

Development Consent

Section 89E of the *Environmental Planning and Assessment Act 1979*

As delegate for 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;
- prevent, minimise and/or offset impacts on controlling provisions and matters protected under the EPBC Act;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the development.

Member of the Commission

Member of the Commission

Sydney

2015

Application Number:

SSD_5594

Applicant:

Centennial Springvale Pty Limited

Consent Authority:

Minister for Planning

Land:

See Appendix 1

Development:

Springvale Mine Extension Project

SCHEDULE 1

Blue type represents April 2017 Modification

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DEFINITIONS

Adaptive management	Adaptive management includes monitoring subsidence effects and impacts and, based on the results, modifying the mine plan (including potentially modifying mining height, longwall width or any other element of the mine plan) as mining proceeds to ensure that the effects, impacts and/or associated environmental consequences remain within the predicted and/or designated ranges and in compliance with the conditions of this consent
Annual Review	The review required by condition 12 of Schedule 6
Applicant	Centennial Springvale Pty Limited and Springvale SK Kores 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
BCA	Building Code of Australia
Built features	Includes any building or work erected or constructed on land, including dwellings, outbuildings and infrastructure such as any formed road, street, path, walk, or driveway and any 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°)
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
Day	The period from 7 am to 6 pm on Monday to Saturday, and 8 am to 6 pm on Sundays and Public Holidays
Department	Department of Planning and Environment
Development	Springvale Mine Extension Project, as described in the EIS
DoE	Commonwealth Government Department administering the EPBC Act
DPI	Department of Primary Industries
DPI-Water	Department of Primary Industries - Water
DRE	Division of Resources and Energy, within the Department of Industry
DSC	Dams Safety Committee
EEC	Endangered ecological community, as defined under the <i>Threatened Species Conservation Act 1995</i>
EIS	Environmental Impact Statement titled <i>Springvale Mine Extension Project – State significant Development 5594</i> (dated April 2014) including the associated Response to Submissions (dated September 2014), and the following additional information: <ul style="list-style-type: none"> - <i>Additional Simulations of the Regional Water Quality Impact Assessment Model</i> (25 March 2015) undertaken by Jacobs Group (Australia) Limited. - <i>Springvale Colliery Mine Extension Project, Economic Impact Assessment</i> (March 2015) undertaken by Aigis Group. Statement of Environmental Effects titled <i>Springvale Mine Extension Project State Significant Development 5594 – Modification 1</i> (dated July 2016) including the associated Response to Submissions (dated October 2016).
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; adverse water quality impacts; cliff falls; rock falls; damage to Aboriginal heritage sites; impacts on aquatic ecology; and ponding.
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPL	Environment Protection Licence issued under the POEO Act
Evening	The period from 6 pm to 10 pm
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 to implement
First workings	Extraction of coal from bord and pillar workings and development of main headings, longwall gate roads, related cut throughs and the like
GDE	Groundwater dependent ecosystem
Heritage item	An item 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>
Incident	A set of circumstances that: <ul style="list-style-type: none"> • causes or threatens to cause material harm to the environment; and/or • breaches or exceeds the limits or performance measures/criteria in this consent

INP	<i>NSW Industrial Noise Policy (NSW EPA, 2000)</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
Mine water	Water that accumulates within, or drains from, active mining areas, emplacements, stockpiles, tailings dams and infrastructure areas
Mining operations	Includes the extraction, processing, handling, storage and transportation of coal carried out on the site
Minister	Minister for Planning, or delegate
Minor	Not very large, important or serious
Minor cliff	A continuous rock face, including overhangs, which has a minimum length of 20 metres, a height between 5 metres and 10 metres, and a minimum slope of 2 to 1 (> 63.4°)
Mitigation	Activities associated with reducing the impacts of the development prior to or during those impacts occurring
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10 pm to 7 am, Monday to Saturday, 10 pm to 8 am on Sundays and Public Holidays
OEH	Office of Environment and Heritage
Pagoda formations	Smooth or platy conical sandstone formations found in the Blue Mountains Region of NSW
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Privately-owned land	Land that is not owned by a public agency, a mining company (or its subsidiary)
Public infrastructure	Linear and related infrastructure and the like that provides services to the general public, such as roads, railways, water supply, drainage, sewerage, gas supply, electricity, telephone, telecommunications, etc
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
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
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 coal	Run-of-mine coal
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	Extraction of coal from longwall panels, mini-wall panels or pillar extraction
Secretary	Secretary of the Department, of any person authorised to act on their behalf
Site	Land to which the development consent applies (see Appendix 1)
Springvale Delta Water Transfer Scheme	Existing pipeline that transfers groundwater inflows from the underground workings and dewatering bores to licenced discharge point LDP009 (see also Appendix 2)
Statement of Commitments	The Applicant's commitments set out in Appendix 3
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, including both vertical and horizontal displacement, tilt, strain and curvature
Subsidence impacts	Physical changes to the ground and its surface caused by subsidence effects, including tensile and shear cracking of the rock mass, localised buckling of strata caused by valley closure and upsidence and surface depressions or troughs
TARP	Trigger Action Response Plan
µS/cm EC	Microsiemens per centimetre Electrical Conductivity

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 shall 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 APPROVAL

2. The Applicant shall carry out the development:
 - (a) generally in accordance with the EIS;
 - (b) in accordance with the Development Layout Plan and the Statement of Commitments; and
 - (c) in accordance with the conditions of this consent.

Notes:

- *The Development Layout Plan is shown in Appendix 2*
- *The Applicant's Statement of Commitments is shown in Appendix 3.*

3. If there is any inconsistency between the above documents, the more 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 shall 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;
 - (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 until 31 December 2028.

Note: Under this consent, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of both the Secretary and DRE. 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 shall not extract more than 5.5 million tonnes of ROM coal from the site per calendar year.

Hours of Operation

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

Coal Transport

8. The Applicant shall not transport more than 50,000 tonnes of ROM coal by road from the site to local domestic customers in any calendar year.

Springvale Delta Water Transfer Scheme

9. Nothing in this consent allows duplication of pipelines or other increase in capacity of the Springvale Delta Water Transfer Scheme.

SURRENDER OF EXISTING DEVELOPMENT CONSENTS

10. The Applicant shall surrender all existing development consents for the site in accordance with section 104A of the EP&A Act within 12 months of the date of this consent, unless otherwise agreed by the Secretary.

Prior to the surrender or lapsing of any existing development consents, the conditions of this consent shall prevail to the extent of any inconsistency with the conditions of these consents.

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

Notes:

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

DEMOLITION

12. The Applicant shall 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 shall:
- (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 any damage to roads caused as a result of general road usage.

OPERATION OF PLANT AND EQUIPMENT

14. The Applicant shall ensure that all plant and equipment used on site is:
- (a) maintained in a proper and efficient condition; and
 - (b) operated in a proper and efficient manner.

COMMUNITY ENHANCEMENT

15. From 31 March 2017, the Applicant shall pay a community contribution to LCC of \$0.03 per saleable tonne of coal produced from the Springvale, Angus Place and Airly mines capped at a maximum payment of \$200,000 in total (ie for all 3 mines collectively). The community contribution shall be paid on an annual basis to LCC and no later than 31 March each year (for the preceding year). The contribution shall be used for long-term community activities and projects to be agreed by both the Applicant and LCC and must be reported publicly.

**SCHEDULE 3
SPECIFIC ENVIRONMENTAL CONDITIONS – UNDERGROUND MINING**

SUBSIDENCE

Performance Measures – Natural and Heritage Features, etc

- The Applicant shall 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

Water Resources	Performance Measure
Wolgan River, and other watercourses located outside the site	Negligible subsidence impacts or environmental consequences including: <ul style="list-style-type: none"> <i>negligible</i> diversion of flows or changes in the natural drainage behaviour of pools; <i>negligible</i> reduction in water quality; <i>negligible</i> increase in bank erosion or sediment load.
Carne Creek, Marrangaroo Creek and Paddys Creek	No greater subsidence impacts or environmental consequences than predicted in the EIS
All other watercourses	No greater subsidence impacts or environmental consequences than predicted in the EIS
Swamps	
Shrub swamps: Sunnyside and Nine Mile	Negligible environmental consequences including: <ul style="list-style-type: none"> <i>negligible</i> change to the shallow groundwater regime when compared with control swamps; <i>negligible</i> erosion of the surface of the swamp; <i>negligible</i> change in the size of the swamp; <i>negligible</i> change in the ecosystem functionality of the swamp; <i>negligible</i> change to the composition or distribution of species within the swamp; and <i>negligible</i> change to the structural integrity of the bedrock base or any controlling rockbar/s of the swamp.
Hanging swamps	Negligible environmental consequences including: <ul style="list-style-type: none"> <i>negligible</i> change in the size of the swamp; <i>negligible</i> change in the ecosystem functionality of the swamp; and <i>negligible</i> change to the composition or distribution of species within the swamp.
Land	
Cliffs, minor cliffs, steep slopes and pagoda formations	No greater subsidence impacts or environmental consequences than predicted in the EIS.
Biodiversity	
Threatened species, populations or their habitats and EECs (except Sunnyside East, Carne West, Gang Gang South West, Gang Gang East, Pine, Pine Upper, Paddys, Marangaroo Creek and Marrangaroo Creek Upper Swamps)	Negligible environmental consequences.
Heritage Features	
Aboriginal heritage sites (except sites 45-1-0002, 45-1-005 and 45-1-0065)	Negligible subsidence impact or environmental consequences.
Aboriginal heritage sites 45-1-0002, 45-1-005 and 45-1-0065	No greater subsidence impact or environmental consequences than predicted in the EIS.
Historic heritage sites	Negligible subsidence impact or environmental consequences.
Mine workings	
First workings beneath any feature where performance measures in this table require negligible subsidence impact or environmental consequences. First workings within a 26.5 degree angle of draw of 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.*

2. The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the performance measures in Table 1. Any exceedance of these performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation, notwithstanding actions taken pursuant to paragraphs (a)-(c) or condition 4 below. Where any exceedance of these 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 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.

