# **Project Approval**

## Section 75J of the Environmental Planning & Assessment Act 1979

As delegate for the Minister for Planning, I approve the project application referred to in schedule 1, subject to the conditions in schedules 2 to 5.

These conditions are required to:

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

#### Richard Pearson Deputy Director-General Development Assessment and Systems Performance

| Sydney              | 2010                               |  |
|---------------------|------------------------------------|--|
|                     | SCHEDULE 1                         |  |
| Application Number: | 09_0178                            |  |
| Proponent:          | The Wallerawang Collieries Limited |  |
| Approval Authority: | Minister for Planning              |  |
| Land:               | See Appendix 1                     |  |
| Project:            | Baal Bone Coal Project             |  |

Blue type represents the February 2015 modification (MOD 1)

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## DEFINITIONS

| Angle of draw                                       | The angle at which subsidence spreads out towards the limit of subsidence at the ground surface   |
|---|---|
| Annual review                                       | The review required by condition 3 of schedule 5  |
| BCA<br>Built features                               | Building Code of Australia<br>Includes any building or work erected or constructed on land, and includes<br>dwellings and infrastructure such as any formed road, street, path, walk, or<br>driveway and pipeline, water sewer telephone, gas or other service main   |
| CCC<br>Cliff  | driveway; and pipeline, water, sewer, telephone, gas or other service main<br>Community Consultative Committee<br>Continuous rock face, including overhangs, having a minimum height of 10<br>metres and a slope greater than $66^{\circ}$  |
| Conditions of this approval<br>Council<br>Day       | Conditions contained in schedules 2 to 5 inclusive<br>Lithgow City Council<br>The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on   |
| Department<br>Deputy Secretary of DRE<br>DPI<br>DRE | Sundays and Public Holidays<br>Department of Planning and Environment<br>Deputy Secretary Resources and Energy, or nominee<br>Department of Primary Industries<br>Division of Resources and Energy (within NSW Department of Trade and  |
| EA  | Investment, Regional Infrastructure and Services)<br>Environmental Assessment titled <i>Baal Bone Colliery Environmental</i><br><i>Assessment</i> (Volumes 1 to 3), dated March 2010, including the   |
| EA (Mod 1)  | Proponent's Response to Submissions document, dated July 2010<br>Environmental Assessment Section 75W Modification to Project Approval<br>09_0178 – Baal Bone Coal Project, prepared by Umwelt (Australia) Pty Ltd,<br>and dated 17 October 2014, and supplementary information Baal Bone<br>Coal Project: Modification 1 – Extension of Time dated 21 November 2014. |
| Environmental consequences                          | The environmental consequences of subsidence impacts, including:<br>damage to built features; loss of surface flows to the subsurface; loss of<br>standing pools; adverse water quality impacts; development of iron<br>bacterial mats; cliff falls; rock falls; damage to Aboriginal heritage sites;   |
| EP&A Act  | impacts to aquatic ecology; ponding<br>Environmental Planning and Assessment Act 1979   |
| EP&A Regulation<br>EPA                              | Environmental Planning and Assessment Regulation 2000<br>Environment Protection Authority   |
| EPL   | Environment Protection Licence issued by EPA under the Protection of the  |
| Evening   | Environment Operations Act 1997<br>The period from 6pm to 10pm  |
| Feasible  | Feasible relates to engineering considerations and what is practical to build   |
| Incident  | A set of circumstances that causes or threatens to cause material harm to<br>the environment, and/or breaches or exceeds the limits or performance<br>measures/criteria in this approval  |
| Land  | In general, the definition of land is consistent with the definition in the EP&A<br>Act. However, in relation to the noise and air quality conditions in<br>Schedules 3 and 4 it means the whole of a lot, or contiguous lots owned by<br>the same landowner, in a current plan registered at the Land Titles Office at<br>the date of this approval                  |
| Longwalls 29-31<br>Material harm to the environment | The longwall panels shown in blue shading in Figure 1 of Appendix 2<br>Harm to the environment is material if it involves actual or potential harm to<br>the health or safety of human beings or to ecosystems that is not trivial  |
| Mine water  | Water that accumulates within active mining areas, coal reject<br>emplacement areas, tailings dams and infrastructure areas, synonymous<br>with dirty water   |
| Mining operations                                   | Includes all coal extraction, processing and transportation activities carried<br>out on site   |
| Minister  | Minister for Planning, or delegate  |
| Minor   | Small in quantity, size and degree  |
| Mitigation<br>Negligible                            | Activities associated with reducing the impacts of the project<br>Small and unimportant, such as to be not worth considering  |
| Night   | The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays   |
| NOW   | NSW Office of Water, within DPI   |
| OEH   | Office of Environment and Heritage  |
| POEO Act<br>Privately-owned land                    | The <i>Protection of the Environment Operations Act 1997</i><br>Land that is not owned by a public agency or a mining company (or its subsidiary)   |
| Project<br>Proponent                                | The development as described in the EA<br>The Wallerawang Collieries Limited, or its successors   |

| 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   |
|----------------------------------|--|
| Rehabilitation                   | The treatment or management of land disturbed by the project for the purpose of establishing a safe, stable and non-polluting environment  |
| Remediation                      | Activities associated with partially or fully repairing or rehabilitating the impacts of the project or controlling the environmental consequences of this impact  |
| Remnant coal mining areas<br>ROM | Underground mine workings as shown in green shading in Appendix 1<br>Run-of-mine   |
| Safe, serviceable & repairable   | Safe means no danger to users, serviceable means available for its intended use, and repairable means damaged components can be repaired economically  |
| Secretary                        | Secretary of the Department, or nominee  |
| Site                             | Land to which the project application applies, as listed in Appendix 1   |
| Statement of commitments         | The Proponent's commitments in Appendix 3  |
| 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 |

## SCHEDULE 2 ADMINISTRATIVE CONDITIONS

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

1. The Proponent 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 project.

#### **TERMS OF APPROVAL**

- 2. The Proponent shall carry out the project generally in accordance with the:
  - (a) EA;
  - (b) statement of commitments;
  - (c) EA (Mod 1); and
  - (d) the conditions of this approval.

