

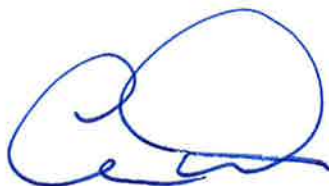
# Project Approval

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

Under the Minister for Planning and Infrastructure's delegation of 14 September 2011, 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.



**Chris Wilson**  
**A/Deputy Director-General**  
**Development Assessment and Systems Performance**

Sydney

25. OCTOBER

2011

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### SCHEDULE 1

|                            |  |
|----------------------------|--|
| <b>Application Number:</b> | 10_0059                                  |
| <b>Proponent:</b>          | Werris Creek Coal Pty Limited            |
| <b>Approval Authority:</b> | Minister for Planning and Infrastructure |
| <b>Land:</b>               | See Appendix 1                           |
| <b>Project:</b>            | Werris Creek Mine Extension Project      |

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## TABLE OF CONTENTS

|   |           |
|---|-----------|
| <b>DEFINITIONS</b>                                      | <b>3</b>  |
| <b>ADMINISTRATIVE CONDITIONS</b>                        | <b>4</b>  |
| Obligation to Minimise Harm to the Environment          | 4         |
| Terms of Approval                                       | 4         |
| Limits on Approval                                      | 4         |
| Surrender of Existing Development Consent               | 4         |
| Structural Adequacy                                     | 5         |
| Demolition  | 5         |
| Operation of Plant and Equipment                        | 5         |
| Staged Submission of any Strategy, Plan or Program      | 5         |
| Community Enhancement                                   | 5         |
| <b>ENVIRONMENTAL PERFORMANCE CONDITIONS</b>             | <b>6</b>  |
| Noise   | 6         |
| Blasting  | 7         |
| Air Quality and Greenhouse Gas                          | 9         |
| Meteorological Monitoring                               | 11        |
| Soil and Water  | 11        |
| Biodiversity  | 12        |
| Heritage  | 13        |
| Transport   | 14        |
| Visual  | 15        |
| Waste   | 15        |
| Bushfire Management                                     | 15        |
| Rehabilitation  | 15        |
| <b>ADDITIONAL PROCEDURES</b>                            | <b>17</b> |
| Notification of Landowners                              | 17        |
| Independent Review                                      | 17        |
| Land Acquisition  | 17        |
| <b>ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING</b> | <b>19</b> |
| Environmental Management                                | 19        |
| Reporting   | 20        |
| Independent Environmental Audit                         | 20        |
| Access to Information                                   | 20        |
| <b>APPENDIX 1: SCHEDULE OF LAND</b>                     | <b>22</b> |
| <b>APPENDIX 2: PROJECT LAYOUT PLAN</b>                  | <b>23</b> |
| <b>APPENDIX 3: NOISE RECEIVER LOCATIONS</b>             | <b>24</b> |
| <b>APPENDIX 4: BIODIVERSITY OFFSET STRATEGY</b>         | <b>25</b> |
| <b>APPENDIX 5: CONCEPTUAL REHABILITATION PLAN</b>       | <b>26</b> |
| <b>APPENDIX 6: STATEMENT OF COMMITMENTS</b>             | <b>28</b> |

## DEFINITIONS

|                                  |   |
|----------------------------------|---|
| Annual review                    | The review required by condition 3 of schedule 5  |
| ARTC                             | Australian Rail Track Corporation   |
| BCA                              | Building Code of Australia  |
| Biodiversity offset strategy     | The conservation and enhancement strategy described in EA, and shown conceptually in the figure in Appendix 4   |
| CCC                              | Community Consultative Committee  |
| CEEC                             | Critically endangered ecological community  |
| Conditions of this approval      | Conditions contained in schedules 2 to 5 inclusive  |
| Council                          | Liverpool Plains Shire 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 Infrastructure   |
| Director-General                 | Director-General of the Department, or delegate   |
| DNG                              | Derived native grassland  |
| DRE                              | Division of Resources and Energy (within the Department of Trade and Investment, Regional Infrastructure and Services)  |
| EA                               | Environmental assessment titled <i>Werris Creek Coal Mine Life of Mine Project</i> , dated December 2010, as modified by the response to submissions, dated March 2011; and the letter from Whitehaven Coal Limited to the Department, dated 25 July 2011   |
| EEC                              | Endangered Ecological Community   |
| EP&A Act                         | <i>Environmental Planning and Assessment Act 1979</i>   |
| EP&A Regulation                  | <i>Environmental Planning and Assessment Regulation 2000</i>  |
| EPL                              | Environment Protection Licence issued under the POEO Act  |
| Evening                          | The period from 6 pm to 10 pm   |
| Feasible                         | Feasible relates to engineering considerations and what is practical to build or carry out  |
| Incident                         | A set of circumstances that: <ul style="list-style-type: none"> <li>• causes or threatens to cause material harm to the environment; and/or</li> <li>• breaches or exceeds the limits or performance measures/criteria in this approval</li> </ul>  |
| Land                             | As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions in schedules 3 and 4 of this approval where it is defined to mean the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this approval |
| Material harm to the environment | Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial   |
| Mining operations                | Includes the removal of overburden and extraction, processing, handling, storage and transportation of coal   |
| Minister                         | Minister for Planning and Infrastructure, or delegate   |
| Mitigation                       | Activities associated with reducing the impacts of the project  |
| Negligible                       | Small and unimportant, such as to be not worth considering  |
| Night                            | The period from 10 pm to 7 am on Monday to Saturday, and 10 pm to 8 am on Sundays and Public Holidays   |
| NOW                              | NSW Office of Water (within the Department of Primary Industries)   |
| OEH                              | Office of Environment and Heritage (within the Department of Premier and Cabinet)   |
| POEO Act                         | <i>Protection of the Environment Operations Act 1997</i>  |
| Privately-owned land             | Land that is not owned by a public agency or a mining company (or its subsidiary)   |
| Project                          | The development described in the EA   |
| Proponent                        | Werris Creek Coal Pty 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 return land disturbed by the project to a good condition, and ensure it is safe, stable and non-polluting   |
| ROM                              | Run-of-mine   |
| Site                             | The land listed in Appendix 1   |
| Statement of commitments         | The Proponent's commitments in Appendix 6   |

## **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 material 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; and
  - (c) conditions of this approval.

*Notes:*

- *The general layout of the project is shown in Appendix 2; and*
- *The statement of commitments is reproduced in Appendix 6.*

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 Director-General 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**

#### **Mining Operations**

5. The Proponent may carry out mining operations on site until the end of December 2032.

*Note: Under this approval, the Proponent is required to rehabilitate the site and carry out additional undertakings to the satisfaction of both the Director-General and the Executive Director, Mineral Resources in DRE. Consequently, this approval will continue to apply in all other respects other than the right to conduct mining operations until the rehabilitation of the site and those additional undertakings have been carried out satisfactorily.*

#### **Coal Extraction**

6. The Proponent shall not extract more than 2.5 million tonnes of ROM coal from the site in a calendar year.

#### **Coal Stockpiling**

7. The Proponent shall not stockpile more than 250,000 tonnes of product coal on the site.

#### **Coal Transport**

8. The Proponent shall not transport:
  - (a) more than 50,000 tonnes of product coal from the site by public road in any calendar year; and
  - (b) any product coal from the site by public road to the Muswellbrook, Singleton, Mid-Western regional, Cessnock or Newcastle local government areas without the written approval of the Director-General.

### **SURRENDER OF EXISTING DEVELOPMENT CONSENT**

9. By the end of October 2012, or as otherwise agreed by the Director-General, the Proponent shall surrender the existing development consent (DA 172-7-2004) for the Werris Creek mine in accordance with section 104A of the EP&A Act.

Prior to the surrender of this development consent, the conditions of this approval shall prevail to the extent of any inconsistency with the conditions of the development consent.

## **STRUCTURAL ADEQUACY**

10. The Proponent 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 Proponent is required to obtain construction and occupation certificates (where necessary) 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 on site is carried out in accordance with *Australian Standard AS 2601-2001: The Demolition of Structures*, or its latest version.

## **OPERATION OF PLANT AND EQUIPMENT**

12. The Proponent shall ensure that all the plant and equipment used on site, or to transport coal from the site, is:
- (a) maintained in a proper and efficient condition; and
  - (b) operated in a proper and efficient manner.

## **STAGED SUBMISSION OF ANY STRATEGY, PLAN OR PROGRAM**

13. With the approval of the Director-General, the Proponent may submit any strategy, plan or program required by this approval on a progressive basis.

*Notes:*

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

14. Until they are replaced by an equivalent strategy, plan or program approved under this approval, the Proponent shall implement the existing strategies, plans or programs that apply under DA 172-7-2004.

## **COMMUNITY ENHANCEMENT**

15. The Proponent shall establish and operate a Community Enhancement Fund for the project to the satisfaction of the Director-General. This fund must:
- (a) be established and operated in consultation with Council and the CCC;
  - (b) be directed towards providing benefits to the local communities affected by the project;
  - (c) provide for the expenditure of at least \$300,000 (indexed to CPI) over 6 calendar years (2012 to 2017), and include at least \$200,000 of expenditure within the town of Werris Creek; and
  - (d) be operating from the end of April 2012, unless the Director-General agrees otherwise.
-

## SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS

### NOISE

#### Noise Criteria

- The Proponent shall ensure that the noise generated by the project (including noise generated on the Werris Creek Rail Spur) does not exceed the criteria in Table 1 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

Table 1: Noise criteria

| <b>Location</b>                | <b>Day<br/>dB(A) <math>L_{Aeq}(15\ min)</math></b> | <b>Evening &amp; Night<br/>dB(A) <math>L_{Aeq}(15\ min)</math></b> | <b>Night<br/>dB(A) <math>L_{A1}(1\ min)</math></b> |
|--------------------------------|--|--|--|
| R18                            | 40   | 37   | 45   |
| R10, R11, R14                  | 39   | 39   | 45   |
| R20, R21                       | 39   | 37   | 45   |
| R12                            | 38   | 38   | 45   |
| R96                            | 38   | 37   | 45   |
| R7, R8, R9, R24                | 37   | 37   | 45   |
| R22, R98                       | 36   | 36   | 45   |
| All other privately-owned land | 35   | 35   | 45   |

*Notes:*

- To interpret the locations referred to in Table 1, see the applicable figure in Appendix 3; and
- Noise generated by the project is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.

However, these criteria do not apply if the Proponent has an agreement with the relevant owner/s of these residences/land to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.

#### Noise Acquisition Criteria

- If the noise generated by the project causes sustained exceedances of the criteria in Table 2 at any residence on privately-owned land or on more than 25 percent of any privately-owned land, then upon receiving a written request for acquisition from the landowner, the Proponent shall acquire the land in accordance with the procedures in conditions 5 - 6 of schedule 4.

Table 2: Noise acquisition criteria

| <b>Location</b>          | <b>Day/Evening/Night<br/>dB(A) <math>L_{Aeq}(15\ min)</math></b> |
|--------------------------|--|
| All privately-owned land | 40   |

*Note: Noise generated by the project is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.*

#### Additional Noise Mitigation Measures

- Upon receiving a written request from the owner of the land listed in Table 3, the Proponent shall implement additional noise mitigation measures (such as double glazing, insulation, and/or air conditioning) at any residence on the land in consultation with the owner. These measures must be reasonable and feasible.

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

Table 3: Land subject to additional noise mitigation measures

|     |     |
|-----|-----|
| R10 | R18 |
| R11 | R20 |
| R12 | R21 |
| R14 | R96 |

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

### Operating Conditions

4. The Proponent shall:
- implement best practice noise management to minimise the operational, low frequency, rail and road traffic noise of the project;
  - 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;
  - minimise the noise impacts of the project during temperature inversions; and
  - use its best endeavours to achieve the long-term noise goals in Table 4, where this is reasonable and feasible, and report on the progress towards achieving these goals in the annual review;
  - carry out a comprehensive noise audit of the project in conjunction with each independent environmental audit,
- to the satisfaction of the Director-General.