Offsets

3. If the Applicant exceeds the performance measures in Table 1 and the Secretary determines that:
- (a) it is not reasonable or feasible to remediate the subsidence impact or environmental consequence; or
 - (b) remediation measures implemented by the Applicant have failed to satisfactorily remediate the subsidence impact or environmental consequence;
- then the Applicant shall provide a suitable offset to compensate for the subsidence impact or environmental consequence, to the satisfaction of the Secretary.

The offset must give priority to like-for-like physical environmental offsets, but may also consider payment into any NSW Offset Fund established by OEH, or funding or implementation of supplementary measures such as:

- actions outlined in threatened species recovery programs;
- actions that contribute to threat abatement programs;
- biodiversity research and survey programs; and/or
- rehabilitating degraded habitat.

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

Swamp Offset Bond for First Swamps Undermined

4. Prior to the commencement of mining, unless otherwise agreed by the Secretary, the Applicant shall lodge a Swamp Offset Bond of \$2,000,000 with the Department.

If, after 12 months of completion of all mining under this consent within 400 metres of either Sunnyside East or Carne West Swamps, monitoring demonstrates that no greater than 'negligible environmental consequences' have resulted to the swamp from mining under this consent, to the satisfaction of the Secretary, then the Secretary will release the half of the Bond that applies to that swamp.

If monitoring demonstrates that greater than 'negligible environmental consequences' have resulted to either of these shrub swamps from mining under this consent, and that these consequences have stabilised for a period of at least 12 months, then the Applicant must offset the environmental consequences to that swamp to the satisfaction of the Secretary within any period specified by the Secretary.

The offset liability will be set by the Secretary in consultation with OEH, following consideration of:

- (a) the estimated liability using the Framework for Biodiversity Assessment in accordance with the *NSW Biodiversity Offsets Policy for Major Projects*; and
- (b) advice from the Independent Monitoring Panel that will be established by the Secretary for the development.

Once the Applicant has offset the environmental consequences to the satisfaction of the Secretary, the relevant proportion of the Swamp Offset Bond will be returned to the Applicant.

Notes:

- *Alternative funding arrangements, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement or transfer to conservation reserve estate, can be used as part of the Swamp Offset Bond. A bank guarantee can be lodged in place of a cash bond.*

Swamp Offsets for all other Shrub Swamps

5. Prior to the commencement of mining operations under an approved Extraction Plan which are predicted to cause greater than negligible environmental consequences to either Gang Gang South West, Gang Gang East, Pine, Pine Upper, Paddys, Marangaroo Creek or Marrangaroo Creek Upper Swamp, the Applicant shall demonstrate that it can satisfy the maximum predicted offset liability for the total area of swamp(s) predicted to be impacted under that Extraction Plan.

If, after 12 months of completion of all mining under this consent within 400 metres of any of these shrub swamps, monitoring demonstrates that no greater than 'negligible environmental consequences' have resulted to the swamp from mining under this consent, to the satisfaction of the Secretary, then the Applicant will not be required to secure the offset or retire the credits relating to that swamp.

If monitoring demonstrates that greater than 'negligible environmental consequences' have resulted to any of these shrub swamps from mining under this consent, and that these consequences have stabilised for a period of at least 12 months, then the Applicant must offset the environmental consequences to that swamp to the satisfaction of the Secretary within any period specified by the Secretary.

The offset liability will be set by the Secretary in consultation with OEH, following consideration of:

- (a) the estimated liability using the Framework for Biodiversity Assessment in accordance with the *NSW Biodiversity Offsets Policy for Major Projects*; and
- (b) advice from the Independent Monitoring Panel that will be established by the Secretary for the development.

Note: Alternative funding arrangements, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement or transfer to conservation reserve estate, can be used as part of the Swamp Offset.

6. As part of each Extraction Plan for mining within 400 metres of the swamps subject to condition 5 above, the Applicant must:
- (a) calculate the maximum predicted offset liability for any environmental consequences on these swamps that may result from the proposed mining using the Framework for Biodiversity Assessment in accordance with the *NSW Biodiversity Offsets Policy for Major Projects*; and
 - (b) demonstrate that it has suitable arrangements in place to deal with these liabilities quickly in the event that offsets are required.

Performance Measures – Built Features

7. The Applicant shall 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	Performance Measures
Key public infrastructure: Lithgow Water Supply Dam	No damage or additional risk.
Power transmission lines and associated towers, unsealed roads and road culverts, fire trails, other public infrastructure, fences and other built features	Always safe. Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated. Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.
Public safety	
Public Safety	Negligible additional risk

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 10 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.

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

First Workings

9. Subject to condition 10 below, the Applicant may carry out first workings within the underground mining area, other than in accordance with an approved Extraction Plan, provided that DRE 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

10. The Applicant shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Secretary. Each Extraction Plan must:
- (a) be prepared in consultation with DRE and by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;
 - (b) be approved by the Secretary before the Applicant carries out any of the second workings covered by the plan;
 - (c) include detailed plans of existing and proposed first and second workings and overlying surface features, including 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 which has been undertaken in consultation with DRE;
 - (e) 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;
 - (f) provide revised predictions for potential environmental consequences on affected shrub swamps and the social and economic costs of avoiding these consequences;
 - (g) describe in detail the performance indicators 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 30 of Schedule 4;
 - (h) include a:
 - (i) *Subsidence Monitoring Program* which has been prepared in consultation with DRE to:
 - describe the ongoing conventional and non-conventional subsidence monitoring program;
 - provide data to assist with the management of risks associated with conventional and non-conventional subsidence;
 - validate the conventional and non-conventional subsidence predictions;
 - analyse the relationship between the predicted and resulting conventional and non-conventional subsidence effects and predicted and resulting impacts under the plan and any ensuring environmental consequences; and
 - (ii) *Built Features Management Plan* which has been prepared in consultation with DRE, 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 DPI-Water, WaterNSW and the Independent Monitoring Panel (required by condition 11), 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 water bodies that could be affected by subsidence, including Wolgan River, Carne Creek, Marangaroo Creek, Coxs River and all major associated tributaries ;
 - 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 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 in the vicinity of the site;
 - permeability, hydraulic gradient, flow direction and connectivity of the deep and shallow groundwater aquifers;
 - impacts of the development on upland swamps (refer to condition 10 below) and other groundwater dependent ecosystems;
 - a description of any adaptive management practices implemented to guide future mining activities in the event of greater than predicted impacts on aquatic habitat;
 - a program to 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 OEH and the Independent Monitoring Panel, which provides for the management of potential impacts and/or environmental consequences of the proposed second workings on aquatic and terrestrial flora and fauna, with a specific focus on threatened species, populations and their habitats and EECs, including a management and research program for the Blue Mountains Water Skink (*Eulamprus leuraensis*);
- (v) *Swamp Monitoring Program* which has been prepared in consultation with OEH, DPI-Water, WaterNSW and the Independent Monitoring Panel, and which includes (as a minimum):
- further consideration of the location of existing piezometers and the installation of upslope and downslope piezometers in all shrub swamps, in order to better understand the down-slope movement of shallow groundwater;
 - installation of flow monitoring points in all shrub swamps;
 - measures to record the nature and condition of terrestrial and aquatic flora and fauna within all shrub swamps and selected hanging swamps;
 - measures to characterise soils or peat layers within the swamps to determine:
 - porosity;
 - a basis for relating water levels to rainfall and evapotranspiration; and
 - the presence, or absence, of clay materials at the interface with the underlying bedrock;
 - a program for monthly review of the water balance of all monitored swamps based on recorded rainfall, estimated evapotranspiration and recorded surface and shallow groundwater levels and outflow measurements;
 - detailed performance indicators for the relevant performance measures in Table 1, including performance indicators relating to surface and shallow groundwater levels and outflow measurements;
 - assessment of any post-mining impacts on the incision feature in Sunnyside East Swamp;
 - specific consideration of subsidence impacts on and environmental consequences to hanging swamps;
 - consideration of a minimum of 2 years of baseline data for swamp hydrology and swamp vegetation;
 - hydrological and vegetative monitoring which fully satisfies Before After Control Impact (BACI) design principles;
 - provision of raw piezometer and other monitoring data to the Department, OEH and the Independent Monitoring Panel, if requested; and
 - incorporation of any relevant findings from swamp research projects into the swamp monitoring program;
- (vi) *Land Management Plan* which has been prepared in consultation with OEH and any other affected public authorities, which provides for the management of potential impacts and/or environmental consequences of the proposed underground workings on land in general, with a specific focus on cliffs, minor cliffs, pagoda formations, steep slopes and gorges;
- (vii) *Heritage Management Plan* which has been prepared in consultation with OEH and relevant stakeholders for both Aboriginal and non-Aboriginal heritage, which provides for the management of potential environmental consequences of the proposed second workings on Aboriginal and non-Aboriginal heritage and includes all requirements under condition 24 of Schedule 4;
- (viii) *Public Safety Management Plan* which has been prepared in consultation with DRE and OEH, which ensures public safety and manages access on the site;
- (ix) *TARPs* addressing all features in Tables 1 and 2, which contain:
- appropriate triggers to warn of increased risk of exceedance of any performance measure; and
 - specific actions to respond to high risk of exceedance of any performance measure to ensure that the measure is not exceeded;
 - an assessment of remediation measures that may be required if exceedances occur and the capacity to implement the measures;
- (x) *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; and
 - an assessment of remediation measures that may be required if exceedances occur and the capacity to implement those measures;

