

# Development Consent

## Section 89E of the *Environmental Planning & Assessment Act 1979*

As delegate of the Minister for Planning, the Planning Assessment Commission of NSW approves the development application referred to in Schedule 1, subject to the conditions in Schedules 2 to 6.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the development.



**Ms Robyn Kruk AM**  
**Member of the Commission**



**Dr Maurice Evans**  
**Member of the Commission**



**Mr David Johnson**  
**Member of the Commission**

Sydney

2016

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### SCHEDULE 1

<b>Application Number:</b>	SSD_5581
<b>Applicant:</b>	Centennial Airly Pty Limited
<b>Consent Authority:</b>	Minister for Planning
<b>Land:</b>	See Appendix 1
<b>Development:</b>	Airly Mine Extension Project

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August 2018 MOD 1 in red type

July 2019 MOD 2 in blue type

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## DEFINITIONS

Adaptive management	Adaptive management includes monitoring subsidence effects and impacts 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/or designated ranges and in compliance with the conditions of this consent
Annual review	The review required by condition 13 of Schedule 6
Applicant	Centennial Airly Pty Limited, or any other person/s who rely on this consent to carry out the development
ANZECC guidelines	Australian and New Zealand guidelines for fresh and marine water quality (2000), or their latest version
BCD	<a href="#">Biodiversity and Conservation Division, within the Department</a>
BCA	Building Code of Australia
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; pipeline; water, sewer, telephone, gas or other service main
CCC	Community Consultative Committee
Cliff	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°)
Cliff Line Zone and Zone of First Workings	The area of proposed mining shown in Figure 2 in Appendix 3, as may be modified by an approved Extraction Plan
CHPP	Coal Handling and Preparation Plant
Conditions of this consent	Conditions contained in Schedules 2 to 6 inclusive
Construction	The demolition of buildings or works, carrying out of works and erection of buildings covered by this consent
Council	Lithgow City Council
Date of commencement	The date notified to the Department by the Applicant under condition 9 of Schedule 2
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	<a href="#">Department of Planning, Industry and Environment</a>
Development	The development described in the EIS
DoEE	<a href="#">The Australian Government Department of the Environment and Energy, which administers the EPBC Act</a>
DSC	Dams Safety Committee
EEC	Endangered ecological community, as defined under the <i>Threatened Species Conservation Act 1995</i>
EIS	The environmental impact statement titled <i>Airly Mine Extension Project</i> , dated September 2014 and associated response to submissions titled <i>Airly Mine Extension Project</i> , dated February 2015, including the supplementary information comprising water licensing requirements letter dated 6 March 2015, noise assessment letter dated 10 March 2015, MSEC peer review report dated 18 March 2015, revised economic impact assessment dated March 2015, ecotoxicology assessment dated March 2015, supplementary letters and attachments dated 15 April 2015, 8 May 2015 and 18 June 2015, and Centennial's responses to the IPRP's Report in letters dated 8 July and 19 July 2016, <a href="#">as modified by:</a> <ul style="list-style-type: none"> <li><a href="#">MOD 1 - Airly Mine SSD_5581 MOD 1 – Statement of Environmental Effects</a> including the associated Response to Submissions (dated 21 June 2018); and</li> <li><a href="#">MOD 2 - Statement of Environmental Effects - Airly Mine Extension Project State Significant Development 5581 - Modification 2</a> (dated April 2019) including the associated Response to Submissions (dated 13 June 2019), and additional information provided by the Applicant on 24 June 2019.</li> </ul>
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 in watercourses; adverse water quality impacts; cliff falls; rock falls; damage to Aboriginal heritage sites; impacts on terrestrial or aquatic ecology; and ponding
EPA	Environment Protection Authority, or its successor
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPL	Environment Protection Licence issued under the POEO Act

Evening	The period from 6pm to 10pm
Exploration activities	Prospecting Operations, as defined under the <i>Mining Act 1992</i>
Feasible	Feasible relates to engineering considerations and what is practical to build or implement
First workings	The extraction of coal by bord and pillar mining methods and from main headings and the like (but not including pillar splitting or quartering)
GDE	Groundwater Dependent Ecosystems
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 Act 1974</i>
Heritage Division	<a href="#">Heritage Division, within the NSW Department of Premier and Cabinet</a>
Incident	A set of circumstances that: <ul style="list-style-type: none"> <li>causes or threatens to cause material harm to the environment; and/or</li> <li>breaches or exceeds the limits or performance measures/criteria in this consent</li> </ul>
IEP	Independent Expert Panel to be established and operated by the Department, which must be comprised of suitably qualified, experienced and independent experts with expertise in the assessment, monitoring and management of subsidence-related impacts on cliff lines, pagodas and steep slopes, to the satisfaction of the Secretary
IPRP's Report	<i>Report of the Independent Review Panel established to review and report on accuracy and reliability of mine subsidence impacts on sensitive features across the Airly mine extension project application area, dated 1 July 2016</i>
Land	As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions in Schedule 4 of this consent where it is defined to mean the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this consent
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Mining operations	Includes the extraction, processing, handling, storage and transportation of coal carried out on the site
Minister	<a href="#">Minister for Planning and Public Spaces, or delegate</a>
Minor cliff	A continuous rock face, including overhangs, which has a: <ul style="list-style-type: none"> <li>minimum length of 20 metres and a height between 5 metres and 10 metres; and</li> <li>minimum slope of 2 to 1 (&gt; 63.4°)</li> </ul>
Mitigation	Activities associated with reducing the impacts of the development
Negligible	Small and unimportant, such as to be not worth considering
New Hartley interaction zone	The area of proposed mining which may interact with the former workings of the New Hartley mine complex identified as the New Hartley Shale mine potential interaction zone in Figure 2 in Appendix 3, as may be modified by an approved Extraction Plan
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
NPWS	National Parks and Wildlife Service
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Pagodas	Conical or sub-conical rock formations, whether smooth, platy, stepped or terraced, generally between 5 and 20 metres in height and that are not cliffs or minor cliffs
Panel and Pillar Mining Zone	The area of proposed mining shown in Figure 2 in Appendix 3, as may be modified by an approved Extraction Plan
Partial Pillar Extraction Zone	The area of proposed mining shown in Figure 2 in Appendix 3, as may be modified by an approved Extraction Plan
Privately-owned land	Land that is not owned by a public agency or a mining or petroleum company (or its subsidiary)
Public infrastructure	Linear and other infrastructure that provides services to the general public, such as roads, railways, water supply, drainage, sewerage, gas supply, electricity, telephone, telecommunications, etc
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, costs 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 the extraction plan, or where such costs cannot be agreed, the costs determined by a dispute resolution process
Resources Regulator	<a href="#">Resources Regulator, within the Department</a>

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
ROM	Run-of-mine
RMS	Roads and Maritime Services
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 by pillar extraction methods (including panel and pillar mining, single and double-sided lifting, and pillar splitting and quartering) except where remnant pillars are designed to be long-term stable and non-subsiding (ie leading to < 20 mm subsidence at the surface)
Secretary	Secretary of the Department, or any person authorised to act on their behalf
Site	All land to which the development application applies as listed in Appendix 1 and shown in Appendix 2
Steep slope	An area of land having a gradient between 1 in 3 (33% or 18.3°) and 2 in 1 (200% or 63.4°)
Subsidence	The totality of subsidence effects, subsidence impacts and environmental consequences of subsidence impacts
Subsidence effects	Deformation of the ground mass due to mining, including all mining induced ground movements, such as vertical and horizontal displacement, tilt, strain and curvature
Subsidence impacts	Physical changes to the ground and its surface caused by subsidence effects, including tensile and shear cracking of the rock mass, localised buckling of strata caused by valley closure and upsidence and surface depression or troughs.
TSC Act	<i>Threatened Species Conservation Act 1995</i>
<a href="#">Water Division</a>	<a href="#">Water Division, with the Department</a>

## SCHEDULE 2 ADMINISTRATIVE CONDITIONS

### OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. 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/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the development.

### TERMS OF CONSENT

2. The Applicant must carry out the development
  - (a) generally in accordance with the EIS and the Mining schedule (see Figure 3 in Appendix 2); and
  - (b) in accordance with the IPRP's Report and the conditions of this consent.

*Note: The layout of the development is shown in Appendices 2, 3 and 10.*
3. If there is any inconsistency between the documents in condition 2(a) above, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency.
4. The Applicant must comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:
  - (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this consent (including any stages of these documents);
  - (b) any reviews, reports or audits undertaken or commissioned by the Department regarding compliance with this consent; and
  - (c) the implementation of any actions or measures contained in these documents.

### LIMITS ON CONSENT

#### Mining Operations

5. The Applicant may carry out mining operations on the site for a period of 20 years from the date of commencement.

*Note: Under this consent, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of the Secretary and the Resources Regulator. Consequently, this consent will continue to apply in all other respects other than the right to conduct mining operations until the rehabilitation of the site and these additional undertakings have been carried out satisfactorily.*

#### Coal Extraction

6. The Applicant must not extract more than 1.8 million tonnes of ROM coal from the site in any calendar year.

#### Hours of Operation

7. The Applicant may undertake mining operations 24 hours a day, 7 days a week.

#### Rail Movements

8. The Applicant must ensure that:
  - (a) all product coal is transported from the site by rail;
  - (b) movement of laden coal trains and water trains is restricted to:
    - (i.) no more than an average of 2 trains leaving the site per day over any calendar year; and
    - (ii.) no more than 5 trains leaving the site on any day; and
  - (c) no more than one water train is received from Charbon Colliery on any day.

*Note: The rail transfer route for the water train is shown in Figure 13 in Appendix 12.*

### NOTIFICATION OF COMMENCEMENT

9. Prior to commencing any development under this consent, the Applicant must notify the Department in writing of the date on which it will commence the development permitted under this consent.

## **SURRENDER OF EXISTING DEVELOPMENT CONSENTS**

10. Within 12 months of the date of commencement, unless the Secretary agrees otherwise, the Applicant must surrender the existing development consent DA162/91 (as modified) in accordance with clause 97(1) of the EP&A Regulation, to the satisfaction of the Secretary.

Following the commencement of development under this consent, the conditions of this consent must prevail to the extent of any inconsistency with the conditions of those consents and approvals.

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

## **STRUCTURAL ADEQUACY**

11. The Applicant 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.

*Note: Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates (where applicable) for the proposed building works. Part 8 of the EP&A Regulation sets out the requirements for the certification of the development.*

## **DEMOLITION**

12. The Applicant 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.

## **PROTECTION OF PUBLIC INFRASTRUCTURE**

13. 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 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 damage to roads caused as a result of general road usage.*

## **OPERATION OF PLANT AND EQUIPMENT**

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

## **COMMUNITY ENHANCEMENT**

15. From the date of commencement, the Applicant must pay a community contribution to **Council** of \$0.03 per saleable tonne of coal produced at Airly mine capped at a maximum payment of \$200,000 in total from the Springvale, Angus Place and Airly mines (ie for all 3 mines collectively). The community contribution is to be paid on an annual basis to **Council** and no later than 31 March each year (for the preceding calendar year). The contribution must be used for long-term community activities and projects to be agreed by both the Applicant and **Council** and must be reported publicly.

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## SCHEDULE 3 SPECIFIC ENVIRONMENTAL CONDITIONS – UNDERGROUND MINING

### SUBSIDENCE

#### Restrictions on Mining

1. The Applicant must not carry out any second workings:
  - a) in the Panel and Pillar Extraction Zone within an angle of draw of 26.5 degrees of the crest of any cliffs identified in the Cliff Line Zone of First Workings before at least four adjacent extraction panels in the Panel and Pillar Zone beneath Mount Airly have been completed;
  - b) in the Partial Pillar Extraction Zone within an angle of draw of 26.5 degrees of the toe of any cliffs identified in the Cliff Line Zone of First Workings before it has completed the Trial Mining Area in Panels 206 and 207 as shown in Appendix 11; and
  - c) within an angle of draw of 26.5 degrees plus 50 metres of the limit of the New Hartley Shale Mine workings.

*Note: For more detail on the zones referred to in this condition, see the Figure 2 in Appendix 3.*

#### Performance Measures – Natural and Heritage Features, etc

2. The Applicant must ensure that the development does not cause any exceedances of the performance measures in Table 1 to the satisfaction of the Secretary.