#### Notes:

- The general layout of the project is shown in Appendix 2;
- The statement of commitments is reproduced in Appendix 3.
- 3. If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.
- 4. The Proponent shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:
  - (a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this approval; and
  - (b) the implementation of any actions or measures contained in these documents.

#### LIMITS ON APPROVAL

- 5. The Proponent may undertake mining operations on the site until 31 December 2019.
  - Note: Under this approval, the Proponent is required to rehabilitate the site and perform additional undertakings to the satisfaction of the Secretary and DRE. Consequently this approval will continue to apply in all other respects other than the right to conduct mining operations until the site has been properly rehabilitated.
- 6. The Proponent shall not extract more than 2.8 million tonnes of ROM coal from the site per calendar year.
- 7. The Proponent shall not transport more than 900,000 tonnes of coal per calendar year by road.
- 8. The Proponent shall not transport any coal reject from the site.

#### SURRENDER OF CONSENTS

9. Within 12 months of the date of this approval, or as otherwise agreed by the Secretary, the Proponent shall surrender all existing development consents for the operation of the Baal Bone Colliery, in accordance with sections 75YA and 104A of the EP&A Act, to the satisfaction of the Secretary.

#### STRUCTURAL ADEQUACY

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

Notes:

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

#### DEMOLITION

11. The Proponent shall ensure that all demolition work is carried out in accordance with AS 2601-2001: The Demolition of Structures, or its latest version.

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

- 12. The Proponent shall ensure that all plant and equipment used at the site is:
  - (a) maintained in a proper and efficient condition; and
  - (b) operated in a proper and efficient manner.

#### STAGED SUBMISSION OF STRATEGIES, PLANS OR PROGRAMS

13. With the approval of the Secretary, the Proponent may submit any strategies, plans or programs required by this approval on a progressive basis. Existing strategies, plans or programs at the date of this approval may continue to be implemented for mining operations, until the strategies, plans or programs required under this approval are approved by the Secretary, in accordance with the EA, Statement of Commitments and the conditions of this approval.

Note: The conditions of this approval require certain strategies, plans, and programs to be prepared for the project. They also require these documents to be reviewed and audited on a regular basis to ensure they remain effective. However, in some instances, it will not be necessary or practicable to prepare these documents for the whole project at any one time; particularly as these documents are intended to be dynamic and improved over time. Consequently, the documents may be prepared and implemented on a progressive basis. In doing this however, the Proponent will need to demonstrate that it has suitable documents in place to manage the existing operations of the project.

## SCHEDULE 3 SPECIFIC ENVIRONMENTAL CONDITIONS

## SUBSIDENCE

#### **Performance Measures**

1. The Proponent shall ensure that the project does not cause any exceedences of the performance measures in Table 1.

| Water   |   |
|---|---|
| Coxs River, Coxs River Swamp, Wolgan River,   | No greater subsidence impact or environmental |
| Jews Creek, Baal Bone Creek and Ben Bullen    | consequences than predicted in the EA.        |
| Creek   |   |
| Biodiversity                                  |   |
| Threatened species or populations, endangered | Negligible impact.                            |
| ecological communities                        |   |
| Land  |   |
| Cliffs  | No cliff falls from the Wolgan Escarpment     |
| Rock pagodas                                  | Negligible impact                             |
| Other rock formations                         | No greater subsidence impact or environmental |
|   | consequences than predicted in the EA.        |
| Heritage                                      |   |
| Aboriginal cultural heritage sites            | No greater subsidence impact or environmental |
|   | consequences than predicted in the EA.        |
| Built Features                                |   |
| Wolgan Gap Trig Station                       | Safe, serviceable and repairable.             |
| Public Safety                                 |   |
| Public Safety                                 | No additional risk due to mining.             |

Note: The Proponent maybe required to define more detailed performance indicators for each of these performance measures in the various management plans that are required under this approval.

#### **First Workings**

2. The Proponent may carry out first workings on site provided that DRE is satisfied that the first workings are designed to remain long-term stable and non-subsiding, except insofar as they may be impacted by approved second workings.

#### Notes:

- 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, in
  accordance with the subsidence criteria in Table 1 above.
- First workings are defined as comprising the development of main headings, bord and pillar workings, roads, cut throughs and the like.
- Second workings are defined as comprising the extraction of coal through pillar extraction, including pillar splitting and pillar quartering.

#### **Extraction Plan**

- 3. The Proponent shall prepare and implement an Extraction Plan for second workings on site to the satisfaction of the Secretary. Each Extraction Plan must:
  - a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;
  - b) be approved by the Secretary before the Applicant carries out any of the second workings covered by the plan;
  - c) integrate ongoing management of previously mined areas;
  - d) include detailed plans of existing and proposed first and second workings and overlying surface features;
  - e) include adequate consideration of mine roof and floor conditions, pillar width to height ratios, final pillar dimensions and long-term stability of pillars, which has been prepared in consultation with DRE;
  - f) include detailed performance indicators for each of the performance criteria in Table 1;
  - g) describe the measures that would be implemented to ensure compliance with the performance criteria in Table 1, and manage or remediate any impacts and/or environmental consequences;
  - include a Public Safety Management Plan, which has been prepared in consultation with DRE, to ensure public safety in the mining area;
  - i) incorporate measures to conserve and protect:
    - clifflines, rock pagodas and other rock formations

- watercourses;
- groundwater;
- terrestrial flora and fauna and ecology (including any threatened species and their
- habitats); and
- Aboriginal cultural heritage.
- j) include a subsidence monitoring program, which has been prepared in consultation with DRE; and
- k) include a program to collect sufficient baseline data for future Extraction Plans.