- (xi) proposes appropriate revisions to the Rehabilitation Management Plan required under condition 32 in Schedule 4; and
- (xii) includes a program to collect sufficient baseline data for future Extraction Plans.

Notes:

- *This condition does not apply to first or second workings which are covered by an Extraction Plan or Subsidence Management Plan approved, or submitted for approval, as at the date of this development consent.*
- *In accordance with condition 7 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 Newnes Plateau, the Applicant may propose remote subsidence monitoring techniques.*

Independent Monitoring Panel

11. An Independent Monitoring Panel for the development will be established by the Secretary, and be comprised of suitably qualified experts in the fields of mining subsidence, upland swamps and landforms of the western Blue Mountains. The role of the Panel is to provide timely, accurate and focussed advice to the Applicant and the Secretary regarding the:
- (a) collection of relevant data to predict and monitor the potential subsidence impacts and environmental consequences of second workings;
 - (b) achievement of performance measures in Table 1 in respect of Swamps, Land and Biodiversity, including relevant performance indicators, including avoidance of impacts where reasonable and feasible, rather than relying on remediation and offsets;
 - (c) preparation, revision and implementation of Extraction Plans, particularly the Swamp Monitoring Program, Biodiversity Management Plan and Land Management Plan components;
 - (d) undertaking iterative risk assessment in Extraction Plans, including consideration of all options for avoiding or minimising damage to swamps and all possible adaptive management measures;
 - (e) appropriate implementation of the swamp and groundwater monitoring programs and adaptive management regime throughout the life of the project; and
 - (f) calculation of swamp offset liability and verification of calculated swamp offset liability under conditions 4 and 5 of Schedule 3.

PAYMENT OF REASONABLE COSTS

12. The Applicant shall pay all reasonable costs incurred by the Department to:
- (a) engage suitably qualified, experienced and independent persons to review the adequacy of any aspect of an Extraction Plan; and
 - (b) establish and operate the Independent Monitoring Panel for the development.

**SCHEDULE 4
ENVIRONMENTAL PERFORMANCE CONDITIONS**

NOISE

Noise Criteria

1. From the date of this consent until 30 June 2016, the Applicant shall ensure that the noise generated by the development does not exceed the criteria in Table 3 at any residence on privately-owned land.

Table 3: Noise Criteria dB(A)

Location Receiver Number	Day	Evening	Night	
	<i>L_{Aeq} (15 min)</i>	<i>L_{Aeq} (15 min)</i>	<i>L_{Aeq} (15 min)</i>	<i>L_{A1} (1 min)</i>
S1	44	44	46	52
S2	43	43	46	53
S3	35	35	35	60
All other privately-owned land	35	35	35	45

Note: To interpret the locations referred to in Table 3 see the applicable figure in Appendix 4.

Noise generated by the development is to be measured in accordance with the relevant requirements of the *NSW Industrial Noise Policy*. Appendix 5 details 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.

2. From 1 July 2016, the Applicant shall ensure that the noise generated by the development does not exceed the criteria in Table 4 at any residence on privately-owned land, or have notified, in accordance with Schedule 5, the owners of residences represented by Receiver Numbers S1 and S2 that they are entitled to acoustic treatment of their residence.

Table 4: Noise Criteria dB(A)

Location Receiver Number	Day	Evening	Night	
	<i>L_{Aeq} (15 min)</i>	<i>L_{Aeq} (15 min)</i>	<i>L_{Aeq} (15 min)</i>	<i>L_{A1} (1 min)</i>
S1	44	44	42	52
S2	43	43	43	53
S3	35	35	35	60
All other privately-owned land	35	35	35	45

Note: To interpret the land referred to in Table 4 see the applicable figure in Appendix 4.

Operating Conditions

3. The Applicant shall:
 - (a) implement best management practice to minimise the construction, operational and road noise of the development;
 - (b) minimise the noise impacts of the development during meteorological conditions under which the noise limits in this consent do not apply (see Appendix 5); and
 - (c) carry out regular monitoring to determine whether the development is complying with the relevant conditions of this consent,
 - (d) regularly assess noise monitoring data and modify and/or stop operations on site to ensure compliance with the relevant conditions of this consent,
 to the satisfaction of the Secretary.

Noise Management Plan

4. The Applicant shall prepare and implement a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with EPA, and submitted to the Secretary for approval within three months of the date of this consent, unless otherwise agreed by the Secretary;
 - describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions of this consent;
 - describe the proposed noise management system in detail;
 - include an investigation into the generation and perception of low frequency noise by the project;
 - include a noise monitoring program that:
 - evaluates and reports on:
 - the effectiveness of the on-site noise management system;
 - compliance against the noise criteria in this consent; and
 - compliance against the operating conditions in condition 3 above;
 - defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents; and
 - outlines procedures to manage responses to any complaints or issues raised by the owners of affected residences

AIR QUALITY & GREENHOUSE GAS

Air Quality Criteria

5. The Applicant shall 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 ₁₀)	Annual	a,d 30 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	24 hour	a 50 µg/m ³
Total suspended particulates (TSP)	Annual	a,d 90 µg/m ³
^c Deposited dust	Annual	^b 2 g/m ² /month a,d 4 g/m ² /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 shall:
- 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;
 - minimise any visible off-site air pollution generated by the development;
 - minimise the surface disturbance of the site generated by the development;
 - regularly assess the air quality monitoring data, and modify operations on site to ensure compliance with the relevant conditions of this consent;
 - 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 & Greenhouse Gas Management Plan

7. The Applicant shall prepare and implement an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with the EPA, and submitted to the Secretary within 3 months of the date of this consent, unless otherwise agreed by the Secretary;
 - describe all reasonable and feasible measures which would be implemented to ensure compliance with the air quality criteria and operating conditions of this consent;
 - describe the air quality management system in detail;
 - 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:
 - the effectiveness of the air quality management system; and
 - compliance with the air quality criteria and operating conditions in condition 6 above; and
 - defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents.

Meteorological Monitoring

8. Within 6 months of the date of this consent and for the life of the development, the Applicant shall ensure that there is a meteorological station in the vicinity of the site that:
- 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
 - 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 shall 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 shall comply with section 120 of the POEO Act.