*Table 1: Subsidence Impact Performance Measures – Natural and Heritage Features, etc*

<b>Water Resources</b>	<b>Performance Measure</b>
Gap and Genowlan Creeks	<ul style="list-style-type: none"> <li>Wherever depth of cover is &lt; 40 m, no first or second workings within 20 m of the edge of the creek bed, measured horizontally in the seam</li> <li>Negligible environmental consequences to water quality and to bed and bank stability</li> <li>No greater environmental consequences than predicted in the EIS to water flows (including baseflow)</li> </ul>
All other watercourses	No greater subsidence impacts or environmental consequences than predicted in the EIS
<b>Land</b>	
The Grotto	Negligible subsidence impacts or environmental consequences
Cliffs within a 26.5 degree angle of draw of the Airly underground mine workings	No greater subsidence impacts or environmental consequences than predicted in the EIS ( <i>ie occasional rock falls, displacement or dislodgment of boulders or slabs of less than 30 m<sup>3</sup>, or fracturing, that do not impact Aboriginal heritage, EECs or public safety</i> ), that in total do not impact more than 2% of the total area of such cliffs
Pagodas within a 26.5 degree angle of draw of the Airly underground mine workings (other than pagodas affected by the New Hartley interaction zone)	No greater subsidence impacts or environmental consequences than predicted in the EIS ( <i>ie occasional rock falls, displacement or dislodgment of boulders or slabs of less than 30 m<sup>3</sup>, or fracturing, that do not impact Aboriginal heritage, EECs or public safety</i> ), that in total do not impact more than 2% of the total area of such pagodas
Pagodas within a 26.5 degree angle of draw of the New Hartley interaction zone	No greater subsidence impacts or environmental consequences than predicted in the EIS
Minor cliffs	No greater subsidence impacts or environmental consequences than predicted in the EIS
Steep slopes	No greater subsidence impacts or environmental consequences than predicted in the EIS
All other land not covered by a performance measure above	No greater subsidence impacts or environmental consequences than predicted in the EIS
<b>Biodiversity</b>	
Threatened species, threatened populations, EECs and groundwater dependent ecosystems (with the exception of those listed below)	Negligible environmental consequences
<i>Pultenaea</i> sp. Genowlan Point population and Genowlan Point <i>Allocasurina nana</i> Heathland community	No environmental consequences



<b>Heritage sites</b>	
Aboriginal heritage sites identified in Appendix 5	Negligible environmental consequences
Non-Aboriginal heritage sites identified in Appendix 6	Negligible environmental consequences. Wherever depth of cover is < 30 m, no second workings to occur within a setback distance defined by half the depth of cover from site 3 and site 24, measured horizontally in the seam
<b>Mine workings</b>	
First workings beneath any feature where performance measures in this table require no or negligible environmental consequences and to all first workings beneath cliffs	To remain long-term stable and non-subsiding
Second workings	To be carried out only in accordance with an approved Extraction Plan

**Notes:**

- These performance measures apply to all mining taking place after the date of this consent.
- 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 5 below).
- Measurement and/or monitoring of compliance with performance measures and performance indicators 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. In the event of a dispute over the appropriateness of proposed methods, the Secretary will be the final arbiter.

### Performance Measures – Built Features

- The Applicant must ensure that the development does not cause any exceedances of the performance measures in Table 2 to the satisfaction of the Secretary.

*Table 2: Subsidence Impact Performance Measures – Built Features*

<b>Built Features</b>	<b>Performance Measures</b>
Emergency services communication tower and associated sheds and infrastructure	<ul style="list-style-type: none"> <li>• Always safe and serviceable</li> <li>• Damage must be fully repairable, and must be fully repaired</li> </ul>
State survey mark at Genowlan Trig Station, Telstra copper cable and Nissen Hut and outbuilding	<ul style="list-style-type: none"> <li>• Always safe and serviceable, unless otherwise agreed with the owner</li> <li>• Damage must be fully repairable, and must be fully repaired</li> </ul>
“Stone Cottage”	<ul style="list-style-type: none"> <li>• No second workings to occur within a setback distance defined by half the depth of cover from the building, measured horizontally in the seam, unless otherwise agreed with the owner</li> <li>• Always safe and serviceable, unless otherwise agreed with the owner</li> <li>• Damage must be fully repairable, and must be fully repaired, unless otherwise agreed with the owner</li> </ul>
Other built features and improvements including Airly Camp Ground, walking and 4WD tracks, fences and gates	<ul style="list-style-type: none"> <li>• Use should be maintained wherever practicable in consultation with <a href="#">BCD</a></li> <li>• Damage must be fully repairable and must be fully repaired</li> </ul>
<b>Public Safety</b>	
Public safety	Negligible additional risk, in consultation with <a href="#">the Resources Regulator</a> and <a href="#">BCD</a>

**Notes:**

- These performance measures apply to all mining taking place after the date of this consent.
- The Applicant will be required to define more detailed performance indicators for each of these performance measures in the Built Features Management Plans or Public Safety Management Plan (see [condition 7](#) below).
- Measurement and/or monitoring of compliance with performance measures and performance indicators 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. In the event of a dispute over the appropriateness of proposed methods, the Secretary will be the final arbiter.
- 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.

4. Any dispute between the Applicant and the owner of any built features over the interpretation, application or implementation of the performance measures in Table 2 is to be settled by the Secretary, following consultation with **the Resources Regulator**. Any decision by the Secretary shall be final and not subject to further dispute resolution under this consent.

#### **Independent Review and Monitoring Panel**

5. The Applicant must pay all costs incurred by the Department to establish and operate an IEP for the development.

#### **First Workings**

6. With the exception of first workings in the Cliff Line Zone and Zone of First Workings, the Applicant may carry out first workings within the underground mining area, other than in accordance with an approved Extraction Plan, provided that **the Resources Regulator** is satisfied that the first workings are designed to remain stable and non-subsiding in the long-term, 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 resulting direct subsidence impacts.*

#### **Extraction Plan**

7. Prior to carrying out any first workings within the Cliff Line Zone and Zone of First Workings (refer to Figure 2 in Appendix 3) or second workings, the Applicant must prepare an Extraction Plan for the relevant workings to the satisfaction of the Secretary. Each Extraction Plan must:
  - (a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;
  - (b) provide a detailed justification for any proposed divergence from the advice of the IEP or **the Resources Regulator**;
  - (c) include detailed plans of existing and proposed first and second workings and overlying surface features, including the identification of appropriate setback distances between cliffs, steep slopes and pagodas and second workings and any applicable adaptive management measures;
  - (d) include adequate consideration of mine roof and floor conditions, pillar width to height ratio, final pillar design dimensions and the long-term stability of pillars, **following consultation with the IEP**;
  - (e) give express consideration to the design parameters underpinning the advice in the IPRP's report, and if the proposed mine layout diverges from these parameters, provide a detailed justification for the proposed divergence, **following consultation with the IEP**;
  - (f) **provide an assessment of the likely stability of cliff lines, pagodas and steep slopes, in consultation with the IEP**;
  - (g) provide revised predictions of the potential subsidence effects, subsidence impacts and environmental consequences of the proposed mining covered by the Extraction Plan, incorporating any relevant information obtained since this consent, **in consultation with the IEP**;
  - (h) describe in detail the performance indicators and measures that would be implemented to ensure compliance with the performance measures in Tables 1 and 2, and manage or remediate any impacts and/or environmental consequences to meet the rehabilitation objectives in **condition 27** of Schedule 4, **following consultation with the IEP**;
  - (i) include a:
    - (i) **Subsidence Monitoring Program** which has been prepared in consultation with the IEP, **Resources Regulator** and **BCD**, to:
      - monitor the subsidence effects and subsidence effects of the development;
      - develop effective remote monitoring techniques for the development;
      - monitor pillar loads underground to develop an understanding of the loading conditions on pillars in the vicinity of cliff lines, pagodas and steep slopes;
      - provide data to assist with the management of risks associated with subsidence;
      - validate the subsidence predictions;
      - analyse the relationship between the predicted and resulting subsidence effects and predicted and resulting impacts under the plan and any ensuing environmental consequences; and
      - inform the contingency plan and adaptive management process;
    - (ii) **Built Features Management Plan** which has been prepared in consultation with **Resources Regulator**, to manage the potential subsidence impacts of the proposed underground workings on built features, and which:
      - has been prepared in consultation with the owner/s of potentially affected feature/s;
      - addresses in appropriate detail all items of key public infrastructure and other public infrastructure and all classes of other built features;

- recommends appropriate pre-mining mitigation measures to reduce subsidence impacts; and
  - recommends appropriate remedial measures and includes commitments to mitigate, repair, replace or compensate predicted impacts on potentially affected built features in a timely manner;
- (iii) *Water Management Plan* which has been prepared in consultation with [BCD](#) and [the Water Division](#), which provides for the management of potential impacts and/or environmental consequences of the proposed underground workings on watercourses and aquifers, including:
- detailed baseline data on:
    - surface water flows and quality in Gap and Genowlan Creeks;
    - surface water flows in Airly village spring and the Grotto;
    - groundwater levels, yield and quality in the region;
  - surface and groundwater impact assessment criteria, including trigger levels for investigating any potentially adverse impacts on water resources or water quality;
  - a surface water monitoring program to monitor and report on:
    - stream flows and quality;
    - stream and riparian vegetation health;
    - channel and bank stability;
  - a groundwater monitoring program to monitor and report on:
    - springs, their discharge quantity and quality, as well as any associated groundwater dependent ecosystems;
    - groundwater inflows to the underground mining operations;
    - the height of groundwater depressurization;
    - background changes in groundwater yield/quality against mine-induced changes, in particular, on groundwater bore users;
    - permeability, hydraulic gradient, flow direction and connectivity of the deep and shallow groundwater aquifers;
  - a description of any adaptive management practices implemented to guide future mining activities in the event of greater than predicted impacts on aquatic habitat;
  - a program to validate the surface water and groundwater models for the development, and compare monitoring results with modelled predictions; and
  - a plan to respond to any exceedances of the surface water and groundwater assessment criteria.
- (iv) *Biodiversity Management Plan* which has been prepared in consultation with [DoEE](#) and [BCD](#), which provides for the management of potential impacts and/or environmental consequences of the proposed first and second workings on aquatic and terrestrial flora and fauna, with a specific focus on threatened species populations and their habitats, endangered ecological communities and groundwater dependent ecosystems including, but not limited to:
- *Pultenaea* sp. Genowlan Point;
  - Genowlan Point *Allocasuarina nana* Heathland;
  - *Prostanthera stricta* (Mount Vincent Mint-bush); and
  - *Eucalyptus cannonii* (Capertee Stringybark);
- (v) *Land Management Plan* which has been prepared in consultation with the IEP, [Resources Regulator](#), [BCD](#) and any affected public authorities, to manage the potential impacts and/or environmental consequences of the proposed underground workings on land in general, with a specific focus on cliffs, pagoda formations, steep slopes and gorges;
- (vi) *Heritage Management Plan* which has been prepared in consultation with [Heritage Division](#) and relevant Aboriginal stakeholders, to manage the potential environmental consequences of the proposed workings on Aboriginal and historic heritage and includes all requirements under [condition 19](#) of Schedule 4;
- (vii) *Public Safety Management Plan* which has been prepared in consultation with the IEP, [Resources Regulator](#) and [BCD](#) to ensure public safety and manage access on the site;
- (viii) include Trigger Action Response Plans, or equivalent, to prevent greater than predicted subsidence impacts and environmental consequences that may result from mining subsidence;
- (ix) include a contingency plan that expressly provides for adaptive management where monitoring indicates that there has been an exceedance of any performance measure in Tables 1 and 2, or where any such exceedance appears likely;
- (x) proposes appropriate revisions to the Rehabilitation Management Plan required under [condition 27](#) in Schedule 4; and
- (xi) include a program to collect sufficient baseline data for future Extraction Plans.

The Applicant must implement the approved Extraction Plan for the development.

Notes:

- *This condition does not apply to first or second workings which are covered by an Extraction Plan or Subsidence Management Plan approved, or under assessment as at the date of this development consent.*
- *In accordance with condition 4 in Schedule 6, the preparation and implementation of Extraction Plans may be staged, with each plan covering a defined area of underground workings. In addition, these plans are only required to contain management plans that are relevant to the specific underground workings that are being carried out.*
- *Due to the sensitive and rugged terrain of the Mugii Murum-ban State Conservation Area, the Applicant may propose remote subsidence monitoring techniques.*

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

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

## SCHEDULE 4 ENVIRONMENTAL PERFORMANCE CONDITIONS – GENERAL

### NOISE

#### Hours of Operation

- The Applicant must comply with the restrictions to operating hours in Table 3.

Table 3: Operating hours

Activity	Operating Hours
<ul style="list-style-type: none"> <li>Construction</li> <li>Exploration and monitoring borehole drilling</li> </ul>	7 am to 6 pm Monday to Friday and 8 am to 1 pm Saturdays.

#### Noise Criteria

- The Applicant must ensure that the noise generated by the development does not exceed the criteria in Table 4.

Table 4: Noise criteria dB(A)

Land	Day <i>L<sub>Aeq</sub>(15 min)</i>	Evening <i>L<sub>Aeq</sub>(15 min)</i>	Night <i>L<sub>Aeq</sub>(15 min)</i>	Night <i>L<sub>A</sub> (max)</i>
Any residence on privately-owned land	35	35	35	52
	<i>L<sub>Aeq</sub> (period)</i>			
R17 (camp ground)	50 (when in use)			N/A
R18 (Nissen Hut)	50 (when in use)			N/A

*Note: To interpret the locations referred to in Table 4 see the applicable figure(s) in Appendix 7.*

Noise generated by the development is to be measured in accordance with the relevant requirements of the *NSW Industrial Noise Policy*. Appendix 8 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 Applicant has a negotiated agreement with the owner/s of the relevant residence or land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.

#### Operating Conditions

- The Applicant must:
  - minimise the construction, road and rail noise of the development;
  - minimise the noise impacts of the development during meteorological conditions under which the noise limits in this consent do not apply (see Appendix 8);
  - carry out monitoring to determine whether the development is complying with the relevant conditions of this consent,  
to the satisfaction of the Secretary

#### Noise Management Plan

- Prior to carrying out any development under this consent, unless the Secretary agrees otherwise, the Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:
  - be prepared in consultation with the EPA;
  - describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions of this consent;
  - include a monitoring program that evaluates and reports on:
    - compliance against the noise criteria in this consent; and
    - compliance with the noise operating conditions in condition 3 above.

The Applicant must implement the approved Noise Management Plan for the development.

## AIR QUALITY

### Air Quality Criteria

5. 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 in Table 5 at any residence on privately-owned land.