## NOISE

#### Noise Impact Assessment Criteria

2. By 31 December 2011, the Proponent shall ensure that the noise generated by the project does not exceed the long term noise impact assessment criteria in Table 2 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

Table 2: Long Term Noise Impact Assessment Criteria

| Location                       | All periods              | Night                                |
|--------------------------------|--------------------------|--------------------------------------|
| Location                       | $dB(A) L_{Aeq (15 min)}$ | dB(A) <b>L</b> <sub>A1 (1 min)</sub> |
| R1                             | 46                       | 47                                   |
| R2                             | 41                       | 48                                   |
| R3                             | 41                       | 48                                   |
| All other privately-owned land | 35                       | 45                                   |

3. Until 31 December 2011, the Proponent shall ensure that the noise generated by the project does not exceed the interim noise impact assessment criteria in Table 3 at any residence on privately-owned land or on more than 25 per cent of any privately-owned land.

| Location                       | All periods              | Night                 |
|--------------------------------|--------------------------|-----------------------|
|                                | $dB(A) L_{Aeq (15 min)}$ | $dB(A) L_{A1(1 min)}$ |
| R1                             | 48                       | 47                    |
| R2                             | 43                       | 48                    |
| R3                             | 43                       | 48                    |
| All other privately-owned land | 35                       | 45                    |

Table 3: Interim Noise Impact Assessment Criteria

Notes to Tables 2 and 3:

• To interpret the locations referred to in Table 2, see the applicable figure in Appendix 2;

Noise generated by the project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy; and

• These noise impact assessment criteria do not apply if the Proponent has an agreement with the relevant owner/s to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.

#### Noise Management Plan

- 4. The Proponent shall prepare a Noise Management Plan for the project, to the satisfaction of the Secretary. The plan must:
  - (a) be prepared in consultation with EPA, and submitted to the Secretary for approval within 6 months of the date of this approval; and
  - (b) include a Noise Monitoring Program, that uses a combination of real-time and supplementary attended monitoring measures, and includes a protocol for determining exceedances with the relevant conditions of this approval.

## **Operating Conditions**

- 5. The Proponent shall:
  - (a) implement best practice noise management, including all reasonable and feasible noise mitigation measures to minimise the operational, low frequency, rail, and road traffic noise generated by the project;
  - (b) regularly assess the real-time noise monitoring and meteorological forecasting data and relocate, modify, and/or stop operations on site to ensure compliance with the relevant conditions of this approval,

to the satisfaction of the Secretary.

#### **Road Haulage Management Plan**

- 6. The Proponent shall prepare and implement a Road Haulage Management Plan for the project to the satisfaction of the Secretary. This plan must:
  - (a) be submitted to the Secretary for approval 3 months prior to any proposal to truck more than 5,000 tonnes of coal per month from the mine;
  - (b) detail the procedures for the ongoing assessment of noise impacts on residences as a result of road haulage of coal from the project; and
  - (c) detail the procedures for the ongoing identification and implementation of reasonable and feasible noise mitigation works at residences adversely impacted by road haulage noise directly attributable to the project.

#### **AIR QUALITY & GREENHOUSE GAS**

#### Greenhouse Gas Emissions

7. The Proponent shall implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site to the satisfaction of the Secretary.

#### Air Quality Impact Assessment Criteria

8. The Proponent shall ensure that the dust emissions generated by the project do not cause additional exceedances of the criteria listed in Tables 3, 4 and 5 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.

| Pollutant   | Averaging period | <sup>d</sup> Criterion            |
|---|------------------|-----------------------------------|
| Total suspended particulate (TSP) matter            | Annual           | <sup>a</sup> 90 µg/m <sup>3</sup> |
| Particulate matter < 10 $\mu$ m (PM <sub>10</sub> ) | Annual           | <sup>a</sup> 30 µg/m <sup>3</sup> |

#### Table 4: Short term criterion for particulate matter

| Pollutant                                      | Averaging period | <sup>d</sup> Criterion            |
|--|------------------|-----------------------------------|
| Particulate matter < 10 µm (PM <sub>10</sub> ) | 24 hour          | <sup>a</sup> 50 μg/m <sup>3</sup> |

#### Table 5: Long term criteria for deposited dust

| Pollutant                   | Averaging period | Maximum increase <sup>2</sup> in<br>deposited dust level | Maximum total<br>deposited dust level  |
|-----------------------------|------------------|--|--|
| <sup>c</sup> Deposited dust | Annual           | <sup>b</sup> 2 g/m <sup>2</sup> /month                   | <sup>a</sup> 4 g/m <sup>2</sup> /month |

Notes for Tables 3-5:

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

#### **Operating Conditions**

9. The Proponent shall:

- ensure any that any air pollution generated by the project which is visible from privately owned land or public roads is assessed regularly, and that operations are modified and/or stopped as far as is reasonable and feasible to minimise air quality impacts on privately-owned land;
- (b) ensure that the real-time air quality monitoring and meteorological forecasting data are assessed regularly, and that operations are modified and/or stopped as required to ensure compliance with the relevant air quality criteria; and
- (c) implement all reasonable and feasible measures to minimise off-site odour, fume and dust emissions generated by the project,

to the satisfaction of the Secretary.

#### Air Quality Monitoring Program

- 10. The Proponent shall prepare and implement a Air Quality Monitoring Program for the project to the satisfaction of the Secretary. This program must:
  - (a) be prepared in consultation with EPA, by a suitably qualified expert whose appointment has been approved by the Secretary;
  - (b) be submitted to the Secretary for approval within 3 months of the date of this approval, or as; otherwise agreed by the Secretary;
  - (c) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, including the proposed real-time air quality management system; and
  - (d) include an air quality monitoring program, using a combination of real-time monitors, high volume samplers and dust deposition gauges to monitor the performance of the project, and a protocol for determining exceedances with the relevant conditions of this approval.
  - Note: The air quality monitoring program may incorporate monitoring from any relevant regional monitoring network endorsed by EPA.

#### METEOROLOGICAL MONITORING

11. The Proponent shall ensure that there is a suitable 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.

#### SOIL & WATER

#### Water Discharges

12. The Proponent shall ensure that all surface water discharges from the site comply with the discharge limits (both volume and quality) set for the project in any EPL.

#### **Ben Bullen Creek**

13. The Proponent shall restore Ben Bullen Creek to the satisfaction of the Secretary, in general accordance with the Ben Bullen Creek Natural Channel Design and Restoration Plan.