Compensatory Water Supply

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

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

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

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

Water Management Performance Measures

12. The Applicant shall 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">Minimise the use of clean water on siteMinimise the use of water from external sources

Construction and operation of infrastructure	<ul style="list-style-type: none"> Design, install and maintain erosion and sediment controls generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction</i> including <i>Volume 1</i>, <i>Volume 2A – Installation of Services</i> and <i>Volume 2C – Unsealed Roads</i> Design, install and maintain the infrastructure within 40 m of watercourses generally in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land (DPI 2012)</i>, or its latest version Design, install and maintain creek crossings generally in accordance with the <i>Policy and Guidelines for Fish Friendly Waterway Crossings</i> (NSW Fisheries, 2003) and <i>Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings</i> (NSW Fisheries 2003), or their latest versions
Clean water diversion	<ul style="list-style-type: none"> Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on site, except where clean water is captured for use on site
Sediment dams	<ul style="list-style-type: none"> Design, install and maintain the new dams generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction – Volume 1</i> and <i>Volume 2E – Mines and Quarries</i>
Mine water storages	<ul style="list-style-type: none"> Design, install and maintain mine water storage infrastructure to ensure no unlicensed or uncontrolled discharge of mine water off-site Minimise discharges to surface waters as far as reasonable and practicable New storages (mine infrastructure dams, groundwater storage and treatment dams) are suitably treated to comply with a permeability standard of $< 1 \times 10^{-9}$ m/s
Mine water discharges	<ul style="list-style-type: none"> Discharge all groundwater inflow mine water (except from the Renouin workings) through the Springvale Delta Water Transfer Scheme Meet limits for salinity of 700 (50th percentile), 900 (90th percentile) and 1,000 (100th percentile) $\mu\text{S/cm EC}$ by 30 June 2017 Meet a limit for salinity of 500 (90th percentile) $\mu\text{S/cm EC}$ by 30 June 2019 Eliminate acute and chronic toxicity from LDP009 discharges to aquatic species by 30 June 2017, with acute toxicity defined as >10% effect relative to the control group and chronic toxicity defined as >20% effect relative to the control group
Aquatic and riparian ecosystems	<ul style="list-style-type: none"> Maintain or improve baseline channel stability Develop site-specific water quality objectives in accordance with the ANZECC Guidelines and <i>Using the ANZECC Guidelines and Water Quality Objectives in NSW procedures</i> (DECC 2006), or its latest version
Chemical and petroleum storage	<ul style="list-style-type: none"> Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standards

Upper Coxs River Action & Monitoring Plan

13. The Applicant shall prepare an Upper Coxs River Action & Monitoring Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with DPI-Water, WaterNSW, EPA and Energy Australia;
 - be submitted to the Secretary for approval by 30 June 2016, unless otherwise agreed by the Secretary;
 - identify all available water management measures designed to achieve the mine water discharge criteria and associated timeframes required by condition 12 above, including potential transfer of mine water to Mt Piper Power Station and consideration of all licensed discharge points within the Upper Coxs River catchment (including at Springvale Mine, Lidsdale Siding, Western Coal Services and Angus Place Colliery);
 - include a financial justification and timetable for achieving reductions in salinity in the Upper Coxs River to 500 (90th percentile) $\mu\text{S/cm EC}$ by June 2019 and identify enforceable mechanisms for the implementation of the proposed measures;
 - include a monitoring program which is based on:
 - water quality, macroinvertebrate and ecotoxicology monitoring across the Coxs River Catchment to measure performance against a long term water quality objective of 350 $\mu\text{S/cm EC}$ and the impacts of salinity and toxicity changes on the aquatic ecology and ecosystem health of the Cox River;
 - water quality parameters to be monitored at all existing and proposed licensed discharge points (focusing on those parameters that have been identified as having potential to cause harm to the environment, the frequency of monitoring and concentration limits required by condition 12 above and any EPL that applies to the site);
 - a TARP identifying actions to be implemented should any concentration limits be exceeded (focusing on the extent to which exceedances might affect aquatic ecology); and
 - provide for status reports, to be submitted to the EPA and WaterNSW by 30 June 2017 and 30 September 2020, on the impact of the mine water discharges on the aquatic environment.

Water Management Plan

14. The Applicant shall prepare and implement a Water Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with DPI-Water, WaterNSW, OEH and the EPA, by suitably qualified and experienced person/s whose appointment has been approved by the Secretary;
 - (b) be submitted to the Secretary for approval within 6 months of the date of this consent, unless otherwise agreed by the Secretary;
 - (c) include detailed performance criteria and describes measures to ensure that the Applicant complies with the Water Management Performance Measures (see Table 6);
 - (d) in addition to the standard requirements for management plans (see condition 2 of Schedule 6), this plan must include a:
 - (i) Site Water Balance that:
 - includes details of:
 - sources and security of water supply, including contingency planning for future reporting periods;
 - water use and management on site;
 - 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;
 - (ii) Surface Water Management Plan, that includes:
 - detailed baseline data on water flows and quality in the waterbodies that could be affected by the development, including Wolgan River, Carne Creek, Marrangaroo Creek and Paddys Creek, Coxs River, Lake Lyell, Lake Wallace, Lake Burragorang and associated tributaries;
 - a detailed description of the water management systems on site, including the:
 - clean water diversion systems;
 - erosion and sediment controls; and
 - mine water management systems;
 - detailed objectives and performance criteria, including trigger levels for investigating any potentially adverse impacts associated with the development for:
 - the water management system;
 - downstream surface water quality;
 - downstream flooding impacts; and
 - stream and riparian vegetation health for rivers and creeks and their tributaries potentially impacted by the development;
 - design and management for the emplacement of coal reject materials;
 - restoration of an appropriate drainage network on the rehabilitated areas of the site; and
 - control of any potential water pollution from the rehabilitated areas of the site;
 - a program to monitor and report on:
 - the performance measures listed in Table 6;
 - the effectiveness of the 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 seepage/leachate from on-site water storages; and
 - downstream flooding impacts;
 - consideration of any EPA review of licensed discharge points for the development and any further advice from WaterNSW in relation to water discharges;
 - an updated Regional Water Quality Impact Assessment Model having regard for variations in Lake Burragorang (salinity and volume) and spillages from Lake Lyell;
 - reporting procedures for the results of the monitoring program;
 - a program to validate the Regional Water Quality Impact Assessment Model, including an independent review of the model every 3 years, and comparison of monitoring results with modelled predictions; 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; and
 - (iii) Groundwater Management Plan, which is consistent with DPI-Water's 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;
 - 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:
 - o regional and local (including alluvial) aquifers;
 - o groundwater supply of potentially affected landowners; and
 - o groundwater dependent ecosystems (including rules for the management of groundwater level impacts to protect GDEs), and riparian vegetation;
- a program to validate the groundwater model for the development, including an independent review of the model every 3 years, and comparison of monitoring results with modelled predictions; and
- a plan to respond to any exceedances of the performance measures.

BIODIVERSITY

Biodiversity Offset Strategy

15. By the end of December 2016, the Applicant shall update the *Western Projects Biodiversity Strategy* (RPS Australia East Pty Ltd, 1 October 2014) to provide a suitable offset for:
- (a) the clearing of 4 hectares of native vegetation associated with the construction of Bore 8; and
 - (b) the clearing of 8.94 hectares of native vegetation associated with surface infrastructure for the development; to the satisfaction of OEH and the Secretary.

These offsets must be developed in accordance with the *NSW Biodiversity Offset Policy for Major Projects*, or its current version.

Long Term Security of Offset

16. By the end of December 2016, unless the Secretary agrees otherwise, the Applicant shall make suitable arrangements to protect the biodiversity offset areas referred to in condition 15(a)&(b) above in perpetuity, to the satisfaction of the Secretary.

Stygofauna Assessment

17. The Applicant shall prepare and implement a Regional Stygofauna Monitoring and Assessment Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with OEH, and be submitted to the Secretary for approval within 6 months of the date of this consent, unless otherwise agreed by the Secretary;
 - (b) provide for ongoing monitoring for stygofauna in at least one borehole in each aquifer where stygofauna are known to occur;
 - (c) monitor for the presence of stygofauna in the deep aquifer system (AQ1 to AQ3);
 - (d) collate existing available information on groundwater bores, water quality and characteristics in Centennial Coal's mines throughout the Western Coalfield;
 - (e) use this information to form a prioritisation list of likely areas for GDEs to occur;
 - (f) use the prioritisation protocol to identify bores that can be sampled to provide data on the presence and significance of fauna both within and outside mine areas;
 - (g) identify any stygofauna found to a minimum of Family level;
 - (h) advise on the significance of the findings; and
 - (i) examine relationship between bore characteristics and presence of stygofauna

Biodiversity Management Plan

18. The Applicant shall prepare and implement a Biodiversity Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with OEH, Forestry Corporation of NSW and DoE and be submitted to the Secretary for approval by the end of December 2016, unless otherwise agreed by the Secretary;
 - (b) establish baseline data for existing remnant vegetation and habitat on site;
 - (c) describe the short, medium, and long-term measures to be implemented to manage remnant vegetation and habitat on the site, including upland swamps;
 - (d) describe an ongoing monitoring program and TARP for upland swamps and EECs with a particular focus on subsidence-related changes to surface and ground water drainage;
 - (e) include a detailed description of the measures that would be implemented to:
 - minimise impacts to fauna on site, including undertaking pre-clearance surveys;
 - control weeds and feral pests (including goats, rabbits, foxes, cats and pigs);
 - control erosion;

- control access; and
 - manage bushfire risk;
- (f) include a program to monitor and report on the effectiveness of these measures and progress against detailed performance and completion criteria; and
- (g) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

TRANSPORT

Monitoring of Coal Transport

19. The Applicant shall monitor and report on:
- (a) the amount of coal transported from the site by conveyor, private haul roads and, if used, public roads (on a daily basis);
- (b) make these records publicly available on its website at the end of each calendar quarter. to the satisfaction of the Secretary.