Table 5: Air quality criteria

Pollutant	Averaging Period	Criterion	
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	a,d 25 µg/m <sup>3</sup>	
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	a 50 µg/m <sup>3</sup>	
Total suspended particulates (TSP)	Annual	a,d 90 µg/m <sup>3</sup>	
<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	a,d 4 g/m <sup>2</sup> /month

Notes to Table 5:

a Cumulative impact (ie increase in concentrations due to the development plus background concentrations due to all other sources).

b Incremental impact (ie increase in concentrations due to the development alone, with zero allowable exceedances of the criteria over the life of the development).

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.

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

e "Reasonable and feasible avoidance measures" includes, but is not limited to, the operational requirements in conditions 6 and 7 to develop and implement an air quality management system that ensures operational responses to the risks of exceedance of the criteria.

### Operating Conditions

6. The Applicant must:
  - (a) implement all reasonable and feasible measures to minimise the:
    - odour, fume and dust emissions of the development; and
    - release of greenhouse gas emissions from the development;
  - (b) minimise any visible air pollution generated by the development;
  - (c) minimise the surface disturbance of the site generated by the development; and
  - (d) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note d to Table 5 above),
 to the satisfaction of the Secretary.

### Air Quality Management Plan

7. Prior to carrying out any development under this consent, unless the Secretary agrees otherwise, the Applicant must prepare an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must:
  - (a) be prepared in consultation with the EPA;
  - (b) describe all reasonable and feasible measures which would be implemented to ensure compliance with the air quality criteria and operating conditions of this consent;
  - (c) describe the air quality management system in detail;
  - (d) include an air quality monitoring program that:
    - uses monitors to evaluate the performance of the development against the air quality criteria in this consent;
    - adequately supports the air quality management system;
    - evaluates and reports on:
      - the effectiveness of the air quality management system; and
      - compliance with the air quality criteria and operating conditions in condition 6 above;
    - 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.

The Applicant must implement the approved Air Quality Management Plan for the development.

## METEOROLOGICAL MONITORING

8. Prior to commencement of development under this consent and for the life of the development, the Applicant must ensure that there is a meteorological station 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 the *NSW Industrial Noise Policy*; and
  - (b) is capable of continuous real-time measurement of atmospheric stability category determined by the sigma theta method in accordance with the *NSW Industrial Noise Policy*.

## WATER

### Water Supply

9. The Applicant must ensure that it has sufficient water for all stages of the development, 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 Applicant is required to obtain the necessary water licences for the development.*

### Water Pollution

10. Unless an EPL authorises otherwise, the Applicant must comply with Section 120 of the POEO Act.

### Compensatory Water Supply

11. The Applicant must provide a compensatory water supply to the owner of any privately-owned land whose water supply is adversely and directly impacted (other than a negligible impact) as a result of the development, in consultation with [the Water Division](#), and to the satisfaction of the Secretary.

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

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

### Water Management Performance Measures

12. The Applicant must comply with the performance measures in Table 6 to the satisfaction of the Secretary.

Table 6: Water Management Performance Measures

Feature	Performance Measure
Water Management – General	<ul style="list-style-type: none"><li>Minimise the use of clean water on site</li><li>Minimise the use of the supplementary water supply from the production bore</li></ul>
Construction and operation of linear infrastructure	<ul style="list-style-type: none"><li>Design, install and maintain erosion and sediment controls generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction including Volume 1, Volume 2A – Installation of Services and Volume 2C – Unsealed Roads</i></li><li>Design, install and maintain infrastructure within 40 m of watercourses generally in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land (July 2012)</i>, or its latest version</li><li>Design, install and maintain creek crossings generally in accordance with <i>Policy and Guidelines for Fish Friendly Waterway Crossings (NSW Fisheries 2003)</i> and <i>Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries 2003)</i>, or their latest versions</li></ul>
Sediment dams	<ul style="list-style-type: none"><li>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></li></ul>

<b>Feature</b>	<b>Performance Measure</b>
Mine water storages	<ul style="list-style-type: none"> <li>Design, install and maintain mine water storage infrastructure to ensure no unlicensed or uncontrolled discharge of mine water off-site</li> <li>Minimise discharges to surface waters as far as reasonable and practicable</li> <li>New on-site storages (including mine infrastructure dams, groundwater storage and treatment dams) are suitably treated to comply with a permeability standard of <math>&lt; 1 \times 10^{-9}</math> m/s</li> <li>Achieve an improvement in the quality of water held in the 35 ML dam generally in accordance with Figure 6-7 in Appendix F of the EIS (surface water impact assessment) over the life of the mine.</li> </ul>
Water discharge to Airly Creek	<ul style="list-style-type: none"> <li>No greater impacts than predicted in the EIS for water flow and quality in Airly Creek between LDP 001 and Point 4 (refer Appendix 9)</li> <li>Negligible environmental consequences for water quality (ie. protection to 99% of all species in accordance with ANZECC guidelines) and flow in Airly Creek where it enters the Gardens of Stone National Park and Greater Blue Mountains World Heritage Area</li> </ul>
Gap and Genowlan Creeks	<ul style="list-style-type: none"> <li>No greater impact than predicted in the EIS for water flow and quality</li> </ul>
Emplacement of CHPP rejects	<ul style="list-style-type: none"> <li>Emplacement, and/or encapsulation and/or capping to prevent or minimise the migration of pollutants due to seepage from the REA</li> </ul>
Chemical and petroleum storage	<ul style="list-style-type: none"> <li>Chemical and hydrocarbon products to be stored in bunded areas in accordance with relevant Australian Standards</li> </ul>
Aquatic and riparian ecosystems	<ul style="list-style-type: none"> <li>Maintain or improve baseline channel stability</li> <li>Develop site-specific water quality objectives in accordance with ANZECC Guidelines and <i>Using the ANZECC Guidelines and Water Quality Objectives in NSW</i> procedures (DECC 2006) or its latest version</li> </ul>

### Water Management Plan

13. Prior to carrying out any development under this consent, unless the Secretary agrees otherwise, the Applicant must prepare a Water Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with the DoEE, EPA and the Water Division, by suitably qualified and experienced person/s whose appointment has been approved by the Secretary;
  - include detailed performance criteria and describe measures to ensure that the Applicant complies with the Water Management Performance Measures (see Table 6);
  - in addition to the standard requirements for management plans (see condition 3 of Schedule 6), this plan must include a:
    - Site Water Balance, that:
      - includes details of:
        - sources and security of water supply, including contingency supply for future reporting periods;
        - water use and management on site;
        - any off-site water discharges; and
        - 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;
    - Surface Water Management Plan, that includes:
      - detailed baseline data on water flows and quality in the watercourses that could potentially be affected by the development, including, but not limited to Gap, Genowlan and Airly Creeks;
      - continuous flow monitoring at Airly village spring and the Grotto;
      - provisions for the recalculation of site-specific trigger values in relation to water discharges to Airly Creek once a minimum of two years data is obtained from the Airly Creek 'U/S' monitoring location (refer Appendix 9) in accordance with ANZECC guidelines;
      - the provision and implementation of adaptive management measures to ensure that subsequent water discharges to Airly Creek comply with the recalculated site-specific trigger values derived from the Airly Creek 'U/S' monitoring location;
      - a detailed description of the water management system, including the:
        - clean water diversion systems;
        - erosion and sediment controls (mine water system); and



- mine water management systems;
  - detailed objectives and performance criteria, including trigger levels for investigating any potentially adverse impacts associated with the development for:
    - downstream surface water quality;
    - downstream water users, including with respect to any subsidence-related flow reductions in Gap and Genowlan Creeks;
    - stream and riparian vegetation health in Gap, Genowlan and Airly Creeks within and immediately outside of the site;
    - 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:
    - effectiveness of the mine water management system;
    - surface water flows, quality and geomorphology of the watercourses potentially affected by the development within and immediately outside of the site;
    - the performance measures listed in Table 6 including, but not limited to event-based monitoring of the hydrology, quality, ecotoxicology and chemical composition of water in Airly Creek under discharge conditions at points 5 and 6 (refer Appendix 9), or as otherwise determined in consultation with the EPA, to ensure that protection is provided to 99% of all species in the Gardens of Stone National Park and Greater Blue Mountains World Heritage Area in accordance with ANZECC Guidelines;
  - reporting procedures for the results of the monitoring program; and
  - a 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 downstream water user under [condition 11](#) of this Schedule;
- (iii) Groundwater Management Plan, which is consistent with [the NSW Government](#) guideline entitled *Groundwater Monitoring and Modelling Plans – Introduction for prospective mining and petroleum activities*, and includes:
- detailed baseline data of groundwater levels, yield and quality in the region that could be affected by the development, including licensed privately-owned groundwater bores and a detailed survey/schedule of groundwater dependent ecosystems (including springs and their discharge quantity and quality);
  - consultation with [the Water Division](#) on the installation of all new monitoring bores, the scheduled sampling and quality determination of parameters for monitoring bores;
  - groundwater assessment criteria including trigger levels for investigating any potentially adverse groundwater impacts;
  - a program to monitor and report on:
    - springs and their discharge quantity and quality;
    - groundwater inflows transferred to the surface water management system;
    - the seepage/leachate from water storages and emplacements;
    - impacts of the development on:
      - regional and local (including alluvial) aquifers;
      - groundwater supply of potentially affected landowners; and
      - groundwater dependent ecosystems (including rules for the management of groundwater level impacts to protect GDEs), and riparian vegetation;
  - a program to monitor and report on stygofauna and hyporheic fauna;
  - a program to review and validate the groundwater model for the development, including independent expert review; and
  - a plan to respond to any exceedances of the performance measures.

The Applicant must implement the approved Water Management Plan for the development.

### Independent Expert Review

14. As part of any Independent Environmental Audit of the development (see condition 12 of schedule 6), the Applicant must commission an independent expert whose appointment has been endorsed by the Secretary, to carry out a review of the Groundwater Management Plan for the development, including the groundwater model. This review must include a:
- (a) review of all available monitoring data;
  - (b) comparison of predicted and actual groundwater impacts; and
  - (c) review of the effectiveness of the Groundwater Management Plan for the development, including the groundwater model.

## BIODIVERSITY

### Biodiversity Management Plan

15. Prior to carrying out any development under this consent that would cause surface disturbance, the Applicant must prepare a Biodiversity Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with BCD and DoEE;
  - (b) establish baseline data for the existing remnant vegetation and habitat on site, including mapping of the location of the *Pultenaea* sp. Genowlan Point;
  - (c) describe the short, medium, and long-term measures that would be implemented to manage the remnant vegetation and habitat on the site, including but not limited to;
    - *Prostanthera stricta* (Mt Vincent Mint-bush);
    - *Eucalyptus cannonii* (Capertee Stringybark);
    - *Pultenaea* sp. Genowlan Point; and
    - Genowlan Point *Allocasurina nana* Heathland;
  - (d) include a detailed description of the measures that would be implemented to:
    - minimise the impacts to fauna on site, including undertaking pre-clearance surveys;
    - avoid and mitigate the spread of *Phytophthora cinnamomi* (*P. cinnamomi*);
    - control weeds and feral pests including, but not limited to goats, rabbits, European Red Fox, cats and pigs;
    - manage salinity;
    - control erosion;
    - control access; and
    - manage bushfire risk;
  - (e) include a program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria; and
  - (f) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

The Applicant must implement the approved Biodiversity Management Plan for the development.

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

## TRANSPORT

### Monitoring of Coal Transport

16. The Applicant must monitor and report on:
- (a) the amount of coal transported from the site; and
  - (b) the date and time of each train movement to and from the site;
- to the satisfaction of the Secretary.

### Traffic Management Plan

17. Prior to the commencement of construction activities approved under this consent or within three months of the commencement of development under this consent (whichever is sooner), the Applicant must prepare a Traffic Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with RMS and Council;
  - (b) include measures to minimise the traffic impacts to Glen Davis Road and in the village of Capertee that may occur during the construction of new and/or upgraded surface infrastructure at the pit top; and
  - (c) a program to monitor and report on the effectiveness of these measures.

The Applicant must implement the approved Traffic Management Plan for the development.

## HERITAGE

### Protection of Aboriginal Sites

18. Unless otherwise authorised under the *National Parks and Wildlife Act 1974*, the Applicant must ensure that the development does not cause any direct or indirect impact on identified Aboriginal sites.

*Note: Aboriginal heritage sites are identified in Appendix 6.*

## Heritage Management Plan

19. Prior to carrying out any development under this consent that would cause surface disturbance, the Applicant must prepare a Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared by suitably qualified and experienced person/s whose appointment has been endorsed by the Secretary;
  - (b) be prepared in consultation with [Heritage Division](#), Council, any relevant local historical organisations (in relation to non-Aboriginal heritage) and local Aboriginal stakeholders (in relation to Aboriginal heritage);
  - (c) include a description of the measures that would be implemented for:
    - managing the discovery of human remains or previously unidentified heritage items on site; and
    - ensuring any workers on site receive suitable heritage inductions and that suitable records are kept of these inductions;
  - (d) include the following for the management of Aboriginal heritage:
    - a description of the measures that would be implemented for:
      - protecting, monitoring and/or managing (including any proposed archaeological investigations and/or salvage measures) the heritage items identified in Appendix 5;
      - managing the discovery of previously unidentified Aboriginal items on site;
      - conserving the sites outside the surface disturbance area (see Appendix 5);
      - maintaining and managing reasonable access for Aboriginal stakeholders to heritage items on site;
      - ongoing consultation with the Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on site; and
  - (e) include the following for the management of non-Aboriginal heritage items:
    - a description of the measures that would be implemented for:
      - protecting, monitoring and managing the heritage items identified in Appendix 6; and
      - managing the discovery of previously unidentified cultural heritage items on site.