Table 4: Long-term noise goal

| Location                 | Day/Evening/Night<br>dB(A) $L_{Aeq}$ (15min) |
|--------------------------|--|
| All privately-owned land | 35   |

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

### Noise Management Plan

5. The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Director-General. This plan must:
- be prepared in consultation with OEH by a suitably qualified expert whose appointment has been approved by the Director-General;
  - be submitted to the Director-General for approval by the end of April 2012;
  - describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, including:
    - a real-time noise management system that employs both reactive and proactive mitigation measures; and
    - rail spur management plan, that has been prepared in consultation with ARTC and the rail freight company; and
  - include a Noise Monitoring Program that:
    - uses a combination of real-time and supplementary attended noise monitoring measures to evaluate the performance of the project;
    - is capable of monitoring temperature inversion strengths at an appropriate sampling rate;
    - evaluates and reports on the effectiveness of the real-time noise management system;
    - includes a protocol for determining exceedances of the relevant conditions of this approval.

### BLASTING

#### Blasting Criteria

6. The Proponent shall ensure that blasting on site does not cause exceedances of the criteria in Table 5.

Table 5: Blasting Criteria

| Location                              | Airblast Overpressure<br>(dB(Lin Peak)) | Ground Vibration<br>(ppv(mm/s)) | Allowable Exceedance  |
|---------------------------------------|---|---------------------------------|---|
| Any residence on privately-owned land | 115                                     | 5                               | 5% of the total number of blasts over a period of 12 months |
|                                       | 120                                     | 10                              | 0%  |
| All public infrastructure             | -                                       | 50                              | 0%  |

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

## Blasting Hours

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

## Blasting Frequency

8. The Proponent shall not carry out more than:
  - (a) 1 blast a day on site, unless an additional blast is required following a blast misfire; and
  - (b) 15 blasts a month on site.

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

*Note: For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine.*

## Property Inspections

9. If the Proponent receives a written request from the owner of any privately-owned land within 2 kilometres of the approved open cut pit on site for a property inspection to establish the baseline condition of any buildings and/or structures on their land, or to have a previous property inspection report updated, then within 2 months of receiving this request the Proponent shall:
  - (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General to:
    - establish the baseline condition of the buildings and/or structures on the land or update the previous property inspection report; and
    - identify any measures that should be implemented to minimise the potential blasting impacts of the projects on these buildings and/or structures; and
  - (b) give the landowner a copy of the new or updated property inspection report.

## Property Investigations

10. If the owner of any privately-owned land claims that the buildings and/or structures on their land have been damaged as a result of blasting on site, then within 2 months of receiving this claim the Proponent shall:
  - (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to investigate the claim; and
  - (b) give the landowner a copy of the property investigation report.

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

If the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Director-General for resolution.

## Operating Conditions

11. The Proponent shall:
  - (a) implement best practice blasting management on site to:
    - protect the safety of people and livestock in the surrounding area;
    - protect private or public property in the surrounding area;
    - minimise the dust and fume emissions of the blasting; and
  - (b) minimise the duration and frequency of any road closures for blasting;
  - (c) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site, to the satisfaction of the Director-General.
12. The Proponent shall not carry out blasting on site that is within 500 metres of:
  - (a) Werris Creek Road without the approval of RTA;
  - (b) the Main Northern Railway without the approval of ARTC; and
  - (c) any land outside the site that is not owned by the Proponent unless:
    - the Proponent has a written agreement with the relevant landowner to allow blasting to be carried out closer to the land, and the Proponent has advised the Director-General in writing of the terms of this agreement; or
    - the Proponent has:
      - demonstrated to the satisfaction of the Director-General that the blasting can be carried out closer to the land without compromising the safety of people or livestock on the land, or damaging the buildings and/or structures on the land; and

- o updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the land.

### Blast Management Plan

13. The Proponent shall prepare and implement a Blast Management Plan for the project to the satisfaction of the Director-General. This plan must:
- be prepared in consultation with OEH, RTA and ARTC;
  - be submitted to the Director-General for approval by the end of April 2012;
  - describe the mitigation measures that would be implemented to ensure compliance with the relevant conditions of this approval;
  - describe the measures that would be implemented to ensure that the public can get up-to-date information on the proposed blasting schedule on site; and
  - include a blast monitoring program for evaluating the performance of the project, including:
    - compliance with the applicable criteria; and
    - minimising the fume emissions from the site.

### AIR QUALITY & GREENHOUSE GAS

#### Odour

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

#### Greenhouse Gas Emissions

15. 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 Director-General.

#### Air Quality Criteria

16. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not exceed the criteria listed in Tables 6, 7 and 8 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

Table 6: Long-term criteria for particulate matter

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

Table 7: Short-term criterion for particulate matter

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

Table 8: Long-term criteria for deposited dust

| <b>Pollutant</b>            | <b>Averaging Period</b> | <b>Maximum increase in deposited dust level</b> | <b>Maximum total deposited dust level</b> |
|-----------------------------|-------------------------|---|---|
| <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 to Tables 6-8:

- <sup>a</sup> Total impact (ie incremental increase in concentrations due to the project plus background concentrations due to all other sources);
- <sup>b</sup> Incremental impact (ie 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.
- <sup>d</sup> Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents, illegal activities or any other activity agreed by the Director-General in consultation with OEH.

## Air Quality Acquisition Criteria

17. If particulate matter emissions generated by the project exceed the criteria in Tables 9, 10, and 11 at any residence on privately-owned land, or on more than 25 percent of any privately owned land, then upon written request for acquisition from the landowner, the Proponent shall acquire the land in accordance with the procedures in conditions 5-6 of schedule 4.

Table 9: Long term land acquisition criteria for particulate matter

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

Table 10: Short term land acquisition criteria for particulate matter

| <b>Pollutant</b>                               | <b>Averaging period</b> | <b><sup>da</sup> Criterion</b>     |
|--|-------------------------|------------------------------------|
| Particulate matter < 10 µm (PM <sub>10</sub> ) | 24 hour                 | <sup>a</sup> 150 µg/m <sup>3</sup> |
| Particulate matter < 10 µm (PM <sub>10</sub> ) | 24 hour                 | <sup>b</sup> 50 µg/m <sup>3</sup>  |

Table 11: Long term land acquisition criteria for deposited dust

| <b>Pollutant</b>            | <b>Averaging period</b> | <b>Maximum increase<sup>2</sup> in deposited dust level</b> | <b>Maximum total<sup>1</sup> deposited dust level</b> |
|-----------------------------|-------------------------|---|---|
| <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 to Tables 9-11:

- <sup>a</sup> Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources);
- <sup>b</sup> Incremental impact (i.e. incremental increase in concentrations due to the development 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 or any other activity agreed by the Director-General.

## Operating Conditions

18. The Proponent shall:
- implement best practice air quality management on site to minimise the off-site odour, fume and particulate matter emissions of the project, including the dust emissions associated with the transport coal produced on site by road or rail;
  - minimise any visible air pollution generated by the project;
  - minimise any surface disturbance on site; and
  - regularly assess the real-time air quality 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 Director-General.

## Air Quality and Greenhouse Gas Management Plan

19. The Proponent shall prepare and implement an Air Quality and Greenhouse Gas Management Plan for the project to the satisfaction of the Director-General. This plan must:
- be prepared in consultation with OEH, and submitted to the Director-General by the end of April 2012;
  - describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, including a real-time air quality management system that employs both reactive and proactive mitigation measures;
  - describe the measures that would be implemented to minimise the release of greenhouse gas emissions from the site; and
  - include an air quality monitoring program, that:
    - uses a combination of real-time monitors and supplementary monitors, to evaluate the performance of the project;
    - evaluates and reports on the effectiveness of the real-time air quality management system; and
    - includes a protocol for determining any exceedances of the relevant conditions of this approval.

## METEOROLOGICAL MONITORING

20. For the life of the project, the Proponent shall ensure that there is a suitable meteorological station operating 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
  - is capable of continuous real-time measurement of temperature lapse rate, in accordance with the *NSW Industrial Noise Policy*, or as otherwise approved by OEH.

## SOIL AND WATER

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

### Water Supply

21. The Proponent shall ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of mining operations to match its available water supply, to the satisfaction of the Director-General.

### Surface Water Discharges

22. 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.

### Water Management Plan

23. The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Director-General. This plan must be prepared in consultation with NOW and OEH by suitably qualified and experienced persons whose appointment has been approved by the Director-General, and submitted to the Director-General by the end of April 2012.

In addition to the standard requirements for management plans (see condition 2 of schedule 5), this plan must include:

- a Site Water Balance that:
  - includes details of:
    - sources of water supply;
    - water use on site;
    - water management on site;
    - reporting procedures, which provide for the update of the site water balance in each annual review; and
  - describes what measures would be implemented to minimise potable water use on site;
- a Surface Water Management Plan, that includes:
  - detailed baseline data of the surface water flows and quality in the waterbodies that could be affected by the project;
  - a detailed description of the water management system on site, including the:
    - clean water diversion systems;
    - erosion and sediment controls; and
    - water storages;
  - a plan for identifying, extracting, handling, and the long-term storage of potentially acid forming material on site;
  - detailed plans, including design objectives and performance criteria, for:
    - design and management of the final void;
    - reinstatement of drainage lines on the rehabilitated areas of the site; and
    - control of any potential water pollution from the rehabilitated areas of the site;
  - a program to monitor the effectiveness of the water management system;
  - a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the project; and
- a Groundwater Management Plan, which includes:
  - detailed baseline data of groundwater levels and quality surrounding the site;
  - groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts;
  - a program to monitor :
    - groundwater inflows to the open cut mining operations;
    - the impacts of the project on any groundwater bores on privately-owned land;
    - the seepage/leachate from water storages or backfilled voids on site; and
  - a program to validate the groundwater model for the project, and calibrate it to site specific conditions; and
  - a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse groundwater impacts of the project.

## BIODIVERSITY

### Biodiversity Offset Strategy

24. The Proponent shall implement the biodiversity offset strategy for the project described in the EA, summarised in Table 12, and shown conceptually on the figure in Appendix 4 to the satisfaction of the Director-General.

Table 12: Summary of the Biodiversity Offset Strategy

| <b>Offset Areas</b>    | <b>Minimum Size (hectares)</b> |
|------------------------|--------------------------------|
| Eurunderee             | 363.93                         |
| Hillview               | 57.32                          |
| Marengo                | 284.12                         |
| Railway View           | 243.69                         |
| Mine Site              | 218.66                         |
| Additional Offset Area | 74                             |
| <b>TOTAL</b>           | <b>1,241.72</b>                |

Notes:

- To identify the areas referred to in Table 12, see the applicable figure in Appendix 4;
  - The strategy includes the enhancement of existing fauna habitat within these areas, and where necessary the targeted establishment of naturally scarce fauna habitat; and
  - The Additional Offset Area must have at least 74 hectares of Box Gum Woodland EEC.
25. By the end of June 2012, unless the Director-General agrees otherwise, the Proponent shall update the biodiversity offset strategy for the project, in consultation with OEH, and to the satisfaction of the Director-General. The updated strategy must include the specific details of the Additional Offset Area (see Table 12).
26. The Proponent shall ensure that the biodiversity offset strategy and/or rehabilitation strategy is focused on the re-establishment and/or enhancement of:
- (a) the following endangered ecological communities:
    - White Box-Yellow Box-Blakely's Red Gum Woodland EEC; and
    - White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland CEEC; and
  - (b) habitat for threatened fauna species, including the:
    - Regent Honey Eater, Swift Parrot, Brown Treecreeper, Hooded Robin, Little Lorikeet, and Barking Owl; and
    - Eastern Bent-wing Bat, Eastern False pipistrelle, Yellow-bellied Bent-wing Bat and Greater Broad-nosed Bat.

### Long Term Security of Offsets

27. The Proponent shall make suitable arrangements to provide appropriate long-term security for the offset areas (excluding the rehabilitation areas) by December 2012, or other date agreed by the Director-General, to the satisfaction of the Director-General.

