



**Moolarben Coal Mines Pty Limited**

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**Application to Make Modifications  
to the Project Approval  
for the Moolarben Coal Project**

**Prepared by Wells Environmental Services**

**August 2008**

# Application to Make Modifications to the Project Approval

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## 1 BACKGROUND INTRODUCTION

On 6 September, 2007 the Minister for Planning granted project approval to Moolarben Coal Mines Pty Limited (the proponent) to construct and operate stage 1 of the Moolarben Coal Project (MCP) after consideration and assessment of:

- The publicly exhibited Environmental Assessment Report prepared for the project;
- Submissions received from government authorities, land owners and general public during the public exhibition period;
- A report prepared by a Panel of Experts appointed by the Minister for Planning to assess the subsidence, groundwater and noise impacts of the project;
- A response by the proponent to submissions incorporating a preferred project report which included revised project commitments; and
- An assessment of the project by the Department of Planning.

Stage 1 of the MCP has a capital investment value of \$405 million and will contribute up to \$350 million a year to the economy whilst providing approximately 220 jobs during construction and 317 permanent operational jobs. The approved MCP will extract approximately 127 million tonnes of coal over its life and produce up to 10 million tonnes per annum of coal for both the export and domestic markets.

A summary of the main features of the approved MCP are provided below:

- Three staged open cut mines providing approximately 8 million tonnes of run of mine coal per annum that incorporates an environmental bund and acoustical barrier around the Open Cut 1 dump hopper with the objective of ameliorating noise effects at Ulan Village, Ulan School, churches and lands to the south-east. Construction of an environmental bund around the western and southern sides of Open Cut 3 facilities with the objective of reducing noise, visual and lighting impacts;
- An underground mine producing approximately 4 million tonnes per annum of run of mine coal that incorporates a re-orientation of longwall panels (1 to 8) and shortening the extremity of longwall panels 9,13 and 14 to provide setbacks from The Drip, Goulburn River Corner Gorge and associated cliffs, reduce exposure and provide maximum protection to items of aboriginal heritage and cliff lines;
- Coal handling facilities incorporating crushing plants, conveyors, raw coal and product stockpiles, coal preparation plant, coal stacking and reclaiming by overhead trippers and reclaim tunnels to a capacity of up to 14 million tonnes per annum;
- Rail Spur, rail loop, train loading infrastructure and transportation of product coals to market by train;
- Mine access roads, internal access roads and haul roads;
- Water management infrastructure including the construction of culverts across Bora and Moolarben Creeks, water supply bores and associated pump and pipeline systems, surface water storages and water treatment systems for discharge to the Goulburn River and/or possible water sharing and reuse with adjoining coal mines;
- 66kV transmission line and substation;
- Placement of overburden and coarse reject within mined – out voids and emplacement areas;
- In pit reject and tailings disposal and emergency tailings storage;
- Relocation closure and temporary closure of public roads within the area to be mined; and

- Relocation of utility infrastructure impacted by mining or the location of mine related infrastructure.

The project approval granted by the Minister for Planning incorporates MCM's project commitments, which are reproduced below:

**(1) Protect The Drip and Goulburn River Corner Gorge**

*The Drip and the Goulburn River Corner Gorge are shown on the plan titled "Moolarben Coal Mine – Preferred Mine Plan General Layout" contained in Appendix A9 to the "Moolarben Coal Project Response to Submissions".*

*Moolarben will conduct its underground mining operations consistent with the Preferred Project Underground No. 4 layout to protect the Goulburn River features known as the Drip, the Goulburn River Corner Gorge and associated cliffs so that there is no damage whilst seeking to maximise recovery of coal resources and as may be required by any conditions of project approval for the Moolarben Coal Project.*

**(2) Shift Change**

*Moolarben undertakes to schedule its major employee shift changes to times outside the hours of 8.15 to 9.00 am and 3.15 to 4.00 pm Monday to Friday to seek to reduce overlap of employee traffic and school transport and as may be required by any conditions of project approval for the Moolarben Coal Project.*

**(3) Replace Water**

*Moolarben will compensate or replace waters (similar quality and quantity) lost by a private landholder as a consequence of the Moolarben Coal Project in accordance with the adopted protocols and procedures contained in the Moolarben Coal Project Environmental Management System and as may be required by any conditions of project approval for the Moolarben Coal Project.*

**(4) Environmental Management System**

*Moolarben will prepare and implement an Environmental Management System containing Environmental Management Plans, and Mine Operating Plan for the life of the Moolarben Coal Project consistent with the Environmental Assessment Report, the Response to Submissions Report, the Preferred Project Report and as may be required by any conditions of project approval for the Moolarben Coal Project.*

**(5) Noise in School Rooms**

*Moolarben in consultation with the Ulan Public School and the Department of Education will undertake agreed works to ameliorate potential noise and dust impacts associated with the Moolarben Coal Project upon classrooms and general school operations.*

OR

*Moolarben will, should the Department of Education request, on a reasonable basis relating to the effect of noise and dust from the Moolarben Coal Project, negotiate to contribute to or meet reasonable costs toward relocating the school.*

**(6) Land Purchase Commitment**

*Moolarben will accept an obligation to purchase (if so required by any affected private landholder) any land affected by operations of the Moolarben Coal Project in accordance with any requirement to do so as provided in any project approval for the Moolarben Coal Project.*

**(7) Mine Water Sharing Plan**

*Moolarben will seek to enter into a mine water sharing plan in respect of mining operations of the Ulan Coal Mine and Wilpinjong Coal Mine under the auspices*

of the Director General of the Department of Planning and as may be required by any conditions of project approval for the Moolarben Coal Project.

**(8) Voluntary Planning Agreement**

Moolarben will enter into a Voluntary Planning Agreement with Mid Western Regional Council and the Minister for Planning incorporating the principles contained in the offer by Moolarben to the Minister for Planning on 4 September 2007 to enter into the Voluntary Planning Agreement.

**(9) Employ Local People**

Moolarben will, wherever possible and feasible, employ appropriately qualified persons residing within the local area.

**(10) Traineeships**

Moolarben will provide traineeships for the youth of the local community.

**(11) Dronvisa Quarry**

Moolarben will seek to enter into an operational agreement with Dronvisa Quarry with regard to the safe continuation of its operations in conjunction with underground mining.

**(12) Ecology**

Moolarben will enter into such arrangements as may be required by the Director-General to provide for ecological offsets as proposed in the Environmental Assessment and Preferred Project Report and as may be required by any conditions of project approval for the Moolarben Coal Project.

**(13) Flows in the Goulburn River – Co-operative Monitoring Program**

Moolarben will use its reasonable endeavours to agree and implement a monitoring program in cooperation with the Ulan and Wilpinjong mines (and to the reasonable requirement of the Director General who will consult with the DNR) to identify any potential for any change in the water flows in the Goulburn River due to mining at the Moolarben, Ulan and Wilpinjong mines and as may be required by any conditions of project approval for the Moolarben Coal Project.

**(14) Mine Water Management and Salinity – Sharing with Ulan and Wilpinjong**

Moolarben will use its reasonable endeavours to agree and implement a co-operative arrangement with and enter into a life of mine agreement between the Ulan and Wilpinjong mines (the “Mines”) to establish, implement and operate water sharing and use plans and procedures with the objective of minimising the removal by the Mines of water from the environment and the discharge of minewaters by the Mines to the environment and which shall address the ability of the Mines to utilise mine water produced by the Mines between the Mines and as may be required by any conditions of project approval for the Moolarben Coal Project.

**(15) Salinity Off Sets**

**– Bobadeen Irrigation Scheme (“BIS”) - Salinity Offset Management Plan (“SOMP”)**

In the event that the Moolarben Coal Project reduces the capacity for the removal of salt from the Salinity Offset Management Plan area operated by Ulan Mine in conjunction with the Bobadeen Irrigation Scheme under Environment Protection Licence 394, then Moolarben will, at its election, either:

- take from Ulan that volume of water that would otherwise have been used in the BIS; OR
- provide an area of land with equivalent salt removal capacity; AND

- *any disputed issue will be determined by an appropriately qualified expert agreed between Moolarben and Ulan and in default appointed by the Director General of Planning.*

**(16) Haulage of Coal to the West by Rail**

*Prior to the haulage of coal by rail to the west of the Moolarben Coal Project, Moolarben shall notify the Director-General with details of expected tonnages, train size and rail scheduling and where practicable schedule rail haulage during daylight hours only through the town of Mudgee as may otherwise be required by any conditions of project approval for the Moolarben Coal Project.*

**(17) Traffic Management – Mid Western Regional Council**

*Moolarben acknowledges the need for it to contribute to the upgrade and maintenance of aspects of the local road system affected by the operation of the Moolarben Coal Project and commits to implement the Voluntary Planning Agreement in satisfaction of the principles of that agreement.*

## 2 PROPOSED MODIFICATIONS

Since the granting of the project approval by the Minister for Planning the proponent has commissioned and undertaken further mine planning, engineering and construction investigations for the project. These investigations show that relocating some of the approved facilities within the main infrastructure area will reduce the environmental footprint of the project whilst improving the coal handling logistics and provide MCM with savings within the construction phase and long term operational efficiencies. In addition, MCM's seek to amend three (3) project approval conditions.

MCM's seeks a modification to the Project Approval pursuant to the provisions of Section 75W of the Environmental Planning and Assessment Act, 1979 as amended. Section 74W (2) states that:

***"The proponent may request the Minister to modify the Minister's approval for a project. The minister's approval for a modification is not required if the project as modified will be consistent with the existing approval under this part."***

### 2.1 Development Particulars

Table 1 details the key details of the Project Approval and the proposed modification.

**Table 1: Development particulars for the Approved MCP and the Proposed Modification**

Item	Development Particulars
Name and Address of Applicant.	Moolarben Coal Mines Pty Limited Level 14, 213 Miller Street NORTH SYDNEY NSW 2060 Mailing Address: PO Box 1320, NORTH SYDNEY NSW 2059 Contact: Ian Callow
Major Project Reference Number.	05_0117
Project Approval Date	6 September 2007
Description of Project to be carried out under the Project Approval.	The establishment and operation of three open cut coal mines, an underground mine with supporting infrastructure including a coal handling and processing facilities, offices, bathhouses and workshops. Appendix 1 contains a copy of the project Approval.
Address and formal particulars of title on which the Project is to be carried out on.	Refer to Appendix 1 of the MCP Project Approval dated 6 September 2007.
Description of the Proposed Modification.	Modifications to Condition 12 of Schedule 2, Conditions 42(b) and 56 of Schedule 3, and the rearrangement of specific items of infrastructure as described within this document.



### 3 DESCRIPTION OF PROPOSED MODIFICATIONS TO THE PROJECT APPROVAL

This section describes the modifications to the Project Approval sought by MCM.

#### 3.1 Condition 12 of Schedule 2

This particular condition required MCM's to enter into a Voluntary Planning Agreement (VPA) with both the Mid Western Regional Council and the Minister for Planning with respect to the provisions of monetary contributions for community infrastructure. The existing condition reads as follows:

**"Planning Agreement**

12. *Within 12 months of this approval, the Proponent shall enter into a planning agreement with Council and the Minister in accordance with:*
- (a) *Division 6 of Part 4 of the EP&A Act; and*
  - (b) *the terms of the Proponent's offer to the Minister on 4 September 2007, which includes the matters set out in Appendix 4."*

On 23 April, 2008 MCM executed the VPA with the Mid Western Regional Council and accordingly it is not necessary for the Minister for Planning to be a party to the VPA. It is requested that the condition be modified to read as follows:

**"Planning Agreement**

12. ***Within 12 months of this approval, the Proponent shall enter into a planning agreement with the Council in accordance with the terms of the Proponent's offer to the minister for Planning on 4 September, 2007 which includes the matters set out in Appendix 4."***

The proposed modification is for administrative purposes only and will not result in any adverse social economic or environmental impact nor decrease MCM's monetary contributions to the Mid Western Regional Council.

#### 3.2 Condition 42 of Schedule 3

This condition requires MCM's to revegetate at least 143 hectares of cleared land on the "Red Hills" property with suitable native vegetation to improve wildlife corridor linkages. Condition 42 is reproduced below, with (b) underlined.

**"Vegetation Offsets**

42. *The Proponent shall:*
- (a) *revegetate at least 38 hectares of disturbed land on the "Red Hills" property (see property R14 in Appendix 5 and 8) with Yellow Box White Box Blakely's Red Gum vegetation;*
  - (b) *revegetate at least 143 hectares of cleared land on the "Red Hills" property (see property R14 in Appendix 5 and 8) with suitable native vegetation to improve wildlife corridor linkages;*
  - (c) *conserve and enhance at least 1262 hectares of existing native vegetation onsite; and*
  - (d) *make suitable arrangements to protect these offset areas from development in the long term, to the satisfaction of the Director-General and the DECC."*

MCM in complying with Condition 41(a) will dedicate approximately 200 hectares of land to the estate of the Department of Environment and Climate Change. The 200 hectare dedication comprises approximately 135 hectares of endangered ecological community and 65 hectares of non endangered

ecological community vegetation types. In accordance with Condition 42(a) MCM will also revegetate 38 hectares of the Red Hills property with Yellow Box White Box Blakely's Red Gum vegetation.

Given the area of dedication and revegetation already proposed within Red Hills it is necessary to include lands adjoining Red Hills within Condition 42(b) to comply with the 143 hectares of revegetation. The inclusion of the adjoining lands will broaden, strengthen and improve the wildlife corridor linkages between the Goulburn River National Park and the Munghorn Gap Nature Reserve. MCM's acquisition of the adjoining properties broadens the width of the available wildlife corridor and will result in a better environmental outcome to that originally approved.

To facilitate the inclusion of the adjoining lands, it is requested that Condition 42(b) be modified to read as follows:

- (b) *revegetate at least 143 hectares of cleared lands on the "Red Hills" (R14) and properties R12, R13, R15, R16, R17, R18 and R19 with suitable native vegetation to improve wildlife corridor linkages;***

The proposed modification will not result in any adverse environmental impact. The proposed modification will have the effect of strengthening, broadening and establishing the wildlife corridor linkage between the Goulburn River National Park and the Munghorn Gap Nature Reserve.

### **3.3 Condition 56 of Schedule 3**

In relation to Condition 56 of Schedule 3 there is a mis-description of road names and road numbers that are required to be upgraded. A detailed program of works has been prepared in consultation with the Roads and Traffic Authority, Mid Western Regional Council and representatives of Wilpinjong Coal Mine and forwarded to the Director – General of Planning. Both the Ulan Road (MR 214) and Cope Road (MR 598) are to be upgraded as a consequence of the MCP proceeding. Condition 56 reads as follows:

#### ***"Upgrade of Ulan Road (MR 208/214) and Ulan-Wollar Road***

56. *Within 6 months of this approval, the Proponent shall prepare a detailed program for the staged upgrade of both Ulan Road and Ulan-Wollar Road to the satisfaction of the Director-General. This program must be:*
- (a) be prepared by a suitably qualified expert/s whose appointment has been approved by the Director-General;*
  - (b) be prepared in consultation with the RTA, Council, and the owner of the Wilpinjong coal mine;*
  - (c) identify the road works that are required to improve the safety of these roads;*
  - (d) include a detailed program to progressively implement these works; and*
  - (e) allocate the available funding in any relevant VPA or statement of commitments to these works."*

It is requested that Condition 56 be modified to read as follows:

#### ***Upgrade of Ulan Road (MR 208) and Cope Road (MR 598)***

56. ***Within 6 months of this approval, the Proponent shall prepare a detailed program for the staged upgrade of both Ulan Road and Cope Road to the satisfaction of the Director-General. This program must be:***
- (a) be prepared by a suitably qualified expert/s whose appointment has been approved by the Director-General;***
  - (b) be prepared in consultation with the RTA, Council, and the owner of the Wilpinjong coal mine;***
  - (c) identify the road works that are required to improve the safety of these roads;***
  - (d) include a detailed program to progressively implement these works; and***

(e) **allocate the available funding in any relevant VPA or statement of commitments to these works.**

The correction to road numbering and road name within Condition 56 is for administrative purposes and will not result in any adverse social, economic or environmental impact nor dilute MCM's commitment to improve the local road network.

### 3.4 Minor Change to some items of Infrastructure.

Since the grant of Project Approval MCM has undertaken further mine planning, engineering and construction investigations and evaluations with respect to the integration and layout of infrastructure. The proposed rearrangement of some items of infrastructure will provide upfront construction savings to MCM in the order of \$5 million and operational efficiencies as a result of:

- Bulk earthworks being limited to an area located between Bora Creek and the Gulgong to Sandy Hollow Railway Lines;
- Less structural/mechanical works as a consequence of reduced conveyor lengths;
- Operational efficiencies derived from optimising and reducing the spatial layout into a more defined area; and
- Provide better integration with coaling operations associated with future stages of the MCP.

The proposed modification includes minor changes to the location of specific items of infrastructure when compared to the approved plans refer to **Figure 1** (as per figure 4 of the Stage 1 Environmental Assessment) and **Figure 2** (as per figure 12a of the Environmental Assessment) and the Project Approval contained in **Appendix 1** to this document. The changes to the location of infrastructure are described in **Table 2** and illustrated in **Figure 3**. **Table 2** also provides a Summary of the environmental impact of the proposed localised change of each item of infrastructure whilst Section 4 of this document provides an assessment of environmental impacts.