Road Transport Restrictions

20. The Applicant shall ensure that any truck leaving the site:
- (a) does not carry dirt or mud onto public roads; and
- (b) is free of material that may fall on the road and create a road safety hazard or public nuisance, to the satisfaction of the Secretary.

Mine Access Road Intersection Upgrade

21. Unless the Secretary agrees otherwise, when peak two-way traffic volume on the Castlereagh Highway at its intersection with the Mine Access Road exceeds 400 vehicles per hour, the Applicant shall upgrade that intersection to include a Channelised Right Turn in accordance with Austroads standards, to the satisfaction of RMS.

Note: Circumstances in which the Secretary may agree to vary the requirement to upgrade the intersection include limited remaining life for mining operations under this consent.

Forestry Roads

22. The Applicant shall maintain forestry access roads when being used for construction and/or exploration activities, to the satisfaction of the Forestry Corporation of NSW.

HERITAGE

Protection of Aboriginal Heritage Items

23. Unless otherwise authorised under the *National Parks and Wildlife Act 1974*, the Applicant shall ensure that the development does not cause any direct or indirect impact on identified Aboriginal heritage items located outside approved disturbance areas on the site.

Note: Identified Aboriginal heritage items are shown on the figure in Appendix 6.

Heritage Management Plan

24. The Applicant shall prepare and implement 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 OEHL, Council and local Aboriginal stakeholders (in relation to management of Aboriginal heritage values);
- (c) be submitted to the Secretary for approval within 6 months of the date of this consent, unless the Secretary agrees otherwise;
- (d) include a description of the measures that would be implemented for:
- managing the discovery of human remains or previously unidentified heritage items, including historic heritage items, on site;
 - ensuring any workers on site receive suitable heritage inductions prior to carrying out any development on site, and that suitable records are kept of these inductions;
- (e) include the following for the management of Aboriginal heritage:
- a description of the measures that would be implemented for:
 - protecting, monitoring and/or managing the heritage items identified in Table 1 (including any proposed archaeological investigations and/or salvage measures);
 - managing the discovery of previously unidentified Aboriginal items on site;

- conserving the sites outside approved disturbance areas (see Appendix 6), including measures that would be implemented to secure, analyse and record any sites at risk of subsidence impacts;
 - 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
- (f) 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 with any Aboriginal Cultural Heritage Management Plan for Centennial Coal's other mines and mine infrastructure in the Lithgow Local Government Area.

VISUAL

Visual and Lighting

25. The Applicant shall:
- (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

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

WASTE

27. The Applicant shall:
- (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 effectiveness of the 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

28. The Applicant shall prepare and implement 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 DRE and the Forestry Commission of NSW;
 - (c) be submitted to the Secretary for approval within 6 months of the date of this consent or prior to carrying out exploration activities causing surface disturbance or constructing surface infrastructure (whichever is the earlier), unless the Secretary agrees otherwise;
 - (d) include a description of the measures that would be implemented for:
 - managing exploration activities;
 - managing construction and operation of minor surface infrastructure (including minewater drainage bores, service boreholes and infrastructure corridors) and associated access tracks;
 - consulting with and compensating 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.

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

REHABILITATION

Rehabilitation Objectives

30. The Applicant shall rehabilitate the site to the satisfaction of DRE. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EIS, and comply with the objectives in Table 7.

Table 7: Rehabilitation Objectives

Feature	Objective
Mine site (as a whole)	<ul style="list-style-type: none"> Safe, stable & non-polluting
Rehabilitation materials	<ul style="list-style-type: none"> Materials from areas disturbed under this consent (including topsoils, substrates and seeds) are to be recovered, managed and used as rehabilitation resources
Surface infrastructure	<ul style="list-style-type: none"> To be decommissioned and removed unless DRE agrees otherwise All surface infrastructure sites are to be revegetated with suitable local native plant species to a landform consistent with the surrounding environment
Portals and vent shafts	<ul style="list-style-type: none"> To be decommissioned and made safe and stable Retain habitat for threatened species (eg bats), where practicable
Revegetated final landforms	<ul style="list-style-type: none"> Stable and sustain the intended land use Consistent with surrounding topography to minimise visual impacts Incorporate relief patterns and design principles consistent with natural drainage
Native flora and fauna	<ul style="list-style-type: none"> Flora species used in rehabilitation selected to re-establish and complement local and regional biodiversity Rehabilitated areas contribute to achieving self-sustaining biodiversity habitats
All watercourses subject to mine-water discharges and/or subsidence impacts	<ul style="list-style-type: none"> Hydraulically and geomorphologically stable, with aquatic ecology and riparian vegetation that is the same, or better than prior to grant of this consent
Cliffs, minor cliffs and steep slopes	<ul style="list-style-type: none"> No additional risk to public safety compared to prior to mining
Other land affected by the development	<ul style="list-style-type: none"> Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of local native plant species (unless DRE agrees otherwise)
Built features damaged by mining operations	<ul style="list-style-type: none"> Repair to pre-mining condition or equivalent unless the: <ul style="list-style-type: none"> owner agrees otherwise; or damage is fully restored, repaired or compensated for under the <i>Mine Subsidence Compensation Act 1961</i>
Community	<ul style="list-style-type: none"> Ensure public safety Minimise the adverse socio-economic effects associated with mine closure

Notes:

- 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 parts of the development, whether constructed prior to or following the date of this consent.

Progressive Rehabilitation

31. The Applicant shall 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

32. The Applicant shall prepare and implement a Rehabilitation Management Plan to the satisfaction of DRE. This plan must:
- be prepared in consultation with the Department, DPI-Water, OEH, Council, WaterNSW and the CCC;
 - be submitted to DRE for approval within 6 months of the date of this consent, unless DRE agrees otherwise;
 - be prepared in accordance with any relevant DRE guideline;
 - include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);

- (e) 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;
- (f) include interim rehabilitation where necessary to minimise the area exposed for dust generation;
- (g) include a program to monitor and report on the effectiveness of the rehabilitation measures and progress against the detailed performance and completion criteria; and
- (h) build to the maximum extent practicable on the other management plans required under this consent.

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

SCHEDULE 5

ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS

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

- (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 development is complying with the relevant criteria in Schedule 4;
 - if the development 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. The Applicant shall prepare and implement an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:
 - (a) be submitted to the Secretary for approval within 6 months of the date of this consent, unless the Secretary agrees otherwise;
 - (b) provide the strategic framework for the 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 development;
 - 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 required to be carried out under the conditions of this consent.

Management Plan Requirements

2. The Applicant shall 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 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 measures; and
 - (h) a protocol for periodic review of the plan.

Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.

Application of Existing Management Plans

3. Prior to the approval of management plans under this consent, the Applicant shall manage development undertaken pursuant to this consent in accordance with any equivalent or similar management plan/s required under consent DA 11/92.

Relationships between Management Plans

4. The Upper Cocks River Action & Monitoring, Water, Biodiversity and Heritage Management Plans required by conditions 13, 14, 18 and 24 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 10 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

5. With the approval of the Secretary, the Applicant may incorporate any strategies, plans or programs required by this consent (except those required under condition 10 of Schedule 3) with the strategies, plans and programs required for Centennial Coal's mining operations in the Lithgow Local Government Area.

Revision of Strategies, Plans and Programs

6. Within 3 months of:
 - (a) the submission of an incident report under condition 10 below;
 - (b) the submission of an annual review under condition 12 below;
 - (c) the submission of an audit under condition 13 below; or
 - (d) any modification to the conditions of this consent (unless the conditions require otherwise),the Applicant shall 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 the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.

Updating & Staging Strategies, Plans or Programs

7. To ensure that strategies, plans and programs required under this consent are updated on a regular basis, and that they incorporate any appropriate additional measures to improve the environmental performance of the development, the Applicant may at any time submit revised strategies, plans or programs for the approval of the Secretary. With the agreement of the Secretary, the Applicant may also submit any strategy, plan or program required by this consent on a staged basis.

With the agreement of the Secretary, the Applicant may prepare a revision of or a stage of a 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 will need to 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/s of the development to which the strategy, plan or program applies; the relationship of this stage/s to any future stages; and the trigger for updating the strategy, plan or program.*

Adaptive Management

8. The Applicant shall assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedules 3 and 4. Any exceedance of these criteria and/or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.