*Note: This plan can be incorporated in a regional Aboriginal Cultural Heritage Management Plan for Centennial's other mines and mine infrastructure in the Lithgow Local Government Area.*

The Applicant must implement the approved Heritage Management Plan for the development.

## VISUAL

### Visual Screening of Reject Emplacement Area

20. The Applicant must:
- (a) plant trees at the basal area of the proposed reject emplacement area (REA) to minimise views of the REA to travellers along Glen Davis Road;
  - (b) **carry out tree planting in the road reserve of the Castlereagh Highway in locations where the REA is visible, in consultation with the relevant road authority;**
  - (c) complete this tree planting at least three months prior to constructing the proposed REA; and
  - (d) maintain this tree screening over the life of the mine to the satisfaction of the Secretary.

### Operating Conditions

21. The Applicant must:
- (a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development;
  - (b) ensure that all external lighting associated with the development complies with *Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting* or its latest version;
  - (c) 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 Secretary.

## BUSHFIRE MANAGEMENT

22. The Applicant must:
- (a) ensure that the development is suitably equipped to respond to any fires on site; and
  - (b) assist the Rural Fire Service, emergency services and NPWS as much as possible if there is a fire in the surrounding area.

## WASTE

23. The Applicant must:
- (a) implement all reasonable and feasible measures to minimise the waste (including coal reject) generated by the development;
  - (b) ensure that the waste generated by the development is appropriately stored, handled and disposed of; and
  - (c) monitor and report on the effectiveness of waste minimisation and management measures in the Annual Review, to the satisfaction of the Secretary.

## EXPLORATION ACTIVITIES & SURFACE INFRASTRUCTURE

### Exploration Activities and Minor Surface Infrastructure Management Plan

24. Prior to carrying out exploration activities on site under this consent that would cause surface disturbance or the construction and/or upgrade of minor surface infrastructure, the Applicant must prepare an Exploration Activities and Minor Surface Infrastructure Management Plan for the development to the satisfaction of the Secretary. This Plan must:
- (a) be prepared by suitably qualified and experienced person/s whose appointment has been endorsed by the Secretary;
  - (b) be prepared in consultation with [the Resources Regulator](#) and BCD;
  - (c) include a description of the measures that would be implemented for:
    - managing exploration activities on site;
    - managing construction and operation of minor surface infrastructure (including groundwater monitoring bores) and associated access tracks;
    - consulting with and addressing concerns of affected landowners;
    - avoiding threatened species, populations or their habitats and EECs;
    - minimising clearance and disturbance of native vegetation;
    - minimising erosion and sedimentation;
    - achieving applicable standards and goals; and
    - rehabilitating disturbed areas.

The Applicant must implement the approved Exploration Activities and Minor Surface Infrastructure Management Plan for the development.

*Note: This condition does not apply to the construction of approved surface infrastructure in the Airly Pit Top area.*

## REHABILITATION

### Rehabilitation Objectives

25. The Applicant must rehabilitate the site to the satisfaction of the [Resources Regulator](#). This rehabilitation must be generally consistent with the proposed Rehabilitation Strategy described in the EIS (and depicted conceptually in Appendix 10) and comply with the objectives in Table 7.

Table 7: Rehabilitation objectives

Feature	Objective
Site (as a whole)	<ul style="list-style-type: none"><li>• Safe, stable and non-polluting</li></ul>
Surface Infrastructure	<ul style="list-style-type: none"><li>• To be decommissioned and removed, unless <a href="#">the Resources Regulator</a> agrees otherwise</li><li>• The Reject Emplacement Area and all surface infrastructure is to be made safe and hydraulically and geotechnically stable</li><li>• All surface infrastructure sites are to be revegetated with suitable local native plant species to a landform consistent with the surrounding environment</li></ul>
Rehabilitation materials	<ul style="list-style-type: none"><li>• Materials from areas disturbed under this consent (including topsoils, substrates and seeds) are to be recovered, managed and used as rehabilitation resources</li></ul>
REA	<ul style="list-style-type: none"><li>• The REA is to be revegetated with suitable local native plant species, and to a landform consistent with the surrounding environment</li></ul>

<b>Feature</b>	<b>Objective</b>
	<ul style="list-style-type: none"> <li>Capping materials (including depth of application) are to be approved by <a href="#">the Resources Regulator</a> prior to capping</li> </ul>
Revegetated final landforms	<ul style="list-style-type: none"> <li>Stable and sustain the intended land use</li> <li>Consistent with surrounding topography to minimise visual impacts</li> <li>Incorporate relief patterns and design principles consistent with natural drainage</li> </ul>
Native flora and fauna	<ul style="list-style-type: none"> <li>Flora species used in rehabilitation selected to re-establish and complement local and regional biodiversity</li> <li>Rehabilitated areas contribute to achieving self-sustaining biodiversity habitats</li> </ul>
Cliffs and steep slopes	<ul style="list-style-type: none"> <li>No additional risk to public safety compared to pre-mining conditions</li> </ul>
All watercourses subject to mine-water discharges and/or subsidence impacts	<ul style="list-style-type: none"> <li>Hydraulically and geomorphologically stable, with aquatic ecology and riparian vegetation that is the same, or better than prior to grant of this consent</li> </ul>
Water quality	<ul style="list-style-type: none"> <li>Water retained on 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>
Community	<ul style="list-style-type: none"> <li>Ensure public safety</li> <li>Minimise the adverse socio-economic effects of mine closure</li> </ul>

*Note: These rehabilitation objectives apply to all subsidence impacts and environmental consequences caused by mining taking place after the date of this consent, and to all surface infrastructure part of the project, whether constructed prior to or following the date of this consent.*

### **Progressive Rehabilitation**

26. The Applicant must rehabilitate the site progressively, that is, 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.

### **Rehabilitation Management Plan**

27. Prior to carrying out any development under this consent, unless the Secretary agrees otherwise, the Applicant must prepare a Rehabilitation Management Plan for the development to the satisfaction of the [Resources Regulator](#). This plan must:
- be prepared in consultation with the Department, [the Water Division](#), [BCD](#), Council and the CCC;
  - be prepared in accordance with any relevant [Resources Regulator](#) guideline;
  - include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);
  - 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;
  - include the design and implementation of a Closure Groundwater Monitoring and Management Plan, which:
    - assists in restoring natural groundwater flow to pre-mining conditions to the maximum extent possible;
    - includes the implementation of appropriate mitigation strategies to reduce adverse groundwater impacts to seeps, springs and flows in terms of acidity, salinity or location;
    - involves the removal of all non-natural material from within the mine not required for groundwater or subsidence management and describe measures that would be implemented to prevent polluting materials from entering the mine so as to not affect groundwater quality;
  - include interim rehabilitation where necessary to minimise the area exposed for dust generation;
  - include a program to monitor, independently audit and report on the effectiveness of the rehabilitation measures and progress against the detailed performance and completion criteria; and
  - build to the maximum extent practicable on the other management plans required under this consent.

The Applicant must implement the approved Rehabilitation Management Plan for the development.

*Note: The Biodiversity Management Plan and Rehabilitation Management Plan require substantial integration to achieve biodiversity objectives for the rehabilitated mine site.*

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## **SCHEDULE 5 ADDITIONAL PROCEDURES**

### **NOTIFICATION OF LANDOWNERS/TENANTS**

1. As soon as practicable after obtaining monitoring results showing:
  - (a) an exceedance of any relevant criteria in Schedule 4, the Applicant must notify the affected landowners in writing of the exceedance, and provide regular monitoring results to these landowners until the project is again complying with the relevant criteria; and
  - (b) an exceedance of the relevant air quality criteria in Schedule 4, the Applicant 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**

2. If an owner of privately-owned land considers the project to be exceeding the relevant criteria in Schedule 4, 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 Applicant 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 4; 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.
-

## **SCHEDULE 6**

### **ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING**

#### **ENVIRONMENTAL MANAGEMENT**

##### **Environmental Management Strategy**

1. Prior to carrying out any development under this consent, the Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:
  - (a) be submitted to the Secretary for approval, unless otherwise agreed;
  - (b) provide the strategic framework for environmental management of the development;
  - (c) identify the statutory approvals that apply to the development;
  - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;
  - (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 mine;
    - receive, handle, respond to, and record complaints;
    - resolve any disputes that may arise during the course of the development;
    - respond to any non-compliance;
    - respond to emergencies; and
  - (f) include:
    - copies of any strategies, plans and programs approved under the conditions of this consent; and
    - a clear plan depicting all the monitoring to be carried out in relation to the development.

The Applicant must implement the approved Environmental Management Strategy for the development.

##### **Management Plan Requirements**

2. The Applicant must ensure that the management plans required under this consent 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 or triggers that are proposed to be used to judge the performance of, or guide the implementation of, the development 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 development;
    - effectiveness of any management measures (see c above);
  - (e) a contingency plan to manage any unpredicted impacts and their consequences;
  - (f) a program to investigate and implement ways to improve the environmental performance of the development 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.

##### **Revision of Strategies, Plans and Programs**

3. Within 3 months of:
  - (a) the submission of an incident report under [condition 9](#) below;
  - (b) the submission of an annual review under [condition 11](#) below;
  - (c) the submission of an audit report under [condition 12](#) below; or
  - (d) any modification to the conditions of this consent, (unless the conditions require otherwise),the Applicant must review the strategies, plans, and programs required under this consent, to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted for the approval of the Secretary.

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



## Updating & Staging of Strategies, Plans or Programs

4. 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 development, the Applicant may submit revised strategies, plans or programs required under this consent at any time. With the agreement of the Secretary, the Applicant may also submit any strategy, plan or program required by this consent on a staged basis.

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 Applicant may prepare the revised or staged strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition in this consent.

### Notes:

- While any strategy, plan or program may be submitted on a staged basis, the Applicant must ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times.
- If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.

## Relationships between Management Plans

5. The Water, Biodiversity and Heritage Management Plans required by conditions 13, 15 and 19 of Schedule 4, respectively, are to be prepared in respect of all parts of the development that are not covered by an Extraction Plan approved under condition 7 of Schedule 3. In particular, those management plans should address all areas subject to existing or proposed surface disturbance associated with the development.

## Consolidation of Strategies, Plans or Programs

6. With the approval of the Secretary, the Applicant may incorporate any strategies, plans or programs required by this consent (except those required under condition 7 of Schedule 3) with the strategies, plans and programs required for Centennial Coal's mining operations in the Lithgow Local Government Area.

## Adaptive Management

7. The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the performance measures and/or criteria in Schedules 3 and 4. Any exceedance of these performance measures and/or criteria 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 and/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 remediation measures as directed by the Secretary, to the satisfaction of the Secretary.

## COMMUNITY CONSULTATIVE COMMITTEE

8. The Applicant must operate a Community Consultative Committee (CCC) for the development to the satisfaction of the Secretary. This CCC must be operated in accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007) or its latest version.

*Notes: The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent.*

## REPORTING

### Incident Reporting

9. The Applicant must immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Applicant 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 Applicant must provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.

## **Annual Review**

11. By the end of March each year following the commencement of development under this consent, or other timing as may be agreed by the Secretary, the Applicant must submit a report to the Department reviewing the environmental performance of the development to the satisfaction of the 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, which includes a comparison of these results against the:
    - the relevant statutory requirements, limits or performance measures/criteria;
    - the monitoring results of previous years; and
    - the relevant predictions in the documents listed under condition 2(a) and the IPRP's Report;
  - (c) identify any non-compliance over the last 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 development;
  - (e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
  - (f) describe what measures will be implemented over the next year to improve the environmental performance of the development.

## **INDEPENDENT ENVIRONMENTAL AUDIT**

### **Independent Environmental Audit**

12. Within one year of the date of commencement and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. 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 development and assess whether it is complying with the requirements in this consent, and any other relevant approvals, relevant EPL/s and/or Mining Lease/s (including any assessment, plan or program required under these approvals);
  - (d) review the adequacy of any strategies, plans or programs required under the abovementioned approvals; and
  - (e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any strategy, plan or program required under these approvals; and
  - (f) be conducted and reported to the satisfaction of the Secretary.

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

13. Within 12 weeks of commissioning this audit, or as otherwise agreed by the Secretary, the Applicant 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 Applicant must implement these recommendations, to the satisfaction of the Secretary.

