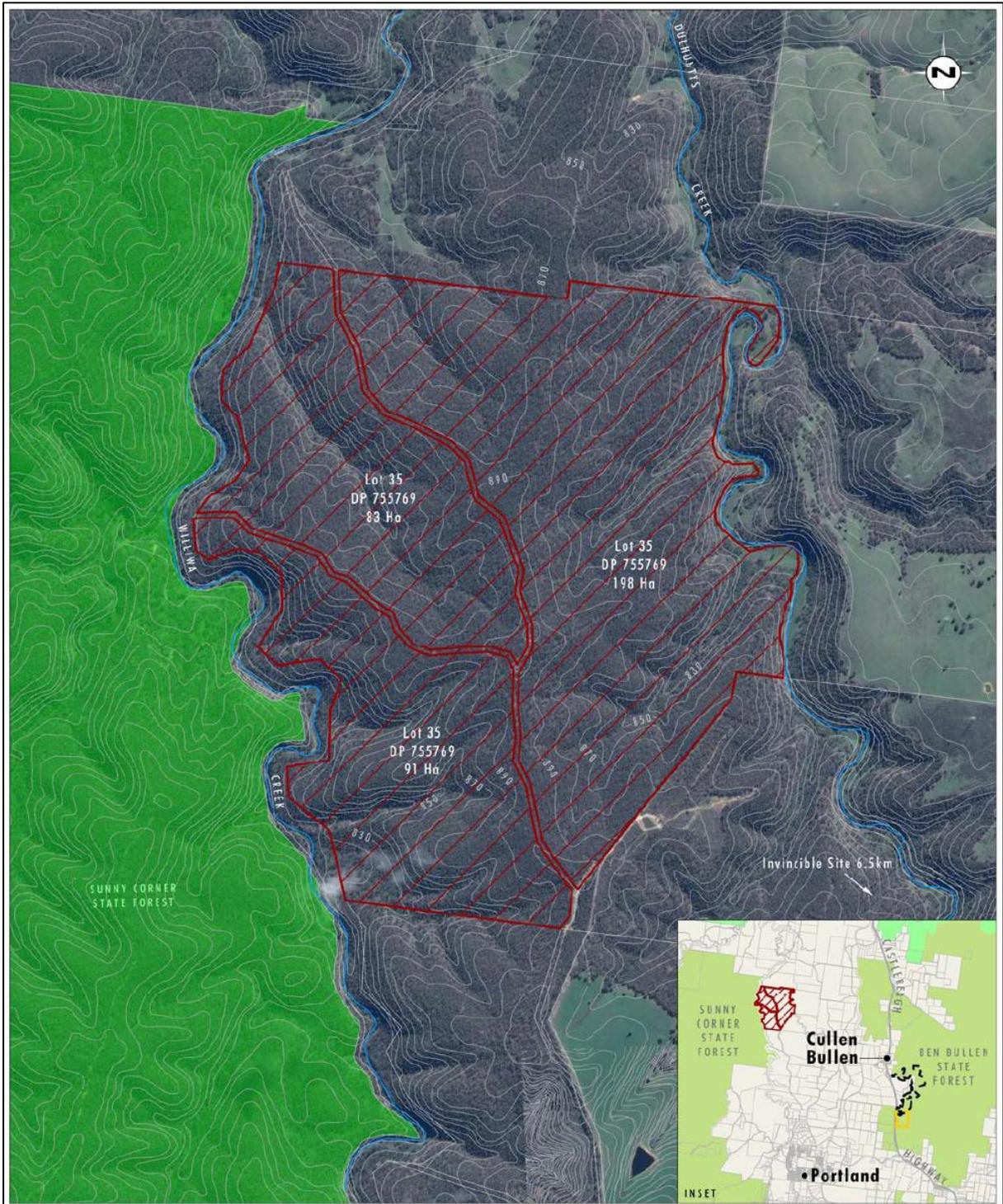


Figure 1: Existing Biodiversity Offset Areas



- Legend**
- Existing Invincible Approved Mining Disturbance Area
 - Proposed Invincible Southern Extension Area
 - Proposed Hillcroft BioBank Site
 - State Forest

FIGURE 3.1
 Proposed Hillcroft BioBank Site

Figure 2: Hillcroft Biobank Site

APPENDIX 6
VOLUNTARY PLANNING AGREEMENT - TERMS

1. Castlereagh Coal will contribute \$0.05 per tonne of product for each financial year of the operation of the Southern Extension Project to be utilised in the Cullen Bullen township and surrounds.