#### Water Management Plan

- 14. The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must:
  - (a) be prepared in consultation with EPA, DPI and NOW by suitably qualified expert/s whose appointment/s have been approved by the Secretary;
  - (b) be submitted to the Secretary for approval prior to carrying out any construction on site; and
  - (c) include:
    - a detailed Site Water Balance;
    - the Ben Bullen Creek Natural Channel Design and Restoration Plan;
    - an Erosion and Sediment Control Plan;
    - a Surface Water Monitoring Program;

- a Groundwater Monitoring Plan; and
- a Surface and Ground Water Response Plan.
- 15. The Site Water Balance must include details of:
  - (a) sources of water supply;
  - (b) water use on site;
  - (c) water management on site;
  - (d) off-site water transfers; and
  - (e) reporting procedures.
- 16. The Ben Bullen Creek Natural Channel Design and Restoration Plan must include:
  - (a) geomorphic and geotechnical assessment of the existing Ben Bullen Creek diversion;
  - (b) assessment of flood hydraulics of the existing diversion;
  - (c) staging and timing of remediation works;
  - (d) detailed design of bed and bank remediation works;
  - (e) revegetation and rehabilitation methods;
  - (f) a program to monitor surface water flows, quality, stream health and channel stability; and
  - (g) an implementation program.
- 17. The Erosion and Sediment Control Plan must:
  - (a) be consistent with the requirements of the *Managing Urban Stormwater, Soils and Construction Volume 2E Mines and Quarries* (DECCW, 2008), or its latest version;
  - (b) identify activities that could cause soil erosion and generate sediment;
  - (c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;
  - (d) describe the location, function, and capacity of erosion and sediment control structures; and
  - (e) describe what measures would be implemented to maintain the structures over time.
- 18. The Surface Water Monitoring Plan must include:
  - (a) detailed baseline data on surface water flows and quality in creeks and other waterbodies that could be impacted by the project (including the Coxs River, Ben Bullen Creek, Baal Bone Creek and Jews Creek);
  - (b) surface water quality and stream health assessment criteria, including trigger levels for investigating any potentially adverse surface water impacts; and
  - (c) a program to monitor:
    - surface water flows, quality, and impacts on water users;
    - stream health; and
    - channel stability

in the Coxs River, Ben Bullen Creek, Baal Bone Creek and Jews Creek.

- 19. The Groundwater Monitoring Plan must include:
  - (a) baseline data of groundwater levels, yield and quality in the region that may be affected by mining operations on site;
  - (b) a program to augment the baseline data over the life of the project;
  - (c) groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts;
  - (d) a program to monitor:
    - groundwater inflows to the underground mining operations;
    - the impacts of the project on:
      - the alluvial, Triassic, and coal seam aquifers;
      - base flows to the Coxs River Swamp;
      - any groundwater bores on privately-owned land;
      - riparian vegetation; and
    - seepage/leachate from any tailings dams, water storages or backfilled voids on site; and
  - (e) a program to validate the groundwater model for the project, and calibrate it to site specific conditions.
- 20. The Surface and Ground Water Response Plan must describe what measures and/or procedures would be implemented to:
  - (a) respond to any exceedances of the surface water, stream health, and groundwater assessment criteria;
  - (b) mitigate the loss of any base flows to Jews Creek following the completion of mining; and
  - (c) mitigate and/or offset any adverse impacts on riparian vegetation.

#### LANDSCAPE MANAGEMENT

#### **Biodiversity Management Plan**

- 21. The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:
  - (a) be prepared in consultation with OEH, and submitted to the Secretary for approval within 6 months of the date of this approval, or as otherwise agreed by the Secretary;
  - (b) include:
    - a description of the short, medium, and long term measures that would be implemented to manage the remnant vegetation and habitat on site;
    - a detailed description of the measures that would be implemented over the next 2 years, including the procedures to be implemented for:
      - restoring the alignment of, and otherwise rehabilitating, Ben Bullen Creek;
      - managing salinity;
      - conserving and reusing topsoil;
      - managing impacts on fauna;
      - landscaping the site to minimise visual impacts;
      - collecting and propagating seed;
      - salvaging and reusing material from the site for habitat enhancement;
      - controlling weeds and feral pests, including terrestrial and aquatic species;
      - managing grazing and agriculture on site and in the biodiversity offset areas;
      - controlling access;
      - bushfire management; and
      - managing potential conflicts between the offset areas and Aboriginal cultural heritage values;
    - a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria; and
    - details of who would be responsible for monitoring, reviewing, and implementing the plan.

#### **Rehabilitation Objectives**

22. The Proponent shall rehabilitate the site to the satisfaction of the Deputy Secretary of DRE. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EA (and depicted conceptually in Figure 1 in Appendix 4), and achieve the objectives in Table 6.

| Feature                            | Objective   |
|------------------------------------|---|
| Mine site (as a whole)             | Safe, stable and non-polluting.   |
| Surface infrastructure             | To be decommissioned and removed.   |
| Ben Bullen Creek                   | Hydraulically and geomorphologically stable. To be restored generally to its pre-disturbance flowpath, with established riparian vegetation.  |
| Other watercourses                 | Hydraulically and geomorphologically stable.  |
| Cliffs                             | No additional risk to public safety compared to pre-<br>mining conditions.  |
| Other land affected by the project | <ul> <li>Restored ecosystem function, including maintaining or establishing self-sustaining eco-systems:</li> <li>comprised of local native plant species; with</li> <li>a landform consistent with the surrounding environment.</li> </ul> |
| Community                          | Minimise the adverse socio-economic effects associated with mine closure.   |

Table 6: Rehabilitation Objectives

#### **Rehabilitation Management Plan**

- 23. The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Deputy Secretary of DRE and the Secretary. The Rehabilitation Management Plan must:
  - (a) be prepared in consultation with DRE, OEH, NOW and Council, and submitted for approval within 6 months of the date of this approval;
  - (b) be prepared in accordance with the relevant DRE guideline;
  - (c) define the objectives and criteria for site rehabilitation;
  - (d) investigate options for the future use of the site in a manner consistent with any regional planning strategies;
  - (e) describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the project; and
  - (f) describe how the performance of these measures would be monitored over time.