## **ACCESS TO INFORMATION**

14. The Applicant must:
  - (a) make the following information publicly available on its website:
    - the documents listed under condition 2(a);
    - the IPRP's report;
    - all current statutory approvals for the development;
    - approved strategies, plans or programs required under the conditions of this consent;
    - a comprehensive summary of the monitoring results of the development, which have been reported in accordance with the various plans and programs approved under the conditions of this consent;
    - a complaints register, which is to be updated on a monthly basis;
    - minutes of CCC meetings;
    - the last five annual reviews;

- any independent environmental audit, and the Applicant's response to the recommendations in any audit;
  - any report and/or advice issued by the IEP to the Applicant in respect of a draft or approved Extraction Plan;
  - any other matter required by the Secretary; and
- (b) keep this information up to date,  
to the satisfaction of the Secretary.
-

**APPENDIX 1  
SCHEDULE OF LAND**

Property ID	Lot/Section No./ Deposited Plan
1	1/1/152312
2	4/1/152312
3	2/1/152312
4	3/1/152312
5	5/1/152312
6	3/1/758011
7	14/755757
8	1/1/758011
9	4/1/758011
10	154/722292
11	7020/1029319
12	13/755786
13	66/722329
14	68/722329
15	81/755757
16	117/755757
17	112/755757
18	124/755757
19	102/755757
20	94/755757
21	104/755757
22	105/755757
23	95/755757
24	33/755757
25	98/755757
26	91/755757
27	11/1/758011
28	7/3/758011
29	12/1118801
30	7026/1050399
31	7304/1130566

Property ID	Lot/Section No./ Deposited Plan
32	21/1118800
33	20/1118800
34	23/1118800
35	7/1118784
36	10/1118784
37	13/1118784
38	8/1118784
39	16/1118801
40	100/755757
41	7018/1051447
42	7014/1057742
43	83/755757
44	113/755757
45	121/755757
46	7022/1050402
47	67/722329
48	7016/1114802
49	7300/1130496
50	162/758011
51	6/2/758011
52	5/2/758011
53	8/1/758011
54	9/1/758011
55	5/3/758011
56	4/3/758011
57	8/3/758011
58	5/755766
59	7023/1050402
60	56/755786
61	3/2/758011
62	1/577478

Property ID	Lot/Section No./ Deposited Plan
63	4/755766
64	1/1007126
65	4/2/758011
66	1/755766
67	12/755786
68	3/755766
69	19/755766
70	5/1/758011
71	51/755786
72	2/1/758011
73	7021/1050431
74	7001/1057060
75	97/755757
76	119/755757
77	22/755786
78	116/755757
79	79/755757
80	109/755757
81	107/755757
82	90/755757
83	126/755757
84	120/755757
85	110/755757
86	108/755757
87	99/755757
88	115/755757
89	6/3/758011
90	1/2/758011
91	1/3/758011
92	2/3/758011
93	3/3/758011

Property ID	Lot/Section No./ Deposited Plan
94	9/3/758011
95	123/755757
96	34/755757
97	10/1118781
98	7303/1130566
99	18/1118800
100	19/1118800
101	22/1118800
102	11/1118784
103	14/1118784
104	13/1118801
105	14/1118801
106	15/1118801
107	24/1118800
108	9/1118784
109	12/1118784
110	101/755757
111	96/755757
112	106/755757
113	78/755757
114	89/755757
115	118/755757
116	82/755757
117	7001/1028024
118	7024/1050402
119	39/755786
120	125/755757
121	80/755757
122	42/755757
123	103/755757
124	7025/1050399

Property ID	Lot/Section No./ Deposited Plan
125	7031/1/116097
126	7032/1/116097
127	7034/1/116073
128	7300/1/130282
129	114/7/55757
130	28/7/55786
131	10/1/758011
132	17/2/758011
133	2/2/758011
134	15/2/758011
135	60/7/55757
136	6/1/758011
137	7/1/758011
138	701/1/1058328
139	4/5/77478
140	7018/1/1030008
141	71/7/55758
142	100/849168
143	7037/1/1065193
144	72/7/55758
145	7021/1/1030009
146	65/7/55786
147	3/5/77478
148	7017/1/1029387
149	701/1/1030007
150	703/1/1030007
151	701/1/1058325
152	70/7/55758
153	7036/1/1065193
154	63/7/55758
155	7027/1/1066212

Property ID	Lot/Section No./ Deposited Plan
156	89/7/55758
157	7016/1/1029387
158	7025/1/1066211
159	7014/1/1029387
160	9/6/55050
161	702/1/1058325
162	702/1/1058328
163	7024/1/1066211
164	7026/1/1066212
165	704/1/1030007
166	11/7/55757
167	702/1/1030007
168	2/5/77478
169	7015/1/1029387
170	54/7/55786
171	7300/1/126380
172	7301/1/126380
173	7023/1/116918
174	7005/1/116573
175	7006/1/116573
176	7024/1/116919
177	7303/1/130728
178	7302/1/130590
179	1/864999
180	7004/1/1029383
181	2/864999
182	10/7/55758
183	22/650039
184	7035/1/117631
185	7033/1/116073
186	7013/1/1057515

Property ID	Lot/Section No./ Deposited Plan
187	94/7/55758
188	93/7/55758
189	7020/1/1030008
190	7022/1/1029388
191	102/1/1079781
192	103/1/1079781
193	7013/1/1029386
194	111/7/55758
195	7001/1/1029380
196	13/7/55758
197	5/986083
198	7/1/244899
199	39/7/46912
200	10/1/132551
201	17/7/55758
202	2/1/131546
203	44/7/55758
204	28/7/55758
205	37/7/46912
206	25/7/55758
207	7002/1/1029380
208	A/349704
209	9/7/55758
210	1/346651
211	107/7/55758
212	36/7/55758
213	16/7/55758
214	41/7/55758
215	23/7/55758
216	6/1/131546
217	46/7/55758

Property ID	Lot/Section No./ Deposited Plan
218	38/7/46912
219	5/1/131546
220	18/244899
221	24/7/55758
222	8/7/55758
223	C/349704
224	1/1/19590
225	3/1/131546
226	45/7/55758
227	B/349704
228	1/1/1072590
229	32/7/55758
230	19/244899
231	14/244899
232	110/7/55758
233	20/244899
234	4/1/131546
235	78/7/55758
236	15/7/55758
237	15/244899
238	41/7/46912
239	55/7/55758
240	40/7/46912
241	1/1/131546
242	22/7/55758
243	16/244899
244	2/927952
245	1/927952
246	18/1/106972
247	7010/1/1021311
248	1/1/115443

Property ID	Lot/Section No./ Deposited Plan
249	1/1/22407
250	42/755758
251	112/755758
252	31/755758
253	26/755758
254	27/755758
255	29/755758
256	30/755758
257	7019/1030008
258	82/755758
259	1/197770
260	126/722134
261	7029/1065275
262	81/755758
263	153/257075
264	142/755757
265	7009/1029698
266	4/755757
267	67/755758
268	17/755757
269	92/755757
270	156/722330
271	102/610704
272	94/755778
273	13/244899
274	86/755757
275	51/755757
276	133/755757
277	85/755757
278	603/615881
279	101/610704

Property ID	Lot/Section No./ Deposited Plan
280	185/755778
281	164/48336
282	2/132549
283	2/379339
284	87/755757
285	35/755758
286	231/1012729
287	159/722293
288	77/755757
289	1/194534
290	2/813231
291	25/665681
292	601/615881
293	2/547497
294	128/755757
295	1/1070723
296	54/755757
297	163/48336
298	47/755758
299	77/755758
300	7015/1057714
301	3/792135
302	58/755757
303	1/132549
304	134/755757
305	1/564345
306	10/755757
307	49/755757
308	135/755757
309	75/755757
310	2/792135

Property ID	Lot/Section No./ Deposited Plan
311	3/709009
312	233/1012729
313	7008/1029698
314	111/755757
315	31/755757
316	55/755757
317	4/709009
318	48/755758
319	6/665679
320	79/755758
321	25/665682
322	141/755757
323	56/755757
324	40/755757
325	3/565109
326	7003/1056814
327	232/1012729
328	132/755757
329	59/755757
330	129/755757
331	4/792135
332	1/831104
333	1/195875
334	157/722330
335	7012/1056868
336	15/755757
337	7028/1029701
338	7029/1075846
339	83/755758
340	70/755757
341	43/755757

Property ID	Lot/Section No./ Deposited Plan
342	7038/1117632
343	158/722293
344	139/755757
345	93/755757
346	7037/1117633
347	7036/1117631
348	137/755757
349	13/755757
350	136/755757
351	20/755757
352	18/755757
353	27/755757
354	41/755757
355	26/755757
356	47/755757
357	24/755757
358	50/755757
359	7002/1058210
360	7302/1130728
361	7304/1130728
362	7028/1065275
363	21/755758
364	35/755786



The map displays the Airly area in Northern Ireland, highlighting the proposed Airly Water Treatment Works. Key features include:

- Water Bodies and Creeks:** Airly Creek, Airly Gap, Airly Pit Top, Airly Pond, Airly Dam, Airly Discharge Dam, Airly Filter Pond, Airly Settling Pond, Airly Trainloader Dam, Airly 7 ML Dam, Airly 109 ML Dam, Airly 35 ML Discharge Dam, Airly 109 ML Dam, Airly Filter Pond, Airly Settling Pond, Airly Trainloader Dam, Airly 7 ML Dam, Airly 109 ML Dam, Airly 35 ML Discharge Dam.
- Roads:** A1, A10, A101, A101A, A101B, A101C, A101D, A101E, A101F, A101G, A101H, A101I, A101J, A101K, A101L, A101M, A101N, A101O, A101P, A101Q, A101R, A101S, A101T, A101U, A101V, A101W, A101X, A101Y, A101Z.
- Other Features:** Airly Water Treatment Works, Airly Water Treatment Works (Proposed), Airly Water Treatment Works (Existing), Airly Water Treatment Works (Future), Airly Water Treatment Works (Other).

**LEGEND**

- Wellcourse
- Rail
- Main Road
- Dam
- Project Application Area
- A032 Authorisation Boundary (Offered for Client)
- ML331 Current Lease Boundary (Offered for Client)
- Major Mineral Lease Conservation Area

**Figure 1.3: Project Application Area and Mining Tenements**

Scale: 0 to 220,000

North Arrow

Map Labels: Newcastle, Sydney, Lithgow, SAG

Table:

DATE	SEAM	REFERENCE	SCALE
17/04/2014	LITHGOW	37623024-R	1:50,000

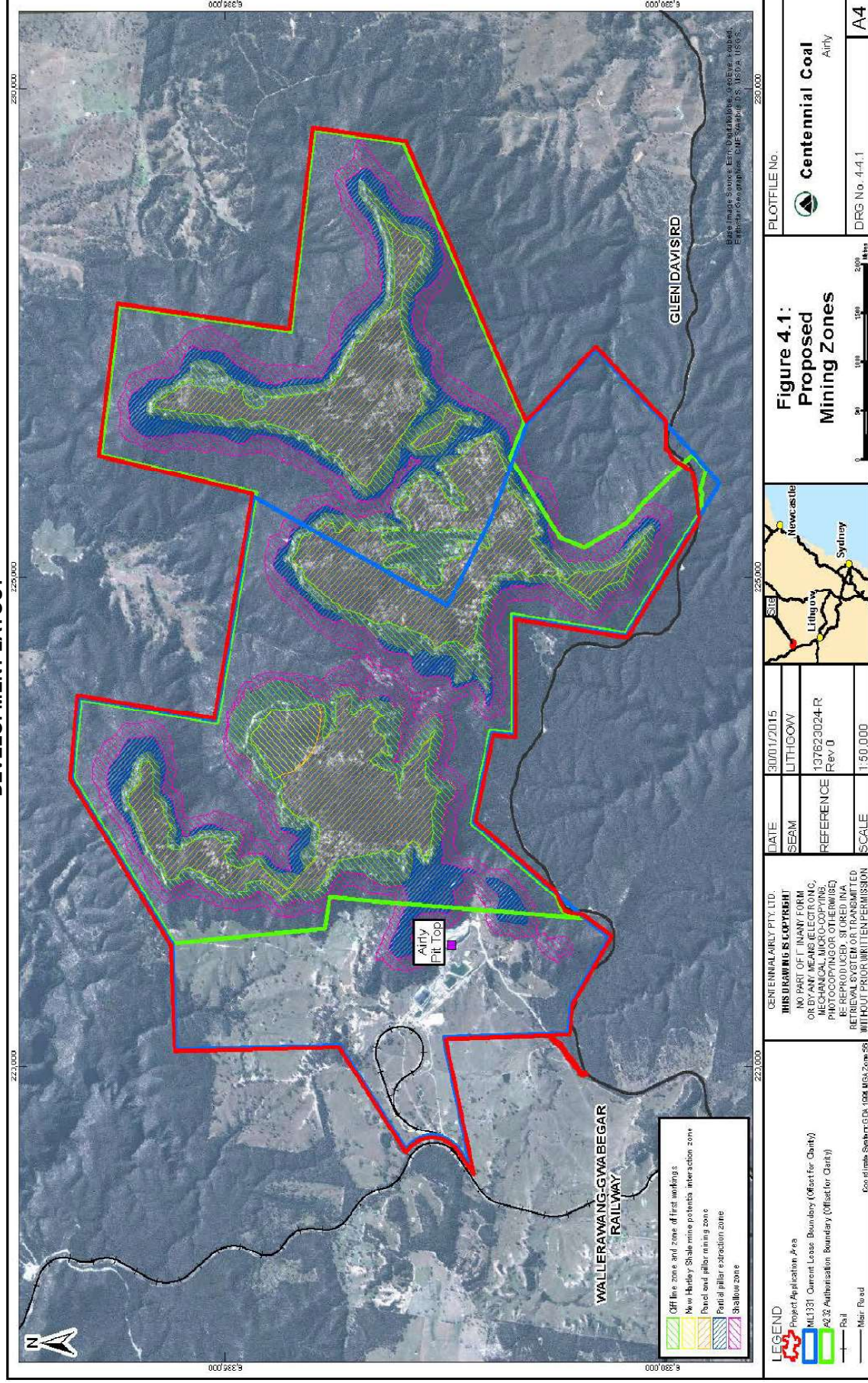
Centennial Airly Pty. Ltd.  
THIS DRAWING IS COPYRIGHT  
NO PART OF IT IN ANY FORM  
OR BY ANY MEANS (ELECTRONIC,  
PHOTO COPYING OR OTHERWISE)  
BE REPRODUCED, STORED IN A  
RETRIEVABLE MEDIUM OR IN ANY MANNER  
WITHOUT PRIOR WRITTEN PERMISSION