**Table 2: Proposed infrastructure rearrangement and summary of impacts.**

Infrastructure	Proposed Change	Summary of Environmental Impact
Coal Processing Plant (CPP)	The coal processing plant has been relocated approximately 350 metres to the south and is now located south of Bora Creek.	Having regard to the findings within the Environmental Assessment Report – there is no adverse environmental impact when the proposed modification is assessed solely or on a cumulative basis in relation to air quality, acoustics, Aboriginal heritage, surface water, flora, fauna, aquatic ecology, ground water, socio-economics or visuals.
Emergency Tailings Dam	The emergency tailings dam has been relocated approximately 250 metres to the south-west and now is located south of Bora Creek.	Having regard to the findings within the Environmental Assessment Report – there is no adverse environmental impact when the proposed modification is assessed solely or on a cumulative basis in relation to air quality, acoustics, Aboriginal heritage, surface water, flora, fauna, aquatic ecology, ground water, socio-economics or visuals.
Transfer Stations and Conveyors	The transfer station for reject from the CPP has been relocated 700 metres south and is now located south of Bora Creek.  Conveyors and other associated transfer stations have been relocated but are within the original	Having regard to the findings within the Environmental Assessment Report – there is no adverse environmental impact when the proposed modification is assessed solely or on a cumulative basis in relation to air quality, acoustics, Aboriginal heritage, surface water, flora, fauna, aquatic ecology,

Infrastructure	Proposed Change	Summary of Environmental Impact
	infrastructure foot print. The relocation has resulted in no conveyors being located north of or crossing Bora Creek.	ground water, socio-economics or visuals.
Surge Bin	The surge bin feeding the CPP has been relocated 450 metres south and is now located south of Bora Creek.	Having regard to the findings within the Environmental Assessment Report – there is no adverse environmental impact when the proposed modification is assessed solely or on a cumulative basis in relation to air quality, acoustics, Aboriginal heritage, surface water, flora, fauna, aquatic ecology, ground water, socio-economics or visuals.
Rail Loop Configuration	To cope with the increased length of trains proposed on the Ulan-Muswellbrook railway line it has become necessary to construct a “Figure 8” type loop as opposed to the “conventional” rail loop.	The proposed rail loop will result in a more compact disturbance footprint. This will reduce the soil disturbance.  There is no change to the assessed and approved environmental impacts on heritage, air quality, noise, flora, fauna or aquatic ecology impacts, surface water or groundwater associated with this modification.
Raw Coal Stockpile Labelled as “Open Cut ROM pad”	The raw coal stockpile has been moved approximately 300 metres to the south, effectively “swapping” locations with the approved product coal stockpile.	Having regard to the findings within the Environmental Assessment Report – there is no adverse environmental impact when the proposed modification is assessed solely or on a cumulative basis in relation to air quality, acoustics, Aboriginal heritage, surface water, flora, fauna, aquatic ecology, ground water, socio-economics or visuals.
Product Coal Stockpile	The product coal stockpile has been moved approximately 50m to the north, effectively “swapping” locations with the approved raw coal stockpile.	Having regard to the findings within the Environmental Assessment Report – there is no adverse environmental impact when the proposed modification is assessed solely or on a cumulative basis in relation to air quality, acoustics, Aboriginal heritage, surface water, flora, fauna, aquatic ecology, ground water, socio-economics or visuals.
Underground No.4 Conveyor Arrangement	Conveyors and transfer stations associated with the Underground No.4 infrastructure have been relocated to address the change in location of the raw coal stockpile.	Having regard to the findings within the Environmental Assessment Report – there is no adverse environmental impact when the proposed modification is assessed solely or on a cumulative basis in relation to air quality, acoustics, Aboriginal heritage, surface water, flora, fauna, aquatic ecology, ground water, socio-economics or visuals.
Groundwater Treatment Ponds	Groundwater treatment ponds are essentially in the same location, taking into account the rail loop changes, however the configuration of these has changed to reflect a	A single pond with internal barriers will allow for simpler lining to ensure the Project Approval condition regarding lining permeability is met.

Infrastructure	Proposed Change	Summary of Environmental Impact
	single treatment pond with internal barriers.	Having regard to the findings within the Environmental Assessment Report – there is no adverse environmental impact when the proposed modification is assessed solely or on a cumulative basis in relation to air quality, acoustics, Aboriginal heritage, surface water, flora, fauna, aquatic ecology, ground water, socio-economics or visuals.
20ML water storage dam.	The 20ML storage dam has been moved 230m to the north-west in line with the amendments to the rail loop and treatment pond configuration.	<p>There are minimal impacts associated with the change in location from the south of Bora Creek to the north of Bora Creek.</p> <p>Having regard to the findings within the Environmental Assessment Report – there is no adverse environmental impact when the proposed modification is assessed solely or on a cumulative basis in relation to air quality, acoustics, Aboriginal heritage, surface water, flora, fauna, aquatic ecology, ground water, socio-economics or visuals.</p>

## 4 ENVIRONMENTAL ASSESSMENT

The following sections provide an assessment of the potential environmental impacts associated with the proposed rearrangement of infrastructure for Stage 1 of the MCP.

The proposed changes to Condition 12 of Schedule 2, Conditions 42 and 56 of Schedule 3 will not result in any adverse material change in air quality, acoustics, soils, flora, fauna and aquatic ecology, heritage (Aboriginal or European), visuals, traffic, hazard and risk, surface water and flooding, groundwater or social and economic impacts solely or on a cumulative basis.

### 4.1 Air Quality

Holmes Air Sciences have undertaken a review of the proposed rearrangement of infrastructure (refer to **Appendix 2**).

The review found that given the small distance in the relocation and that there are no additional sources of air emissions, the modelling undertaken during the Environmental Assessment is satisfactory and there will be no adverse air quality impacts outside of those modelled and approved.

### 4.2 Acoustics

Spectrum Acoustics have undertaken a review of the proposed rearrangement of infrastructure (refer to **Appendix 2**).

The review found that given the small distances in relocating the infrastructure items and there are no significant additional sources of noise, the modelling undertaken during the Environmental Assessment is satisfactory and there will be no adverse acoustical impacts outside of those modelled and approved.

### 4.3 Soils

Soil types were mapped by Jammel Environmental & Planning Services Pty Ltd and are presented within the Environmental Assessment Report. Two soil types were mapped within the infrastructure area, these being Earthy Sands, and Yellow Solodics.

These soils are both fragile and require good soil management to avoid degradation of soil structure and erosion. The relocation of the 20ML storage dam from the Yellow Solodics to the Earthy Sands is unlikely to change the required soil conservation practices required to prevent erosion. The necessary lining for the dam will still ensure the requirements of the Project Approval are achieved.

The relocation of infrastructure outside of the rail loop, south of Bora Creek will result in positive soil conservation outcomes with a reduced soil impact footprint.

### 4.4 Flora, Fauna and Aquatic Ecology

The Bora Creek riparian vegetation is considered to be of high ecological value being made up of White Box, Yellow Box, Blakely's Redgum Woodland endangered ecological community (EEC) The relocation of infrastructure to south of Bora Creek will reduce impacts to the EEC that were originally approved with the installation of conveyors and access roads across Bora Creek.

The reduced disturbance to Bora Creek and its environs will have improved environmental outcomes with respect to aquatic habitat, bank stability together with reduced impacts to vegetation communities and aboriginal heritage.

## 4.5 Heritage

### 4.5.1 Aboriginal Heritage

Archaeological Risk Assessment Services undertook a review of the proposed rearrangement of infrastructure with respect to Aboriginal heritage (refer **Appendix 2**).

Bora Creek is a culturally rich area, being in close proximity to the Goulburn River and a source of water and food. Numerous artefacts and artefact scatters have been identified in the area, with the riparian area of Bora Creek expected to contain other identified cultural deposits. The relocation of infrastructure to south of Bora Creek will reduce impacts to aboriginal cultural heritage along and adjacent to Bora Creek that were associated with the approval to construct conveyors and access roads across Bora Creek.

### 4.5.2 European Heritage

There are no items of European Heritage known to exist within the Main Infrastructure Area, as such there will be no impacts to European heritage as a result of the modification.

## 4.6 Visual Impacts

Quinn O'Hanlon Design undertook a review of the proposed rearrangement of infrastructure with respect to visual impacts (refer **Appendix 2**).

Given the diversity of infrastructure that was proposed to be constructed within the Main Infrastructure Area (buildings, stockpiles, conveyors, offices, drifts, rail loops, coal bins etc) the proposed rearrangement is considered unlikely to have any detrimental impact to the visual appearance of the proposed development, provided the vegetative screening and lighting recommendations contained within the Environmental Assessment Report and as approved are undertaken.

## 4.7 Traffic

The proposed rearrangement will not result in any change to traffic on the adjoining public road system.

## 4.8 Hazards and Risks

The proposed rearrangement will not result in increased hazards or risks associated with dangerous goods.

## 4.9 Surface Water and Flooding

The approved infrastructure layout had a transfer station constructed within the Bora Creek flooding area and several conveyors crossing Bora Creek. While these structures do not have a significant impact on flooding, they may require repair and maintenance following a flooding event.

The relocation of infrastructure to south of Bora Creek will reduce the length of the necessary clean water diversion required to prevent clean water draining from the north entering the infrastructure area. The diversion, now only required around the rail loop will allow water to flow south from the hills above the infrastructure area unobstructed into Bora Creek.

The rearrangement will result in improved environmental outcomes in respect to surface water as the majority of "dirty" areas will be contained to the south of Bora Creek, and can be managed via common water capture and treatment structures.

#### **4.10 Groundwater**

The proposed changes will not result in a change in the predicted groundwater impacts within the Environmental Assessment Report or Response to Submissions incorporating a Preferred Project Report.

#### **4.11 Social and Economic**

It is expected that there will be a savings of up to \$5,000,000 to MCM's if the proposed modifications are approved together with operational efficiencies as described in Section 3.4 above. The proposed modification will not have an adverse impact upon construction or operation employment levels and will still be consistent with the findings contained within the Environmental Assessment report and subsequent assessment by the Minister for Planning.

The proposed change in Condition 12 of Schedule 2 will not result in any material change to the Voluntary Planning Agreement with the Mid-Western Regional Council.



## 5 JUSTIFICATION AND CONCLUSION

From the analysis of the potential impacts as a result of the proposed modifications to Project Approval conditions and minor rearrangement of infrastructure items it can be concluded that there are substantial environmental benefits to be gained by the community and MCM for the modifications to be approved.

The modifications are considered to be minor, being a rearrangement of certain infrastructure facilities and administrative modifications. The proposed modification will have no additional environmental impacts other than that previously assessed and approved by the Minister for Planning.

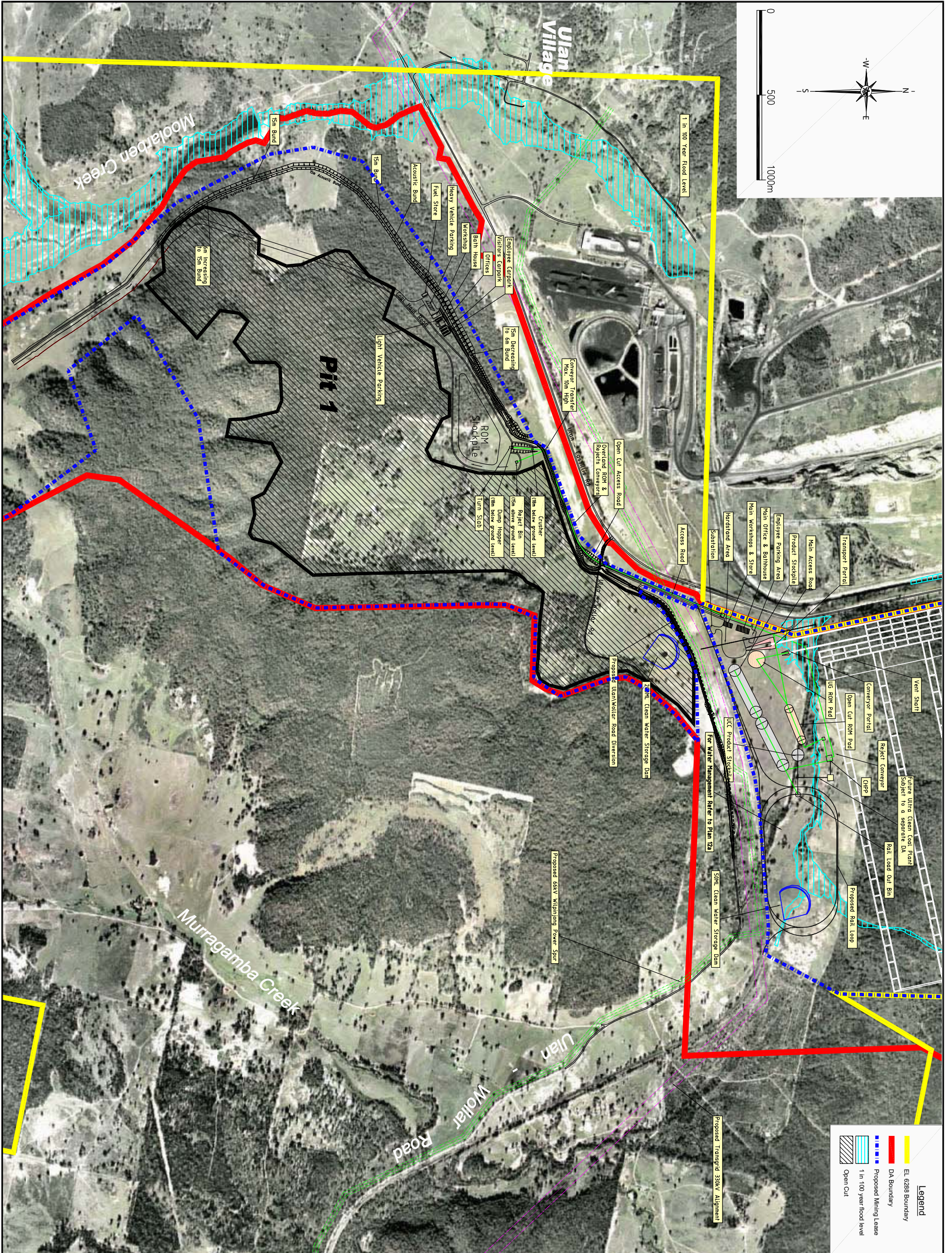
## **FIGURES**

Figure 1: Approved Stage 1 infrastructure general arrangement as shown in Plan 4 of the Environmental Assessment Report.

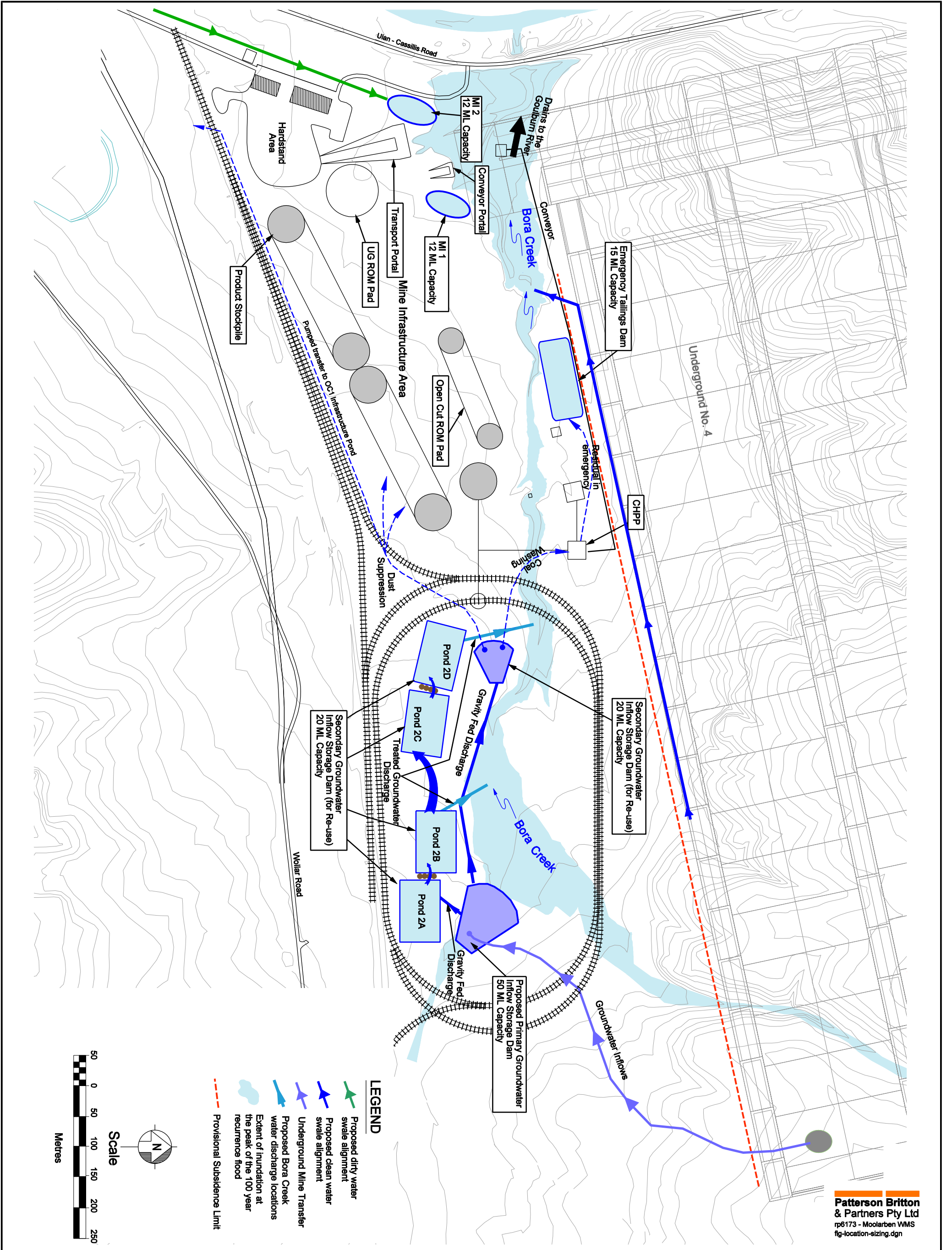
Figure 2: The water management in the infrastructure area as shown by Figure 12a in the Environmental Assessment Report.