#### HERITAGE

#### Aboriginal Cultural Heritage Management Plan

- 24. The Proponent shall prepare and implement an Aboriginal Cultural Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
  - (a) incorporate the existing Aboriginal Cultural Heritage Management Plan for Longwalls 29-31;
  - (b) be prepared in consultation with OEH, relevant Aboriginal community groups and Council;
  - (c) be submitted to the Secretary for approval within 6 months of the date of this approval;
  - (d) include programs and/or procedures for:
    - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits which are at risk of significant impact within the project disturbance area;
    - managing the discovery of any new Aboriginal objects or skeletal remains found during the project;
    - maintaining and managing access to archaeological sites by the Aboriginal community; and
    - ongoing consultation with, and involvement of, relevant Aboriginal community groups in the conservation and management of Aboriginal cultural heritage at the project site.

#### TRANSPORT

#### Hours of Operation

25. The Proponent shall undertake road transport of coal only between 7.00am and 7.00pm, Mondays to Saturdays (excepting Public Holidays). No road transport of coal shall take place on Sundays or Public Holidays.

#### **Monitoring of Coal Transport**

- 26. The Proponent shall keep records of the:
  - (a) amount of coal transported by both rail and road from the site (on a daily basis); and
  - (b) number of coal haulage train movements generated by the project (on a daily basis); and
  - (c) make these records publicly available on its website in accordance with condition 6 of schedule 5.

#### VISUAL

#### **Visual Amenity and Lighting**

- 27. The Proponent shall:
  - (a) minimise the visual impacts, and particularly the off-site lighting impacts, of the surface infrastructure area and the Southern ventilation shaft site;
  - (b) take all reasonable and feasible measures to further mitigate off-site lighting impacts from the project; and
  - (c) ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1995 Control of Obtrusive Effects of Outdoor Lighting, to the satisfaction of the Secretary.

## WASTE

- 28. The Proponent shall:
  - (a) minimise the waste (including coal reject) generated by the project;

(b) ensure that the waste generated by the project is appropriately stored, handled and disposed of, to the satisfaction of the Secretary.

29. The Proponent shall prepare and implement a Waste Management Plan for the project to the satisfaction of the Secretary. This plan must be submitted to the Secretary within 3 months of the date of this approval.

## SCHEDULE 4 ADDITIONAL PROCEDURES

## NOTIFICATION OF LANDOWNERS

1. If the results of monitoring required in schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria, except where a negotiated agreement has been entered into in relation to that impact, then the Proponent shall, within 2 weeks of obtaining the monitoring results, notify the Secretary, the affected landowners and tenants accordingly, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the criteria in schedule 3.

#### INDEPENDENT REVIEW

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

If the Secretary is satisfied that an independent review is warranted, the Proponent shall within 3 months of the Secretary's decision:

- (a) consult with the landowner to determine his/her concerns;
- (b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to conduct monitoring on the land, to:
  - determine whether the project is complying with the relevant impact assessment criteria in schedule 3; and
  - identify the source(s) and scale of any impact on the land, and the project's contribution to this impact; and
- (c) give the Secretary and landowner a copy of the independent review.
- 3. If the independent review determines that the project is complying with the relevant impact assessment criteria in schedule 3, then the Proponent may discontinue the independent review with the approval of the Secretary.

If the independent review determines that the project is not complying with the relevant impact assessment criteria in schedule 3, then the Proponent shall:

- (a) implement all reasonable and feasible measures, in consultation with the landowner, to ensure that the project complies with the relevant criteria, and conduct further monitoring to determine whether these measures ensure compliance; or
- (b) secure a written agreement with the landowner to allow exceedances of the relevant impact assessment criteria,

to the satisfaction of the Secretary.

If the further monitoring referred to under paragraph (a) above determines that the project is complying with the relevant impact assessment criteria, then the Proponent may discontinue the independent review with the approval of the Secretary.

## SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

## ENVIRONMENTAL MANAGEMENT

#### **Environmental Management Strategy**

- 1. The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Secretary. The strategy must:
  - (a) be submitted to the Secretary for approval within 6 months of the date of this approval;
  - (b) provide the strategic framework for environmental management of the project;
  - (c) identify the statutory approvals that apply to the project;
  - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;
  - (e) describe the procedures that would be implemented to:
    - keep the local community and relevant agencies informed about the operation and environmental performance of the project;
      - receive, handle, respond to, and record complaints;
    - resolve any disputes that may arise during the course of the project;
    - respond to any non-compliance; and
    - respond to emergencies; and
  - (f) include:
    - copies of the various strategies, plans and programs that are required under the conditions of this approval once they have been approved, and/or demonstrate that suitable strategies, plans and programs are in place to manage operations; and
    - a clear plan depicting all the monitoring currently being carried out within the project area.

#### **Management Plan Requirements**

- 2. The Proponent shall ensure that the Management Plans required under this approval are prepared in accordance with any relevant guidelines, and prepared by a suitably qualified expert/s whose appointment has been approved by the Secretary. The Plans must 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; and
    - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;
  - (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
  - (d) a program to monitor and report on the:
    - impacts and environmental performance of the project; and
    - effectiveness of any management measures (see (c) above);
    - 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 project over time;
  - (g) a protocol for managing and reporting any:
    - incidents;
    - complaints;
    - non-compliances with statutory requirements; and
    - exceedances of the impact assessment criteria and/or performance criteria; and
  - (h) a protocol for periodic review of the plan.
  - Note: At the discretion of the Secretary, some of these requirements may be waived where they are either not relevant or necessary.

#### **Annual Review**

(e)

- 3. By 31 March 2012, and annually thereafter, the Proponent shall submit a report to the Secretary reviewing the annual environmental performance of the project to the satisfaction of the Secretary. This review must:
  - (a) describe the works that were carried out in the previous calendar year, and the works that are proposed to be carried out over the current calendar year;
  - (b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against:
    - the relevant statutory requirements, limits or performance measures/criteria;
    - the monitoring results of previous years; and
    - the relevant predictions in the EA;

- (c) identify any non-compliance over the previous calendar year, and describe what actions were (or are being) taken to ensure compliance;
- (d) identify any trends in the monitoring data over the life of the project;
- (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and
- (f) describe what measure will be implemented over the current calendar year to improve the environmental performance of the project.

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

- 4. Within 3 months of the submission of an:
  - (a) audit report under condition 8 of schedule 5;
  - (b) incident report under condition 5 of schedule 5; and
  - (c) annual review under condition 3 of schedule 5,

the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction 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 project.