PLOTFILE No. Centennial Coal Airly  
DRG No. 1-1-3  
A4

30



# APPENDIX 3 DEVELOPMENT LAYOUT





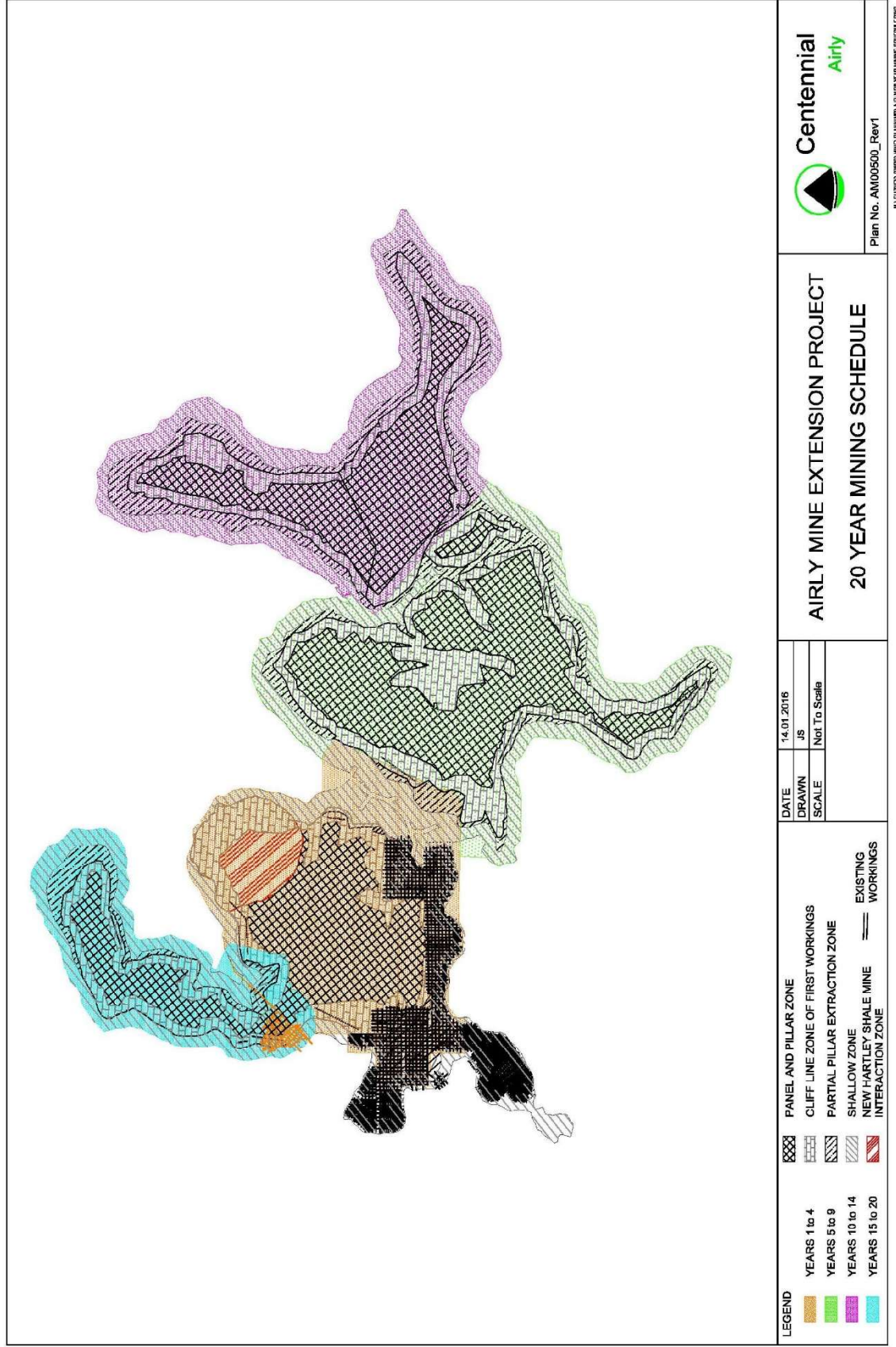


Figure 3: Mining schedule



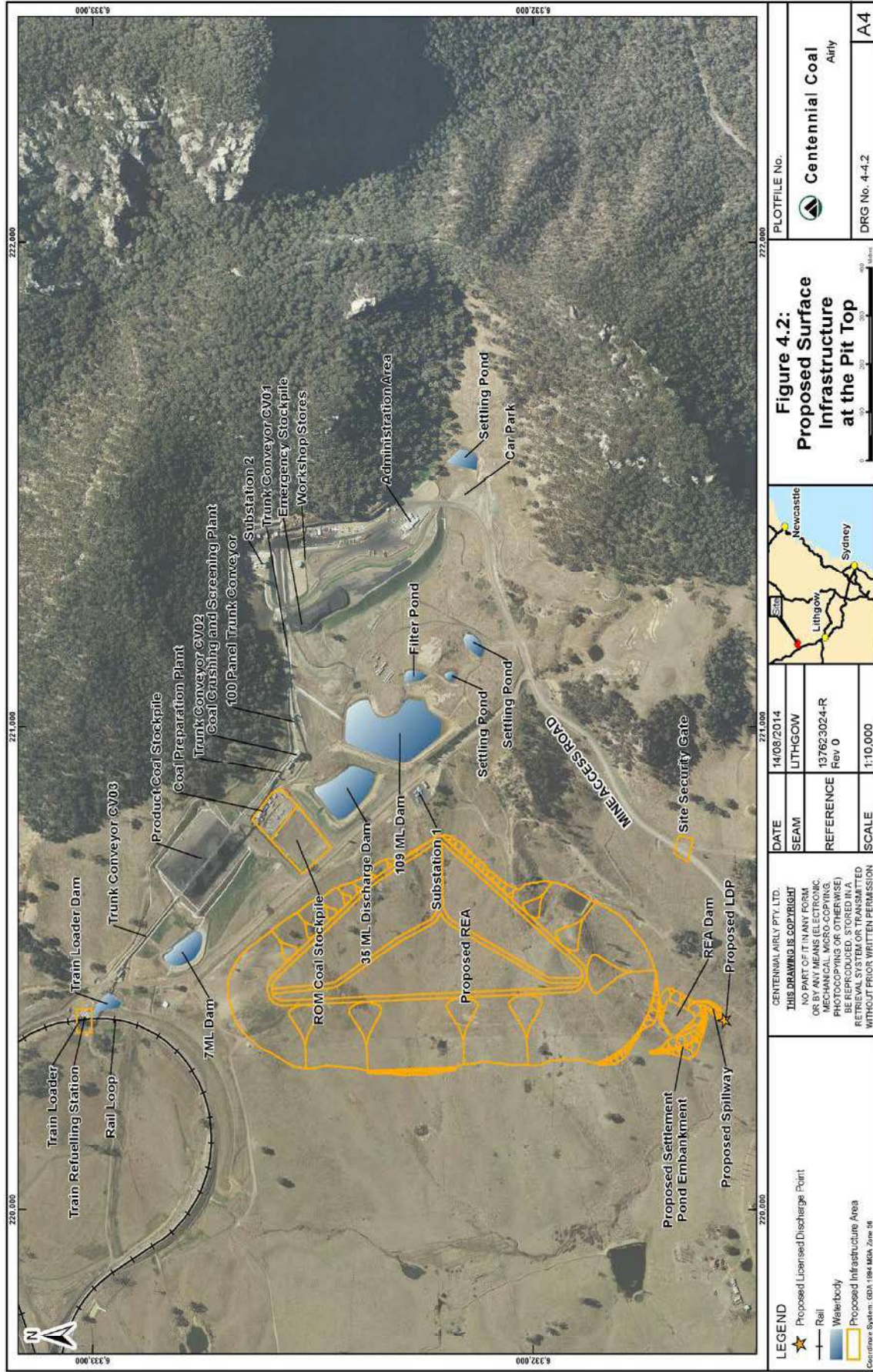
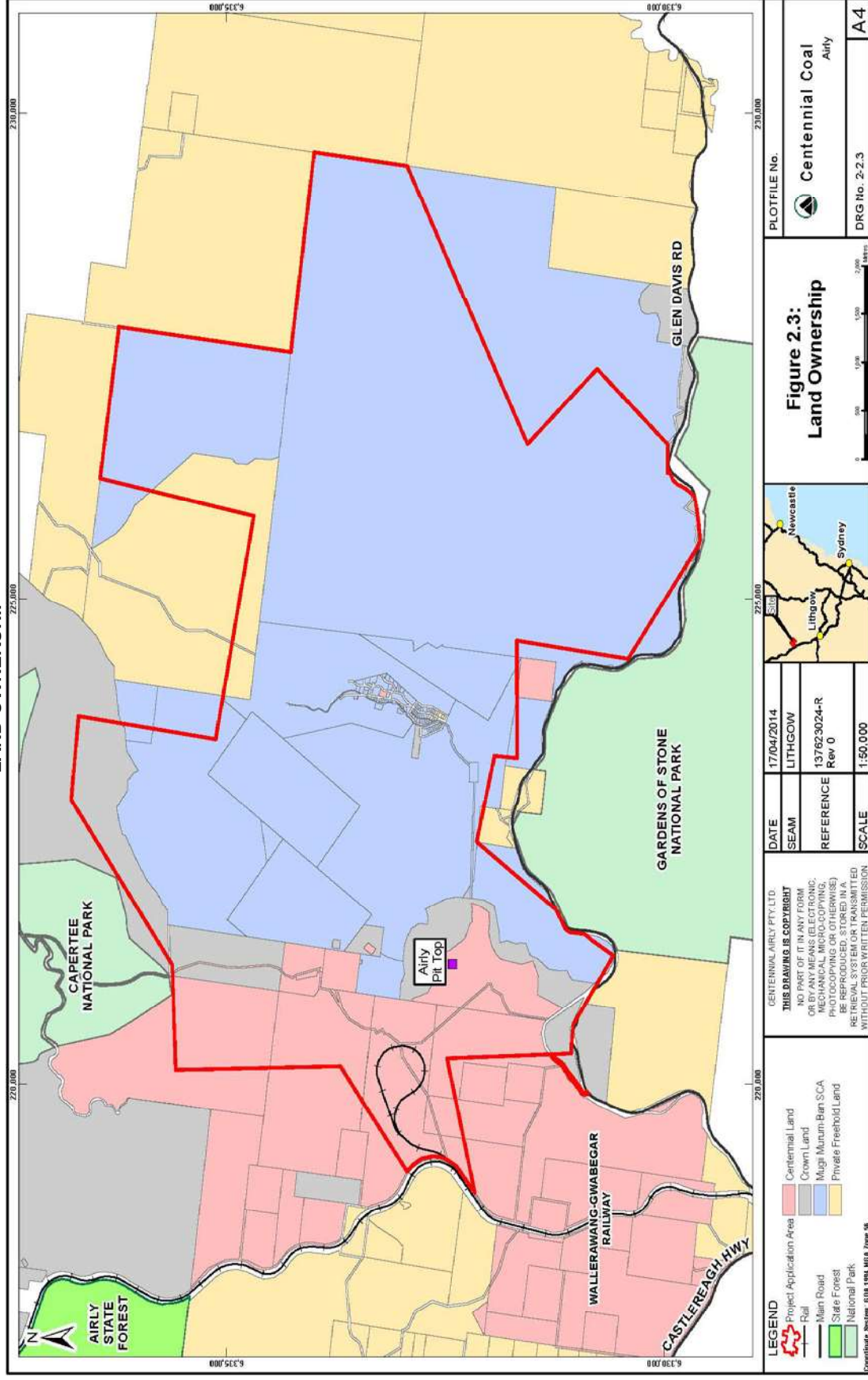