### Biodiversity Offset Management Plan

28. The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with OEH, and submitted to the Director-General for approval by the end of December 2012;
  - (b) describe how the implementation of the biodiversity offset strategy would be integrated with the overall rehabilitation of the site;
  - (c) describe the short, medium, and long term measures that would be implemented to:
    - manage the remnant vegetation and habitat on the site and in the offset area/s (if and when applicable); and
    - implement the biodiversity offset strategy (if and when applicable), including detailed performance and completion criteria;
  - (d) include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary);
  - (e) include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:

- enhancing the quality of existing vegetation and fauna habitat;
  - restoring native vegetation and fauna habitat on the biodiversity areas and rehabilitation area through focusing on assisted natural regeneration, targeted vegetation establishment and the introduction of naturally scarce fauna habitat features (where necessary);
  - landscaping the land on site that faces public roads to minimise the visual and lighting impacts of the project;
  - maximising the salvage of resources within the approved disturbance area - including vegetative, soil and cultural heritage resources – for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area;
  - collecting and propagating seed;
  - minimising the impacts on fauna on site, including undertaking pre-clearance surveys;
  - managing any potential conflicts between the proposed restoration works in the biodiversity areas and any Aboriginal heritage values (both cultural and archaeological);
  - managing salinity;
  - controlling weeds and feral pests;
  - controlling erosion;
  - managing grazing and agriculture on site;
  - controlling access; and
  - bushfire management;
- (f) include a seasonally-based program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria;
- (g) identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate against these risks; and
- (h) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

### **Conservation Bond**

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

The sum of the bond shall be determined by:

- (a) calculating the full cost of implementing the offset strategy (other than land acquisition costs); and
- (b) employing a suitably qualified quantity surveyor to verify the calculated costs, to the satisfaction of the Director-General.

If the offset strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Director-General, the Director-General will release the bond.

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

With the agreement of the Director-General, this bond may be combined with rehabilitation security deposit administered by DRE.

## **HERITAGE**

### **Historic Heritage**

30. By the end of April 2012, the Proponent shall:
- (a) undertake primary historical investigations and provide a report prepared by an experienced heritage consultant approved by the Director-General on the archaeological potential of the former Werris Creek Colliery site, remaining buildings and surrounds;
  - (b) provide recommendations for the management, salvage or recording of any archaeological features on the site and a timetable for the implementation of these recommendations;
  - (c) include in this report detailed archival recording, including photographic recording and location plans of any structures relating to the former Werris Creek Colliery; and
  - (d) provide a copy of this report to the Department, Heritage Council of NSW and Council, to the satisfaction of the Director-General.

### **Human Remains**

31. This approval does not allow the Proponent to disturb any human remains found on the site.

## Heritage Management Plan

32. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Director-General;
  - (b) be prepared in consultation with OEH and the Aboriginal stakeholders (in relation to the management of Aboriginal heritage values);
  - (c) be submitted to the Director-General for approval by the end of June 2012, unless the Director-General agrees otherwise;
  - (d) include the following for the management of Aboriginal Heritage:
    - a description of the measures that would be implemented for:
      - protecting, relocating, monitoring and/or managing the axe-grinding grooves known as the "Narrawolga site";
      - managing the discovery of any human remains or previously unidentified Aboriginal objects on site;
      - maintaining and managing reasonable access for Aboriginal stakeholders to heritage items on site and within any Aboriginal heritage conservation areas;
      - ongoing consultation with the Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage both on site and within any Aboriginal heritage conservation areas; and
      - ensuring any workers on site receive suitable heritage inductions and that suitable records are kept of these inductions;
    - a strategy for the storage of any heritage items salvaged on site, both during the project and in the long-term;
  - (e) include the following for the management of historic heritage:
    - a detailed plan for the implementation of any measures resulting from the further investigations into the former Werris Creek Colliery site and buildings;
    - a description of the measures that would be implemented for:
      - managing the discovery of human remains or previously unidentified heritage items on site; and
      - ensuring any workers on site receive suitable heritage inductions and that suitable records are kept of these inductions.

*Note: It is accepted that the detailed plan for the implementation of any measures resulting from further investigations into the former Werris Creek Colliery site will not be submitted with the initial Heritage Management Plan. They should be progressively added to the plan once they are completed.*

## TRANSPORT

### Roadworks

33. Prior to the use of the Northern Site Access Road, the Proponent shall:
- (a) construct the intersection of the Northern Site Access Road (see the figure in Appendix 2) to the satisfaction of Council;
  - (b) tar seal Escott Road from Werris Creek Road to the coal haul road to the satisfaction of Council;
  - (c) upgrade the intersection of Escott Road and Werris Creek Road to a CHR type intersection to the satisfaction of RTA and Council;
  - (d) install appropriate rail crossings at the rail loop on Escott Road; and
  - (e) install appropriate advance warning signs and lighting on Escott Road and at the intersection of the Northern Site Access Road to the satisfaction of Council.
34. Within 3 months of the commencement of coal transport from the Northern Site Access Road, the Proponent shall close the existing mine entrance on Werris Creek Road (see Figure 1 of Appendix 2) to coal transport (unless required in an emergency).

### Road Maintenance

35. For the life of the project, the Proponent shall continue to provide funding towards the maintenance of Taylors Lane, in accordance with the existing road maintenance contributions agreement with Council.

### Monitoring of Coal Transport

36. The Proponent shall:
- (a) keep accurate records of the amount of coal transported from the site (on a monthly basis); and
  - (b) make these records available on its website at the end of each calendar year.

## VISUAL

### Visual Amenity

37. The Proponent shall:
- (a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the project, including:
    - progressively rehabilitating overburden emplacement areas (particularly the outer batters), including partial rehabilitation of temporarily inactive areas and proposed topsoil storage stockpiles;
    - constructing a 15 metre high visual/amenity bund along the northeastern perimeter of the northern extent of the open-cut pit, and
    - planting trees at the foot of the overburden emplacement area along the eastern boundary of the site, in front of the visual/amenity bund, and to the north and east of the product coal stockpile and rail load-out facility;
  - (b) establish and maintain an effective vegetative screen along the boundary of the site adjoining public roads;
  - (c) ensure no outdoor lights shine above the horizontal; and
  - (d) ensure that all external lighting associated with the development complies with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*, to the satisfaction of the Director-General.

### Additional Visual Impact Mitigation

38. Upon receiving a written request from the owner of any residence on privately-owned land which has, or would have, significant direct views of the mining operations on site during the project, the Proponent shall implement additional visual impact mitigation measures (such as landscaping treatments or vegetation screens) to reduce the visibility of these mining operations from the residences on their properties.

These mitigation measures must be reasonable and feasible, and must be implemented within a reasonable timeframe.

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

#### Notes:

- *The additional visual impact mitigation measures must be aimed at reducing the visibility of the mining operations on site from significantly affected residences, and do not require measures to reduce the visibility of the mining operations from other locations on the affected properties;*
- *The additional visual impact mitigation measures do not necessarily have to include the implementation of measures on the affected property itself (i.e. the additional measures could involve the implementation of measures outside the affected property boundary that provide an effective reduction in visual impacts).*

## WASTE

39. The Proponent shall:
- (a) implement all reasonable and feasible measures to minimise the waste generated by the project;
  - (b) ensure that the waste generated by the project 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.

## BUSHFIRE MANAGEMENT

40. The Proponent shall:
- (a) ensure that the project 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.

## REHABILITATION

### Rehabilitation Objectives

41. The Proponent shall rehabilitate the site to the satisfaction of the Executive Director, Mineral resources in DRE. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EA (and shown conceptually in the figure in Appendix 5), and comply with the objectives in Table 13.

Table 13: Rehabilitation objectives

| <b>Feature</b>                            | <b>Objective</b>   |
|---|--|
| Mine site (as a whole)                    | <ul style="list-style-type: none"> <li>• Safe, stable &amp; non-polluting;</li> <li>• A landform consistent with the surrounding environment, and final land uses compatible with surrounding land uses;</li> <li>• Establishment of 280 hectares of the White Box-Yellow Box-Blakely's Red Gum Woodland EEC; and</li> <li>• Restoration of ecosystem function, including maintaining or establishing self-sustaining native ecosystems, comprised of:               <ul style="list-style-type: none"> <li>- local native plant species;</li> <li>- at least 180 hectares of shrubby woodland.</li> </ul> </li> </ul> |
| Amenity Bunds and Overburden Emplacements | <ul style="list-style-type: none"> <li>• Early revegetation and planting with local native woodland species; and</li> <li>• Free draining.</li> </ul>  |
| Final Void                                | <ul style="list-style-type: none"> <li>• Minimise the size and depth of the final void as far as is reasonable and feasible, with its floor a minimum of 5 metres above the predicted long-term groundwater level.</li> </ul>  |
| Project infrastructure                    | <ul style="list-style-type: none"> <li>• To be decommissioned and removed, unless the Executive Director, DRE agrees otherwise.</li> </ul>   |
| Community                                 | <ul style="list-style-type: none"> <li>• Minimise the adverse socio-economic effects associated with mine closure.</li> </ul>  |

### Progressive Rehabilitation

42. The Proponent shall rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance.

### Rehabilitation Management Plan

43. The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Executive Director, Mineral Resources in DRE. This plan must:
- (a) be prepared in consultation with the Department, NOW, OEH, Council and the CCC;
  - (b) be submitted to the Executive Director, Mineral Resources in DRE by the end of April 2012
  - (c) be prepared in accordance with any relevant DRE guideline;
  - (d) describe how the rehabilitation of the site would be integrated with the implementation of the biodiversity offset strategy;
  - (e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);
  - (f) describe the measures that would be implemented to ensure compliance with the conditions of this approval, and address all aspect of rehabilitation including mine closure, final landform, and final land use;
  - (g) include a program to monitor and report on the effectiveness of the 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 approval.

## **SCHEDULE 4 ADDITIONAL PROCEDURES**

### **NOTIFICATION OF LANDOWNERS**

1. By the end of December 2011, the Proponent shall:
  - (a) notify in writing the owners of:
    - any residence on the land listed in Table 3 of schedule 3 that they are entitled to ask the Proponent to install additional noise mitigation measures at their residence at any stage during the project; and
    - any privately-owned land within 2 kilometres of the approved open cut mining pit that they are entitled to ask the proponent for a property inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated; and
  - (b) send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the owners of any land (including mine-owned land) where the predictions in the EA identify that dust emissions generated by the project are likely to be greater than the relevant air quality criteria in schedule 3 at any time during the life of the project.
2. As soon as practicable after obtaining monitoring results showing:
  - (a) an exceedance of the relevant criteria in schedule 3, the Proponent shall notify the affected landowner in writing of the exceedance, and provide regular monitoring results to each of these parties until the project is complying with the relevant criteria again; and
  - (b) an exceedance of the relevant air quality criteria schedule 3, the Proponent 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.

### **INDEPENDENT REVIEW**

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

If the Director-General is satisfied that an independent review is warranted, then within 2 months of the Director-General's decision the Proponent shall:

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

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

- (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent person, and conduct further monitoring until the project complies with the relevant criteria; and
- (b) secure a written agreement with the landowner to allow exceedances of the relevant criteria; to the satisfaction of the Director-General.

If the independent review determines that the project is not complying with the relevant acquisition criteria, and that the project is primarily responsible for this non-compliance, then upon receiving a written request from the landowner, the Proponent shall acquire all or part of the landowner's land in accordance with the procedures in condition 5-6 below.

### **LAND ACQUISITION**

5. Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent shall make a binding written offer to the landowner based on:
  - (a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the project, having regard to the:
    - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
    - presence of improvements on the land and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be

- completed subsequent to that date, but excluding any improvements that have resulted from the implementation of 'additional noise mitigation measures' in condition 4 of schedule 3;
- (b) the reasonable costs associated with:
- relocating within the Liverpool Plains Shire local government area, or to any other local government area agreed to by the Director-General;
  - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and
- (c) reasonable compensation for any disturbance caused by the land acquisition process.