Where any exceedance of these criteria 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

9. The Applicant shall 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 Developments* (Department of Planning, 2007), or its latest version or replacement.

Notes:

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent;*
- *In accordance with the guideline, the Committee should be comprised of an independent chair and appropriate representation from the Applicant, Council, recognised environmental groups and the local community;*
- *The requirement for this CCC may be fulfilled by the operation of a regional CCC for Centennial Coal's mines and mine infrastructure in the Lithgow Local Government Area, and*
- *The Department will accept the continued representation from existing CCC members.*

REPORTING

Incident Reporting

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

Regular Reporting

11. The Applicant shall 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, and to the satisfaction of the Secretary.

ANNUAL REVIEW

12. By the end of March each year, unless the Secretary agrees otherwise, the Applicant shall review 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 past 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 past 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 EIS;
 - (c) identify any non-compliance over the past 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 Review

13. Prior to 30 June 2016, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall 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 approval, relevant EPL/s or Mining Lease/s (including any assessment, plan or program required under these approvals);
 - (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and
 - (e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any strategy, plan or program required under these approvals.

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

14. Within 6 weeks of the completion of this audit, or as otherwise agreed by the Secretary, the Applicant shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.

ACCESS TO INFORMATION

15. Within 3 months from the date of this consent, the Applicant shall:
 - (a) make copies of the following publicly available on its website:
 - the EIS;
 - all current statutory approvals for the development;
 - approved strategies, plans and 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;

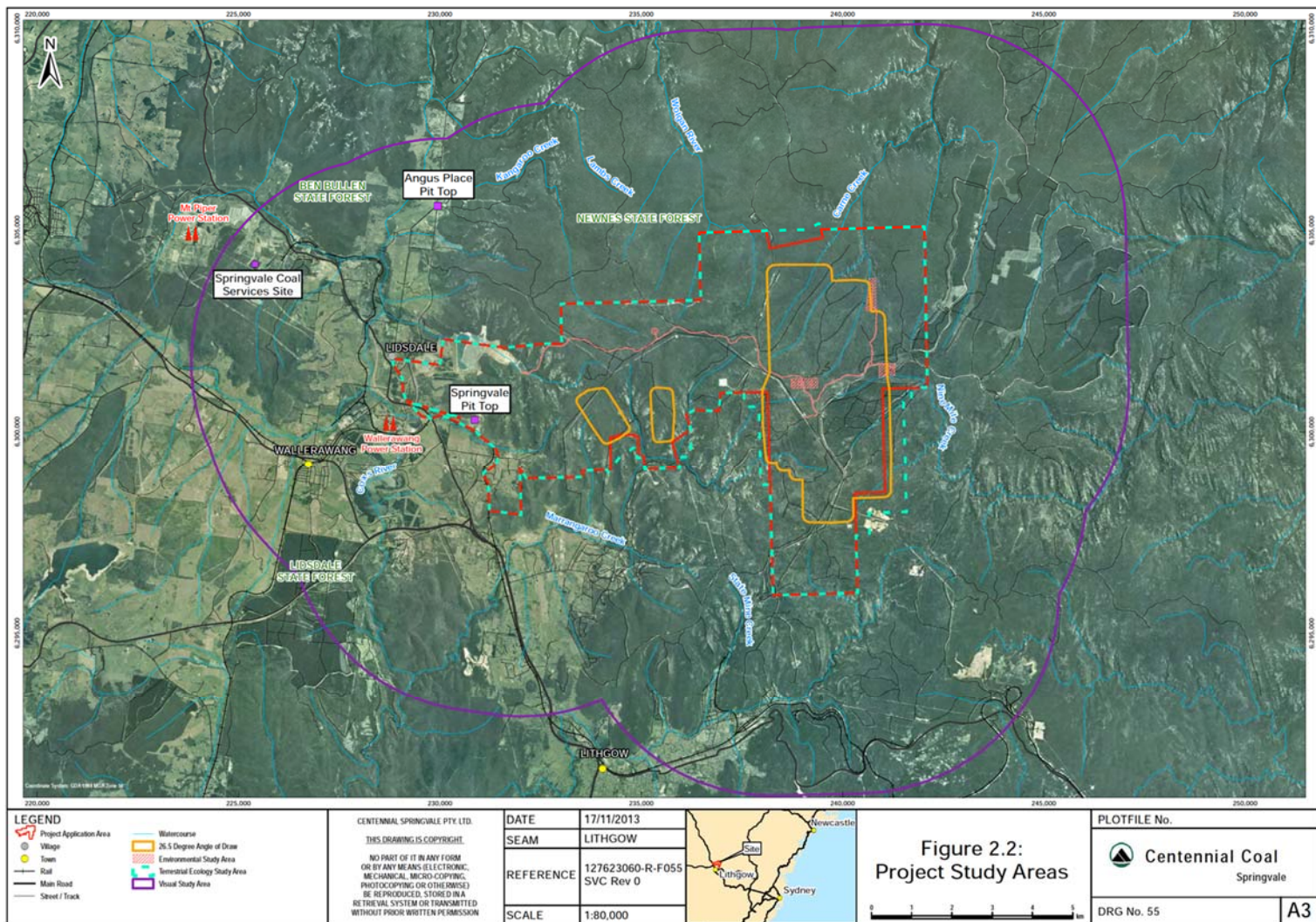
- the last five annual reviews;
 - information provided to and recommendations made by the Independent Monitoring Panel;
 - any independent environmental audit of the development, and the Applicant's response to the recommendations in any audit;
 - any other matter required by the Secretary; and
- (b) keep this information up-to-date, to the satisfaction of the Secretary.