#### REPORTING

## **Incident Reporting**

5. The Proponent shall notify the Secretary and any other relevant agencies of any incident associated with the project as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Secretary and any relevant agencies with a detailed report on the incident.

#### **Regular Reporting**

6. The Proponent shall provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs under this approval, and to the satisfaction of the Secretary.

#### INDEPENDENT ENVIRONMENTAL AUDIT

- 7. By 31 December 2016, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent shall commission at its own cost an Independent Environmental Audit of the project. This audit must:
  - (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
  - (b) include consultation with the relevant agencies;
  - (c) assess the environmental performance of the project and assess whether it is complying with the relevant requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);
  - (d) review the adequacy of strategies, plans or programs required under these approvals; and, if appropriate;
  - (e) recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these approvals; and
  - (f) be completed within 2 months of the approval of the audit team.

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

8. Within 6 weeks of the completing of this audit, or as otherwise agreed by the Secretary, the Proponent 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

(a)

- 9. From 31 March 2011, the Proponent shall:
  - make the following information publicly available on its website to the satisfaction of the Secretary:
    - a copy of all approved strategies, plans and programs;
    - a comprehensive summary of all monitoring results of the project, which have been reported in accordance with the various plans and program under this approval;
    - a complaints register, updated on a quarterly basis;
    - copies of any Annual Reviews (over the last 5 years);
    - copies of any Independent Environmental Audit, and the Proponent's response to the recommendations in any audit;
    - any other matter required by the Secretary; and

(b) keep this information up-to-date, to the satisfaction of the Secretary.

## APPENDIX 1 SCHEDULE OF LAND

| Lot 29 DP755759 | Lot 3 DP235194   |
|-----------------|------------------|
| Lot 1 DP796723  | Lot 101 DP723771 |
| Lot 78 DP755759 | Lot 102 DP723771 |
| Lot 33 DP664527 | Lot 83 DP755759  |
| Lot 30 DP755759 | Lot 50 DP755759  |
| Lot 43 DP755759 | Lot 51 DP755759  |
| Lot 28 DP755759 | Lot 1 DP620791   |
| Lot B DP421385  | Lot 2 DP620791   |
| Lot 2 DP235194  | Lot 91 DP755759  |
| Lot 31 DP755759 | Lot 35 DP755759  |
| Lot 89 DP755759 | State Forest 434 |
|                 |                  |

## APPENDIX 2 PROJECT PLANS



Figure 1: Project layout



Figure 2: Noise receivers



Figure 3: Wolgan Escarpment protection barriers



Figure 4: Remnant coal mining areas protection barriers

## APPENDIX 3 STATEMENT OF COMMITMENTS

| Issue   |    | Commitment   |
|---|----|--|
| General   | 1. | The Proponent shall carry out the project generally in accordance with the EA and the Statement of Commitments.  |
|   | 2. | Within 12 months of Project Approval, subject to confirmation that Project Approval conditions provide for feasible implementation of the project and ongoing operations at the Colliery, the Proponent shall surrender all redundant development consents that relate to activities in the Project Area, other than Project approval MP 07_0035 granted by the Minister for Planning on 24 October 2007 relating to the construction and operation of the ventilation shaft and power line corridor associated with Longwalls 29 to 31. |
|   | 3. | The Project will be in operation for up to 24 hours a day, seven days per week. The Proponent may load coal for road haulage between the hours of 7:30am and 2:45pm and 3:30pm to 5:30pm Monday to Saturday in accordance with the current Truck Management Plan.  |
|   |    | The hours of road haulage of coal, including initial and final laden journeys of the haulage vehicles to the Colliery and from the power stations, are to be limited to the hours of 7.00am to 7.00pm, Mondays to Saturdays. No road haulage is to take place on Sundays or Public Holidays.   |
|   | 4. | The Proponent shall not:   |
|   |    | (a) extract more than 2.8 million tonnes of ROM coal from the Project area in a calendar year; or  |
|   |    | (b) transport more than 2.0 million tonnes of product coal from the Project area in a calendar year.   |
| Environmenta<br>I Management<br>and<br>Monitoring | 5. | The Proponent shall adhere to the environmental management, monitoring and reporting requirements contained in Baal Bone's existing and revised monitoring programs contained within the EMS and in the SMP approval for Longwalls 29 to 31 dated 7 December 2007 which includes the following plans:  |
|   |    | Subsidence Management Plan;  |
|   |    | Public Safety Management Plan  |
|   |    | Community Consultation Process;  |
|   |    | Environmental Monitoring Program   |
|   |    | Land Management Plan;  |
|   |    | Underground Water Make Monitoring Program;   |
|   |    | <ul> <li>Subsidence Monitoring Program;</li> <li>Wolgan Escarpment Management Plan; and</li> </ul>   |
|   |    | <ul> <li>Wolgan Escarpment Management Plan; and</li> <li>Aboriginal Heritage Management Plan (BBC-RS1).</li> </ul>   |
|   | 6. | Within 12 months of project approval, the Proponent will review and update Baal<br>Bone's Environmental Management System to incorporate relevant aspects of the<br>environmental management of the Project including a review of the following<br>environmental management plans:   |
|   |    | Biodiversity and Land Management Plan;   |
|   |    | Cultural Heritage Management Procedure;  |
|   |    | Social Involvements Plan;  |
|   |    | Community Complaints Management Procedure;   |
|   |    | Conflict Resolution Procedure;   |
|   |    | Hydrocarbon Management;  |
|   |    | Mine Closure Plan;   |
|   |    | Product Stewardship Management Plan;   |