Figure 3: Proposed spatial re-arrangement of infrastructure for the Moolarben Coal Project.









**Patterson Britton & Partners Pty Ltd**  
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**APPENDIX 1**  
**Project Approval**

# Project Approval

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

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.



Frank Sartor MP  
Minister for Planning

Sydney

6 Sept

2007

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### SCHEDULE 1

Application Number:	05_0117
Proponent:	Moolarben Coal Mines Pty Limited
Approval Authority:	Minister for Planning
Land:	See Appendix 1
Project:	Moolarben Coal Project

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## DEFINITIONS

Acquisition Zone	The privately owned land listed in table 1 to schedule 3 where there are no negotiated agreements in place between the Proponent and the applicable landowner
AEMR	Annual Environmental Management Report
ARTC	Australian Rail Track Corporation Ltd
BCA	Building Code of Australia
CCC	Community Consultative Committee
CHPP	Coal Handling and Preparation Plant
Construction	The demolition of buildings or works, carrying out of work and erection of buildings covered by this approval.
Council	Mid-Western Regional Council
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
DECC	Department of Environment and Climate Change
Department	Department of Planning
Director-General	Director-General of Department of Planning, or delegate
Dirty Water	Water from the project's dirty water management system as described in the EA
DPI	Department of Primary Industries
DWE	Department of Water and Energy
EA	The report titled <i>Moolarben Coal Project Environmental Assessment, Volumes 1-5</i> , dated September 2006, as modified by the Preferred Project Report submitted to the Department in December 2006, and the response to submissions
EEC	Endangered Ecological Community as defined under the NSW <i>Threatened Species Conservation Act 1995</i>
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
Evening	Evening is defined as the period from 6pm to 10pm
Land	Land means 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
Mine Water	Water that accumulates within active mining areas, coal rejects emplacement areas, tailings dams and infrastructure areas, synonymous with dirty water
Mining Operations	Includes all coal extraction, processing, and transportation activities carried out on site
Minister	Minister for Planning, or delegate
Mtpa	Million tonnes per annum
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
Offset Strategy	The conservation and enhancement program described in the EA and Response to Submissions
Panel	Independent Hearing and Assessment Panel for the Project
Privately owned land	Land that is not owned by a public agency, or a mining company (or its subsidiary)
Project	The development as described in the EA
Proponent	Moolarben Coal Mines Pty Limited, or its successors
Response to Submissions	The Proponent's response to issues raised in submissions, submitted to the Department in December 2006, and subsequent submissions on groundwater dated April 2007 and July 2007
ROM	Run of Mine
RTA	Roads and Traffic Authority
Site	The land referred to in Schedule 1
Statement of Commitments	The Proponent's commitments in Appendix 3
VPA	Voluntary planning agreement under the EP&A Act

## **SCHEDULE 2 ADMINISTRATIVE CONDITIONS**

### **Obligation to Minimise Harm to the Environment**

1. The Proponent shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.

### **Terms of Approval**

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

*Notes:*

- *The general layout of the project is shown in Appendix 2.*
- *The statement of commitments is reproduced in Appendix 3 (excluding the commitments which are directly reflected in, or inconsistent with, the conditions of this approval).*

3. If there is any inconsistency between the above, the conditions of this approval shall prevail to the extent of the 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, plans, programs, strategies or correspondence that are submitted in accordance with this approval; and
  - (b) the implementation of any actions or measures contained in these reports, plans, programs, strategies or correspondence.

### **Limits on Approval**

5. Mining operations may take place for 21 years from the grant of the mining lease for the project.

*Note: Under this approval, the Proponent is required to rehabilitate the site and provide offsets to the satisfaction of the Director-General. Consequently, this approval will continue to apply in all other respects other than the right to conduct mining operations until the site has been rehabilitated and the offset provided to a satisfactory standard.*

6. The Proponent shall not:
  - (a) produce more than 10 million tonnes of coal a year; or
  - (b) extract more than 8 million tonnes of ROM coal a year from the open-cut mining operations, and 4 million tonnes of ROM coal a year from the underground mining operations.
7. The Proponent shall only transport coal from the site by rail.

### **Staged Submission of Management Plans/Monitoring Programs**

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

### **Structural Adequacy**

9. 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 for the proposed building works.*
- *Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.*

### **Demolition**

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

**Operation of Plant and Equipment**

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

**Planning Agreement**

12. Within 12 months of this approval, the Proponent shall enter into a planning agreement with Council and the Minister in accordance with:
    - (a) Division 6 of Part 4 of the EP&A Act; and
    - (b) the terms of the Proponent's offer to the Minister on 4 September 2007, which includes the matters set out in Appendix 4.
-

## SCHEDULE 3 SPECIFIC ENVIRONMENTAL CONDITIONS

### ACQUISITION OF AFFECTED PROPERTIES

#### Acquisition Upon Request

- Upon receiving a written request for acquisition from the owner of the land listed in Table 1, the Proponent shall acquire the land in accordance with the procedures in conditions 10-12 of Schedule 4.

Table 1: Land subject to acquisition upon request

4 – M. Swords	5 – M & P Swords
6 – Thompson	15 – Green
20 – Williamson	25 – Tuck-Lee
29a – E. Mayberry	29b – E. Mayberry
29 – E. Mayberry	33 – K. & R. Mayberry
36 – Rayner	50 – C. Mayberry
134 – M.J. & H. Swords	163 – C.M. & J.J. Key
164 – J.J. Key	166 – C.M. Key

Note: For information on the numbering and identification of properties used in this approval, see Appendix 5.

### NOISE

#### Noise Impact Assessment Criteria

- The Proponent shall ensure that the noise generated by the project does not exceed the noise impact assessment criteria in Table 2 at any residence on privately-owned land, or on more than 25% of any privately-owned land.

Table 2: Noise impact assessment criteria dB(A)

Land Number	Day	Evening	Night	
	$L_{Aeq(15min)}$	$L_{Aeq(15min)}$	$L_{Aeq(15min)}$	$L_{A1(1min)}$
26, 49	38	38	38	45
22, 23, 41A, 63, 64, 170, 171, 172	38	38	37	45
169, 173	37	37	37	45
All other privately owned land (outside the village of Ulan)	35	35	35	45
Ulan Primary School	35 (internal) when in use and under all weather conditions			-
Ulan Anglican Church Ulan Catholic Church	35 (internal) when in use and under all weather conditions			-
Goulburn River National Park Munghorn Gap Nature Reserve	50			-

However, the Proponent may exceed the noise limits in Table 2 if it has:

- a written negotiated noise agreement with any landowner for higher noise limits, and a copy of this agreement has been forwarded to the Department and DECC; or
- an approved Construction Noise Management Plan (see condition 7 below) for the project, which sets higher noise limits for a specified period.

Notes:

- To determine compliance with the  $L_{Aeq(15\text{ minute})}$  noise limits, noise from the project is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct

measurement of noise from the project is impractical, the DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.

- To determine compliance with the  $L_{A1(1\text{ minute})}$  noise limits, noise from the project is to be measured at 1 metre from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the project is impractical, the DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy).
- The noise emission limits identified in the above table apply under meteorological conditions of:
  - wind speeds of up to 3 m/s at 10 metres above ground level ; or
  - temperature inversion conditions of up to 3°C/100m, and wind speeds of up to 2 m/s at 10 metres above ground level.

### Land Acquisition Criteria

3. If the noise generated by the project exceeds the relevant criteria in Table 3 at any residence on privately-owned land or on more than 25% of any privately-owned land, the Proponent shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 10-12 of Schedule 4.

Table 3: Land acquisition criteria dB(A)

Day/Evening/Night $L_{Aeq(15min)}$	Land Number
43 / 43 / 43	26, 49
43 / 43 / 42	22, 23, 41A, 63, 64, 170, 171, 172,
42 / 42 / 42	169, 173
40 / 40 / 40	All other private land owners not listed in Table 1

Note: Noise generated by the project is to be measured in accordance with the notes presented below Table 2.

### Cumulative Noise Criteria

4. The Proponent shall take all reasonable and feasible measures to ensure that the noise generated by the project combined with the noise generated by other mines does not exceed the following amenity criteria at any residence on privately owned land, or on more than 25% of any privately owned land, excluding the land listed in Table 1, to the satisfaction of the Director-General:
  - $L_{Aeq(11\text{ hour})}$  50 dB(A) - Day;
  - $L_{Aeq(4\text{ hour})}$  45 dB(A) - Evening;
  - $L_{Aeq(9\text{ hour})}$  40 dB(A) – Night.
5. If the cumulative noise generated by the project combined with the noise generated by other mines exceeds the following amenity criteria at any residence on privately owned land, or on more than 25% of privately owned land, excluding the land listed in Table 1, then upon receiving a written request from the landowner, the Proponent shall take all reasonable and feasible measures to acquire the land on as equitable basis as possible with the relevant mines, in accordance with the procedures in conditions 10-12 of schedule 4, to the satisfaction of the Director-General:
  - $L_{Aeq(11\text{ hour})}$  53 dB(A) - Day;
  - $L_{Aeq(4\text{ hour})}$  48 dB(A) - Evening;
  - $L_{Aeq(9\text{ hour})}$  43 dB(A) – Night.

Notes:

- For the purpose of this condition, the expression "Proponent" in conditions 10-12 of schedule 4 should be interpreted as the Proponent and any other relevant mine owners.
- The cumulative noise generated by the project combined with the noise generated by other mines is to be measured in accordance with the relevant procedures in the NSW Industrial Noise Policy.

### Traffic Noise Impact Assessment Criteria

6. The Proponent shall take all reasonable and feasible measures to ensure that the traffic noise generated by the project combined with the traffic noise generated by other mines does not exceed the traffic noise impact assessment criteria in Table 4.

Table 4: Traffic noise criteria dB(A)

Road	Day/Evening	Night
	$L_{Aeq(1\text{ hour})}$	$L_{Aeq(1\text{ hour})}$
Ulan Road	60	55

*Note: Traffic noise generated by the project is to be measured in accordance with the relevant procedures in the DECC's Environmental Criteria for Road Traffic Noise.*

### **Noise Mitigation – Initial Construction**

7. The Proponent shall prepare and implement a Construction Noise Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with the DECC by a suitably qualified expert whose appointment has been approved by the Director-General;
  - (b) be submitted to the Director-General for approval prior to carrying out any construction on site;
  - (c) contain construction noise goals for the first 6 months of construction;
  - (d) describe what measures would be implemented to minimise the construction noise impacts of the project during the first 6 months of construction, with particular emphasis on minimising the impacts on Ulan School and its pupils;
  - (e) describe how the effectiveness of these measures would be monitored;
  - (f) document the procedures that would be followed if an exceedance of the construction noise goals are detected.

### **Additional Noise Mitigation Measures**

8. Upon receiving a written request from a landowner:
- of the land listed in Table 1 (unless the landowner has requested acquisition); or
  - of the following land: 26, 49, 22, 23, 41A, 63, 64, 170, 171, 172; or
  - of any residence on privately owned land outside the Ulan Village where subsequent noise monitoring shows the noise generated by the project is greater than or equal to  $L_{Aeq(15\ min)} 38\ dB(A)$  (except where a negotiated noise agreement is in place)
- 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 landowner.

*Note: For the purposes of this approval Ulan Village is defined by the area coloured pink on the map in Appendix 6.*

These additional mitigation measures must be reasonable and feasible.

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

Within 3 months of this approval, the Proponent shall notify all applicable landowners that they are entitled to receive additional noise mitigation measures.

### **Continuous Improvement**

9. The Proponent shall:
- (a) include in each Annual Environmental Management Report (AEMR) required by Condition 5 (Schedule 5) a review of best practice noise mitigation measures that could be reasonably and feasibly applied to the ongoing operation of the mine;
  - (b) where there is a clear public benefit in the application of such measures, implement these measures to the satisfaction of the Director-General; and
  - (c) ensure that any additional measures implemented as part of this condition are considered in all future AEMR's and Independent Environmental Audit's required under Condition 6 (Schedule).

### **Monitoring**

10. The Proponent shall prepare and implement a Noise Monitoring Program for the project to the satisfaction of the Director-General. This program must:
- (a) be prepared in consultation with DECC;
  - (b) be submitted to the Director-General for approval prior to carrying out any construction on site; and
  - (c) include:
    - a combination of real-time and supplementary attended monitoring measures; and
    - noise monitoring protocol for evaluating compliance with the noise impact assessment and land acquisition criteria in this approval.

*Note: This program must expressly monitor the modifying factors referred to in the NSW Industrial Noise Policy (such as intermittency, tonality and low frequency).*

## BLASTING AND VIBRATION

### Airblast Overpressure Impact Assessment Criteria

11. The Proponent shall ensure that the airblast overpressure level from blasting at the project does not exceed the criteria in Table 5 at any residence on privately owned land.

Table 5: Airblast overpressure impact assessment criteria

Airblast overpressure level (dB(Lin Peak))	Allowable exceedance
115	5% of the total number of blasts over a period of 12 months
120	0%

### Ground Vibration Impact Assessment Criteria

12. The Proponent shall ensure that the ground vibration level from blasting at the project does not exceed the criteria in Table 6.

Table 6: Ground vibration impact assessment criteria

Receiver	Peak particle velocity (mm/s)	Allowable exceedance
Residence on privately owned land	5	5% of the total number of blasts over a period of 12 months
	10	0%
330kV transmission line	50	0%
Aboriginal rock shelters	40	0%

Note: The impact assessment criteria for Aboriginal rock shelters applies unless the Proponent develops site specific impact assessment criteria to the satisfaction of the Director-General.

### Blasting Hours

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

### Blasting Frequency

14. The Proponent may carry out:
- 2 blasts a day;
  - 9 blasts a week, averaged over any 12 month period, including
  - a maximum of 4 blasts a week, averaged over any 12 month period, with a maximum instantaneous charge (MIC) of greater than 650kg.

### Operating Conditions

15. During mining operations, the Proponent shall:
- implement best blasting practice to:
    - protect the safety of people and livestock in the area surrounding blasting operations;
    - protect public or private infrastructure/property in the area surrounding blasting operations from blasting damage; and
    - minimise the dust and fume emissions from blasting at the project; and
  - co-ordinate blasting on site with the blasting at the adjoining Ulan and Wilpinjong coal mines to minimise the potential cumulative blasting impacts of the three mines, to the satisfaction of the Director-General.
16. The Proponent shall not undertake blasting within 500 metres of:
- the Ulan-Wollar Road without the approval of Council;
  - the Ulan Road without the approval of the RTA;
  - the Gulgong-Sandy Hollow Railway Line without the approval of the ARTC;
  - the Wollar-Wellington 330kV Transmission Line without the approval of Transgrid; and

- (e) any privately-owned land or adjoining mine-owned land, unless suitable arrangements have been made with the landowner and any tenants to minimise the risk of flyrock-related impact to the property to the satisfaction of the Director-General.

### Public Notice

- 17. During mining operations, the Proponent shall:
  - (a) notify the landowner/occupier of any residence within 2 kilometres of the open cut mining operations who registers an interest in being notified about the blasting schedule at the mine;
  - (b) operate a Blasting Hotline, or alternate system agreed to by the Director-General, to enable the public to get up-to-date information on the blasting schedule at the project;
  - (c) advertise the blasting hotline number in a local newspaper at least 4 times each year; and
  - (d) publicise an updated blasting schedule on its website, to the satisfaction of the Director-General .

### Property Inspections

- 18. Prior to starting mining operations, the Proponent shall:
  - (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to prepare a report of the condition and structural integrity of:
    - Ulan Public School;
    - Ulan Catholic Church;
    - Ulan Anglican Church;
    - the historic heritage items with moderate to exceptional heritage significance identified in Appendix 6; and
    - any building or structure on privately owned land within 2 kilometres of open cuts 1, 2 or 3, and
  - (b) give the relevant land owner a copy of this report.