However, if at the end of this period, the Proponent and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Director-General for resolution.

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

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

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

However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Director-General for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Director-General will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report and any other relevant submissions. Within 14 days of this determination, the Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the Director-General's determination.

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

6. The Proponent shall pay all reasonable costs associated with the land acquisition process described in condition 4 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of the plan at the Office of the Registrar-General.
-

## 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 Director-General. This strategy must:
  - (a) be submitted to the Director-General for approval by the end of April 2012;
  - (b) provide the strategic framework for the environmental management of the project;
  - (c) identify the statutory approvals that apply to the project;
  - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;
  - (e) describe the procedures that would be implemented to:
    - keep the local community and relevant agencies informed about the operation and environmental performance of the project;
    - receive, handle, respond to, and record complaints;
    - resolve any disputes that may arise during the course of the project;
    - respond to any non-compliance;
    - respond to emergencies; and
  - (f) include:
    - copies of any strategies, plans and programs approved under the conditions of this approval; and
    - a clear plan depicting all the monitoring required to be carried out under the conditions of this approval.

#### 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 include:
  - (a) detailed baseline data;
  - (b) a description of:
    - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
    - any relevant limits or performance measures/criteria;
    - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;
  - (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
  - (d) a program to monitor and report on the:
    - impacts and environmental performance of the project;
    - effectiveness of any management measures (see (c) above);
  - (e) a contingency plan to manage any unpredicted impacts and their consequences;
  - (f) 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
  - (g) a protocol for periodic review of the plan.

#### Annual Review

3. By the end of March each year, the Proponent shall review the environmental performance of the project to the satisfaction of the Director-General. This review must:
  - (a) describe the development (including any rehabilitation) that was carried out in the past year, and the development that is proposed to be carried out over the next year;
  - (b) include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against the:
    - relevant statutory requirements, limits or performance measures/criteria;
    - monitoring results of previous years; and
    - relevant predictions in the EA;
  - (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 project;
  - (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and
  - (f) describe what measures will be implemented over the next year to improve the environmental performance of the project.

## Revision of Strategies, Plans and Programs

4. Within 3 months of:
  - (a) the submission of an annual review under condition 3 above;
  - (b) the submission of an incident report under condition 6 below;
  - (c) the submission of an audit under condition 8 below; and
  - (d) any modification to the conditions of this approval (unless the conditions require otherwise), the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General.

*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.*

## Community Consultative Committee

5. The Proponent shall operate a Community Consultative Committee (CCC) for the Werris Creek Coal Mine for the life of the project, in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version), and to the satisfaction of the Director-General.

*Notes:*

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

## REPORTING

### Incident Reporting

6. The Proponent shall notify, at the earliest opportunity, the Director-General and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the project, the Proponent shall notify the Director-General and any other relevant agencies 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 Director-General and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

### Regular Reporting

7. 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 approved under the conditions of this approval.

## INDEPENDENT ENVIRONMENTAL AUDIT

8. By the end of June 2014, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
  - (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;
  - (b) include consultation with the relevant agencies;
  - (c) assess the:
    - environmental performance of the project; and
    - whether it is complying with the requirements in this approval, any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals); and
  - (d) recommend appropriate measures or actions to improve the environmental performance and rehabilitation of the project.

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

9. Within 6 weeks of the completion of this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General, together with its response to any recommendations contained in the audit report.

## ACCESS TO INFORMATION

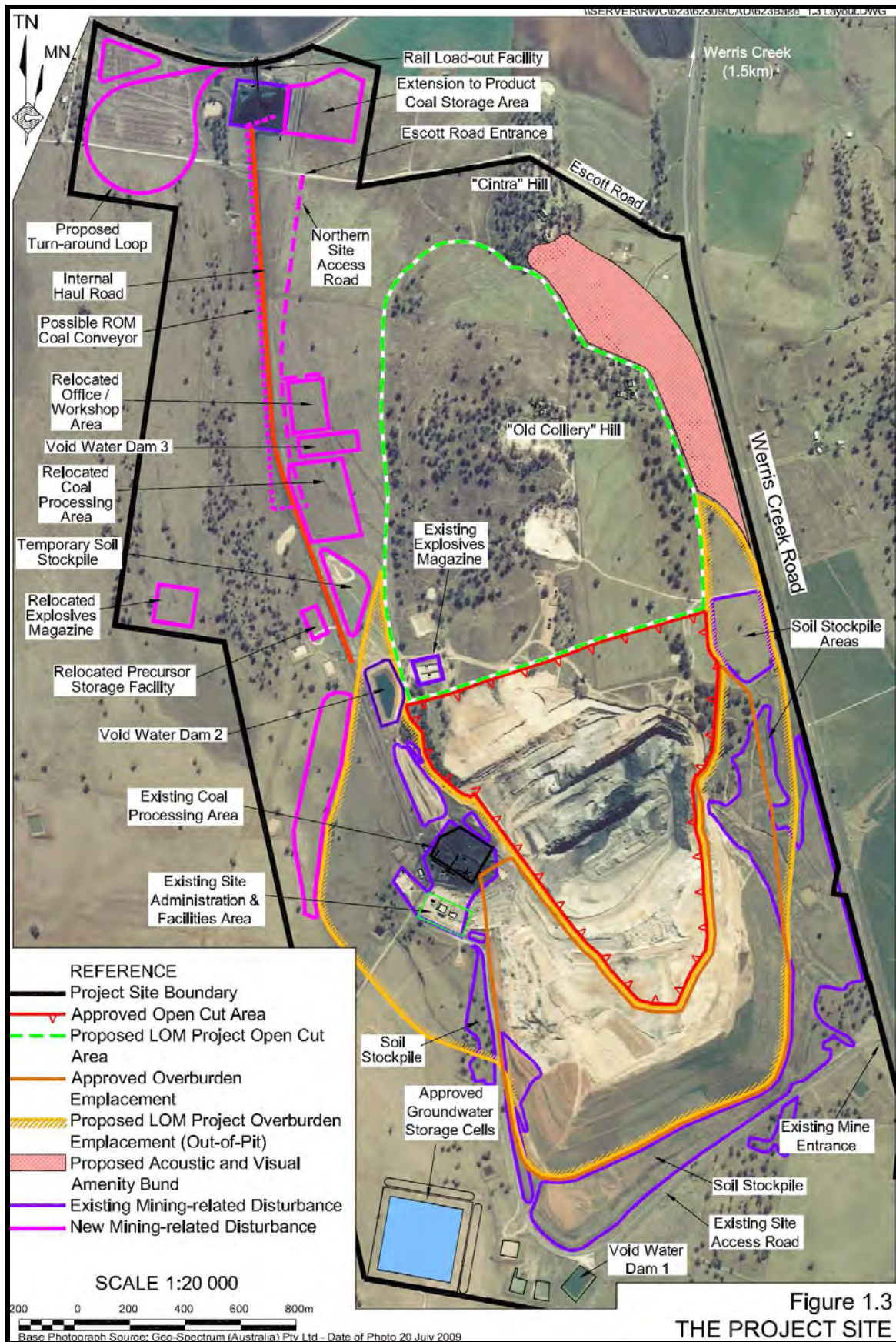
10. The Proponent shall:
  - (a) make copies of the following publicly available on its website:
    - the EA;
    - current statutory approvals for the project;
    - approved strategies, plans and programs required under the conditions of this approval;

- a comprehensive summary of the monitoring results of the project, which have been reported in accordance with the conditions of this approval or any approved plans or programs;
  - a complaints register, which is to be updated on a monthly basis;
  - minutes of any CCC meetings;
  - the last five annual reviews;
  - any independent environmental audit of the project, and the Proponent's response to the recommendations in any audit;
  - any other matter required by the Director-General; and
- (b) keep this information up-to-date,  
to the satisfaction of the Director-General.
-

**APPENDIX 1  
SCHEDULE OF LAND**

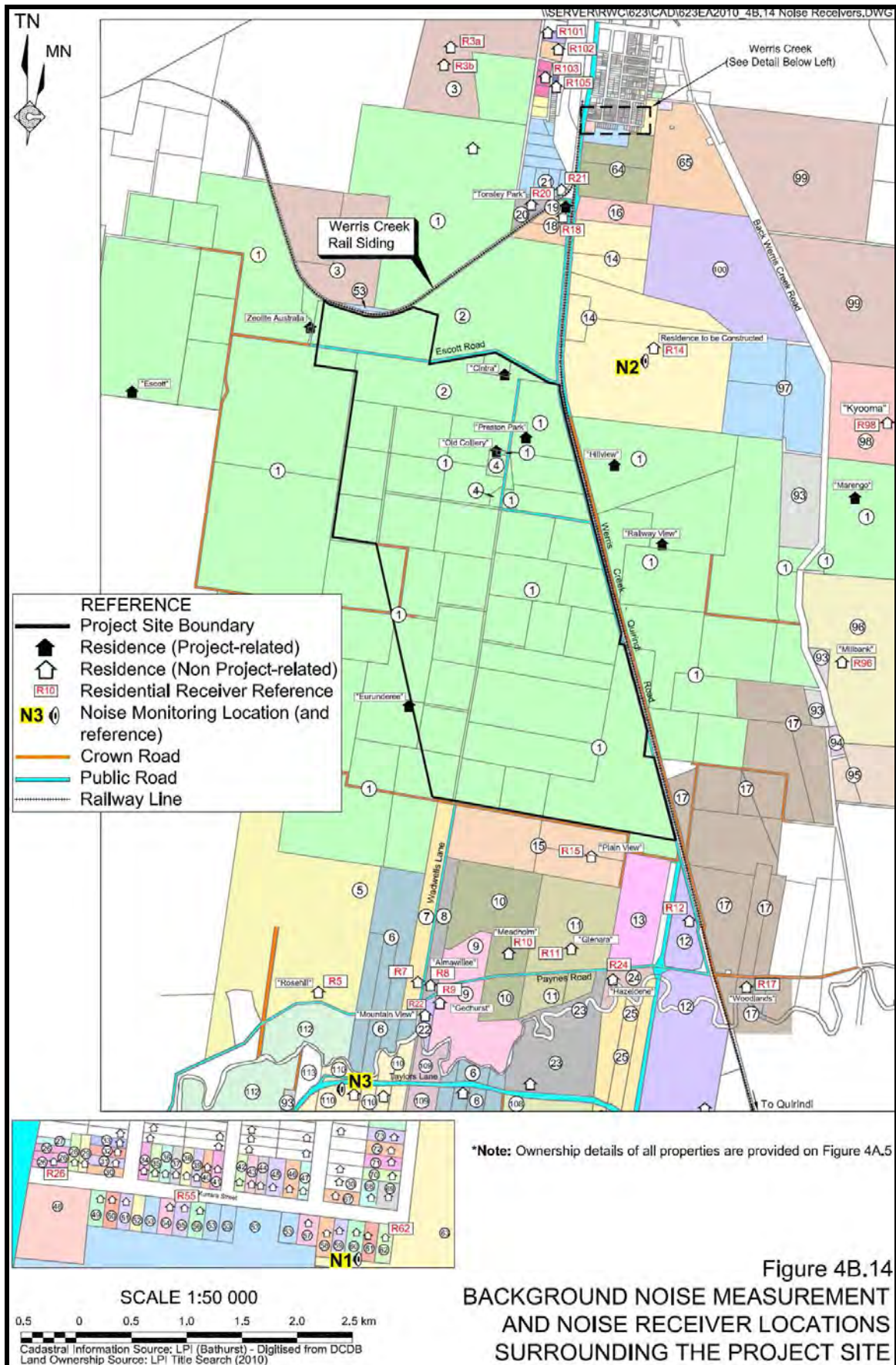
| <b>Lot(s)</b>  | <b>DP Number</b> |
|--|------------------|
| 19, 20, 73-75, 93, 94, 109, 110, 112, 120, 121, 123, 126-130, 133, 135, Part Lots 65, 83, 131, 132, 217, 255 | DP751017         |
| Lots 1-4   | DP1022826        |
| Lots 1-4   | DP1037145        |
| Lot 2  | DP431951         |
| Lot 1  | DP186633         |
| Lots 270   | DP257307         |
| Lots 1-2   | DP1095262        |
| Lot 1  | DP344178         |
| Lot 1  | DP1114226        |
| Lot 1  | DP328762         |
| Lot 1  | DP328763         |
| Part Lot 1   | DP1085891        |