| Issue                                   |     | Commitment   |
|---|-----|--|
|   |     | Subsidence Management Plan;  |
|   |     | Public Safety Management Plan;   |
|   |     | Land Management Plan;  |
|   |     | Aboriginal Heritage Management Plan;   |
|   |     | Truck Management Plan;   |
|   |     | Waste Management Plan;   |
|   |     | Water Quality Management Plan; and   |
|   |     | Training and Competency Management Plan  |
|   |     | • Following a review of these plans, the Proponent will implement the revised plans in carrying out the Project.   |
|   | 7.  | The Proponent shall prepare and lodge with the Director-General an Annual<br>Environmental Management Report (AEMR) for the Project containing all Report<br>monitoring data including an analysis of that data, and providing an assessment of<br>the effectiveness or otherwise of all environmental control measures. The first of such<br>reports for the Project shall be completed within 12 months of the date of the Project<br>approval |
| Subsidence –<br>Performance<br>Measures | 8.  | In carrying out its mining operations within the Project area, the Proponent shall implement appropriate mining methods that seek to achieve the objectives contained in Table 8-2 of the Environmental Assessment for the Project.  |
| Subsidence -<br>Remnant<br>Areas        | 9.  | Prior to commencing second workings in the Remnant Areas, the Proponent shall prepare and implement an Extraction Plan for all second workings in the Remnant Areas to the satisfaction of the Director-General. This plan must:   |
|   |     | (a) be prepared by a team of suitably qualified and experienced experts whose appointment has been endorsed by the Director-General;   |
|   |     | (b) include a detailed plan for the second workings, which has been prepared to the satisfaction of DII, and provides for adaptive management (for the identified Remnant Areas);  |
|   |     | (c) include detailed plans of associated surface construction works;   |
|   |     | (d) include the following to the satisfaction of DII:  |
|   |     | <ul> <li>a coal resource recovery plan that demonstrates effective recovery of the<br/>available resource;</li> </ul>  |
|   |     | • revised predictions of the conventional and non-conventional subsidence effects<br>and subsidence impacts of the extraction plan, incorporating relevant<br>information that has been obtained since this approval; and  |
|   |     | a Subsidence Monitoring Program to:  |
|   |     | <ul> <li>validate the subsidence predictions; and</li> </ul>   |
|   |     | <ul> <li>analyse the relationship between the subsidence effects and subsidence<br/>impacts of the Extraction Plan and ensuing environmental consequences.</li> </ul>  |
|   | 10. | The Proponent must:  |
|   |     | <ul> <li>protect the three cliff formations and Ben Bullen Creek from being directly mined<br/>under by an angle of draw of 26.5 degrees of greater as shown in Figure 8.2; and</li> </ul>   |
|   |     | <ul> <li>develop a management strategy in consultation with independent archaeologists<br/>to manage the subsidence impacts of the archaeological site (Site ID 45-1-0125).</li> </ul>   |
| Subsidence –<br>Longwalls 29<br>to 31   | 11. | The Proponent shall implement the Subsidence Management Plan and associated monitoring programs for Longwalls 29 to 31. The monitoring program will include detailed survey and scientific monitoring which must be undertaken prior to, during and following the mining of Longwalls 29 to 31. Survey and monitoring will include the following:  |
|   |     | Three-dimensional subsidence monitoring;   |
|   |     | <ul> <li>Horizontal stress changes in the cliff forming sandstones of the Wolgan<br/>Escarpment using stress change monitoring instruments;</li> </ul>   |
|   |     | Temperature changes in the rock formation at the northern pinch point as a   |

| Issue                                 | Commitment   |
|---------------------------------------|--|
|                                       | <ul> <li>basis for understanding thermal stress changes experienced on the Wolgan Escarpment; and</li> <li>Implementation of the Land Management Plan which addresses management of surface impacts in the vicinity of the Wolgan Escarpment and pagoda formations and surface cracking in other general surface areas. Visual inspections, plus photographic and video monitoring would be conducted over the surface area at regular intervals during mining of the longwall panels.</li> </ul>  |
| Noise                                 | <ul> <li>12. Within twelve months of receiving Project Approval, the Proponent shall prepare a Site Noise Reduction Program (SNRP), which would include a Strategy for the reduction of noise generated from the Project area. The SNRP will include investigation of the following items to seek to reduce noise generated from the Project area where feasible:</li> <li>Replacement of damaged insulation installed in Washery Building;</li> <li>Closure of façade openings in the Washery to Stockpile Transfer and/or Washery buildings;</li> <li>Options to assess the feasibility and possibility of reducing noise emissions from the Bradford breaker;</li> <li>Options to reduce noise emissions from the tracked dozer during night hours; and</li> <li>A program for regular inspections of site plant including the dozer to ensure that the installed noise suppression controls are functioning and require no maintenance.</li> <li>The SNRP will review and/or develop procedures to manage noise complaints from residents:</li> <li>Procedures for residents to contact the site environmental manager in regard to noise complaints or requests for information;</li> <li>Procedures to inform residents of actions implemented following receipt of noise complaints; and</li> </ul> |
| Groundwater                           | <ol> <li>The Proponent shall monitor groundwater in the vicinity of Longwalls 29 to 31 in accordance with the Surface and Groundwater Response Strategy and Underground Mine Water Make Monitoring Program to provide an ongoing assessment of the impact of mining works on the groundwater regime, enable early detection of potential adverse impacts, and to monitor the recovery of the groundwater system following completion of mining.</li> <li>In the event that the monitoring of ground or surface water indicates an exceedance of trigger levels, procedures contained within the Surface and Groundwater Response Strategy would be implemented.</li> <li>prior to mining of the Remnant Areas, the Proponent shall review and update the Surface and Groundwater Response Strategy and Underground Mine Water Make Monitoring Program for implementation upon commencement of mining in these areas.</li> </ol>  |
| Mine Closure<br>and<br>Rehabilitation | <ul> <li>16. The Proponent shall progressively rehabilitate the site over the life of the mine, rehabilitate all disturbed lands within the Project Area in accordance with the reasonable requirements of DII prior to relinquishment of mining leases.</li> <li>17. The Proponent shall prepare and implement a Rehabilitation Monitoring Methodology and Program for the Project within 12 months of project approval.</li> <li>Investigation of ways to minimise the adverse socio-economic effects associated with the conclusion of Baal Bone, including reduction in local and regional employment levels; and</li> <li>Description of measures that would be implemented to minimise or manage the on-going environmental effects of Baal Bone.</li> </ul>   |
| Tailing and Reject                    | 18. The Proponent will implement the following operational controls to mitigate potential impacts associated with the Reject Emplacement Area:   |