#### Notes:

- *The preparation of this report may be delayed with the agreement of the relevant land owner.*
- *The Proponent is not required to prepare a report on any building or structure on privately owned land within 2 kilometres of open cuts 1, 2 or 3 if the relevant land owner does not want such a report to be prepared.*

### Property Investigations

- 19. If the landowner of privately owned land within 2 km of an open cut area claims that buildings and/or structures on his/her land have been damaged as a result of blasting at the project, the Proponent shall within 3 months of receiving this claim:
  - (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 damages 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.

If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (see Appendix 8).

### Blast Monitoring Program

- 20. The Proponent shall prepare and implement a Blast Monitoring Program for the project to the satisfaction of the Director-General. This program must:
  - (a) be prepared in consultation with the DECC;
  - (b) be submitted to the Director General for approval prior to carrying out any blasting on site; and
  - (c) include a protocol for evaluating blasting impacts and demonstrating compliance with the blasting criteria in this approval.



## AIR QUALITY

### Impact Assessment Criteria

21. The Proponent shall ensure that the dust emissions generated by the project do not cause additional exceedances of the air quality impact assessment criteria in Tables 7, 8, and 9 at any residence on privately owned land, or on more than 25 percent of any privately owned land (excluding the properties listed in Table 1).

Table 7: Long term impact assessment criteria for particulate matter

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

Table 8: Short term impact assessment criteria for particulate matter

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

Table 9: Long term impact assessment criteria for deposited dust

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
Deposited dust	Annual	2 g/m <sup>2</sup> /month	4 g/m <sup>2</sup> /month

Note: Deposited dust is 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.

### Land Acquisition Criteria

22. If the dust emissions generated by the project exceed the criteria in Tables 10, 11 and 12 at any residence on privately owned land, or on more than 25 percent of any privately owned land, the Proponent shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 10-12 of schedule 4.

Table 10: Long term land acquisition criteria for particulate matter

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

Table 11: Short term land acquisition criteria for particulate matter

Pollutant	Averaging Period	Criterion	Percentile <sup>1</sup>	Basis
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	150 µg/m <sup>3</sup>	99 <sup>2</sup>	Total <sup>3</sup>
Particulate matter < 10 pm (PM <sub>10</sub> )	24 hour	50 µg/m <sup>3</sup>	98.6	Increment <sup>4</sup>

Notes: <sup>1</sup>Based on the number of block 24 hour averages in an annual period.

<sup>2</sup>Excludes extraordinary events such as bush fires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Director-General in consultation with the DECC.

<sup>3</sup>Background PM<sub>10</sub> concentrations due to all other sources plus the incremental increase in PM<sub>10</sub> concentrations due to the mine alone.

<sup>4</sup>Incremental increase in PM<sub>10</sub> concentrations due to the mine alone.

Table 12: Long term land acquisition criteria for deposited dust

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
Deposited dust	Annual	2g/m <sup>2</sup> /month	4 g/m <sup>2</sup> /month

Note: Deposited dust is 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.

### Operating Conditions

23. The Proponent shall:
- regularly assess the real time air quality and meteorological monitoring data;
  - relocate, modify and/or stop mining operations in adverse meteorological conditions to minimise the short term air quality impacts of the project on privately-owned land, and in particular on properties 8, 22, 23, 26, 30, 31, 32, 41A, 49, 63, 64, 169, 170, 172 during open cut mining operations;
  - implement all reasonable and feasible measures to minimise the off-site odour and fume emissions generated by any spontaneous combustion on site, to the satisfaction of the Director-General.

### Monitoring

24. The Proponent shall prepare and implement an Air Quality Monitoring Program for the project to the satisfaction of the Director-General. This program must:
- be prepared in consultation with DECC;
  - be submitted to the Director-General for approval prior to carrying out any construction on site; and
  - include:
    - a combination of real-time monitors, high volume samplers and dust deposition gauges to monitor the air quality emissions of the project; and
    - an air quality monitoring protocol for evaluating compliance with the air quality impact assessment and land acquisition criteria in this approval

### METEOROLOGICAL MONITORING

25. The Proponent shall ensure the project has a suitable meteorological station in the vicinity of the site that complies with the requirements in *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline.

### SUBSIDENCE

#### Subsidence – Natural Features

26. The Proponent shall:
- ensure that the Drip, Goulburn River Gorge and bed of the Goulburn River (see Appendix 7) remain outside the zone of recorded subsidence damage for longwall mining in NSW;
  - minimise subsidence damage to Cliff Line 3 (see Appendix 7); and
  - reduce the likelihood of subsidence damage to:
    - Aboriginal sites 264, 282, 283, 286, 287 (see Appendix 7) to low; and
    - Aboriginal site 280 (see Appendix 7) to moderate.

Note: The mine layout and design will be reviewed during the assessment of each subsidence management plan (see below), which will be informed by both the end-of panel reports (see condition 28 below) and each independent environmental audit (see condition 6 of Schedule 5). Consequently, the final mine plan may differ in minor respects from the mine plan shown in Appendix 7. However, the revised mine plan would need to comply with the performance criteria specified in this condition.

#### Subsidence Management Plan

27. The Proponent shall prepare and implement a Subsidence Management Plan (SMP) for the project to the satisfaction of the Director-General of DPI. This plan must:
- be prepared in accordance with the latest version (or subsequent replacement) of the:
    - New Approval Process for Management of Coal Mining Subsidence - Policy*; and
    - Guideline for Applications for Subsidence Management Approvals*;
  - be approved prior to the carrying out any underground mining operations that could cause subsidence;
  - include a detailed program to monitor:

- the height of fracturing above the goaf of the longwall panels;
  - surface subsidence above the longwall panels, including all near and far field components of subsidence;
  - the impact of surface subsidence on surface features, including flora and fauna, threatened species, and any surface water quality and/or flows; and
  - the effectiveness of any subsidence mitigation measures; and
- (d) a program to validate the subsidence prediction methodology for the project, and calibrate it to sit specific conditions.

### **End-of-Panel Report**

28. Prior to completion of each longwall panel, the Proponent shall:
- (a) prepare an end-of-panel report analysing the subsidence, surface water, and groundwater impacts of the panel, and the cumulative impacts of this panel combined with any other longwall panels;
  - (b) commission suitably qualified subsidence and groundwater experts whose appointment has been approved by the Director-General to review the end-of-panel report, and if necessary recommend changes to the monitoring programs and/or mine plan for subsequent panels; and
  - (c) submit a copy of the end-of-panel report and expert review to the Department, DPI and any other relevant agencies.

## **WATER**

### **Water Supply**

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

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

### **Surface Water Discharges**

30. The Proponent shall:
- (a) meet the relevant ANZECC water quality objectives for the protection of aquatic ecosystems and the water quality of existing receiving waters; and
  - (b) comply with the discharge limits (both volume and quality) set for the project in any EPL, to the satisfaction of the Director-General.

### **Offsets**

31. The Proponent shall ensure that all surface water discharges from the site:
- (a) offset any loss to the base flow of the Goulburn River and associated creeks caused by the project; and
  - (b) provide suitable compensation or compensatory measures to the owners of any privately owned land whose water supply is adversely affected by the project.

### **Permeability of Water Storages**

32. The Proponent shall ensure that the tailings dam, mine infrastructure dams, groundwater storage and treatment dams, and the Ulan Seam sub-crop line of the most northerly final void are suitably lined to comply with a permeability standard of  $< 1 \times 10^{-9}$  m/s.

### **Regional Water Supply/Monitoring Investigation**

33. Prior to the commencement of mining operations, unless the Director-General agrees otherwise, the Proponent shall carry out a Regional Water Supply/Monitoring Investigation to the satisfaction of the Director-General. This investigation must:
- (a) be conducted by suitably qualified and independent expert/s whose appointment has been approved by the Director-General;
  - (b) be carried out in consultation with the DECC, DPI, DWE and owners of the Ulan and Wilpinjong coal mines;
  - (c) assess the feasibility and potential environmental benefits of increased water sharing between the three mining operations in the region;
  - (d) consider the potential for developing regional surface and ground water monitoring programs to:
    - rationalise the surface and ground water monitoring programs of the three mining operations in the region; and

- improve the monitoring of the individual and cumulative surface and ground water impacts of these mining operations; and
- (e) recommend measures to reduce the surface and ground water impacts of mining in the region, and any potential changes to existing licences and/or approvals that could facilitate the implementation of these measures.

### **Water Management Plan**

34. The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with DECC, DPI and DWE by suitably qualified expert/s whose appointment/s have been approved by the Director-General;
  - (b) be submitted to the Director-General for approval prior to carrying out any construction on site; and
  - (c) include:
    - a Site Water Balance;
    - an Erosion and Sediment Control Plan;
    - a Surface Water Monitoring Plan;
    - a Groundwater Monitoring Plan; and
    - a Surface and Ground Water Response Plan.

### **Site Water Balance**

35. The Site Water Balance must:
- (a) include details of:
    - sources and security of water supply;
    - water use on site;
    - water management on site;
    - off-site water transfers;
    - reporting procedures, and
  - (b) investigate and describe measures to minimise water use by the project.

### **Erosion and Sediment Control**

36. The Erosion and Sediment Control Plan must:
- (a) be consistent with the requirements of the *Managing Urban Stormwater: Soils and Construction Manual* (Landcom 2004, or its latest version);
  - (b) identify activities that could cause soil erosion and generate sediment;
  - (c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;
  - (d) describe the location, function, and capacity of erosion and sediment control structures; and
  - (e) describe what measures would be implemented to maintain the structures over time.

### **Surface Water Monitoring**

37. The Surface Water Monitoring Plan must include:
- (a) detailed baseline data on surface water flows and quality in creeks and other waterbodies that could be affected by the project (including the Goulburn River, Bora Creek and Moolarben Creek);
  - (b) surface water quality and stream health assessment criteria, including trigger levels for investigating any potentially adverse surface water impacts; and
  - (c) a program to monitor:
    - surface water flows, quality, and impacts on water users;
    - stream health; and
    - channel stability
 in the Goulburn River, Bora Creek, and Moolarben Creek.

### **Groundwater Monitoring**

38. The Groundwater Monitoring Plan must include:
- (a) detailed baseline data of groundwater levels, yield and quality in the region, and particularly any groundwater bores, springs and seeps (including spring and seep fed dams) that may be affected by mining operations on site;
  - (b) a program to augment the baseline data over the life of the project;
  - (c) groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts;
  - (d) a program to monitor:
    - groundwater inflows to the open cut and underground mining operations;

- the impacts of the project on:
    - the alluvial, Triassic, coal seam and interburden aquifers;
    - base flows to the Goulburn River and associated creeks;
    - any groundwater bores, springs and seeps (including spring and seep fed farm dams) on privately-owned land;
    - any groundwater dependent ecosystems, such as the Drip, and riparian vegetation along the Goulburn River and associated creeks; and
  - the seepage/leachate from any tailings dams, water storages or backfilled voids on site; and
- (e) a program to validate the groundwater model for the project, and calibrate it to site specific conditions.

### **Surface and Ground Water Response Plan**

39. The Surface and Ground Water Response Plan must describe what measures and/or procedures would be implemented to:
- (a) respond to any exceedances of the surface water, stream health, and groundwater assessment criteria;
  - (b) offset the loss of any base flow to the Goulburn River and/or associated creeks caused by the project;
  - (c) compensate landowners of privately-owned land whose water supply is adversely affected by the project; and
  - (d) mitigate and/or offset any adverse impacts on groundwater dependent ecosystems or riparian vegetation.

### **LANDSCAPE MANAGEMENT**

#### **Rehabilitation**

40. The Proponent shall progressively rehabilitate the site to the satisfaction of the DPI, in general accordance with the proposed rehabilitation and offset strategy shown in Appendix 8.

#### **Endangered Ecological Community Offset**

41. Within 12 months of this approval, the Proponent shall make suitable arrangements to:
- (a) transfer at least 130 hectares of the White Box Yellow Box Blakely's Red Gum Woodland endangered ecological community to the Minister for Climate Change, Environment and Water to offset, on a "like for like" basis, the 65 hectares that would be cleared by the project at an offset ratio of 2:1; and
  - (b) provide DECC with funds (which at the discretion of DECC may include an in-kind contribution) to cover any reasonable costs associated with the transfer and ongoing management of this land.

#### **Vegetation Offsets**

42. The Proponent shall:
- (a) revegetate at least 38 hectares of disturbed land on the "Red Hills" property (see property R14 in Appendix 5 and 8) with Yellow Box White Box Blakely's Red Gum vegetation;
  - (b) revegetate at least 143 hectares of cleared land on the "Red Hills" property (see property R14 in Appendix 5 and 8) with suitable native vegetation to improve wildlife corridor linkages;
  - (c) conserve and enhance at least 1262 hectares of existing native vegetation onsite; and
  - (d) make suitable arrangements to protect these offset areas from development in the long term, to the satisfaction of the Director-General and the DECC.

#### **Landscaping – Environmental Bunds**

43. The Proponent shall progressively landscape the environmental bunds on site.

#### **Landscape Management Plan**

44. The Proponent shall prepare and implement a detailed Landscape Management Plan for the project to the satisfaction of DPI and Director-General. This Plan must:
- (a) be prepared in consultation with DECC and DWE by suitably qualified expert/s whose appointment/s have been approved by the Director-General;
  - (b) be submitted to the Director-General for approval prior to starting mining operations on site; and
  - (c) include a:
    - Rehabilitation and Offset Management Plan;
    - Final Void Management Plan; and
    - Mine Closure Plan.

## Rehabilitation and Offset Management Plan

45. The Rehabilitation and Offset Management Plan must include:
- (a) the rehabilitation objectives for the site, vegetation offsets and landscaping;
  - (b) a description of the short, medium, and long term measures that would be implemented to:
    - rehabilitate the site;
    - implement the vegetation offsets; and
    - landscape the environmental bunds;
  - (c) performance and completion criteria for the rehabilitation of the site, implementation of the vegetation offsets, and landscaping of the environmental bunds;
  - (d) a detailed description of the measures that would be implemented over the next 3 years including the procedures to be implemented for:
    - progressively rehabilitating areas disturbed by mining;
    - implementing vegetation offsets;
    - reducing the visual impacts of the project;
    - protecting areas outside the disturbance areas;
    - rehabilitating creeks and drainage lines on the site (including Moolarben Creek) to ensure no net loss of stream length and aquatic habitat;
    - undertaking pre-clearance surveys;
    - managing impacts on fauna;
    - landscaping the site to minimise visual impacts;
    - conserving and reusing topsoil;
    - collecting and propagating seed for rehabilitation works;
    - salvaging and reusing material from the site for habitat enhancement;
    - controlling weeds and feral pests;
    - controlling access;
    - bushfire management; and
    - managing any potential conflicts between the offsite offset areas and Aboriginal cultural heritage,
  - (e) a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria (see (c) above);
  - (f) a description of the potential risks to successful rehabilitation and/or revegetation, and a description of the contingency measures that would be implemented to mitigate these risks; and
  - (g) details of who would be responsible for monitoring, reviewing, and implementing the plan.

*Note: Reference to "rehabilitation" in this approval includes all works associated with the rehabilitation and restoration of the site as described in the EA, and applies to all areas within the Mining Lease and Offsets Strategy.*

## Final Void Management

46. The Final Void Management Plan must:
- (a) justify the planned final location and future use of the final void/s;
  - (b) incorporate design criteria and specifications for the final void/s based on verified groundwater modelling predictions and a re-assessment of post-mining groundwater equilibration;
  - (c) assess the potential interactions between creeks on the site and the final void/s; and
  - (d) describe what actions and measures would be implemented to:
    - minimise any potential adverse impacts associated with the final void; and
    - manage and monitor the potential impacts of the final void until the mining lease for the project is relinquished.

## Mine Closure Plan

47. The Mine Closure Plan must:
- (a) define the objectives and criteria for mine closure;
  - (b) investigate options for the future use of the site, including any final void/s;
  - (c) describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the project; and
  - (d) describe how the performance of these measures would be monitored over time.

## Vegetation Offset Bond

48. Within 3 months of the approval of the Landscape Management Plan, the Proponent shall lodge a bond with the Department to ensure that the vegetation offsets are implemented in accordance with the performance and completion criteria of the Landscape Management Plan. The sum of the bond shall be determined by calculating the full cost of implementing the vegetation offsets, and verified by suitably qualified quantity surveyor, to the satisfaction of the Director-General.