Figure 4: General layout of existing and proposed infrastructure areas



# APPENDIX 4 LAND OWNERSHIP





# APPENDIX 5 ABORIGINAL HERITAGE SITES

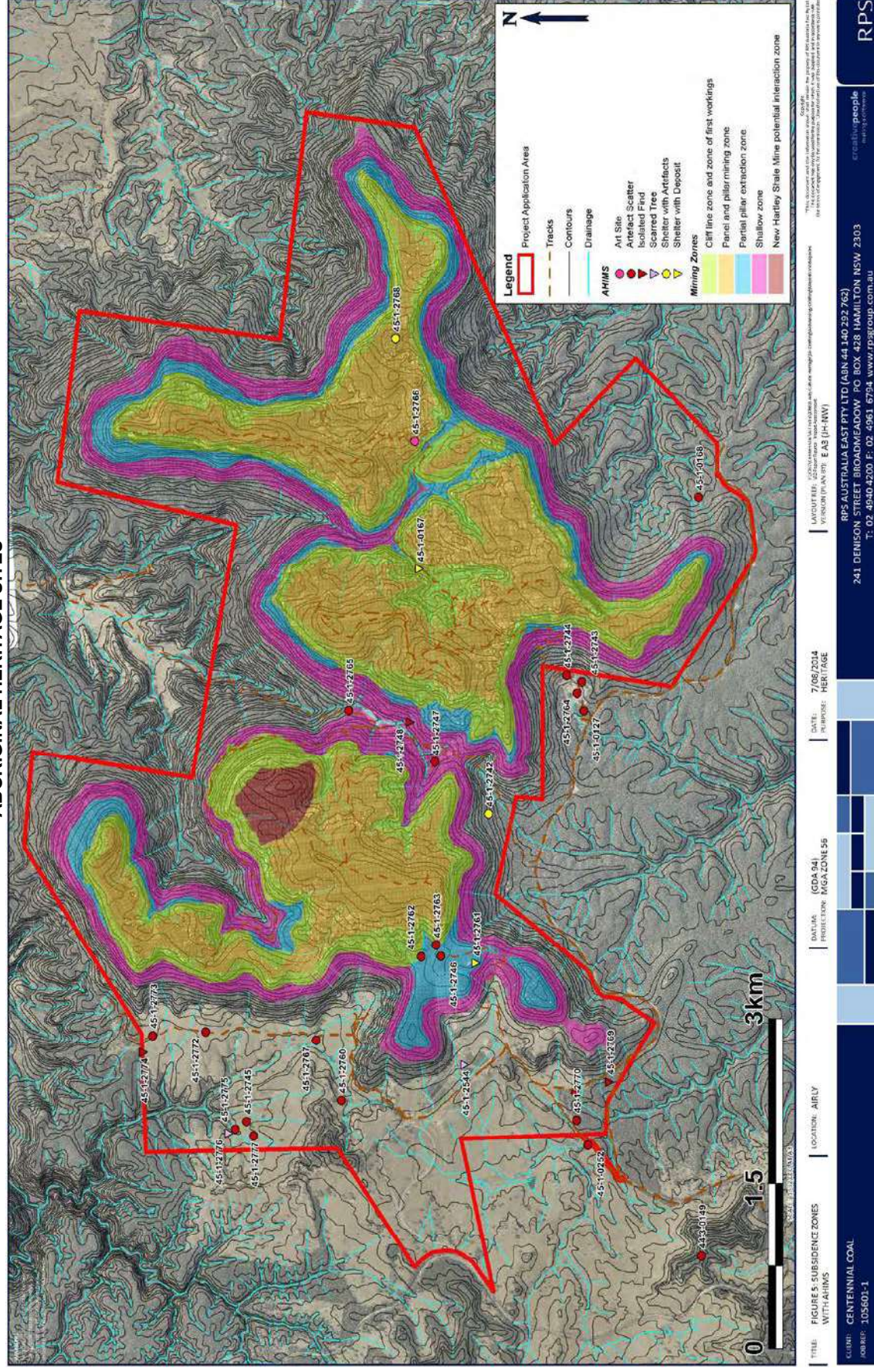
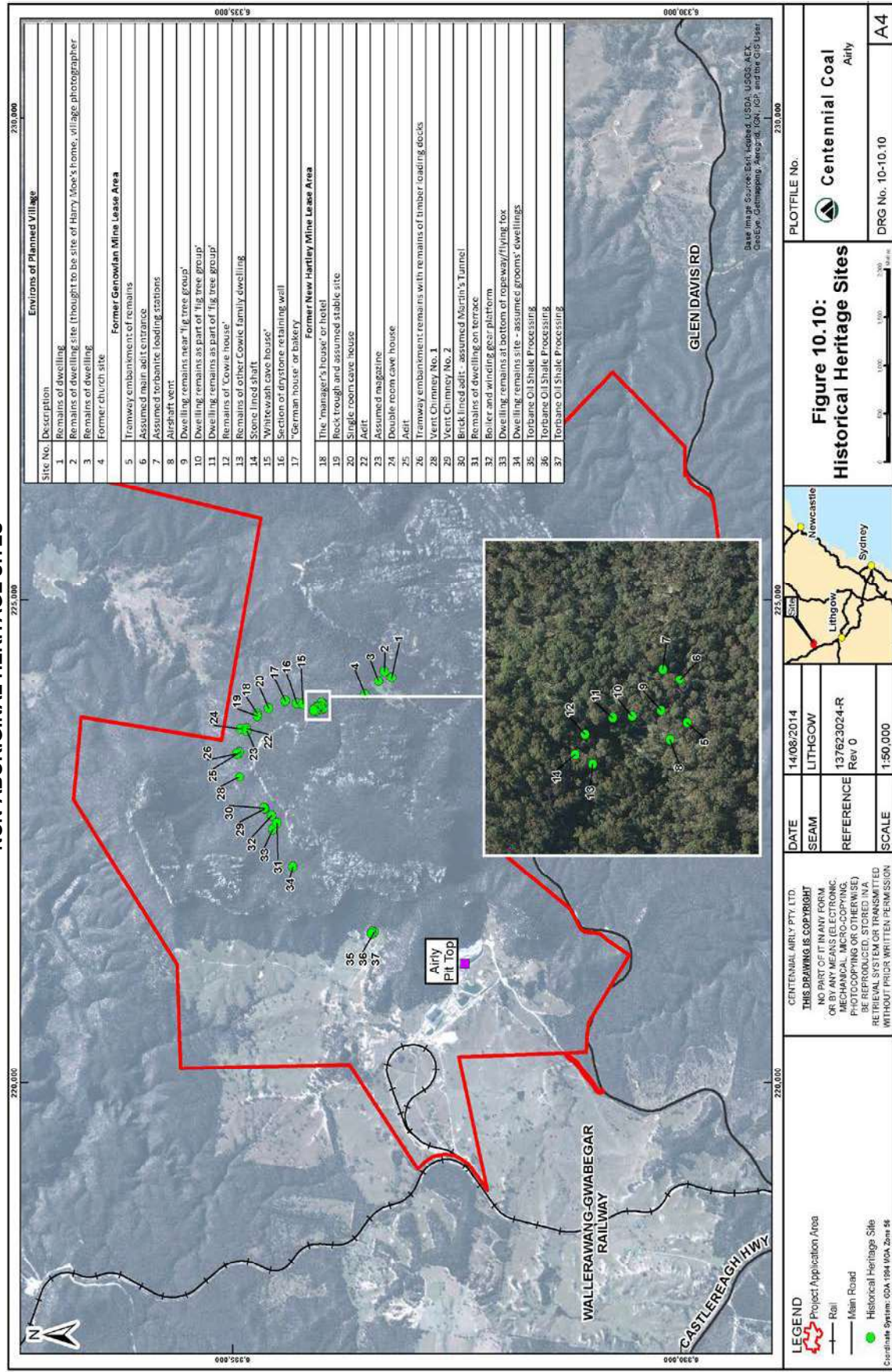


Figure 6: Aboriginal heritage sites within or near to the PAA and proposed mining zones



# APPENDIX 6 NON-ABORIGINAL HERITAGE SITES





APPENDIX 7  
NOISE RECEIVER LOCATIONS

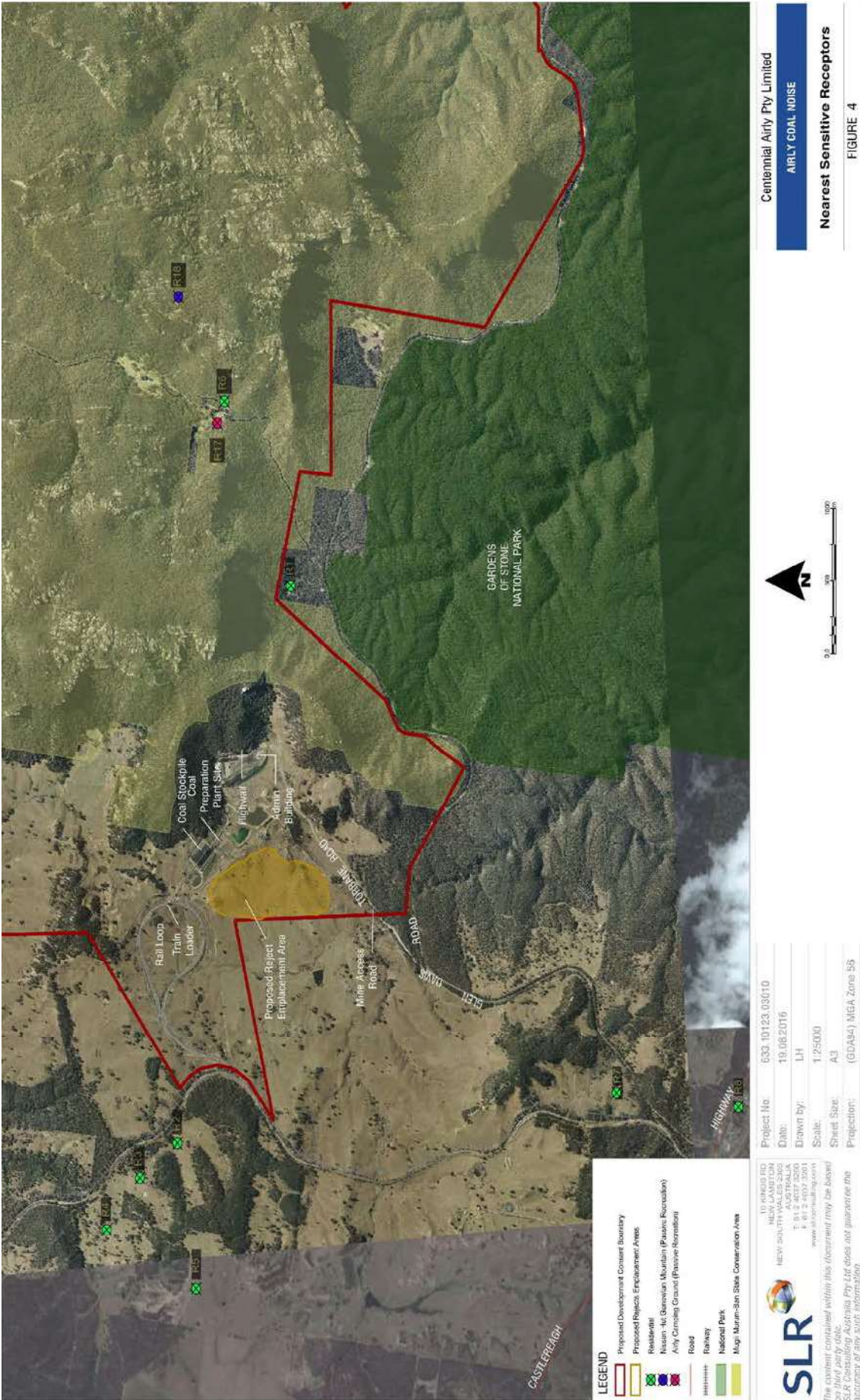


Figure 8: Noise receiver locations

## **APPENDIX 8 NOISE COMPLIANCE ASSESSMENT**

### **Applicable Meteorological Conditions**

1. The noise criteria in Table 4 in Schedule 4 are to apply to a receiver under all meteorological conditions except under:
  - (a) wind speeds greater than 3 m/s at 10 m above ground level; or
  - (b) stability category F temperature inversions and wind speed greater than 2 m/s at 10 m above ground level; or
  - (c) stability category G temperature inversion conditions.

### **Determination of Meteorological Conditions**

2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions must be that recorded by the meteorological station required under condition 8 of Schedule 4.

### **Compliance Monitoring**

3. Attended monitoring is to be used to evaluate compliance with the relevant conditions of this consent.
4. Unless the Secretary agrees otherwise, this monitoring is to be carried out 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 conformity with Australian Standards relevant to such equipment; and
  - (d) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.