## APPENDIX 2 PROJECT LAYOUT PLAN



*Figure 1: Project General Arrangement*

### APPENDIX 3 NOISE RECEIVER LOCATIONS



# APPENDIX 4 BIODIVERSITY OFFSET STRATEGY

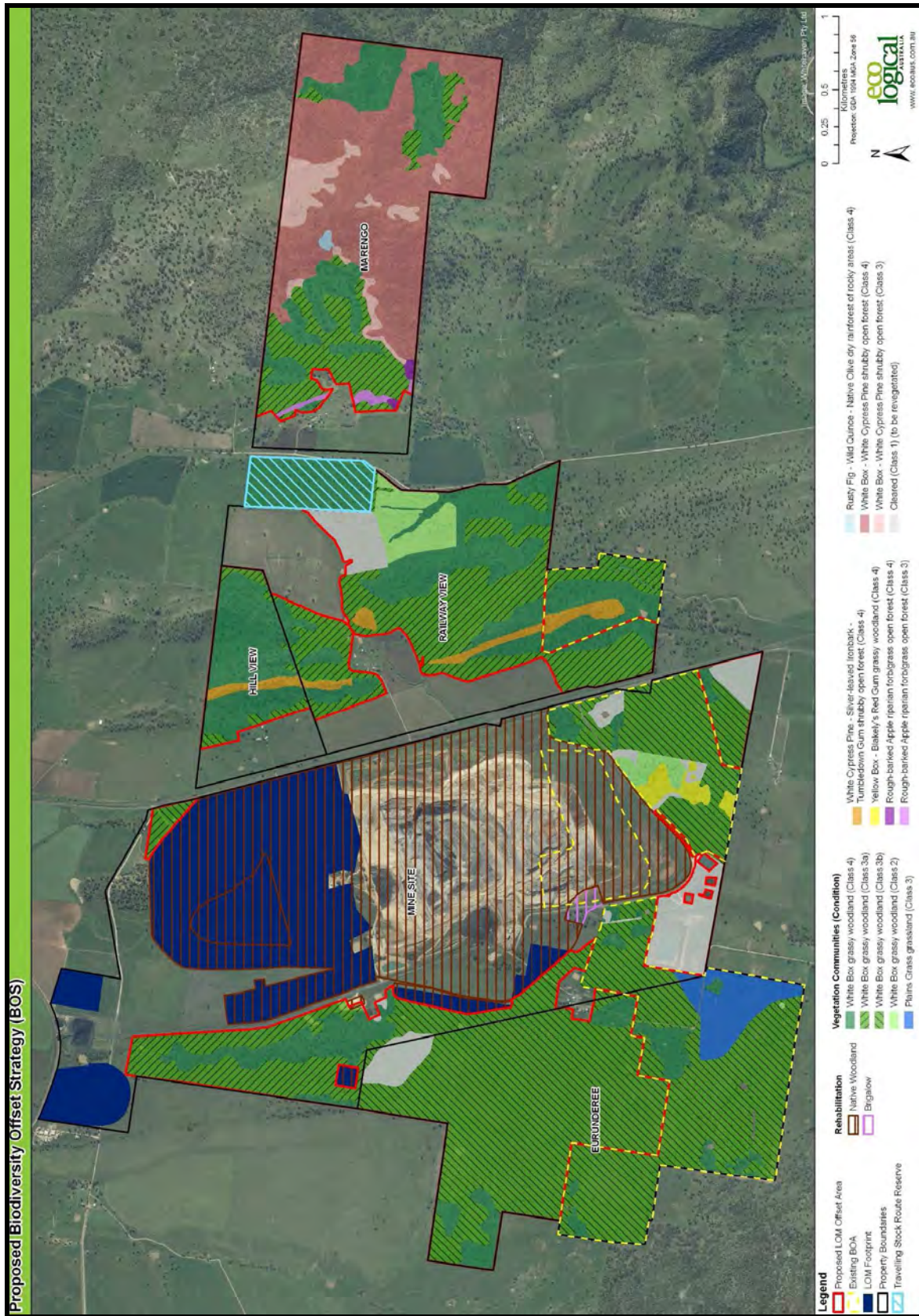
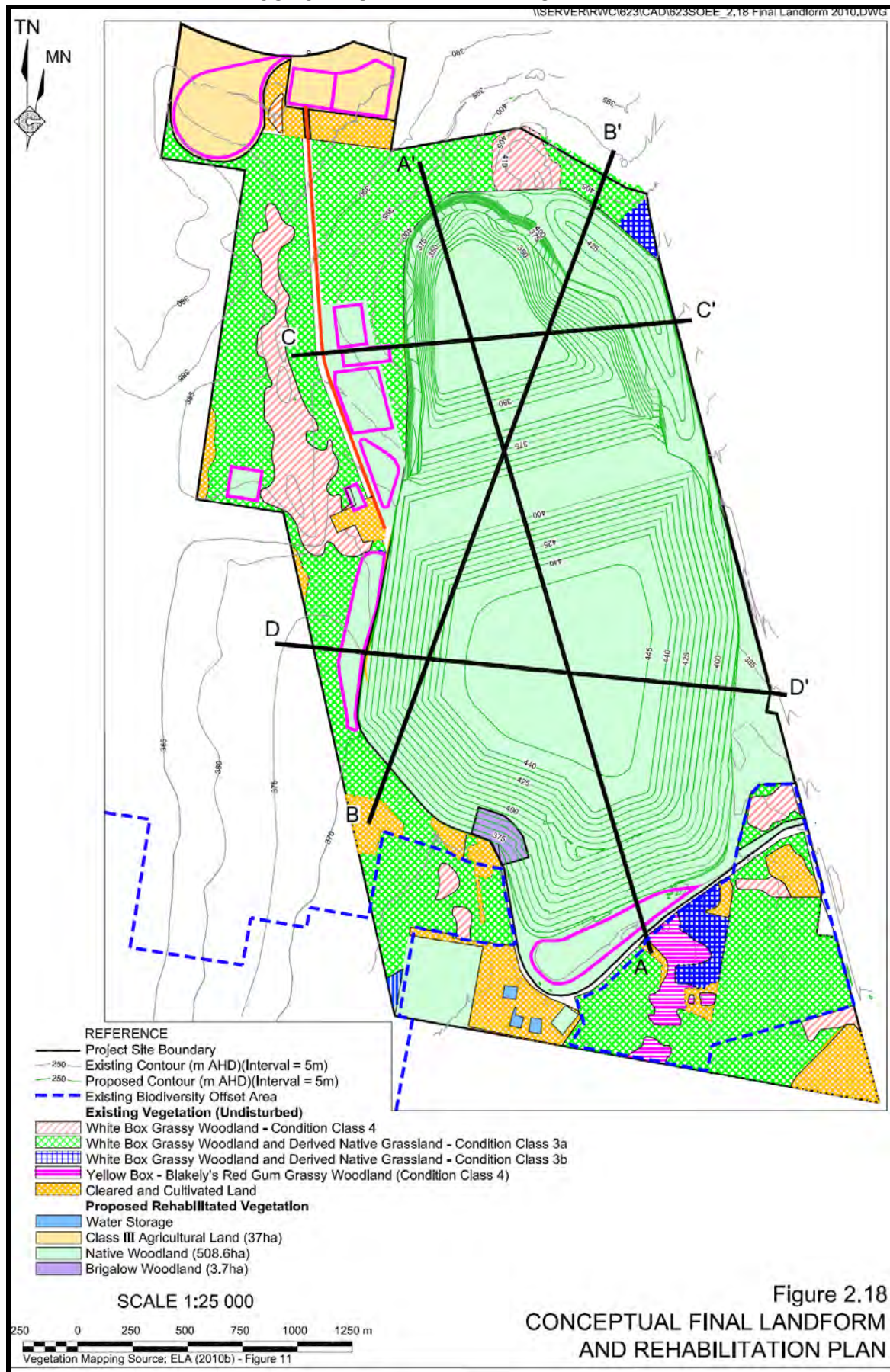


Figure 1: Biodiversity Offset Strategy

APPENDIX 5  
CONCEPTUAL FINAL LANDFORM PLAN



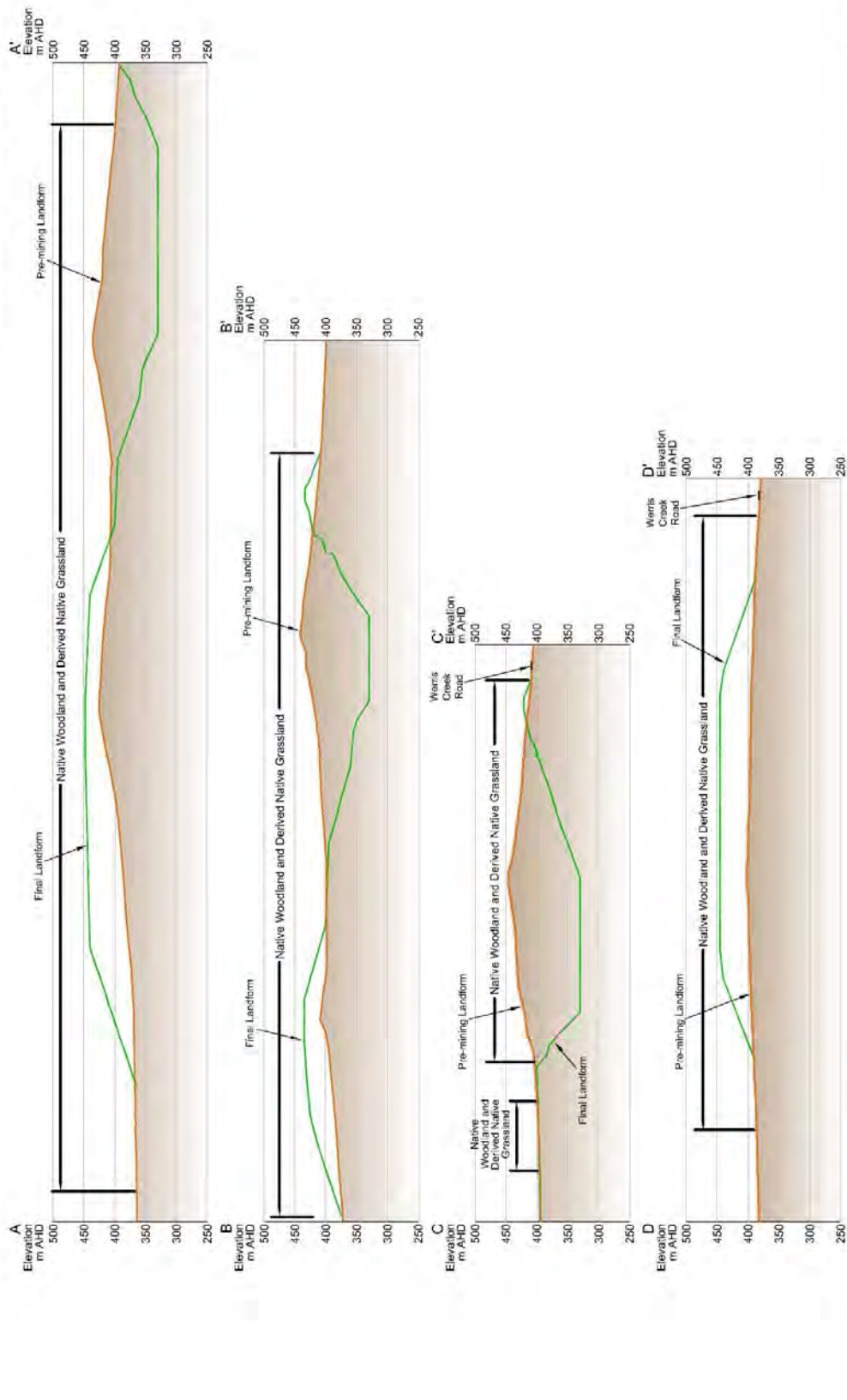


Figure 2.19  
CROSS SECTIONS  
THROUGH THE  
FINAL LANDFORM

SCALE 1:20 000  
(Vertical Exaggeration = 2)