Notes:

- *If the vegetation offset is completed to the satisfaction of the Director-General, the Director-General will release the conservation bond.*
- *If the vegetation offset is not completed to the satisfaction of the Director-General, the Director-General will call in all or part of the conservation bond, and arrange for the satisfactory completion of the relevant works.*
- *If amendments to the Mining Act 1992 allow the Minister for Mineral Resources to require rehabilitation securities under a Mining Lease which apply to the implementation of rehabilitation works outside the boundary of a Mining Lease, the Proponent may transfer the vegetation offset bond required under this approval to the Minister of Mineral Resources provided the Director-General and the DPI agree to the transfer.*

## HERITAGE

### Aboriginal Heritage Plan

49. The Proponent shall prepare and implement an Aboriginal Heritage Plan for the project to the satisfaction of the Director-General. The plan must:
- (a) be prepared in consultation with DECC and the Aboriginal community;
  - (b) be submitted to the Director-General for approval prior to carrying out any development on site; and
  - (c) include a:
    - program for the test excavations, intensive recording, salvage, and surface collection of the sites identified in Appendix 9, which includes a suitable lithic analysis of all material collected as part of the salvage operations;
    - program for the conservation of the site outside the surface disturbance area (see Appendix 9), including measures that would be implemented to secure, analyse and record the sites at risk of subsidence;
    - program to further assess and document the Aboriginal heritage values of the area;
    - description of the measures that would be implemented if any Aboriginal skeletal remains are discovered during the project; and
    - protocol for the ongoing consultation and involvement of the Aboriginal community in the conservation and management of the Aboriginal heritage on the site.

### Non-Aboriginal Heritage Plan

50. 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 in consultation with the Council;
  - (b) be submitted to the Director-General for approval prior to carrying out any development on site; and
  - (c) include a:
    - program for the archival recording of the sites identified in Appendix 10, in accordance with the relevant NSW Heritage Office guidelines; and
    - description of the measures that would be implemented to conserve and/or maintain public access to the sites identified in Appendix 10.

## TRANSPORT

### Road Works

51. Prior to carrying out any construction on site, the Proponent shall:
- (a) construct the new intersection between the Ulan-Cassilis Road (MR 214) and the proposed mine access road; and
  - (b) upgrade the existing intersection between the Ulan-Cassilis Road (MR 214) and Ulan-Wollar Road in conjunction with the owner of the Wilpinjong coal mine, to the satisfaction of the RTA.
52. Prior to carrying out any construction on site to the south of the Ulan-Wollar Road, the Proponent shall construct the new intersection between the Ulan-Wollar Road and the proposed mine access road to the satisfaction of Council.
53. Within 3 years of this approval, the Proponent shall construct the proposed diversion of the Ulan-Wollar Road to the satisfaction of Council.
54. Prior to the commencement of mining operations in open cut 2, the Proponent shall divert Carrs Gap Road to the satisfaction of Council.
55. Prior to the commencement of mining operations in open cut 3, the Proponent shall divert Moolarben Road to the satisfaction of Council.

*Note: These road works must be constructed in accordance with the relevant RTA or Austroads standards, and signposted and lit in accordance AS 1742 – Manual of Uniform Traffic Control Devices and AS/NZS 1158: 2005 – Lighting for Roads and Public Spaces.*

### **Upgrade of Ulan Road (MR 208/214) and Ulan-Wollar Road**

56. Within 6 months of this approval, the Proponent shall prepare a detailed program for the staged upgrade of both Ulan Road and Ulan-Wollar Road to the satisfaction of the Director-General. This program must be:
- (a) be prepared by a suitably qualified expert/s whose appointment has been approved by the Director-General;
  - (b) be prepared in consultation with the RTA, Council, and the owner of the Wilpinjong coal mine;
  - (c) identify the road works that are required to improve the safety of these roads;
  - (d) include a detailed program to progressively implement these works; and
  - (e) allocate the available funding in any relevant VPA or statement of commitments to these works.
57. Following the approval of this program, the Proponent shall implement the program in consultation with the RTA, Council, and owner of the Wilpinjong coal mine.

### **Traffic Management**

58. The Proponent shall:
- (a) schedule the shift changes on site to occur outside the school bus hours;
  - (b) co-ordinate the shift changes on site with the shift changes of the adjoining Ulan and Wilpinjong coal mines to minimise the potential cumulative traffic impacts of the shift changes of the three mines.

### **Rail Transport – West**

59. The Proponent shall not transport any coal west of the site through Gulgong and Mudgee without the written approval of the Director-General. In seeking this approval, the Proponent shall submit a report to the Director-General that:
- (a) has been prepared in consultation with Council;
  - (b) demonstrates that the railway line has been suitably upgraded to accommodate the proposed coal train traffic;
  - (c) describes:
    - the expected tonnages, train size, number, and rail scheduling of the proposed coal train movements (both laden and unladen);
    - the measures that would be implemented to minimise, mitigate and/or manage the ongoing environmental effects of these coal train movements; and
    - how the performance of these measures would be monitored.

### **Monitoring of Coal Transport**

60. The Proponent shall monitor the:
- (a) amount of coal transported from the site each year; and
  - (b) date and time of each train movement generated by the project.

### **LIGHTING IMPACTS**

61. The Proponent shall:
- (a) take all practicable measures to further mitigate off-site lighting impacts from the project; and
  - (b) ensure that all external lighting associated with the project complies with *Australian Standard AS4282 (INT) 1995 - Control of Obtrusive Effects of Outdoor Lighting*, to the satisfaction of the Director-General.

### **GREENHOUSE GAS**

#### **Energy Savings Action Plan**

62. The Proponent shall prepare and implement an Energy Savings Action Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with DWE;
  - (b) be prepared in accordance with the *Guidelines for Energy Savings Action Plans* (DEUS 2005, or its latest version);
  - (c) be submitted to the Director-General for approval prior to carrying out any construction on site; and
  - (d) include a program to monitor the effectiveness of measures to reduce energy use on site.



## Gas Drainage

63. The Proponent shall implement all reasonable and feasible measures to minimise the greenhouse gas emissions from the underground mining operations to the satisfaction of the Director-General.
64. Prior to carrying out underground mining operations, the Proponent shall submit a Greenhouse Gas Minimisation Plan to the Director-General. This plan must:
  - (a) identify options for minimising greenhouse gas emissions from underground mining operations, with a particular focus on capturing and/or using these emissions;
  - (b) investigate the feasibility of implementing each option;
  - (c) propose the measures that would be implemented in the short to medium term on site; and
  - (d) include a research program to inform the continuous improvement of the greenhouse gas minimisation measures on site.

## WASTE

65. The Proponent shall prepare and implement a Waste Management Plan for the project to the satisfaction of the Director-General. This plan must:
  - (a) be submitted to the Director-General for approval prior to commencing construction;
  - (b) identify the various waste streams of the project;
  - (c) describe what measures would be implemented to reuse, recycle, or minimise the waste generated by the project; and
  - (d) include a program to monitor the effectiveness of these measures.

*Note: This plan is not required to cover the disposal of tailings or the management of overburden.*

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## **SCHEDULE 4 ADDITIONAL PROCEDURES FOR AIR QUALITY AND NOISE MANAGEMENT**

### **NOTIFICATION OF LANDOWNERS**

1. Within 1 month of this approval, the Proponent shall notify the landowners of the land listed in Table 1 in writing that they have the right to require the Proponent to acquire their land at any stage during the project.
2. If the results of monitoring required in Schedule 3 identify that the impacts generated by the project are greater than the relevant impact assessment criteria in Schedule 3, except where this is predicted in the EA, and except where a negotiated agreement has been entered into in relation to that impact, then the Proponent shall notify the Director-General and the affected landowners and/or existing or future tenants (including tenants of mine owned properties) accordingly, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the criteria in Schedule 3.
3. Prior to carrying out any construction on site, the Proponent shall:
  - (a) prepare a brochure to advise landowners and tenants (including tenants of mine owned properties) of the possible health and amenity impacts associated with exposure to particulate matter, in consultation with NSW Health, and to the satisfaction of the Director-General;
  - (b) provide a copy of the approved brochure to the landowners and tenants (including tenants of mine owned properties) of properties where the predictions in the EA identify that the dust emissions generated by the project are likely to be greater than the air quality land acquisition criteria in Schedule 3.

### **INDEPENDENT REVIEW**

4. If a landowner considers the project to be exceeding the impact assessment criteria in Schedule 3, except where this is predicted in the EA, 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, the Proponent shall within 3 months of the Director-General advising that an independent review is warranted:

- (a) consult with the landowner to determine his/her concerns;
  - (b) commission a suitably qualified, experienced and independent person whose appointment has been approved by the Director-General, to conduct monitoring on the land, determine whether the project is complying with the relevant impact assessment criteria in Schedule 3, identify the source(s) and scale of any impact on the land, and the project's contribution to this impact;
  - (c) give the Director-General and landowner a copy of the independent review.
5. If the independent review determines that the project is complying with the relevant impact assessment criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.
  6. If the independent review determines that the project is not complying with the relevant impact assessment criteria in Schedule 3, and that the project is primarily responsible for this non-compliance, then the Proponent shall:
    - (a) take all reasonable and feasible measures, in consultation with the landowner, to ensure that the project complies with the relevant criteria; and
    - (b) conduct further monitoring to determine whether these measures ensure compliance; or
    - (c) secure a written agreement with the landowner to allow exceedances of the criteria in Schedule 3, to the satisfaction of the Director-General.

If the additional monitoring referred to above subsequently 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 Proponent is unable to finalise an agreement with the landowner, then the Proponent or landowner may refer the matter to the Director-General for resolution.

If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (see Appendix 11).

If the measures referred to in (a) do not achieve compliance with the relevant land acquisition criteria in Schedule 3, and the Proponent cannot secure a written agreement with the landowner to allow these exceedances within 3 months, then, upon receiving a written request from the landowner, the Proponent shall acquire the landowner's land in accordance with the procedures in Conditions 10-12 below.

7. If the independent review determines that the relevant criteria in Schedule 3 are being exceeded, but that more than one mine is responsible for this non-compliance, then the Proponent shall, together with the relevant mine/s:
- (a) take all reasonable and feasible measures, in consultation with the landowner, to ensure that the relevant criteria are complied with; and
  - (b) conduct further monitoring to determine whether these measures ensure compliance; or
  - (c) secure a written agreement with the landowner and other relevant mines to allow exceedances of the criteria in Schedule 3,
- to the satisfaction of the Director-General.

If the additional monitoring referred to above subsequently 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 Proponent is unable to finalise an agreement with the landowner and/or other mine/s, then the Proponent or landowner may refer the matter to the Director-General for resolution.

If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (see Appendix 11).

If the measures referred to in (a) do not achieve compliance with the relevant land acquisition criteria in Schedule 3, and the Proponent together with the relevant mine/s cannot secure a written agreement with the landowner to allow these exceedances within 3 months, then, upon receiving a written request from the landowner, the Proponent shall acquire all or part of the landowner's land on as equitable basis as possible with the relevant mine/s, in accordance with the procedures in Conditions 10-12 below.

8. If the landowner disputes the results of the independent review, either the Proponent or the landowner may refer the matter to the Director-General for resolution.

If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process.

9. If, following the Independent Dispute Resolution Process, the Director-General decides that the Proponent shall acquire all or part of the landowner's land, then the Proponent shall acquire this land in accordance with the procedures in conditions 10-12 below.

## **LAND ACQUISITION**

10. 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 property at the date of this written request, as if the property was unaffected by the project the subject of the project application, 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 property 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 Condition 8 of Schedule 3;
  - (b) the reasonable costs associated with:
    - relocating within the Mid Western Regional Council local government area, or to any other local government area determined 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 required; 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 (see Appendix 8).

Upon receiving such a request, the Director-General shall request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer or Fellow of the Institute, to consider submissions from both parties, and determine a fair and reasonable acquisition price for the land, and/or terms upon which the land is to be acquired.

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

If the landowner refuses to accept this offer within 6 months of the date of the Proponent's offer, the Proponent's obligations to acquire the land shall cease, unless otherwise agreed by the Director- General.

11. The Proponent shall bear the costs of any valuation or survey assessment requested by the independent valuer, or the Director-General and the costs of determination referred above.
  12. If the Proponent and landowner agree that only part of the land shall be acquired, then the Proponent shall pay all reasonable 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.
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## **SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND REPORTING**

### **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 be submitted to the Director-General prior to carrying out any development on site, and:
  - (a) provide the strategic context for environmental management of the project;
  - (b) identify the statutory requirements that apply to the project;
  - (c) describe in general how the environmental performance of the project would be monitored and managed;
  - (d) 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;
    - manage cumulative impacts; and
    - respond to emergencies; and
  - (e) describe the role, responsibility, authority, and accountability of all the key personnel involved in environmental management of the project.

### **ENVIRONMENTAL MONITORING PROGRAM**

2. The Proponent shall prepare and implement an Environmental Monitoring Program for the project to the satisfaction of the Director-General. This program must consolidate the various monitoring requirements of this approval into a single document, and be submitted to the Director-General with the submission of the relevant monitoring programs.

### **REPORTING**

#### **Incident Reporting**

3. Within 24 hours of detecting an exceedance of the limits/performance criteria in this approval or the occurrence of an incident that causes (or may cause) harm to the environment, the Proponent shall notify the Department and other relevant agencies of the exceedance/incident.
4. Within 6 days of notifying the Department and other relevant agencies of an exceedance/incident, the Proponent shall provide the Department and these agencies with a written report that:
  - (a) describes the date, time, and nature of the exceedance/incident;
  - (b) identifies the cause (or likely cause ) of the exceedance/incident;
  - (c) describes what action has been taken to date ; and
  - (d) describes the proposed measures to address the exceedance/incident.

#### **Annual Reporting**

5. Within 12 months of this approval, and annually thereafter, the Proponent shall submit an AEMR to the Director-General and relevant agencies. This report must:
  - (a) identify the standards and performance measures that apply to the project;
  - (b) describe the works carried out in the last 12 months;
  - (c) describe the works that will be carried out in the next 12 months;
  - (d) include a summary of the complaints received during the past year, and compare this to the complaints received in previous years;
  - (e) include a summary of the monitoring results for the project during the past year;
  - (f) include an analysis of these monitoring results against the relevant:
    - impact assessment criteria/limits;
    - monitoring results from previous years; and
    - predictions in the EA;
  - (g) identify any trends in the monitoring results over the life of the project;
  - (h) identify any non-compliance during the previous year; and
  - (i) describe what actions were, or are being, taken to ensure compliance.

## INDEPENDENT ENVIRONMENTAL AUDIT

6. Within 2 years of this approval, 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 relevant requirements in this approval and any relevant mining lease and environment protection licence (including any strategy, plan or program under these approvals);
  - (d) review the adequacy of strategies, plans and/or programs required under these approvals; and, if necessary,
  - (e) recommend measures or actions to improve the environmental performance of the project, and/or any strategy, plan or program required under these approvals, including changes to the mine plan.

*Note:*

- *Notwithstanding the timing referred to above, audits must be carried out prior to the completion of longwall panels 4 and 8. The Proponent must liaise with the Department to determine the precise date of these audits.*
  - *This audit team should be led by a suitably qualified auditor, and include experts in the field of subsidence, surface water and groundwater management, noise, ecology and mine rehabilitation.*
7. Within 6 weeks of completing this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General with a response to any recommendations contained in the audit report.
8. Within 3 months of submitting the audit report to the Director-General, the Proponent shall review and if necessary revise the strategies/plans/programs required under this approval, to the satisfaction of the Director-General.

## COMMUNITY CONSULTATIVE COMMITTEE

9. The Proponent shall establish a Community Consultative Committee (CCC) for the project to the satisfaction of the Director-General, in general accordance with the *Guideline for Establishing and Operating Community Consultative Committees for Mining Projects*. This committee must be established within 3 months of this approval.