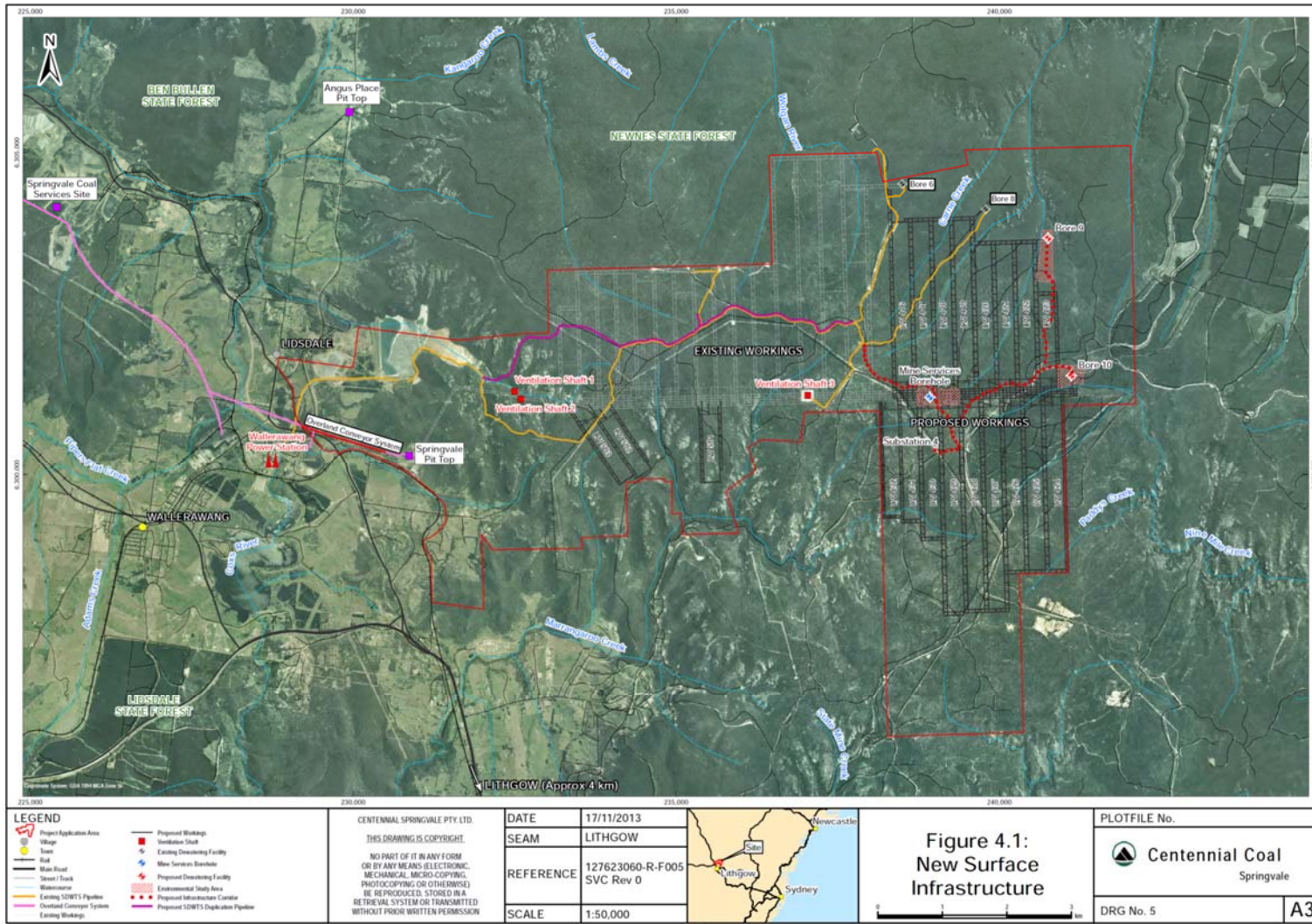
APPENDIX 1: SCHEDULE OF LAND

Land_Status	Created_date	Last_Update	Lot_DP
FREEHOLD	19930804	20041126	9//16283
FREEHOLD	19930804	20041126	10//16283
FREEHOLD	19930804	20041126	26//16283
FREEHOLD	19930804	20041126	23//16283
FREEHOLD	19930804	20041126	B//417872
FREEHOLD	19930804	20041126	14//16283
FREEHOLD	19930804	20041126	1//551636
FREEHOLD	19930804	20041126	19//16283
FREEHOLD	19930804	20041126	2//607402
FREEHOLD	19930804	20041126	28//16283
FREEHOLD	19930804	20041126	30//16283
FREEHOLD	19930804	20041126	1//421721
FREEHOLD	20010504	20041126	2//1018958
FREEHOLD	19930804	20041126	18//16283
FREEHOLD	19930804	20041126	8//16283
FREEHOLD	20000308	20041126	101//829410
FREEHOLD	19930804	20041126	1//607402
FREEHOLD	19960418	20041126	1//825124
FREEHOLD	19940418	20041126	3//829137
FREEHOLD	19930804	20041126	16//16283
FREEHOLD	19930804	20041126	24//16283
FREEHOLD	19930804	20041126	20//16283
FREEHOLD	19930804	20041126	29//16283
FREEHOLD	19930804	20041126	25//16283
FREEHOLD	19930804	20041126	3//607402
FREEHOLD	19930804	20041126	A//417872
FREEHOLD	19930804	20041126	12//16283
FREEHOLD	19930804	20041126	15//16283
FREEHOLD	19940418	20041126	2//829137
FREEHOLD	19930804	20041126	11//16283
FREEHOLD	19930804	20041126	C//417872
FREEHOLD	19930804	20041126	7//16283
FREEHOLD	19930804	20041126	17//16283
FREEHOLD	19930804	20041126	13//16283
FREEHOLD	19930804	20041126	27//16283
FREEHOLD	20060925	20060925	23//1101696
FREEHOLD	20060925	20060925	21//1101696
FREEHOLD	20060925	20060925	22//1101696
FREEHOLD	20081023	20081023	228//1131953
FREEHOLD	20090712	20090715	10//1139978
FREEHOLD	20090712	20090715	11//1139978
FREEHOLD	20010504	20041126	1//1018958
FREEHOLD	19940418	20041126	1//175470
FREEHOLD	19930804	20041126	4//805024
FREEHOLD	19930804	20041126	33//751655
FREEHOLD	19930804	20041126	32//751655
FREEHOLD	19930804	20041126	39//751655
FREEHOLD	19930804	20090407	72//751651
FREEHOLD	19930804	20090407	302//751651

FREEHOLD	19930804	20090407	68//751651
FREEHOLD	19930804	20090411	407//751651
CROWN	19930804	20090906	195//751651
FREEHOLD	19951010	20111223	1//787242
FREEHOLD	19990823	20111223	67//1004747
FREEHOLD	19930804	20041126	37//751655
FREEHOLD	19940418	20041126	5//829137
FREEHOLD	19930804	20041126	30//751655
FREEHOLD	19970520	20041126	21//868170
FREEHOLD	19960222	20041126	38//751655
FREEHOLD	19970415	20041126	2//226790
FREEHOLD	19970415	20041126	3//226790
FREEHOLD	19930804	20041126	3//805024
FREEHOLD	19970415	20041126	1//226790
FREEHOLD	19930804	20041126	26//751655
FREEHOLD	19930804	20041126	31//751655
FREEHOLD	19930804	20041126	99//751655
FREEHOLD	19950215	20041126	2//835651
FREEHOLD	19970520	20041126	22//868170
FREEHOLD	19930804	20090411	73//751651
CROWN	19930804	20090829	129//751651
CROWN	20100322	20100617	7318//1149348
FREEHOLD	19930804	20100903	125//751651
STATE FORESTS OF NSW	19930804	20110313	201//751655
STATE FORESTS OF NSW	19930804	20110313	84//751655
FREEHOLD	19940415	20041126	1//576152
FREEHOLD	19930804	20041126	1//113040
FREEHOLD	19930804	20041126	50//751655
FREEHOLD	19930804	20041126	47//751655
STATE FORESTS OF NSW	19930804	20110313	35//751634
STATE FORESTS OF NSW	19930804	20110313	203//751655
STATE FORESTS OF NSW	19930804	20110313	52//751655
STATE FORESTS OF NSW	19930804	20110313	53//751655
STATE FORESTS OF NSW	19940810	20110313	51//751655
STATE FORESTS OF NSW	19930804	20110313	202//751655
STATE FORESTS OF NSW	19930804	20110313	54//751655