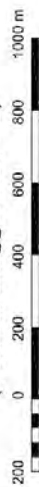


Figure 2: Cross-sections of the conceptual final landform

**APPENDIX 6  
STATEMENT OF COMMITMENTS**

| Desired Outcome   | Action  | Timing   |
|---|---|--|
| <b>1. Groundwater</b>   |   |  |
| Effective management of water dewatered from the former Werris Creek Colliery underground workings. | 1.1 Dewater water from the underground workings to the already approved groundwater storage cells and use it preferentially for dust suppression activities.  | Ongoing  |
| Effective management of the potential contamination of groundwater resources.                       | 1.2 Implement mitigation measures associated with the contamination of groundwater due to a hydrocarbon spill in accordance with the existing <i>Groundwater Contingency Plan</i> .   | If contamination of groundwater due to a hydrocarbon spill occurs                          |
|   | 1.3 Fill the final void above the equilibrium water level following the cessation of mining in order to avoid leaving a potentially saline water body, which may have the potential to contaminate the surrounding aquifers.  | Following the cessation of mining  |
|   | 1.4 Increase the groundwater monitoring regime analytes monitored and/or frequency of sampling to confirm the magnitude and extent of any change in water chemistry and verify the change is a consequence of operations associated with the LOM Project.   | If pH or EC trigger level exceeded   |
|   | 1.5 Install one or more piezometers into the back filled void and monitor water chemistry to confirm back filled overburden and interburden is not adversely affecting the local groundwater.   | Within 2 years of project approval   |
|   | 1.6 Ongoing analysis of overburden / interburden samples to confirm the low potential for acid and soluble salt generation, or other potential contamination.   | Ongoing  |
| Ensure the availability of groundwater to surrounding users is maintained.                          | 1.7 Review, update and incorporate the Groundwater Contingency Plan into a Water Management Plan for the Werris Creek Coal Mine.  | Within 6 months of project approval  |
|   | 1.8 In the event that routine monitoring indicates that a groundwater trigger has been reached, commence contingency procedures which will require an increased monitoring frequency to confirm a breach of the trigger. If the breach confirmed, commission a hydrogeologist to review the data, and provide independent advice as to the cause of the trigger. The outcomes of that review, including any recommendations, will be subject to discussion and agreement with hydrogeologists from NOW. | In the event that routine monitoring indicates that a groundwater trigger has been reached |
| Ensure the availability of groundwater to surrounding users is maintained. (cont'd)                 | 1.9 If the saturated thickness in any bore is reduced below trigger level, notify the affected landowner(s).  | If the saturated thickness trigger level is achieved in any bore                           |

| Desired Outcome   | Action  | Timing   |
|---|---|--|
|   | 1.10 If a reduction in the saturated thickness within any bore is in excess of the trigger level, and is determined to be as a consequence of operations associated with the LOM Project, negotiate with the affected landowner(s) with the intent of formulating an agreement in accordance with the <i>Groundwater Contingency Plan</i> . | In the event that monitoring identifies a reduction in the saturated thickness and is determined to be a consequence of operations associated with the LOM Project |
| <b>2. Surface Water</b>   |   |  |
| Separate clean water from dirty water.  | 2.1 Construct temporary diversion banks on the upslope boundary of all areas to be stripped of groundcover and soil.  | Prior to clearing and stripping operations   |
|   | 2.2 Construct catch drains or banks and/or install a sediment fence on the downslope boundary of an area to be stripped of groundcover and soil.  | Prior to clearing and stripping operations   |
|   | 2.3 Direct sediment-laden runoff into sediment basins for treatment prior to discharge (if required).   | Ongoing  |
|   | 2.4 Construct all water management infrastructure in accordance with Volume 2E of the guideline document " <i>Soils and Construction: Managing Urban Stormwater</i> " (DECC, 2008).   | Construction of water management infrastructure  |
| Prevent the discharge of contaminated water from the Project Site               | 2.5 Install a sediment trap in the coal crushing/stockpiling and maintenance area to remove coal fines from surface flows.  | Ongoing  |
|   | 2.6 Install an oil/water separating unit to receive and treat potentially contaminated water from the maintenance and wash-down bay prior to further treatment within the dirty water management system.  | Ongoing  |
| Implementation of a comprehensive and ongoing surface water monitoring program. | 2.7 Monitor surface water quality for pH, electrical conductivity, total suspended solid concentration, Oil & Grease levels, within: <ul style="list-style-type: none"> <li>• licensed discharge points;</li> <li>• receiving waters (Werris and Quipolly Creeks); and</li> <li>• Clean, Dirty and Void Water Dams</li> </ul>               | Quarterly and during discharge<br><br>Quarterly and within 12 hours after discharge<br><br>Quarterly   |
| Prevention of saline water discharge off site.                                  | 2.8 Retain all void water within the Void Water Dams or sumps within the open cut.  | Ongoing  |

| Desired Outcome   | Action   | Timing   |
|---|--|--|
| <b>2. Surface Water (cont'd)</b>  |  |  |
| Prevention of dirty water flowing into Werris and Quipolly Creeks.  | 2.9 Where practically possible, ensure the licensed discharge points / sediment basins are maintained in a dry condition to provide full storage capacity in the event of rainfall events exceeding 39.2 mm of rain over a 5-day period.   | Ongoing  |
| <b>3. Biodiversity</b>  |  |  |
| Avoid and minimise impacts on native vegetation (including the two identified EECs) where possible.                         | 3.1 Ensure disturbance associated with the relocation of site infrastructure occurs in the locations specified on <b>Figure 2.1</b> , i.e. on cleared and cultivated land (Condition Class 1), or derived native grassland without native tree overstorey (Condition Class 3).                                 | Prior to and during relocation of infrastructure |
|   | 3.2 Limit vegetation clearing each year to an area required for the following 12 months mine development.  | Annual   |
|   | 3.3 Clearly mark / peg areas required for surface infrastructure establishment and mining.   | Ongoing  |
|   | 3.4 Retain felled trees on the Project Site for subsequent use during rehabilitation activities.   | Site establishment and rehabilitation phases     |
| Mitigate unavoidable disturbance to native vegetation and fauna habitat.  | 3.5 Identify, as part of the Pre-start Clearing Inspection, biological resources within the disturbance area including habitat resources such as hollows, stag trees and coarse woody debris, and the availability of endemic seed.  | During annual clearing campaigns                 |
|   | 3.6 Implement a seed collection strategy and program to harvest endemic seed from local vegetation to either directly sow or propagate for tube stock planting in either biodiversity offset or rehabilitation areas.  | Ongoing  |
|   | 3.7 Complete monitoring and inspection programs to review the progress of rehabilitation against criteria based on vegetation community benchmark data.  | Annual   |
| Rehabilitate disturbed areas to create a final landform that maintains or improves biodiversity values of the Project Site. | 3.8 Create a final landform generally similar to that of the pre-mining landform, i.e. approximating the conceptual final landform provided by <b>Figure 2.18</b> .  | Ongoing  |
|   | 3.9 Revegetate the final landform as nominated by <b>Figure 2.18</b> (or subsequent Rehabilitation Management Plan), i.e. predominantly native woodland vegetation which will supplement the LOM Project BOS and improve the linkage between remnant areas of native woodland vegetation to the east and west. | Ongoing  |
|   | 3.10 Designate approximately 3.7ha of the final landform as Brigalow woodland.   | During rehabilitation                            |

| Desired Outcome   | Action  | Timing  |
|---|---|---|
| <b>3. Biodiversity (cont'd)</b>   |   |   |
| Rehabilitate disturbed areas to create a final landform that maintains or improves biodiversity values of the Project Site. | 3.11 Augment habitat through the placement of previously cleared timber (on the ground as well as upright 'stags') to provide important habitat value for arboreal and ground hollow dependant fauna and perching sites.  | During rehabilitation operations                                |
| Manage the impacts of noxious weeds.  | 3.12 Monitor noxious weeds on a regular basis, and if required, conduct weed management campaigns to manage weed outbreaks.   | Ongoing   |
| Minimise or avoid impacts on native fauna (including threatened species).   | 3.13 Undertake vegetation clearing during a single campaign each year (except when there are extenuating circumstances), preferably during seasons that minimise the risk of impacting on hibernating microbats or breeding woodland birds, i.e. Autumn.  | Vegetation clearing and ongoing                                 |
|   | 3.14 Commission a Pre-start Clearing Inspection of the proposed disturbance area by an ecologist to identify the presence of native fauna (including threatened species such as the Koala and microbats).   | Vegetation clearing and ongoing                                 |
|   | 3.15 Suspend all clearing activities, in the event a koala (or other threatened fauna species) is present in the trees to be cleared, until it moves away from the subject area or is relocated by a suitably qualified person.   | Prior to clearing operations within areas of remnant vegetation |
| Offset residual impact of the LOM Project.  | 3.16 Develop and implement, in consultation with the DECCW, DoP and DSEWPaC, a Biodiversity Offset Strategy for the LOM Project.  | Within 18 months of Project Approval                            |
|   | 3.17 Prepare a Biodiversity Offset Management Plan which includes a detailed description of the procedures to be applied within the offset area including: <ul style="list-style-type: none"> <li>• erosion and sediment control;</li> <li>• soil and water management, bushfire management;</li> <li>• exclusion of domestic stock;</li> <li>• weed management;</li> <li>• retention of regrowth and native vegetation;</li> <li>• retention of dead timber and fallen logs;</li> <li>• in-fill planting with locally indigenous species where required;</li> <li>• feral animal control;</li> <li>• limitation of human access; and</li> <li>• an annual review and reporting requirement.</li> </ul> | Within 18 months of Project Approval                            |

| Desired Outcome  | Action   | Timing  |
|--|--|---|
| <b>3. Biodiversity (cont'd)</b>  |  |   |
| Offset residual impact of the LOM Project. (cont'd)  | 3.18 Provide for the completion of an independent review of the BOMP at least every 5 years to report on the success of BOMP procedures (see Commitment 3.17).   | Every 5 years following the establishment of the BOMP               |
| <b>4. Heritage</b>   |  |   |
| Maintain Aboriginal heritage values on site.   | 4.1 Update the Aboriginal Cultural Heritage Management Plan to reflect the approval of the LOM Project.  | Within 12 months of project approval                                |
|  | 4.2 Re-instate the Narrawolga Axe Grinding Grooves to a position as close as possible to their original location following rehabilitation of the Project Site in consultation with local Aboriginal community representatives.   | Following mine closure  |
|  | 4.3 Continue awareness training of staff and contractors for cultural heritage matters   | Ongoing   |
|  | 4.4 In the event the Project Site disturbance footprint changes, ensure that appropriate consultation and field survey is undertaken to confirm no sites or objects of Aboriginal heritage significance are impacted.  | If the disturbance footprint changes                                |
| Maintain Aboriginal heritage values on site.   | 4.5 In the event any previously unidentified 'objects' or other Aboriginal sites (such as burials) are uncovered, ensure that work in that area is suspended and the DECCW Western Regional Archaeologist (Dubbo Office) and local Aboriginal community are contacted to discuss how to proceed. | If a previously unidentified object or Aboriginal site is uncovered |
| Develop an historic context for the Project Site particularly in reference to the operation of the former Werris Creek Colliery. | 4.6 Salvage the concrete marked with the hand and footprints of the former Deputy Mine Manager's daughter at the residence and provide to Ms Dora Koops (one of the daughters) for posterity.  | Prior to the demolition of the residence                            |
|  | 4.7 Provide the photo record held by the Proponent and its consultants to the Werris Creek Historical Society (or other similar community group) as a record of the remnant features at the time of removal.   | Once available  |
|  | 4.8 Provide a copy of the Cultural Heritage Assessment (Landskape, 2010) to the Werris Creek Historical Society (or other similar community group) as a record of the remnant features at the time of removal.   | Once available  |
| <b>5. Transport Aspects</b>  |  |   |
| Product haulage by public road is conducted in an appropriate and safe manner.   | 5.1 Limit the road transportation of coal to 50 000tpa.  | Ongoing   |
|  | 5.2 Provide final detailed design for the proposed road upgrades to accommodate B-Double use and in accordance with Austroads Pt. 4 – Road Design Guide.   | In designing road and intersection upgrades                         |