## ACCESS TO INFORMATION

10. Within 3 months of the approval of any strategy/plan/program required under this approval (or any subsequent revision of these strategies/plans/programs), or the completion of the audits or AEMRs, required under this approval, the Proponent shall:
- (a) provide a copy of the relevant document/s to the relevant agencies and CCC;
  - (b) put a copy of the document/s on its website.
11. During the project, the Proponent shall:
- (a) make a summary of monitoring results required under this approval publicly available on its website; and
  - (b) update these results on a regular basis (at least every 3 months).
-

**APPENDIX 1  
SCHEDULE OF LAND**

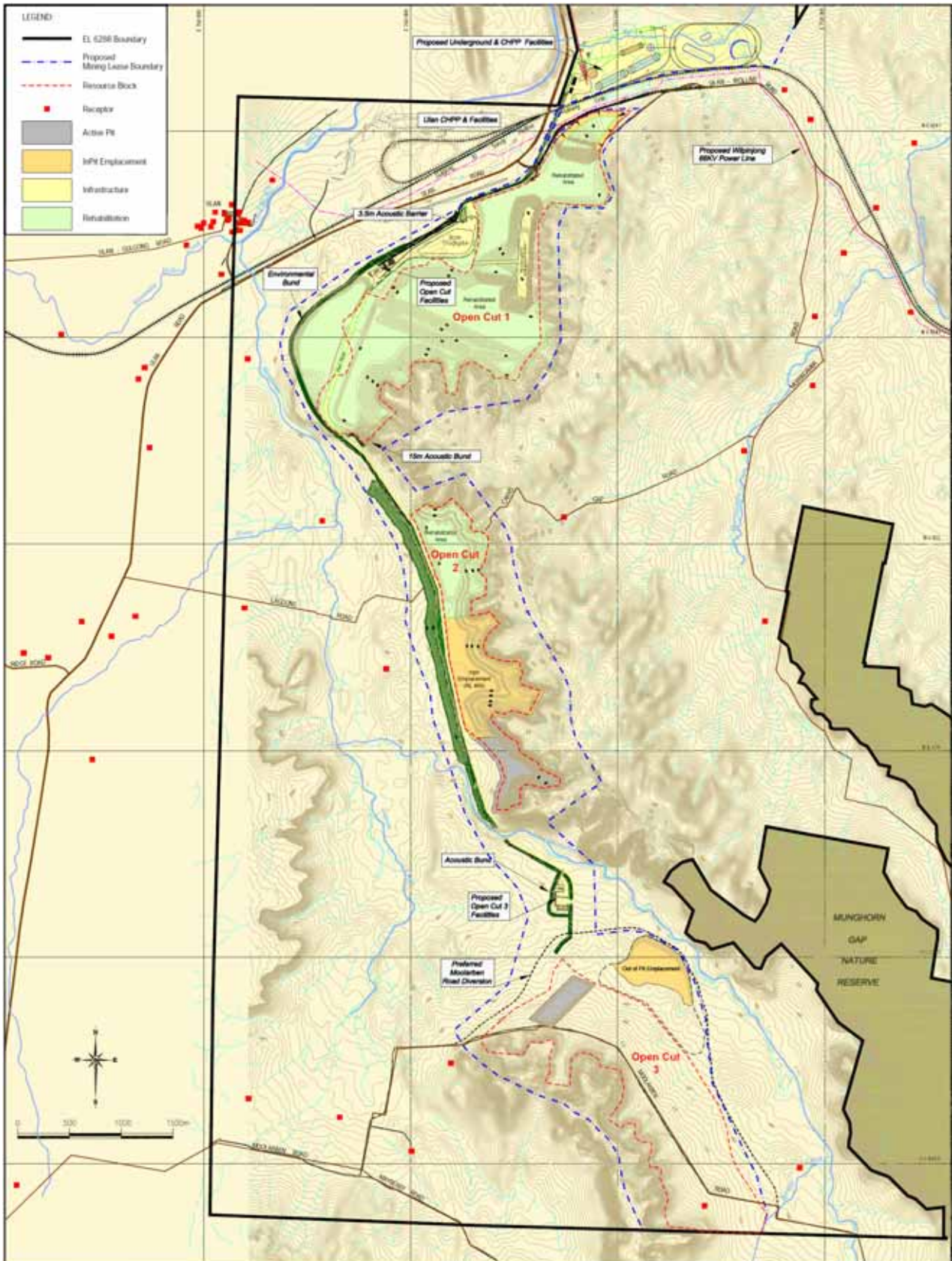
<b>OWNER</b>	<b>DESCRIPTION</b>		<b>PARISH</b>	<b>COUNTY</b>
C Mayberry	Pt. Lot 157	DP 755442	Moolarben	Phillip
C Mayberry	Pt. Lot 6	DP 115031	Moolarben	Phillip
C Mayberry	Pt. Lot 102	DP 755442	Moolarben	Phillip
Council of the Shire of Mudgee	Pt. Lot 1	DP 817487	Lennox	Phillip
D.A Herring	Pt. Lot 7	DP 878678	Wilpinjong	Phillip
DJ & JG Stokes	Pt. Lot 4	DP 575167	Moolarben	Phillip
DJ & JG Stokes	Pt. Lot 88	DP 755442	Moolarben	Phillip
DJ & JG Stokes	Pt. Lot 65	DP 755442	Moolarben	Phillip
DJ & JG Stokes	Pt. Lot 208	DP 755442	Moolarben	Phillip
DJ & Y Rayner	Pt. Lot 218	DP 755442	Moolarben	Phillip
DJ & Y Rayner	Lot 238	DP 755442	Moolarben	Phillip
DJ & Y Rayner	Lot 1	DP 115031	Moolarben	Phillip
DJ & Y Rayner	Lot 2	DP 115031	Moolarben	Phillip
DJ & Y Rayner	Pt. Lot 140	DP 755442	Moolarben	Phillip
DJ & Y Rayner	Pt. Lot 260	DP 755442	Moolarben	Phillip
DJ & Y Rayner	Lot 98	DP 755442	Moolarben	Phillip
DJ & Y Rayner	Lot 89	DP 755442	Moolarben	Phillip
DJ & Y Rayner	Pt. Lot 261	DP 755442	Moolarben	Phillip
EC Mayberry	Lot 53	DP 755442	Moolarben	Phillip
EC Mayberry	Lot 40	DP 755442	Moolarben	Phillip
EC Mayberry	Lot 145	DP 755442	Moolarben	Phillip
EC Mayberry	Lot 19	DP 755442	Moolarben	Phillip
EC Mayberry	Lot 18	DP 755442	Moolarben	Phillip
EC Mayberry	Lot 107	DP 755442	Moolarben	Phillip
EC Mayberry	Lot 108	DP 755442	Moolarben	Phillip
EC Mayberry	Lot 17	DP 755442	Moolarben	Phillip
EC Mayberry	Lot 50	DP 755442	Moolarben	Phillip
EC Mayberry	Lot 16	DP 755442	Moolarben	Phillip
EC Mayberry	Lot 51	DP 755442	Moolarben	Phillip
EC Mayberry	Lot 248	DP 755442	Moolarben	Phillip
EC Mayberry	Lot 64	DP 755442	Moolarben	Phillip
EC Mayberry	Lot 45	DP 755442	Moolarben	Phillip
EC Mayberry	Pt. Lot 167	DP 755442	Moolarben	Phillip
EC Mayberry	Pt. Lot 170	DP 755442	Moolarben	Phillip
EC Mayberry	Pt. Lot 183	DP 755442	Moolarben	Phillip
EC Mayberry	Pt. Lot 172	DP 755442	Moolarben	Phillip
K & RE Mayberry	Lot 52	DP 755442	Moolarben	Phillip
K & RE Mayberry	Lot 146	DP 755442	Moolarben	Phillip
K & RE Mayberry	Lot 63	DP 755442	Moolarben	Phillip
K & RE Mayberry	Pt. Lot 205	DP 755442	Moolarben	Phillip
K & RE Mayberry	Pt. Lot 289	DP 704098	Moolarben	Phillip
K & RE Mayberry	Lot 99	DP 755442	Moolarben	Phillip
M & J Transport	Pt. Lot 1	DP 878678	Wilpinjong	Phillip
MJ & H Swords	Pt. Lot 93	DP 755442	Wilpinjong / Moolarben	Phillip
MJ & PM Swords	Pt. Lot 60	DP 755442	Moolarben	Phillip
MJ & PM Swords	Pt. Lot 95	DP 755442	Moolarben	Phillip
MJ & PM Swords	Pt. Lot 61	DP 755442	Moolarben	Phillip
MJ & PM Swords	Pt. Lot 1	DP 803204	Moolarben	Phillip
MJ & PM Swords	Lot 119	DP 755442	Moolarben	Phillip
MJ & PM Swords	Pt. Lot 192	DP 755442	Moolarben	Phillip

OWNER	DESCRIPTION		PARISH	COUNTY
MJ & PM Swords	Pt. Lot 193	DP 755442	Moolarben	Phillip
MJ & PM Swords	Pt. Lot 44	DP 755442	Moolarben	Phillip
MJ & PM Swords	Pt. Lot 62	DP 755442	Moolarben	Phillip
MJ Carlisle	Pt. Lot 97	DP 755454	Wilpinjong	Phillip
MJ Swords	Pt. Lot 112	DP 755454	Wilpinjong / Moolarben	Phillip
MJ Swords	Pt. Lot 96	DP 755454	Wilpinjong	Phillip
MJ Swords	Lot 234	DP 755442	Moolarben	Phillip
MJ Swords	Pt. Lot 223	DP 755442	Moolarben	Phillip
MJ Swords	Pt. Lot 228	DP 755442	Moolarben	Phillip
MJ Swords	Pt. Lot 229	DP 755442	Moolarben	Phillip
MJ Swords	Pt. Lot 109	DP 755442	Moolarben	Phillip
MJ Swords	Lot 110	DP 755442	Moolarben	Phillip
MJ Swords	Pt. Lot 113	DP 755454	Wilpinjong	Phillip
RB Cox	Pt. Lot 125	DP 755442	Moolarben	Phillip
Moolarben Coal Mines Pty Limited	Pt. Lot 262	DP 755442	Moolarben	Phillip
Moolarben Coal Mines Pty Limited	Pt. Lot 30	DP 755439	Lennox	Phillip
Moolarben Coal Mines Pty Limited	Pt. Lot 2	DP 878678	Wilpinjong	Phillip
Ulan Coal Mines Ltd.	Pt. Lot 20	DP 755439	Lennox	Phillip
Ulan Coal Mines Ltd.	Pt Lot 45	DP 736630	Lennox	Phillip
Ulan Coal Mines Ltd.	Pt. Lot 46	DP 736630	Lennox	Phillip
Ulan Coal Mines Ltd.	Pt. Lot 47	DP 736630	Lennox	Phillip
Ulan Coal Mines Ltd.	Pt. Lot 48	DP 736630	Lennox	Phillip
Ulan Coal Mines Ltd.	Pt. Lot 50	DP 736630	Lennox	Phillip
Ulan Coal Mines Ltd.	Pt. Lot 24	DP 755439	Lennox	Phillip
Ulan Coal Mines Ltd.	Lot 2	DP 722882	Lennox	Phillip
Ulan Coal Mines Ltd.	Lot 3	DP 722882	Lennox	Phillip
Ulan Coal Mines Ltd.	Pt. Lot 51	DP 736630	Lennox	Phillip
Ulan Coal Mines Ltd.	Pt. Lot 53	DP 736630	Lennox	Phillip
Ulan Coal Mines Ltd.	Pt. Lot 2	DP 817487	Lennox	Phillip
Ulan Coal Mines Ltd.	Lot 55	DP 722794	Lennox	Phillip
Ulan Coal Mines Ltd.	Lot 33	DP 755439	Lennox	Phillip
Ulan Coal Mines Ltd.	Lot 56	DP 722795	Lennox	Phillip
Ulan Coal Mines Ltd.	Lot 34	DP 755439	Lennox	Phillip
Ulan Coal Mines Ltd.	Pt. Lot 4	DP 722882	Lennox	Phillip
Ulan Coal Mines Ltd.	Pt. Lot 54	DP 736630	Moolarben	Phillip
Ulan Coal Mines Ltd.	Pt. Lot 253	DP 755442	Moolarben	Phillip
Ulan Coal Mines Ltd.	Pt. Lot 14	DP 755442	Moolarben	Phillip
Ulan Coal Mines Ltd.	Lot 178	DP 755442	Moolarben	Phillip
Ulan Coal Mines Ltd.	Lot 179	DP 755442	Moolarben	Phillip
Ulan Coal Mines Ltd.	Lot 277	DP 755442	Moolarben	Phillip
Ulan Coal Mines Ltd.	Pt. Lot 1	DP 722881	Moolarben	Phillip
Ulan Coal Mines Ltd.	Pt. Lot 92	DP 755442	Moolarben	Phillip
Ulan Coal Mines Ltd.	Pt. Lot 90	DP 755442	Moolarben	Phillip
Ulan Coal Mines Ltd.	Lot 272	DP 755442	Moolarben	Phillip
Ulan Coal Mines Ltd.	Pt. Lot 91	DP 755442	Moolarben	Phillip
Ulan Coal Mines Ltd.	Pt. Lot 242	DP 755442	Moolarben	Phillip
State Rail Authority	Gulgong- Sandy Hollow Railway			
Crown	Pt. Lot 31 DP 755439 - Vacant Crown Land		Lennox	Phillip
Crown	Pt. Lot 7010 DP 1025345 -Vacant Crown Land		Moolarben	Phillip
Crown	Pt. Lot 204 DP 755442 -Reserve for future public requirements R65457		Moolarben	Phillip