| Issue                          |     | Commitment   |
|--------------------------------|-----|--|
| Management                     |     | • Regular visual inspections of the emplacement area including specific attention to the structural integrity of the embankment and the flow of leachate;  |
|                                |     | <ul> <li>All dams and associated pipelines at Baal Bone will be inspected on a daily,<br/>weekly and monthly basis as required; and</li> </ul>   |
|                                |     | Operation of transport in the vicinity according to regulations.   |
|                                | 19. | <ul> <li>Prior to constructing any future dams with a catastrophic or high risk ranking, the</li> <li>Proponent will ensure that the following actions have been undertaken in relation to</li> <li>the dam:</li> <li>the dam has undergone an appropriate engineering design (e.g. relevant dam</li> </ul>  |
|                                |     | safety committee concurrence); or  |
|                                |     | • the dam has a specific management plan including operational requirements<br>and monitoring program. The monitoring program may be incorporated into the<br>regular inspection checklists, however, the person who is to inspect the<br>catastrophic or high risk dams must be competent to do so.   |
| Traffic - Coal<br>Road Haulage | 20. | Haulage of coal from Baal Bone by public road will not exceed 900,000 tonnes per annum (tpa) with a maximum daily rate of 6,000 tonnes.  |
|                                | 21. | Prior to resumption of haulage of coal by road to the power stations from the Colliery, the Proponent shall undertake a review of the existing Road Haulage Management Plan and update the plan as required, for implementation. Once implemented the Road Haulage Management Plan is to be reviewed annually and updated as required.   |
|                                | 22. | Prior to resumption of haulage of coal by road to the power stations from the Colliery, the Proponent shall undertake a review of the existing Truck Management Plan, and update the plan as required, for implementation. Once implemented, the Truck Management Plan is to be reviewed annually and updated as required.   |
|                                |     | Following the installation of road signage, the Proponent shall undertake an annual review of road accident statistics along the Castlereagh Highway between Baal Bone Colliery and Mount Piper and Wallerawang Power Stations to monitor the effectiveness of road signage and review the implementation of other mitigation measures as appropriate.   |
|                                | 23. | The Proponent shall finalise all outstanding noise insulation works to the remaining four residences in Cullen Bullen identified in the Road Haulage Management Plan, being 2541 Castlereagh Highway, 42 Castlereagh Highway, 46 Castlereagh Highway, 2508 Castlereagh Highway, prior to resuming road haulage of coal to the power stations. The Proponent shall meet all reasonable costs required to implement these works. |
| Air Quality                    | 24. | <ul> <li>The Proponent shall implement the following existing operational practices in the Surface Infrastructure Area to minimise air quality impacts to the surrounding environment as contained in the Mine Operations Plan:</li> <li>Conveyors and transfer points are either fully or partially enclosed on the side of the prevailing winds;</li> </ul>  |
|                                |     | Spraying of stockpiles to minimise dust;   |
|                                |     | Watering of haul road to minimise dust;  |
|                                |     | Regular cleaning of areas that may generate dust; and  |
|                                |     | Appropriate ventilation of operational mine shafts.  |
|                                | 25. | The Proponent will monitor potential impacts to air quality resulting from dust in accordance with the Environment Protection Licence (EPL) applying to the Project area and report any potential impacts according to the requirements of the EPL.  |
|                                | 26. | The Proponent shall operate the premises to seek to avoid exceedences of air quality impact assessment criteria identified in <b>Section 15.3</b> the EA.  |
| Greenhouse<br>Gas              | 27. | The Proponent will continue to seek to provide maximum resource extraction with maximum efficiency and will assess and consider implementation, where feasible, of GHG and energy management and mitigation initiatives during the design, operation and decommissioning of the mine.  |
| Geology and<br>Soils           | 28. | The Proponent shall continue to undertake regular inspections of the surface features in accordance with the Land Management Plan for Longwalls 29 to 31 to address  |

| Issue                  |     | Commitment  |
|------------------------|-----|---|
|                        |     | potential impacts on soils and geology.   |
| Flora and<br>Fauna     | 29. | The Proponent shall continue to implement ongoing monitoring and management of quadrats in the vicinity of Longwalls 29 and 31 and Coxs River Swamp in accordance with the Environmental Monitoring Program contained within the SMP.   |
|                        | 30. | Prior to and during mining of the Remnant Areas, the Proponent shall implement<br>ongoing monitoring of fauna populations and wildlife habitats within and in the vicinity<br>of the Remnant Areas. The details of the monitoring requirements are to be<br>developed in accordance with the SMP for the Remnant Areas.   |
|                        | 31. | The Proponent shall use best endeavours to incorporate Capertee Stringybark in its future rehabilitation works.   |
| Indigenous<br>Heritage | 32. | The Proponent shall continue to manage the Aboriginal rock shelter (45-1-2665) in the vicinity of Longwalls 29 to 31 in accordance with the current Aboriginal Heritage Management Plan. If further sites are identified during the heritage surveys of the Remnant Areas, the Proponent will update the Aboriginal Heritage Management Plan to include any additional Indigenous sites requiring management. |
|                        | 33. | Prior to the mining of the Remnant Areas, the Proponent shall undertake a further full heritage survey to:  |
|                        |     | <ul> <li>ascertain the present condition of the site known as Ben Bullen Creek 1 (Site ID 45-1-0240);</li> </ul>  |
|                        |     | <ul> <li>properly assess this region for its heritage significance; and</li> </ul>  |
|                        |     | <ul> <li>develop a management strategy in consultation with the stakeholders to<br/>manage the subsidence impacts of the mining of the Remnant Areas on any<br/>cultural heritage items identified in the heritage survey.</li> </ul>   |
|                        | 34. | During the course of mining, if any 'relics' or other Aboriginal sites are identified, work<br>in that area will cease and the DECC and respective Aboriginal community<br>organisations or Local Aboriginal Land Council will be contacted to discuss how to<br>proceed.   |
| Land Use               | 35. | The Proponent shall continue to implement the current Land Management Plan and Public Safety Management Plan which form part of the SMP for Longwalls 29 to 31.   |

## APPENDIX 4 FINAL LANDFORM



Figure 1: Final landform plan