# APPENDIX 9 AIRLY CREEK MONITORING LOCATIONS

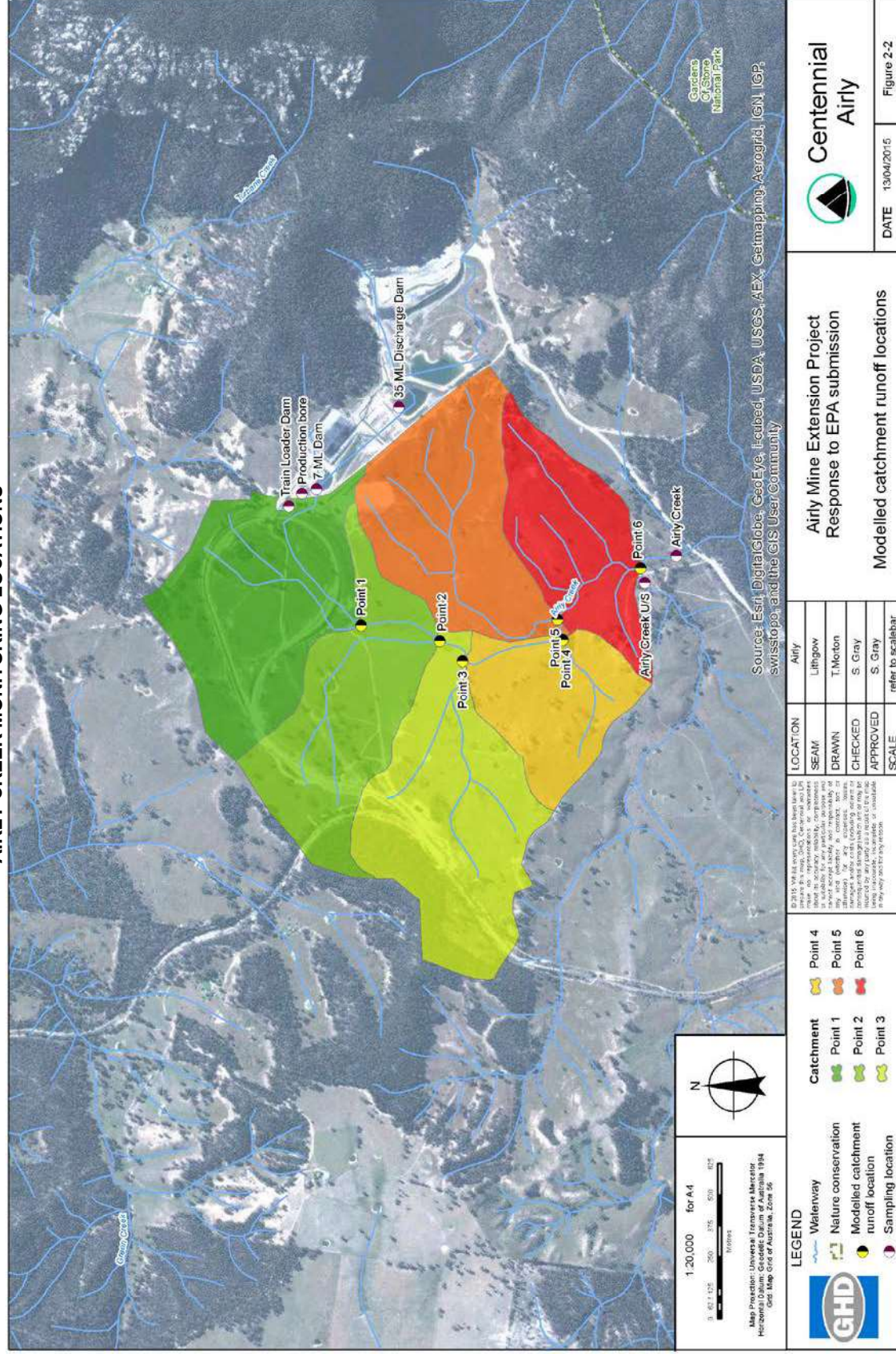


Figure 9: Airly Creek Monitoring Locations



# APPENDIX 10 REHABILITATION PLANS

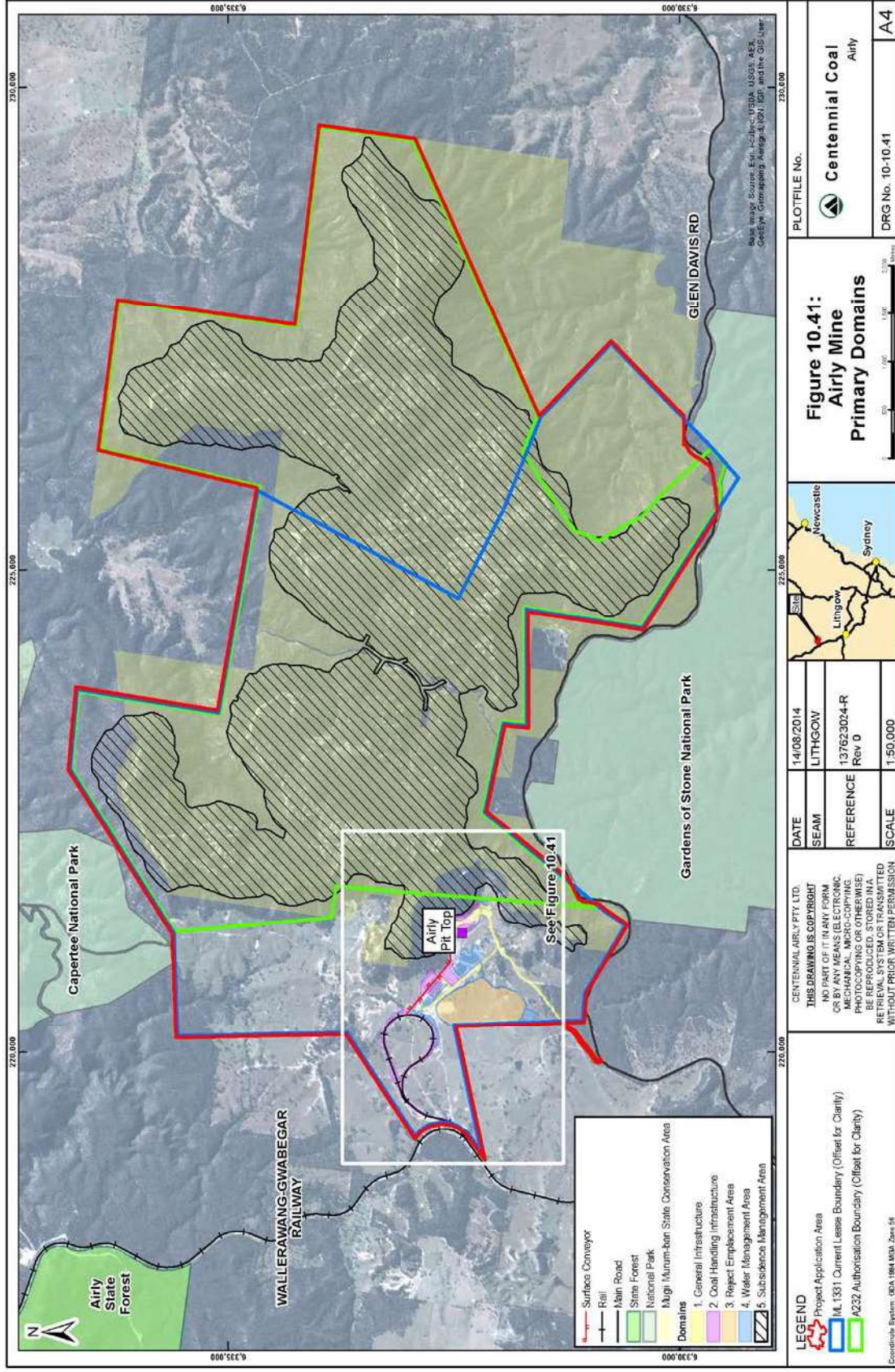
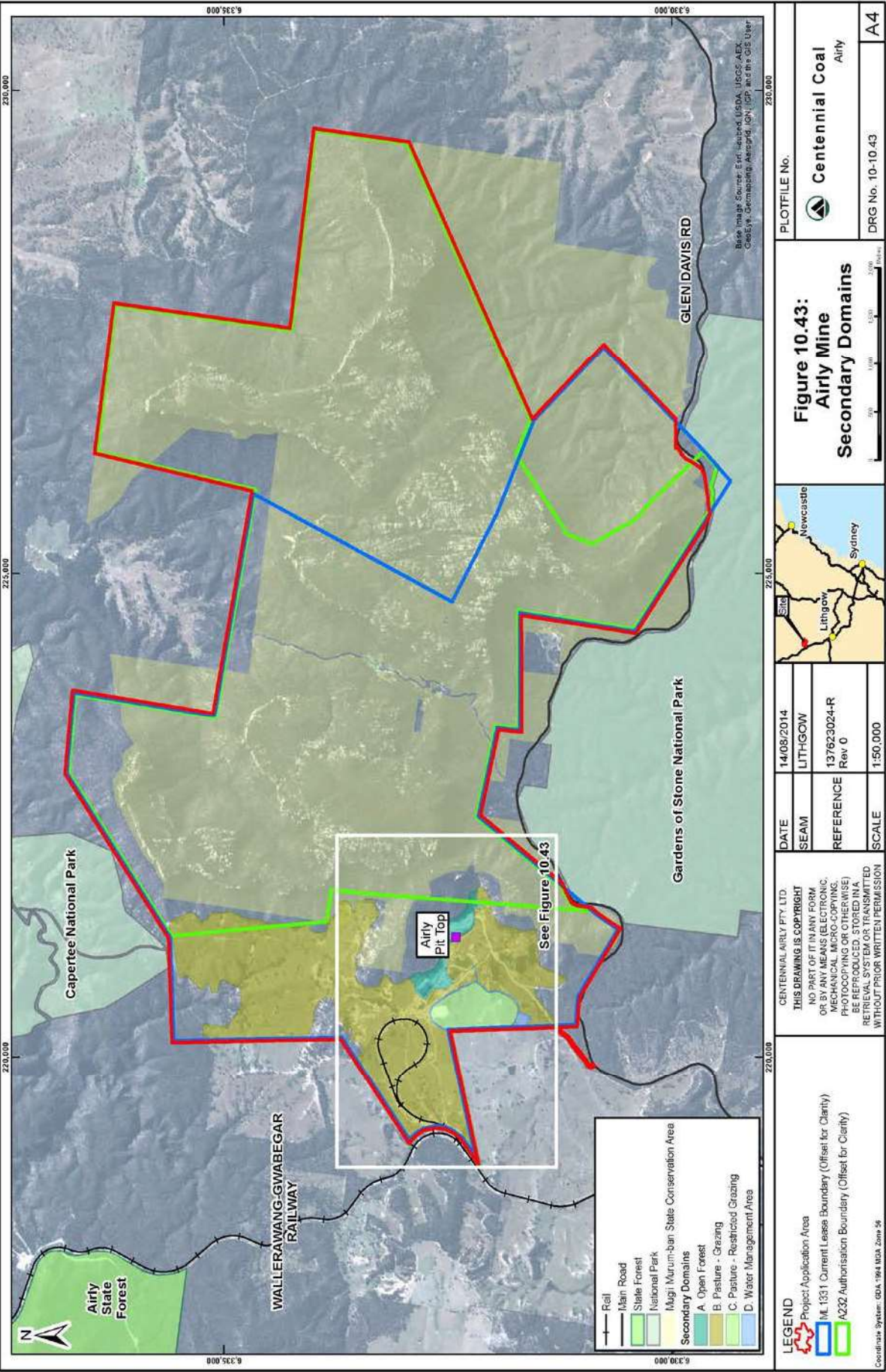
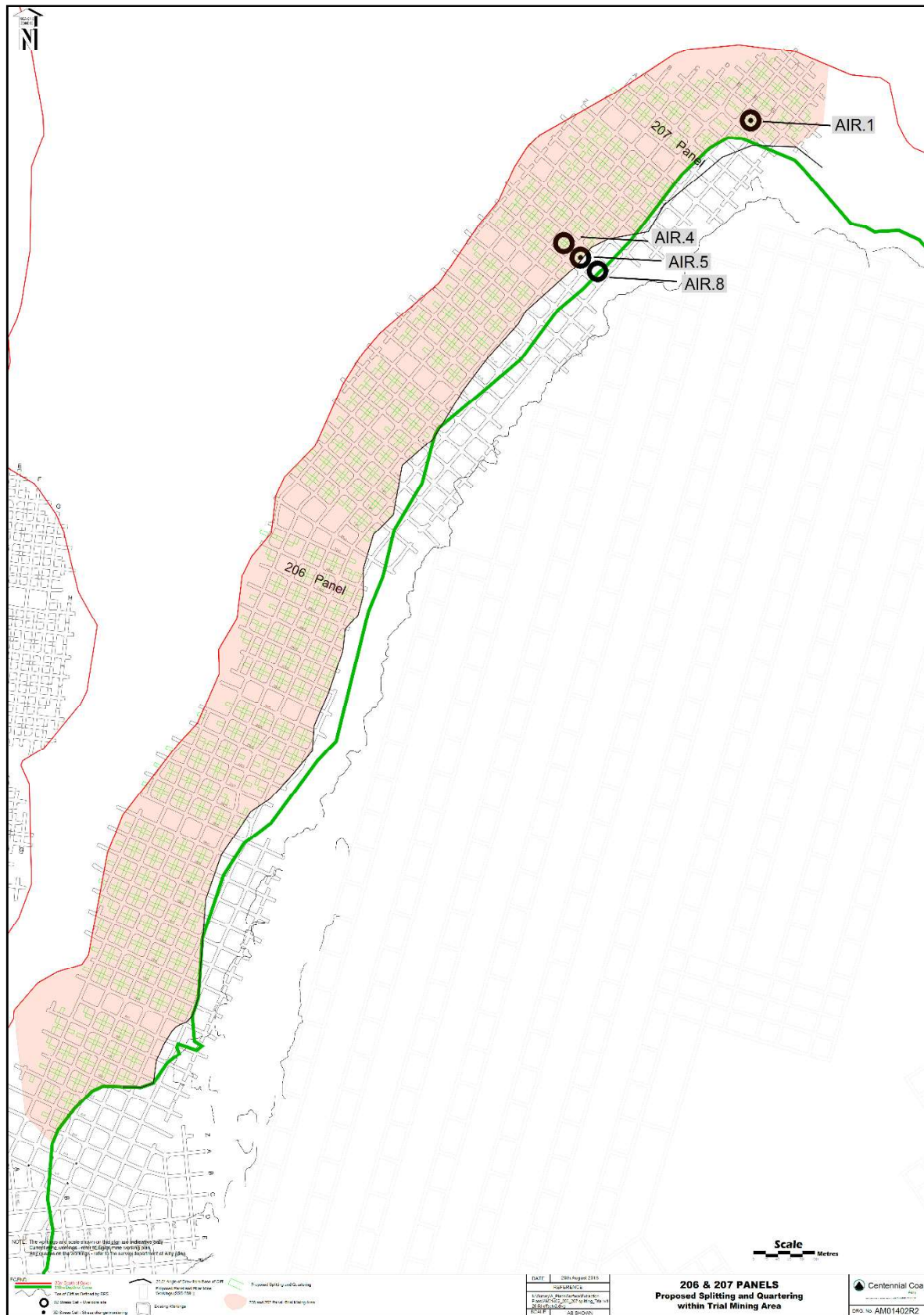


Figure 10: Primary domain rehabilitation plans





**Figure 12: Trial mining area**





## APPENDIX 12: Water Transfer Route



Figure 13: Rail route for water transfer from Charbon Colliery to Airly Coal Mine