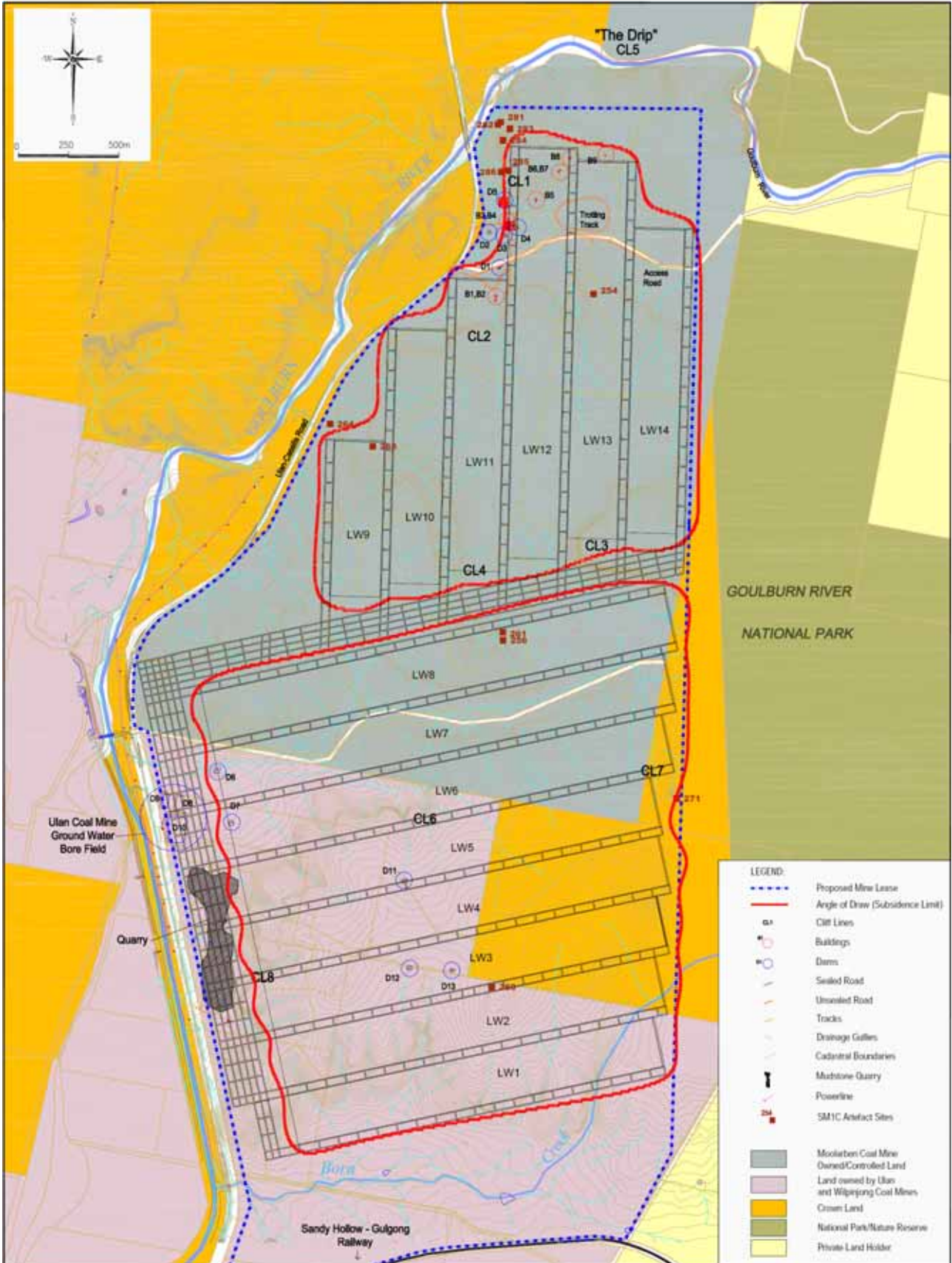


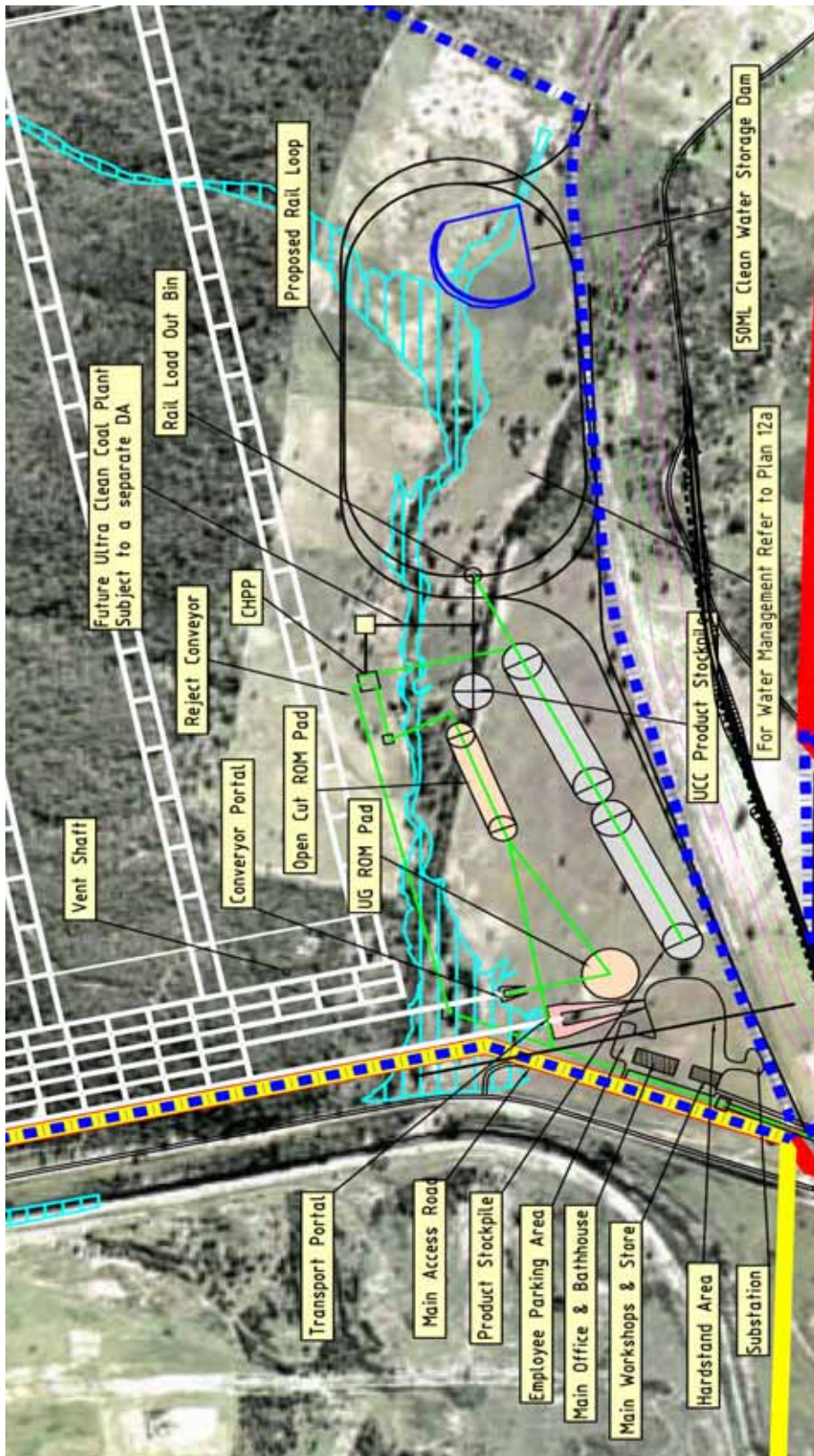
OWNER	DESCRIPTION	PARISH	COUNTY
Crown	Lot 176 DP 755442 - Reserve for future public requirements R65457	Moolarben	Phillip
Crown	Ulan Road		
Crown	Saddlers Creek Road		
Crown	Ulan Wollar Road		
Crown	Reserve for Resting Place R.82539	Lennox	Phillip
Crown	Vacant Crown Land No 1 (Refer Plan 00857C)	Lennox	Phillip
Crown	Vacant Crown Land - No 2 (Refer Plan 00857C)	Lennox	Phillip
Crown	Vacant Crown Land - No 3 (Refer Plan 00857C)	Lennox	Phillip
Crown	Vacant Crown Land - No 4 (Refer Plan 00857C)	Lennox	Phillip
Crown	Vacant Crown Land - No 5 (Refer Plan 00857C)	Lennox	Phillip
Crown	Lot 152 DP 755442 - Reserve for Public School	Moolarben	Phillip
Crown	Lot 290 DP 704098 - Reserve for Access	Moolarben	Phillip
Crown	Carrs Gap Road	Moolarben	Phillip
Crown	Moolarben Road	Moolarben	Phillip
Crown	Unidentified Crown Road - No 6 (Refer Plan 00857C)	Lennox	Phillip
Crown	Unidentified Crown Road - No 7 (Refer Plan 00857C)	Lennox	Phillip
Crown	Unidentified Crown Road - No 8 (Refer Plan 00857C)	Lennox	Phillip
Crown	Unidentified Crown Road - No 9 (Refer Plan 00857C)	Moolarben	Phillip
Crown	Unidentified Crown Road - No 10 (Refer Plan 00857C)	Moolarben	Phillip
Crown	Unidentified Crown Road - No 11 (Refer Plan 00857C)	Wilpinjong	Phillip
Crown	Unidentified Crown Road - No 12 (Refer Plan 00857C)	Moolarben	Phillip
Crown	Unidentified Crown Road - No 13 (Refer Plan 00857C)	Wilpinjong	Phillip
Crown	Unidentified Crown Road - No 14 (Refer Plan 00857C)	Moolarben	Phillip
Crown	Unidentified Crown Road - No 15 (Refer Plan 00857C)	Moolarben	Phillip
Crown	Unidentified Crown Road - No 16 (Refer Plan 00857C)	Moolarben	Phillip
Crown	Unidentified Crown Road - No 17 (Refer Plan 00857C)	Moolarben	Phillip
Crown	Unidentified Crown Road - No 18 (Refer Plan 00857C)	Moolarben	Phillip
Crown	Unidentified Crown Road - No 19 (Refer Plan 00857C)	Moolarben	Phillip
Crown	Unidentified Crown Road - No 20 (Refer Plan 00857C)	Moolarben	Phillip
Crown	Unidentified Crown Road - No 21 (Refer Plan 00857C)	Moolarben	Phillip
Crown	Unidentified Crown Road - No 22 (Refer Plan 00857C)	Moolarben	Phillip
Crown Land	Pt. Lot 7009 DP 1025321 -Vacant Crown Land	Moolarben	Phillip

## APPENDIX 2 GENERAL LAYOUT OF PROJECT











### APPENDIX 3 STATEMENT OF COMMITMENTS

(1) **Protect The Drip and Goulburn River Corner Gorge**

*The Drip and the Goulburn River Corner Gorge are shown on the plan titled "Moolarben Coal Mine – Preferred Mine Plan General Layout" contained in Appendix A9 to the "Moolarben Coal Project Response to Submissions".*

*Moolarben will conduct its underground mining operations consistent with the Preferred Project Underground No. 4 layout to protect the Goulburn River features known as the Drip, the Goulburn River Corner Gorge and associated cliffs so that there is no damage whilst seeking to maximise recovery of coal resources and as may be required by any conditions of project approval for the Moolarben Coal Project.*

(2) **Shift Change**

*Moolarben undertakes to schedule its major employee shift changes to times outside the hours of 8.15 to 9.00 am and 3.15 to 4.00 pm Monday to Friday to seek to reduce overlap of employee traffic and school transport and as may be required by any conditions of project approval for the Moolarben Coal Project.*

(3) **Replace Water**

*Moolarben will compensate or replace waters (similar quality and quantity) lost by a private landholder as a consequence of the Moolarben Coal Project in accordance with the adopted protocols and procedures contained in the Moolarben Coal Project Environmental Management System and as may be required by any conditions of project approval for the Moolarben Coal Project.*

(4) **Environmental Management System**

*Moolarben will prepare and implement an Environmental Management System containing Environmental Management Plans, and Mine Operating Plan for the life of the Moolarben Coal Project consistent with the Environmental Assessment Report, the Response to Submissions Report, the Preferred Project Report and as may be required by any conditions of project approval for the Moolarben Coal Project.*

(5) **Noise in School Rooms**

*Moolarben in consultation with the Ulan Public School and the Department of Education will undertake agreed works to ameliorate potential noise and dust impacts associated with the Moolarben Coal Project upon classrooms and general school operations.*

OR

*Moolarben will, should the Department of Education request, on a reasonable basis relating to the effect of noise and dust from the Moolarben Coal Project, negotiate to contribute to or meet reasonable costs toward relocating the school.*

(6) **Land Purchase Commitment**

*Moolarben will accept an obligation to purchase (if so required by any affected private landholder) any land affected by operations of the Moolarben Coal Project in accordance with any requirement to do so as provided in any project approval for the Moolarben Coal Project.*

(7) **Mine Water Sharing Plan**

*Moolarben will seek to enter into a mine water sharing plan in respect of mining operations of the Ulan Coal Mine and Wilpinjong Coal Mine under the auspices of the Director General of the Department of Planning and as may be required by any conditions of project approval for the Moolarben Coal Project.*

(8) **Voluntary Planning Agreement**

*Moolarben will enter into a Voluntary Planning Agreement with Mid Western Regional Council and the Minister for Planning incorporating the principles contained in the offer by Moolarben to the Minister for Planning on 4 September 2007 to enter into the Voluntary Planning Agreement.*

(9) **Employ Local People**

*Moolarben will, wherever possible and feasible, employ appropriately qualified persons residing within the local area.*

(10) **Traineeships**

*Moolarben will provide traineeships for the youth of the local community.*

(11) **Dronvisa Quarry**

*Moolarben will seek to enter into an operational agreement with Dronvisa Quarry with regard to the safe continuation of its operations in conjunction with underground mining.*

(12) **Ecology**

*Moolarben will enter into such arrangements as may be required by the Director-General to provide for ecological offsets as proposed in the Environmental Assessment and Preferred Project Report and as may be required by any conditions of project approval for the Moolarben Coal Project.*

(13) **Flows in the Goulburn River – Co-operative Monitoring Program**

*Moolarben will use its reasonable endeavours to agree and implement a monitoring program in cooperation with the Ulan and Wilpinjong mines (and to the reasonable requirement of the Director General who will consult with the DNR) to identify any potential for any change in the water flows in the Goulburn River due to mining at the Moolarben, Ulan and Wilpinjong mines and as may be required by any conditions of project approval for the Moolarben Coal Project.*

(14) **Mine Water Management and Salinity – Sharing with Ulan and Wilpinjong**

*Moolarben will use its reasonable endeavours to agree and implement a co-operative arrangement with and enter into a life of mine agreement between the Ulan and Wilpinjong mines (the “Mines”) to establish, implement and operate water sharing and use plans and procedures with the objective of minimising the removal by the Mines of water from the environment and the discharge of minewaters by the Mines to the environment and which shall address the ability of the Mines to utilise mine water produced by the Mines between the Mines and as may be required by any conditions of project approval for the Moolarben Coal Project.*

(15) **Salinity Off Sets**

**– Bobadeen Irrigation Scheme (“BIS”) - Salinity Offset Management Plan (“SOMP”)**

*In the event that the Moolarben Coal Project reduces the capacity for the removal of salt from the Salinity Offset Management Plan area operated by Ulan Mine in conjunction with the Bobadeen Irrigation Scheme under Environment Protection Licence 394, then Moolarben will, at its election, either:*

- take from Ulan that volume of water that would otherwise have been used in the BIS; OR*
- provide an area of land with equivalent salt removal capacity; AND*
- any disputed issue will be determined by an appropriately qualified expert agreed between Moolarben and Ulan and in default appointed by the Director General of Planning.*

(16) **Haulage of Coal to the West by Rail**

*Prior to the haulage of coal by rail to the west of the Moolarben Coal Project, Moolarben shall notify the Director-General with details of expected tonnages, train size and rail scheduling and where practicable schedule rail haulage during daylight hours only through the town of Mudgee as may otherwise be required by any conditions of project approval for the Moolarben Coal Project.*

(17) **Traffic Management – Mid Western Regional Council**

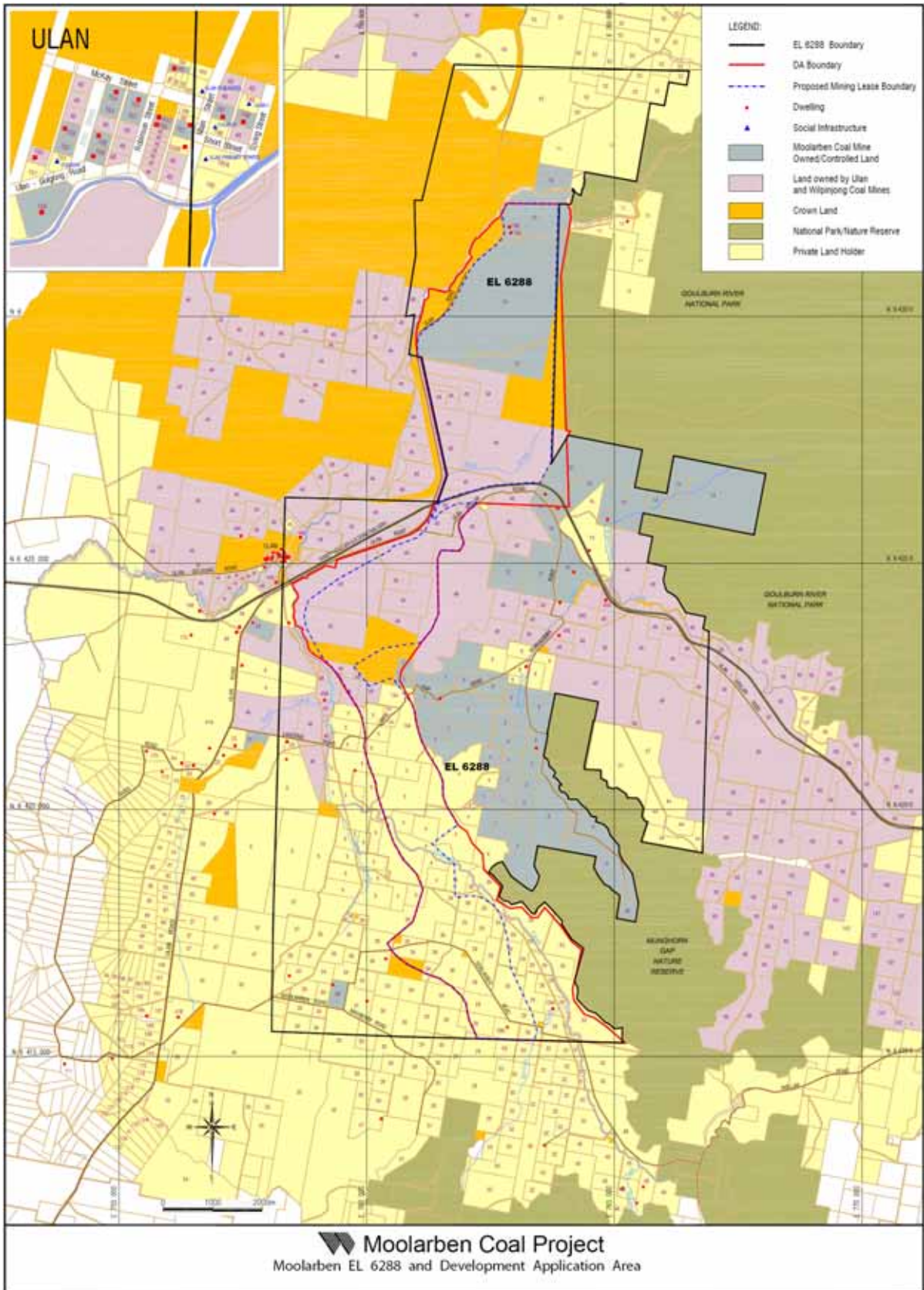
*Moolarben acknowledges the need for it to contribute to the upgrade and maintenance of aspects of the local road system affected by the operation of the Moolarben Coal Project and commits to implement the Voluntary Planning Agreement in satisfaction of the principles of that agreement.*

**APPENDIX 4  
GENERAL TERMS OF THE VOLUNTARY PLANNING AGREEMENT**

Funding Area	Minimum Proponent Contribution	Funding Time Frame
Monetary Contribution – open cut product coal	\$1,000,000	Three equal instalments to be paid over a three year period, with the first annual instalment to be paid within seven days of the first loading and dispatch of coal produced from the open cut operations from the Project.
Monetary Contribution – underground product coal	\$300,000	One instalment to be paid within seven days of the first loading and dispatch of coal produced from the underground operations of the Project.
Road Maintenance Contribution – Cope Road and Ulan Road	\$1,000,000	Three equal instalments to be paid over a three year period, with the first instalment to be paid within seven days of the commencement of construction
Road Maintenance Contribution – General	\$1,250,000	\$62,500 each year for a period of 20 years with the first instalment to be paid on the first anniversary of the first loading and dispatch of coal produced from the operations of the Project.
Community Infrastructure Contribution	\$1,000,000	\$100,000 each year for a period of 10 years with the first instalment to be paid on the first anniversary of the first loading and dispatch of coal produced from the operations of the Project.