| Desired Outcome   | Action | Timing   |  |
|---|--------|--|--|
| <b>5. Transport Aspects (cont'd)</b>  |        |  |  |
| Product haulage by public road is conducted in an appropriate and safe manner. (cont'd) | 5.3    | Complete all intersections to a standard providing appropriate dimensional capacity and signage and to the satisfaction of the relevant road authority.  | During road and intersection construction        |
|   | 5.4    | Prevent spillage from the trucks through the continuation of a 'covered load' policy.  | Ongoing  |
|   | 5.5    | Obtain school bus timetable at the beginning of each year and manage road haulage despatch to avoid potential conflict.  | Ongoing  |
| Accommodate the increased volume of traffic using Escott Road.                          | 5.6    | Upgrade the intersection between Escott Road and Werris Creek Road generally in accordance with the designs provided by Constructive Solutions (2010) and in accordance with Austroads Pt. 4 – Road Design Guide 2009. | During the construction phase of the Project     |
|   | 5.7    | Upgrade Escott Road as recommended by Constructive Solutions (2010) and in accordance with AUSTROADS Pt. 4 – Road Design Guide 2009.   | During the construction phase of the Project     |
|   | 5.8    | Provide for a seal of at least 50m of the Northern Site Access Road from the Escott Road Entrance  | During the construction phase of the Project     |
| Accommodate the increased volume of traffic using the Rail Load-out Road                | 5.9    | Construct the Escott Road – Rail Load-out Road cross-junction as an RTA Modified BAR type intersection.  | During the construction phase of the Project     |
| Maintain access across the rail turn-around loop.                                       | 5.10   | Construct two level crossings across the rail turn-around loop.  | During construction of the rail turn-around loop |
|   | 5.11   | Construct an all-weather side track around the rail loop to allow emergency access should the road be blocked by a train.  | During construction of the rail turn-around loop |
| Contribute to the maintenance of Taylors Lane.  | 5.12   | Provide ongoing funding for maintenance of Taylors Lane on a per tonne basis (in the form of section 94 contributions) as per the current agreement that exists with Liverpool Plains Shire Council.                   | Ongoing  |
| Provide traffic management for road closures required for blasting                      | 5.13   | Review and update (as required) the traffic management procedure " <i>Whitehaven Coal Procedure – Road Closure</i> ".  | During the construction phase of the Project     |

| Desired Outcome   | Action   | Timing  |
|---|--|---|
| <b>6. Noise</b>   |  |   |
| Attenuate mining noise sources to ensure compliance with Project Specific Noise Criteria. | 6.1 Construct an Acoustic and Visual Amenity Bund at the northern extent of mining operations.   | Once mining operations reach the base of "Old Colliery" Hill  |
|   | 6.2 Locate all mining-related infrastructure, eg. the Coal Processing Area and Site Administration and Facilities Area, in such a way that local topography (of "Old Colliery" and "Cintra" Hills) provides a natural acoustic barrier to the town of Werris Creek and the residential receivers located to the south of the town.   | During the construction phase of the Project  |
|   | 6.3 Use temporary ROM coal stockpiles from time to time within the open cut mine area to minimise the transmission of noise during night-time operations.  | Ongoing during night-time period  |
|   | 6.4 Continue to enclose the conveyor belt of the rail load out facility.   | Ongoing   |
|   | 6.5 Ensure that all noise mitigation measures are implemented to ensure that all noise emissions from the Project Site meet predicted noise levels. This may include the following. <ul style="list-style-type: none"> <li>Apply the manufacturer specified attenuator kits to each truck to achieve a noise reduction of 8dB.</li> <li>Apply a 1 600rpm reverse gear limiter on bulldozers operating on exposed areas of the Project Site such as the Product Coal Storage Area and ROM Pad.</li> </ul>   | Ongoing<br><br>Ongoing  |
|   | <ul style="list-style-type: none"> <li>Construct a 5m high barrier around the northeastern perimeter of the relocated coal processing infrastructure.</li> <li>Ensure that all equipment exhibits sound power levels consistent with the schedules in <i>Appendix D</i> of Spectrum Acoustics (2010).</li> <li>Limit the number of operating drills (non exploration) on the Project Site to two at any one time.</li> <li>Stand down all mobile equipment operating to the north of the advancing open cut under noise enhancing conditions during the evening and night-time, i.e. temperature inversion and winds from the south-southeast or northwest.</li> <li>Whilst the Coal Processing Area remains in its current location, limit the number of trucks and excavators operating during inversion conditions to 10 and 3 respectively.</li> <li>Ensure that during periods of noise enhancing winds, overburden emplacement activities are preferentially undertaken 'in-pit'.</li> </ul> | Within 6 months of Project Approval<br><br>Ongoing<br><br>Ongoing<br><br>During adverse meteorological conditions during the night-time period<br><br>Ongoing until the coal crushing and screening infrastructure are relocated<br>Ongoing |

| Desired Outcome  | Action | Timing   |                                      |
|--|--------|--|--------------------------------------|
| <b>6. Noise (cont'd)</b>   |        |  |                                      |
| Monitor and manage noise generated by the LOM Project                                | 6.6    | Update the Noise Management Plan (NMP) for the LOM Project.  | Within 12 months of project approval |
|  | 6.7    | Continue the existing monthly Noise Monitoring Program at the existing site to include five new locations to be affected by the Project.                 | Ongoing                              |
|  | 6.8    | Implement a real-time noise monitoring program at selected residential locations that would be most affected by the LOM Project.                         | Within 12 months of project approval |
|  | 6.9    | Implement a real-time meteorological monitoring program at the Project Site to gather data on wind speed and direction, and deduce inversion conditions. | Within 12 months of project approval |
|  | 6.10   | Use the real time meteorological data in the management of mining operations to minimise impact of noise on the environment.                             | Ongoing                              |
| <b>7. Blasting</b>   |        |  |                                      |
| Minimise impacts from blasting on surrounding receptors and infrastructure.          | 7.1    | Maintain the Deed of Agreement that has been established with ARTC.  | Ongoing                              |
|  | 7.2    | Continue to implement the road closure management procedure when blasting occurs within the 500m of Werris Creek Road.                                   | Ongoing                              |
|  | 7.3    | Minimise the number of blasts by maximising blast size without compromising compliance with the environmental criteria.                                  | Ongoing                              |
| Minimise impacts from blasting on surrounding receptors and infrastructure. (cont'd) | 7.4    | Implement refinements to blast design components on the basis of monitoring results and the achievement of specific blasting objectives.                 | Ongoing                              |
|  | 7.5    | Blast design and implementation is undertaken by a suitably qualified blasting engineer and/or experienced and appropriately certified shot-firer.       | All blasts                           |
|  | 7.6    | Ensure that the minimum practicable weight of explosive detonates at an instant for each blast.  | All blasts                           |
|  | 7.7    | Maintain a blast exclusion zone of 500m around each blast.   | All blasts                           |
|  | 7.8    | Continue to monitor blasting impacts at the current monitoring locations.  | All blasts                           |
| <b>8. Air Quality</b>  |        |  |                                      |
| Minimise impacts to air quality relating to the Project.                             | 8.1    | Maintain the enclosed conveyor belt on the rail load out facility.   | Ongoing                              |
|  | 8.2    | Cleared vegetation would not be burnt.   | Ongoing                              |
|  | 8.3    | Limit groundcover removal in advance of mining to be consistent with operational requirements.   | Ongoing                              |

| Desired Outcome  | Action | Timing   |   |
|--|--------|--|---|
| <b>8. Air Quality (cont'd)</b>                                 |        |  |   |
| Minimise impacts to air quality relating to the Project.       | 8.4    | Where practicable, soil stripping operations would be undertaken at a time when there is sufficient soil moisture to prevent significant lift-off of dust.   | During soil stripping operations  |
|  | 8.5    | Overburden emplacement would be limited on the top lift of the overburden emplacement area when winds are from a northerly direction and greater than 3m/s over more than four consecutive 15 minute periods during operations similar to those operations modelled in Scenario 1. | Ongoing until Coal Processing Area relocated to the north                                       |
|  | 8.6    | Apply water at the feed hopper, crusher and at all conveyor transfer and discharge points.   | Ongoing   |
|  | 8.7    | Fit all conveyors with appropriate cleaning and collection devices to minimise the amount of material falling from the return conveyor belts.  | Ongoing in the current CHPP and prior to the operation of the relocated CHPP                    |
|  | 8.8    | Cease coal processing activities during periods of concurrent high winds and temperatures which cause coal dust dispersal, independent of water applications.  | During high winds and temperatures which cause coal dispersal independent of water applications |
|  | 8.9    | Apply water to exposed surfaces with emphasis on those areas subject to frequent vehicle / equipment movements which may cause dust generation and dispersal.  | Ongoing   |
|  | 8.10   | Water all internal haul roads regularly.   | Ongoing   |
|  | 8.11   | Ensure operators use appropriate speeds to limit trafficable dust emissions on all vehicles and equipment.   | Ongoing   |
|  | 8.12   | Progressively rehabilitate areas of disturbance once they are no longer required for mining purposes.  | Ongoing   |
|  | 8.13   | Use water injection on all drill rigs.   | Ongoing during drilling operations  |
| Monitor and manage dust emissions generated by the LOM Project | 8.14   | Cover all product coal trucks prior to leaving the Project Site  | Ongoing   |
|  | 8.15   | Update the Air Quality Monitoring Program (AQMP) for the LOM Project.  | Within 12 months of project approval  |
|  | 8.16   | Continue the existing deposited dust, PM <sub>10</sub> and TSP monitoring at the existing site locations.  | Ongoing   |
|  | 8.17   | Implement a real-time particulate matter monitoring program at locations to be determined within 12 months of approval.  | Within 12 months of project approval  |

| Desired Outcome   | Action | Timing  |   |
|---|--------|---|---|
| <b>8. Air Quality (cont'd)</b>  |        |   |   |
| Monitor and manage dust emissions generated by the LOM Project (cont'd)   | 8.18   | Use the real time monitoring data in the management of mining operations to minimise the impact of PM <sub>10</sub> and PM <sub>2.5</sub> on the environment.   | Ongoing   |
|   | 8.19   | Review the existing Energy Savings Action Plan.   | In accordance with approval conditions                                  |
| <b>9. Visibility</b>  |        |   |   |
| Screen the operation visually from the surrounding local area.  | 9.1    | Construct an Acoustic and Visual Amenity Bund at the northern extent of mining operations.  | Once mining operations reach the base of "Old Colliery" Hill            |
|   | 9.2    | Locate all mining-related infrastructure, e.g. the Coal Processing Area and Site Administration and Facilities Area, in such a way that local topography (of "Old Colliery" and "Cintra" Hills) provides a visual barrier to the town of Werris Creek and the residential receivers located to the south of the town. | As infrastructure is constructed  |
|   | 9.3    | Plant a screen of native trees and shrubs in front of the Acoustic and Visual Amenity Bund prior to its construction.   | Commencement of the Project   |
|   | 9.4    | Plant trees around the perimeter of the extended product coal storage area.   | On completion of construction of the extended product coal storage area |
|   | 9.5    | Continue to construct the existing overburden emplacement area to create a visual barrier to the east of the Project Site including Werris Creek Road.  | Ongoing   |
|   | 9.6    | Progressively rehabilitate areas of disturbance once they are no longer required for mining purposes.   | Ongoing   |
|   | 9.7    | Continue to position and direct floodlights to minimise emissions.  | During night-time operations  |
|   | 9.8    | Maintain the LOM Project area and associated areas of disturbance in a clean and tidy condition at all times.   | Ongoing   |
| <b>10. Soils, Land Capability and Agricultural Suitability</b>  |        |   |   |
| Create a final landform that is safe, stable and is amenable to a combination of agricultural and native flora/fauna conservation activities. | 10.1   | (Where practicable), immediately transfer stripped soil from source to active rehabilitation.   | During soil stockpiling activities                                      |
|   | 10.2   | Stockpile the soils of each soil unit separately. This will allow the Dark Brown Vertosol soils to be preferentially used for areas of the final landform designated for the re-establishment of higher quality agricultural land.  | During soil stockpiling activities                                      |