APPENDIX 2: DEVELOPMENT LAYOUT PLAN







Pit Top Surface Facility

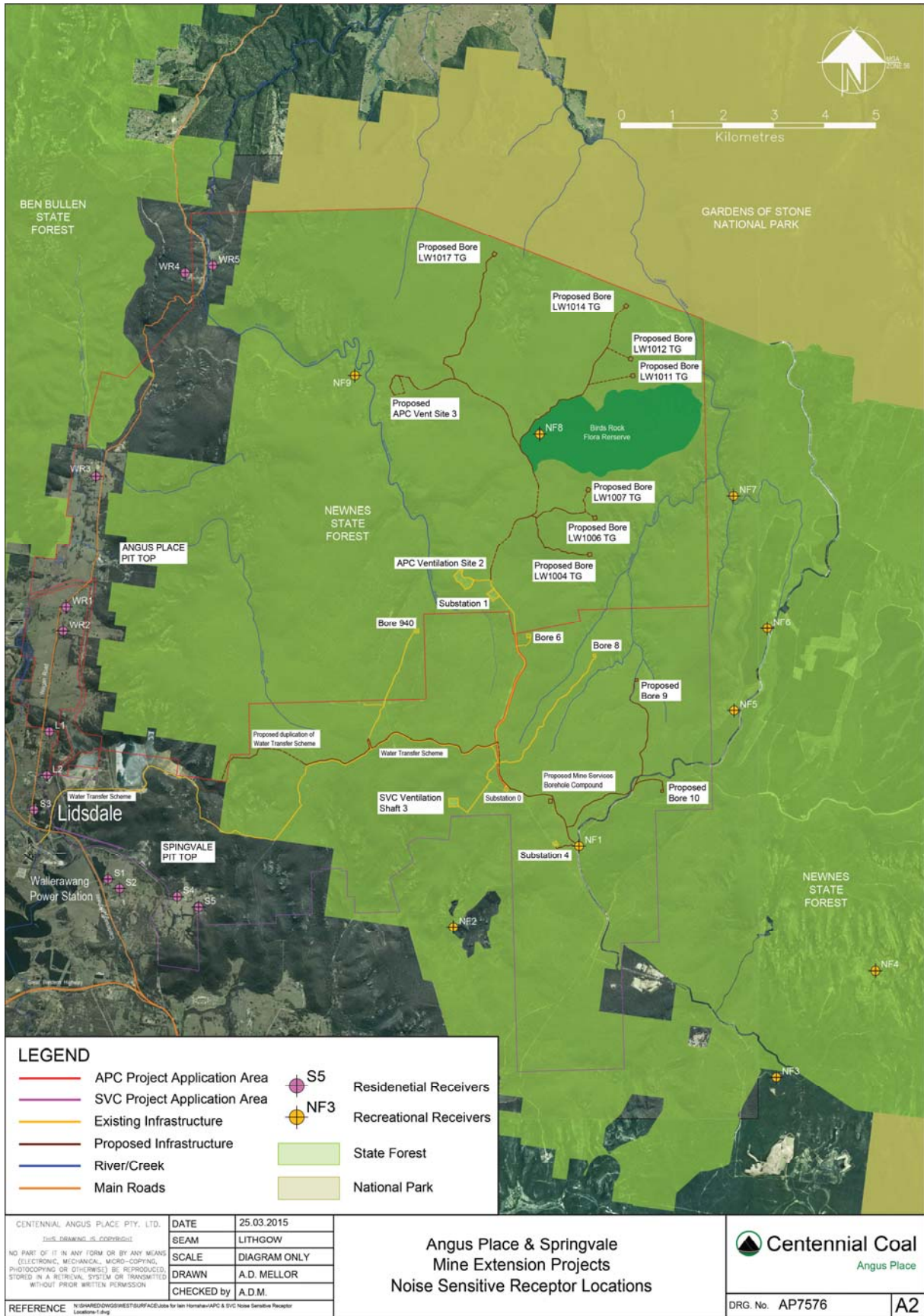
APPENDIX 3: STATEMENT OF COMMITMENTS

Desired Outcome	Action
1. General	
<p>All operations are undertaken in a manner that will minimise the environmental impacts associated with the Project.</p>	<p>Operations will be undertaken in accordance with the description provided in this EIS.</p> <p>As the required exploration drill holes are determined, Springvale Coal will undertake a series of due diligence assessments to consider key impacts as relevant. The general approach of the due diligence assessments will be to conduct site investigations to ensure that significant impacts are avoided.</p> <p>Springvale Coal will develop Trigger Action Response Plans as part of the development of the certain management plans which will detail the response to be taken if mining induced impacts occur.</p>
2. Development Phase	
<p>All construction operations are appropriately undertaken to minimise potential impacts to the environment.</p>	<p>Prior to construction of surface facilities on the Newnes Plateau, a Construction Environmental Management Plan will be developed in consultation with the Forestry Corporation of NSW. This plan will include noise management in accordance with the Project Specific Noise Criteria detailed in Section 10.6.3 of the EIS. A copy of the Construction Environmental Management Plan will be provided to Lithgow City Council for their consideration.</p>
3. Exploration	
<p>All exploration activities are appropriately undertaken to minimise potential impacts to the environment.</p>	<p>Proposed exploration activities will be notified to DRE and where applicable to the Forestry Corporation of NSW. All required approvals will be obtained prior to the commencement of any exploration activities. Copies of any due diligence assessments will also be provided to DRE and Forestry Corporation (where applicable).</p>
4. Hours of Operation	
<p>All operations are undertaken within the approved operating hours.</p>	<p>Operations will be undertaken 24 hours a day 7 days a week, 52 weeks per year.</p>
5. Surface Water, Groundwater, Geomorphology and Aquatic	
<p>All surface water groundwater and aquatic impacts are minimised to the greatest extent possible.</p>	<p>Within six (6) months of development consent, a Water Management Plan will be developed that includes the monitoring requirements identified in Section 10.2.5 of the EIS.</p> <p>The Water Management Plan will be developed in consultation with the NSW Office of Water.</p> <p>Groundwater models will be updated every 6 months and a review will be included in the Annual Review. Copies of the Annual Review will continue to be provided to NOW.</p> <p>Throughout the life of the Project, stygofauna will be monitored using standing water levels within one borehole in each aquifer where stygofauna are known to occur (AQ4 to AQ6). Where available, monitoring of the deep aquifer system, AQ 1 to AQ3 will be undertaken to establish presence of stygofauna.</p> <p>Centennial Coal will undertake a regional stygofauna assessment which will:</p> <ul style="list-style-type: none"> • Collate existing available information on groundwater bores, water quality and characteristics in Centennial Coal's area of operations throughout the Western Coalfield.

Desired Outcome	Action
	<ul style="list-style-type: none"> • Use this information to form a prioritisation list of likely areas for GDE to occur. • Use the prioritisation protocol to identify bores that can be sampled to provide data on the presence and significance of fauna both within and outside mine areas. • Identify any stygofauna found to a minimum of Family level. • Advise on the significance of the findings. • Examine relationship between bore characteristics and presence of stygofauna. <p>Springvale Coal have commenced the process to secure the required surface water licences for the Project.</p> <p>Springvale Coal will commit to notify NSW Fisheries if any monitoring detects significant impacts to third order drainage lines as a result of subsidence.</p> <p>Springvale Coal will undertake further investigations into the toxicity of LDP009 water discharge to identify the cause of the toxicity.</p> <p>Springvale Coal will develop and implement a management program that includes:</p> <ol style="list-style-type: none"> a) Water quality, macroinvertebrate and ecotoxicology monitoring across the Coxs River Catchment to measure the performance against the long term water quality objective and the impacts of change on the aquatic ecology and ecosystem health of the Coxs River. b) The water quality parameters to be monitored at all proposed Licenced Discharge Points, the frequency of monitoring and concentration limits focussed on those that have been identified as having potential to cause harm to the environment. c) A Trigger Action Response Plan should concentration limits be exceeded that focusses on the extent to which an exceedance of quality limits might affect aquatic ecology of the Coxs River catchment.
6. Terrestrial and Aquatic Ecology	
	<p>Within two (2) years of development consent, a Biodiversity Management Plan will be developed and implemented. The Plan will be developed in consultation with DPE, OEH, DoE, Forestry Corporation of NSW, NPWS and will include the outcomes of the Research Strategy.</p>
7. Aboriginal Heritage Management	
<p>Ensure that identified and unidentified Aboriginal Sites are appropriately managed.</p>	<p>Aboriginal Heritage will be monitored and managed in accordance with Table 8.2 of this EIS.</p> <p>Within 6 months of the date of approval, the Cultural Heritage Management Plan will be updated.</p>
8. Traffic and Transport	
<p>Project-related impacts on the road network are limited.</p>	<p>Prior to the commencement of construction activities, a Construction Traffic Management Plan will be developed and implemented. The Plan will be developed in consultation with Lithgow City Council and Forestry Corporation of NSW.</p>
9. Noise and Vibration	
<p>All noise impacts are minimised to the greatest extent possible.</p>	<p>The existing Noise Management Plan will be updated to include the noise criteria for the Project and a noise monitoring programme for the sensitive receptors identified in Figure 10.25 of the EIS. The noise monitoring programme will include continuous, unattended noise monitoring and operator attended quarterly noise monitoring.</p>

Desired Outcome	Action
10. Air Quality and Greenhouse Gas	
All air quality impacts are minimised to the greatest extent possible.	<p>Within six (6) months of development consent, the Air Quality Management Plan will be updated to include the mitigation measures identified in Section 10.7 of the EIS.</p> <p>An additional TEOM will be installed as part of a regional air quality monitoring programme that is currently being developed by Centennial Coal.</p>
11. Soils and Land Capability	
All soil and land impacts are minimised to the greatest extent possible	<p>Soil stripping will be undertaken in accordance with the soil stripping depths in the Soils and Land Capability Report appended to this EIS.</p> <p>The following topsoil management measures will be applied:</p> <ul style="list-style-type: none"> • topsoil will be stripped to depths in Table 10.44 of the EIS only when moist and stockpiled a maximum of 3 m high; • topsoil stripping will immediately precede construction to minimise the time that bare subsoils are exposed; • ameliorants for each soil type will be applied as per the Soils and Land Capability Report; • topsoil that is to be stockpiled for longer than 3 months will be stabilised with an annual cover crop; and • prior to re-spreading stockpiled topsoil, weeds will be removed.
12. Life of Mine and Rehabilitation	
Rehabilitation of the Springvale Coal Services Site is conducted in accordance with Industry Standards.	<p>Progressive rehabilitation will be undertaken in accordance with the Rehabilitation Strategy appended to this EIS.</p> <p>Within 6 months of approval, the Mining Operations Plan will be updated to include the rehabilitation requirements outlined in the Rehabilitation Strategy of this EIS.</p>
13. Hazards	
Safety of the underground personnel from the underground strata will be maintained.	The existing Hazard Plan, being part of the Strata Failure Management System, will be maintained and updated on an ongoing basis as required, in accordance with the Clause 28b (ii) of the <i>Coal Mine Health and Safety Regulation 2006</i> .
14. Community Contributions	
Meet Centennial's corporate social responsibility objectives	Centennial Coal will contribute three cents per saleable tonne of coal (exclusive of GST) produced from the Springvale, Angus Place and Airly Mines, as a 'Community Contribution' to Lithgow City Council. This Community Contribution will be capped at \$200,000 annually and the funds allocated to long-term community activities and projects agreed by both parties and reported publicly. Commencement of the 'Community Contribution' will be from the date the first of the above three mines is granted consent.

APPENDIX 4: NOISE RECEIVER LOCATION PLAN



**APPENDIX 5
NOISE COMPLIANCE ASSESSMENT**

Applicable Meteorological Conditions

1. The noise criteria in Tables 3 and 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 inversion conditions and wind speeds 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 shall 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. This monitoring must be carried out at least 4 times in each calendar year (ie at least once in every quarter), unless the Secretary directs otherwise.
5. 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) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment;
 - (c) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration; and
 - (d) the use of an appropriate modifying factor for low frequency noise to be applied during compliance testing at any individual residence if low frequency noise is present (in accordance with the INP) and before comparison with the specified noise levels in the consent.