| Desired Outcome   | Action  | Timing                                |
|---|---|---------------------------------------|
| <b>10. Soils, Land Capability and Agricultural Suitability (cont'd)</b>   |   |                                       |
| Create a final landform that is safe, stable and is amenable to a combination of agricultural and native flora/fauna conservation activities. | 10.3 Maintain a soil inventory: <ul style="list-style-type: none"> <li>to ensure appropriate volumes of different soil units are stripped consistently with the soil requirements of the final landform.</li> <li>to identify the age of various soil stockpiles on the Project Site and therefore assist in minimising the length of time soils remained stockpiled.</li> <li>to assist the Proponent in using the most appropriate soils for the different elements of the final landform.</li> </ul> | Ongoing                               |
|   | 10.4 Construct the eastern, southern and western surfaces of the overburden emplacement at 10° or less.   | During regrading of the final slopes  |
|   | 10.5 Construct the northern surface of the overburden emplacement, which runs into the open cut void with steeper slopes which would ultimately be reduced to 18° (1V:3H) or less in the final landform.  | During regrading of the final slopes  |
|   | 10.6 Create a series of contour banks, similar to those on the existing landform, on the outer slopes of the regraded emplacement to manage surface water runoff and assist in minimising erosion of these slopes.  | During rehabilitation activities      |
|   | 10.7 Conduct monitoring of rehabilitation performance against the proposed sustainable land use outcome and carry out amelioration works where necessary.   | During rehabilitation activities      |
|   | 10.8 Reinstate at least 37a of Class III land on the rehabilitated landform.  | By the end of mine life               |
|   | 10.9 Backfill the final void to above the modelled final water table level.   | During construction of the final void |
| Minimise the degradation to soil resources.   | 10.10 Undertake vegetation clearing activities so as to minimise soil disturbance.  | During clearing of larger vegetation  |
|   | 10.11 Retain smaller vegetation and leaf litter in the soil to be stripped.   | During soil stripping activities      |
|   | 10.12 Stripping of soil during periods of excessive soil moisture content will be avoided to reduce the likelihood of damage to soil structure.   | During soil stripping activities      |
|   | 10.13 Soil to be preferentially respread on areas of the final landform immediately following stripping rather than being stockpiled.   | During soil stripping activities      |
|   | 10.14 Where stockpiling is necessary, soil stockpiles would not exceed 3m in height.  | During soil stockpiling activities    |
| Maximise the retention of soil resources.   | 10.15 Soil is to be generally stripped in accordance with <b>Table 2.7</b> .  | During soil stripping activities      |

| Desired Outcome                                    | Action   | Timing   |
|--|--|--|
| <b>11. Waste</b>                                   |  |  |
| Manage waste appropriately on site.                | 11.1 Maintain a register of the types and quantities of wastes produced on the Project Site.   | Ongoing  |
|  | 11.2 Design and maintain storage areas to contain spillages.   | Ongoing  |
|  | 11.3 Segregate and retain recyclable and non-recyclable waste in designated storage areas prior to removal from the Project Site.  | Ongoing  |
|  | 11.4 Keep the Project Site in a clean and tidy condition.  | Ongoing  |
|  | 11.5 Ensure waste is regularly removed from the Project Site by a licensed contractor.   | Ongoing  |
| <b>12. Hazards</b>                                 |  |  |
| Manage bushfire hazards appropriately.             | 12.1 Maintain an immediate method of egress from the Project Site to Project personnel in the event of bushfire attack on the Project Site.                                  | Ongoing.   |
|  | 12.2 Follow all instructions provided by the NSW Rural Fire Service (RFS) or police in the event of a local bushfire event threatening the Project Site.                     | In the event of a local bushfire event threatening the Project Site. |
| Manage bushfire hazards appropriately.<br>(cont'd) | 12.3 Provide access to all Project Site water storages to the RFS and any reasonable assistance offered to RFS or police personnel.  | In the event of a local bushfire event threatening the Project Site. |
|  | 12.4 Refuelling to be undertaken within designated fuel bays or within cleared area of the Project Site.   | Ongoing.   |
|  | 12.5 Turn off vehicles during refuelling.  | During refuelling.   |
|  | 12.6 Enforce a no smoking policy in designated areas of the Project Site.  | Ongoing.   |
|  | 12.7 Maintain fire extinguishers within site vehicles and refuelling areas.  | Ongoing.   |
|  | 12.8 Ensure a water cart is available to assist in extinguishing any fire ignited.   | In the event of a fire.  |
|  | 12.9 Equip all equipment on site with adequate and fully operational fire suppression equipment in accordance with AS 1841 and AS 1851.                                      | Ongoing.   |
|  | 12.10 Train all employees in the proper use of fire fighting equipment held on site.   | Ongoing.   |
|  | 12.11 Set aside water especially for fire fighting on site.  | Ongoing.   |
|  | 12.12 Ensure that fire fighting equipment is made available to the local Rural Fire Service if required in the event of a bushfire in the land surrounding the Project Site. | In the event of a bushfire in the land surrounding the Project Site  |
|  | 12.13 Develop and maintain firebreaks at the edge of the Project Site.   | Ongoing.   |

| Desired Outcome   | Action   | Timing   |
|---|--|--|
| <b>12. Hazards (cont'd)</b>   |  |  |
| Minimise the potential for a traffic incident on a public road involving a Project related vehicle. | 12.14 Locate the Escott Road Entrance to the Project Site to the east of the Rail Load-out Road with light vehicle traffic to the Project Site offices not required to cross the Rail Load-out Road.   | During the construction phase of the Project   |
|   | 12.15 Install level crossings at the two points where Escott Road crosses the turn-around rail loop.   | During construction of the rail loop   |
|   | 12.16 Construct an all-weather access road around the perimeter of the turn-around rail loop.  | During construction of the rail loop   |
| The storage and handling of hazardous materials is appropriately managed.                           | 12.17 Direct all water from wash-down areas and workshops to oil separators and containment systems.   | Ongoing  |
|   | 12.18 Ensure that all storage tanks are either self bunded tanks or bunded with an impermeable surface and a capacity to contain a minimum 110% of the largest storage tank capacity.  | Ongoing  |
|   | 12.19 Securely store all hydrocarbon products.   | Ongoing  |
|   | 12.20 Designate areas for refuelling and minor maintenance work (with the exception of less mobile mining equipment, e.g. excavators which would be refuelled within the open cut area) and enforce the use of these areas.  | Ongoing  |
| <b>13. Community Contributions</b>  |  |  |
| Provide for ongoing support to the Werris Creek local community and Liverpool Plains Shire Council. | 13.1 Maintain the Community Consultative Committee and include local community representative as stipulated by project approval conditions.  | Ongoing  |
|   | 13.2 Complete and distribute regular newsletters regarding project progress and operations.  | At least 6 monthly   |
|   | 13.3 Continue to provide funding towards maintenance of Taylors Lane through S94 contributions as per the current contributions agreement with LPSC.   | Ongoing  |
|   | 13.4 Establish a Community Enhancement Fund through Liverpool Plains Shire Council as agreed by Council in their 5 July 2010.  | Ongoing  |
| <b>14. Environmental Monitoring</b>   |  |  |
| Implement a comprehensive and ongoing surface water monitoring program.                             | 14.1 Monitor surface water quality for: pH, electrical conductivity, total suspended solid concentration, Oil & Grease levels at licensed discharge points, receiving waters (Werris and Quipolly Creeks) and clean, dirty and void water dams. (See also Commitment 2.7). | Quarterly and during surface overflow events from licensed discharge points<br><br>Quarterly and within 12 hours after an overflow event to the receiving waters |

| Desired Outcome  | Action  | Timing   |
|--|---|--|
| <b>14. Environmental Monitoring (cont'd)</b>   |   |  |
| Implement a comprehensive and ongoing groundwater monitoring program.  | 14.2 Continue monitoring of piezometers and groundwater bores on and surrounding the Project Site in accordance with the current Groundwater Monitoring Program.  | Both monthly and continuous (dependent on particular piezometer or groundwater bore) |
| Implement a comprehensive and ongoing groundwater monitoring program.  | 14.3 Update the Groundwater Monitoring Program.   | Within 12 months of receiving project approval                                       |
|  | 14.4 Commission an experienced hydrogeologist to collate and review the monitoring data collected annually in order to assess the impacts of the project on the groundwater environment, and to compare any observed impacts with those predicted from groundwater modelling.   | Annual   |
|  | 14.5 Implement the Groundwater Contingency Plan as required.  | In the event that routine monitoring indicates that a trigger has been reached       |
| Implementation of an appropriate noise monitoring program to ensure continuing compliance with DECCW guideline levels.       | 14.6 Undertake attended noise monitoring at the residences most likely to be affected by the LOM Project. <ul style="list-style-type: none"> <li>• R20: "Tonsley Park"</li> <li>• R9: "Almawillee"</li> <li>• R11: "Glenara"</li> <li>• R12: Fletcher</li> <li>• Werris Creek Town (R55 or R62)</li> <li>• R14: "Greenslopes &amp; Banool"</li> </ul> | Monthly  |
|  | 14.7 Implement a real-time noise monitoring program with monitoring to be conducted at the most affected receiver based on the prevailing conditions at the time  | Within 12 months of project approval   |
| Implementation of an appropriate noise monitoring program to ensure continuing compliance with DECCW guideline levels.       | 14.8 Update the Noise Monitoring Program to reflect additional attended and real time monitoring sites.   | Within 12 months of receiving project approval                                       |
| Implementation of an appropriate air quality monitoring program to ensure continuing compliance with DECCW guideline levels. | 14.9 Maintain the existing dust (WC1 to WC10), PM <sub>10</sub> (WCHV1 to WCHV4) and TSP (WCTSP) monitoring network as identified in the Werris Creek Coal Mine Air Quality Monitoring Program.   | Ongoing  |
|  | 14.10 Install a new High Volume Air Sampler, monitoring for PM <sub>2.5</sub> ,   | Within 12 months of project approval   |
|  | 14.11 Implement a real-time particulate matter monitoring program at locations to be determined within 12 months of approval.   | Within 12 months of project approval   |

| Desired Outcome   | Action   | Timing                                       |
|---|--|--|
| <b>15. Environmental Management System</b>  |  |  |
| A systematic set of documents are in place to guide the planning and implementation of all environmental management strategies. | 15.1 Incorporate the environmental procedures in an on-site management system.   | Prior to relevant activity                   |
|   | 15.2 Prepare or update the following management and monitoring plans; <ul style="list-style-type: none"> <li>• Mining Operations Plan</li> <li>• Aboriginal Cultural Heritage Management Plan</li> <li>• Energy Savings Action Plan</li> <li>• Water Management Plan</li> <li>• Erosion &amp; Sediment Control Plan</li> <li>• Noise Management Plan</li> <li>• Noise Monitoring Program</li> <li>• Air Quality Monitoring Program</li> <li>• Rehabilitation and Landscape Management Plan</li> <li>• Biodiversity Offset Management Plan</li> </ul> | Various and as nominated by project approval |
|   | 15.3 Incorporate relevant environmental data / information in Annual Environmental Management Reports.   | Annually                                     |