*Note: The "Road Maintenance Contribution – General" and "Community Infrastructure Contribution" must be reviewed and adjusted to take into account any increase in the CPI over time.*

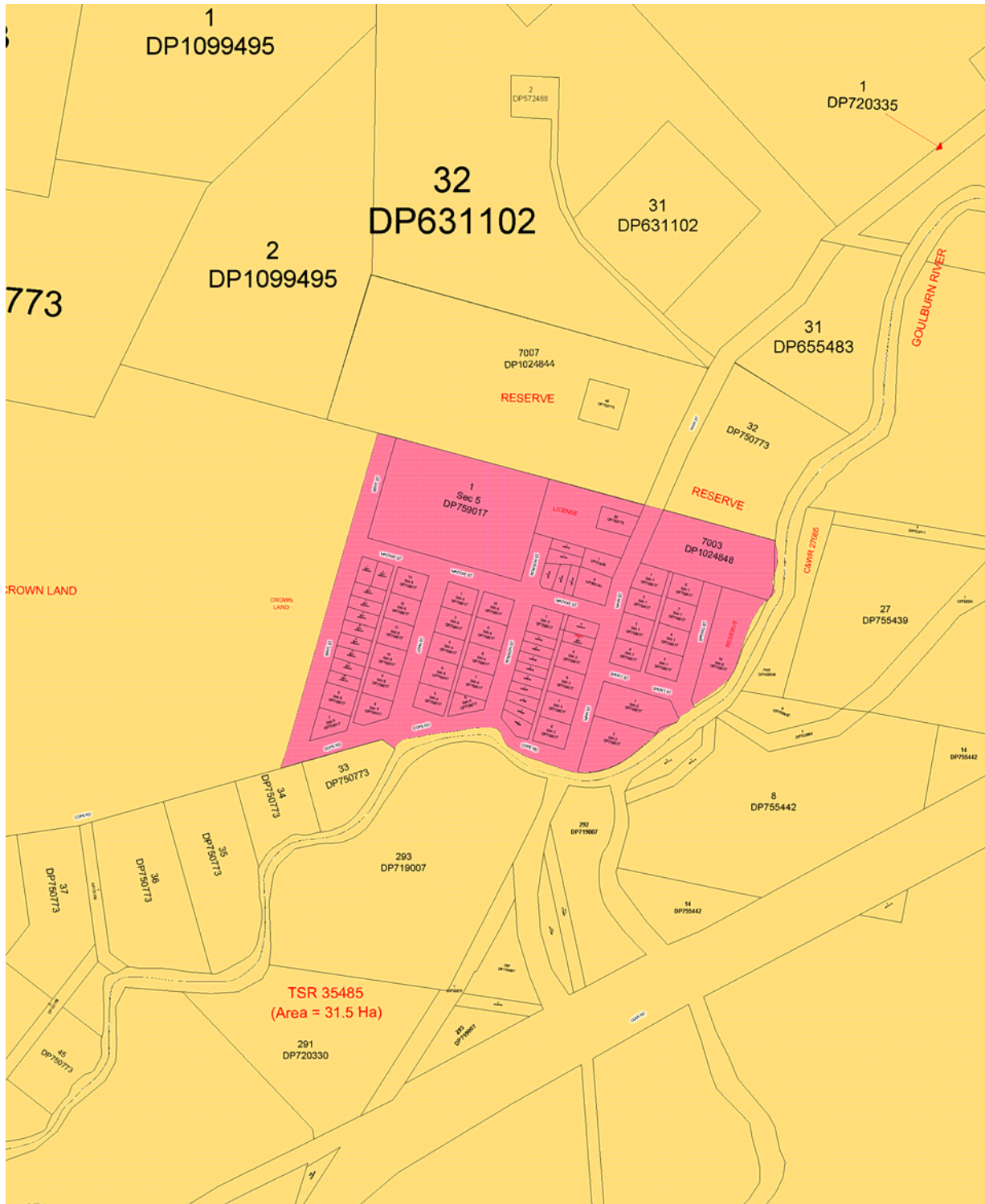
## APPENDIX 5 PROPERTY NUMBERS



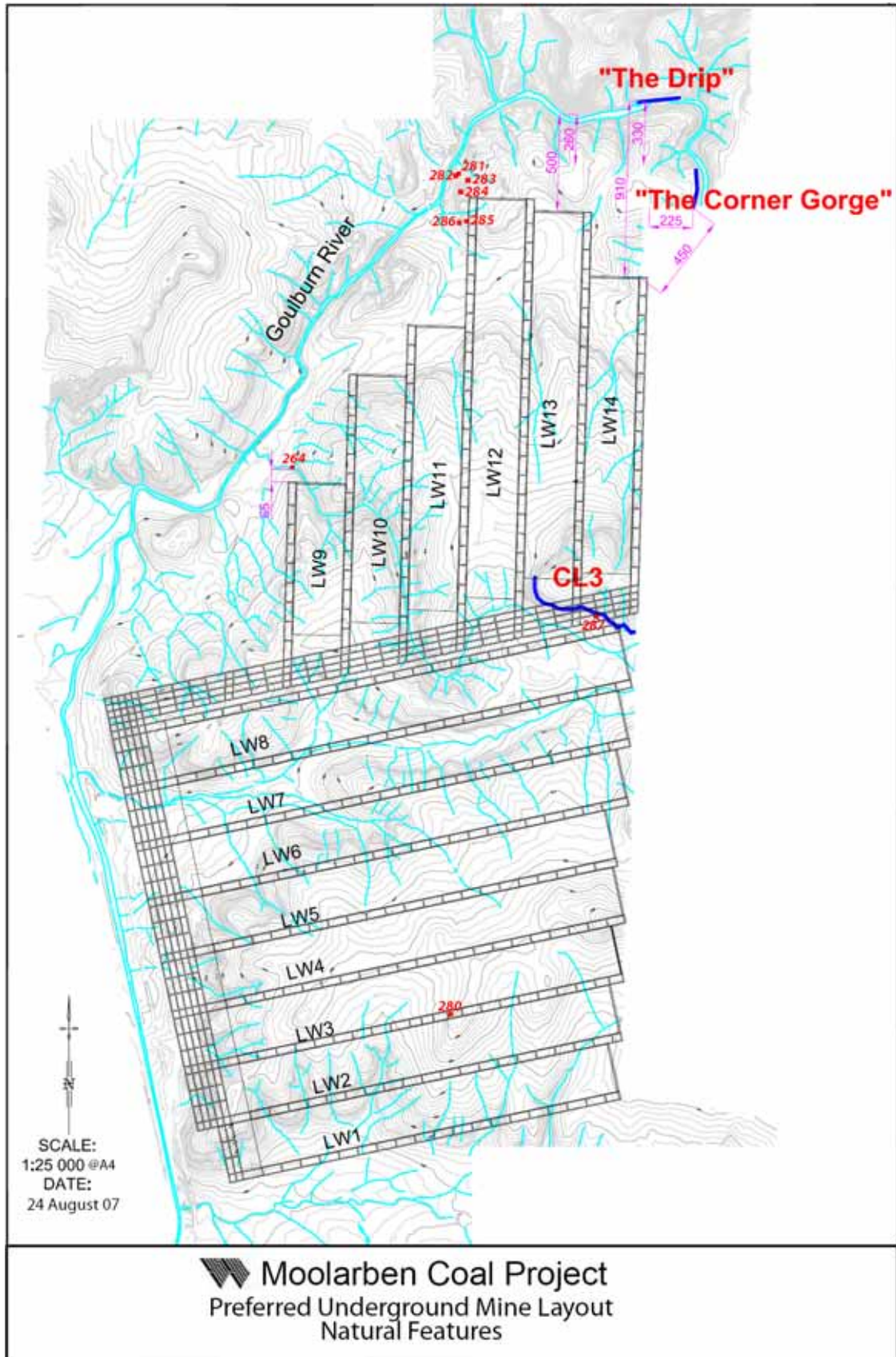


No	NAME	No.	NAME
1	Moolarben Coal Mines Pty Limited	88	G.D. & R.A. Walls
2	Moolarben Coal Mines Pty Limited	89	M.V. & H.M. Glover & E. & B.J. Tomlinson
3	Moolarben Coal Mines Pty Limited	90	S.A. Powell
4	M. Swords	91	H.M. Graham
5	M. & P. Swords	92	V.A. Pulcino, J. Bonnici, S. Bonnici & G. Bonnici
6	K. & S. Thompson	93	F. & M. Fenech
7	Moolarben Coal Mines Pty Limited	94	L.K. Mittermayer
8	C. & H. Davies	95	B.J. Wittington
9	I.C.J. Australia Operations	96	D. Lazoc
10a,b	Moolarben Coal Mines Pty Limited	97	D.J. & M.D. Smith
11	J. Mullis & C. Innie	98	J.P. & M.E. Piper
12	M. & J. Transport [under contract to Moolarben Coal Mines]	99	B.B. & H.W. Ivanovic
13	Moolarben Coal Mines Pty Limited	100	O. & A. Kapota
14	Moolarben Coal Mines Pty Limited	101	R.D. & D.M.Z. Hull
15	L. Green	102	J. & H. Redkofer
16	Moolarben Coal Mines Pty Limited	103	S.B. Burnett & S.L. Grant
17	Moolarben Coal Mines Pty Limited	104	R.A. & L.A. Deeben
18	Moolarben Coal Mines Pty Limited	105	I.A.M. Smith
19	Moolarben Coal Mines Pty Limited	106	T.B. & J.H. Reid
20	A.J. & N.N. Williamson	107	Z.J. & M. & A.A. Razo, B. Poplisen
21	Moolarben Coal Mines Pty Limited	108	R. Varga
22	A. Alton	109	D.A. & V.M. Evans
23	A. & E. Woodhead	110	G.R. & B.A. Bateman
24	L.K. Hoers [under contract to Moolarben Coal Mines]	111	G.J. & N.J. McEwan
25	G.G. Tuck-Lee & S.H. Symons	112	J.H. Radford
26	G.V. Robinson	113	S.J. & L.G. Menconsky
27	G.C. & J.K. Helm	114	T.F. & K. Holland
28	Moolarben Coal Mines Pty Limited	115	J.B. Carroll
29a,b	E. Mayberry	116	D.J. & S.M. Reed
30	R. Cox	117	F. & S. Marc
31	M. Cox	118	A. Scott
32	D. & J. Stokes	119	G.M. & H.J. Prester
33	K. & R. Mayberry	120	P.S. & D.R. Ord
34	J. Asztalos	121	Public Trustee
35	P. Johnson, M. & G. Thompson, P. & F. Debreczky	122	W.F. With
36	D. & Y. Rayner	123	N.D. Sullivan
37	J. Szymkarczuk	124	W.J. & H.E. Bailey
38	State of NSW	125	D.B. McBride
39	R. & D. Sprigg	126	J. McAloon
40	J. Devenish	127	D.E. & P. Dickinson
41a,b	P. Libaris	128	A. Sims
41c	Moolarben Coal Mines Pty Limited	129	M. Yelch
42	C. & L. Schmidt	130	G. McEwan
43	D. & H. Wooby [under contract to Moolarben Coal Mines]	131	G.R. & R.A. King
44	E. D. & C. Power	132	N. Atkins
45	NSW Elec. Trans. Auth	133	J.M. & T.E. Tynan
46a,b,c,d,f,g	Ulan Coal Mines Ltd	134	M.J. & H. Swords
46e	Curlebo Land Pty Ltd	135	
47	S.F. & M.R. Andrews	136	D.T. Maranda
48	J.G. & J.W. O'Sullivan	137	E.J. & J.E. Robinson
49	A.M. Brooks	138	W.C. & V.M. Langshaw
50	C. Mayberry	139	
51	K.O. Bishop	140	
52	J. Williams	141	S.J. Close
53	W.D. & M.S. Bryant	142	T.P. Raynor
54	M.A. & C. Harris	143	K.H. & M.E. Katsou
55	M.J. Bundy	144	J.T. & Y.R. Jones
56	M.J. & V. Cundy	145	J.R. & B.M. Evans
57	M.J. Cundy	146	R.W. & D.G. Langshaw
58	M. L. & J. L. Bevege	147	K.M. Newing
59	G. & G. M. Szymkarczuk	148	Moolarben Coal Mines Pty Limited
60	B.D. & D.M. Rayner	149	Merriwa Council
61	M.A. Miller	150	Ulan Coal Mines
62	R. C. Menchin	151	A.I. Cunningham
63	B. F. & B. Whiticker	152	M.A. Buchanan & N.A. Peters [under contract to Moolarben Coal Mines]
64	J. W. Gorenan & T. L. Boland	153	Moolarben Coal Mines Pty Limited
65	Curlebo Land Pty Ltd	154	Moolarben Coal Mines Pty Limited
66	L. Syner	155	Moolarben Coal Mines Pty Limited
68	G.C. & E.M. Batty	156	Moolarben Coal Mines Pty Limited
69	E.H. Elward	157	Moolarben Coal Mines Pty Limited
70	D.J. & A. Coventry	158	E.M. & C.A. McCulloch [under contract to Moolarben Coal Mines]
71	Mid-Western Regional Council	159	Moolarben Coal Mines Pty Limited
72	Ulan Electricity	160a,b	Minister of Education
73	R.L. Pralpot	161	Moolarben Coal Mines Pty Limited
74	J.E. Simpson	162	D.M. Harrison
75	P. Ban	163	C.M. & J.J. Key
76	B.G. Jackson	164	J.J. Key
77	D.H. & G.E. Fletcher	165	Moolarben Coal Mines Pty Limited
78	B. & F.V. Power	166	C.M. Key
79	P. T.J. & S.E. Nagle	167	Moolarben Coal Mines Pty Limited
80	W. & D.I. Sebelic	168	Anglican Property Trust
81	K.J. & B.J. Condran	169	E.H. & R.J. Tinker
82	M. & E. Petrovics	170	W. & T. Roberts
83	C.F. & C.R. Wall	171	J.M. McGregor
84	D.S. Sebelic	172	A. & T. Kimber
85	J. & Z. Nikolovski	173	H. Richter
86	K. Spencer		
87	B.J. & K. Howe		

**APPENDIX 6  
ULAN VILLAGE**

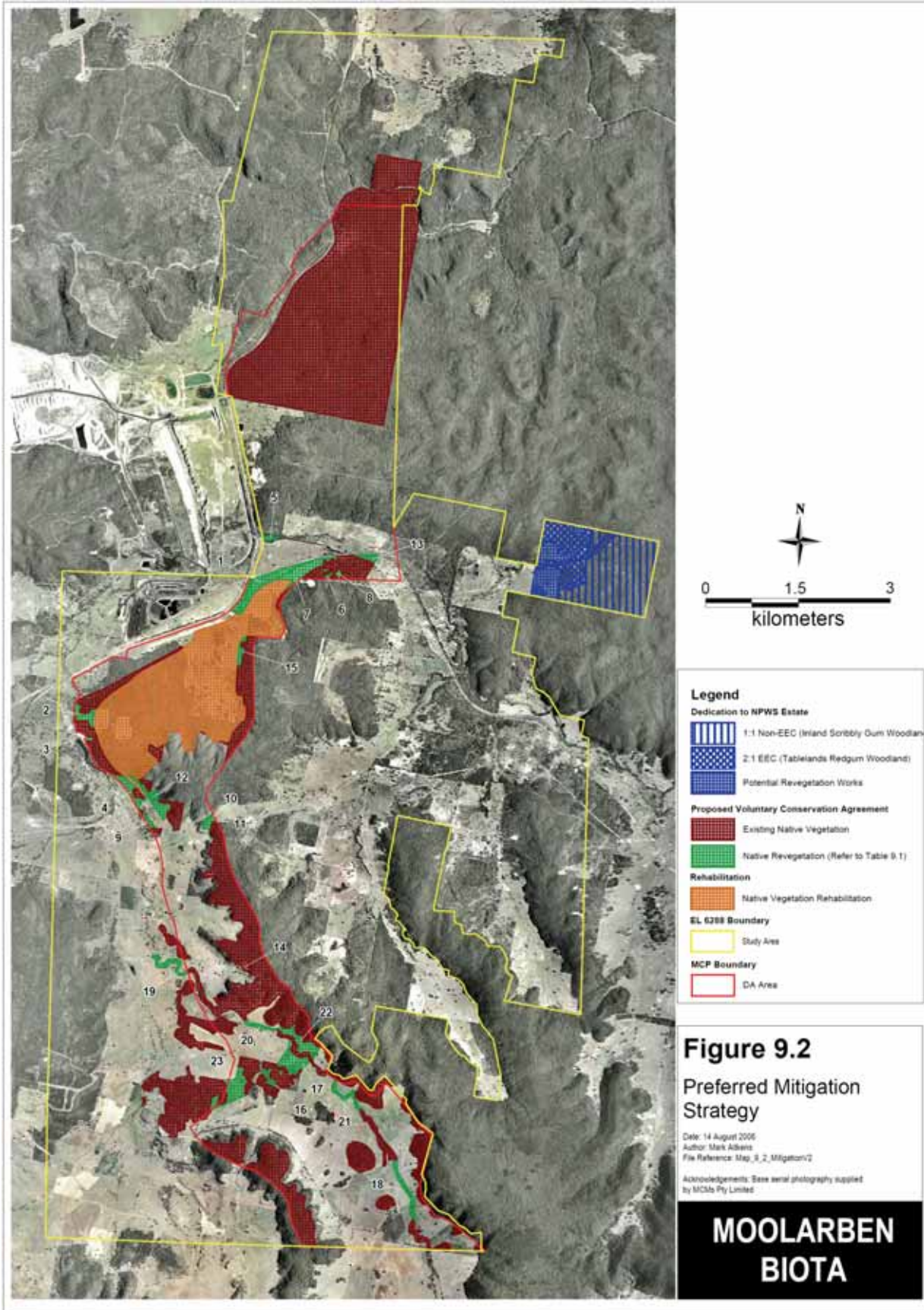


APPENDIX 7  
UNDERGROUND MINE LAYOUT AND LOCATION OF SENSITIVE NATURAL FEATURES



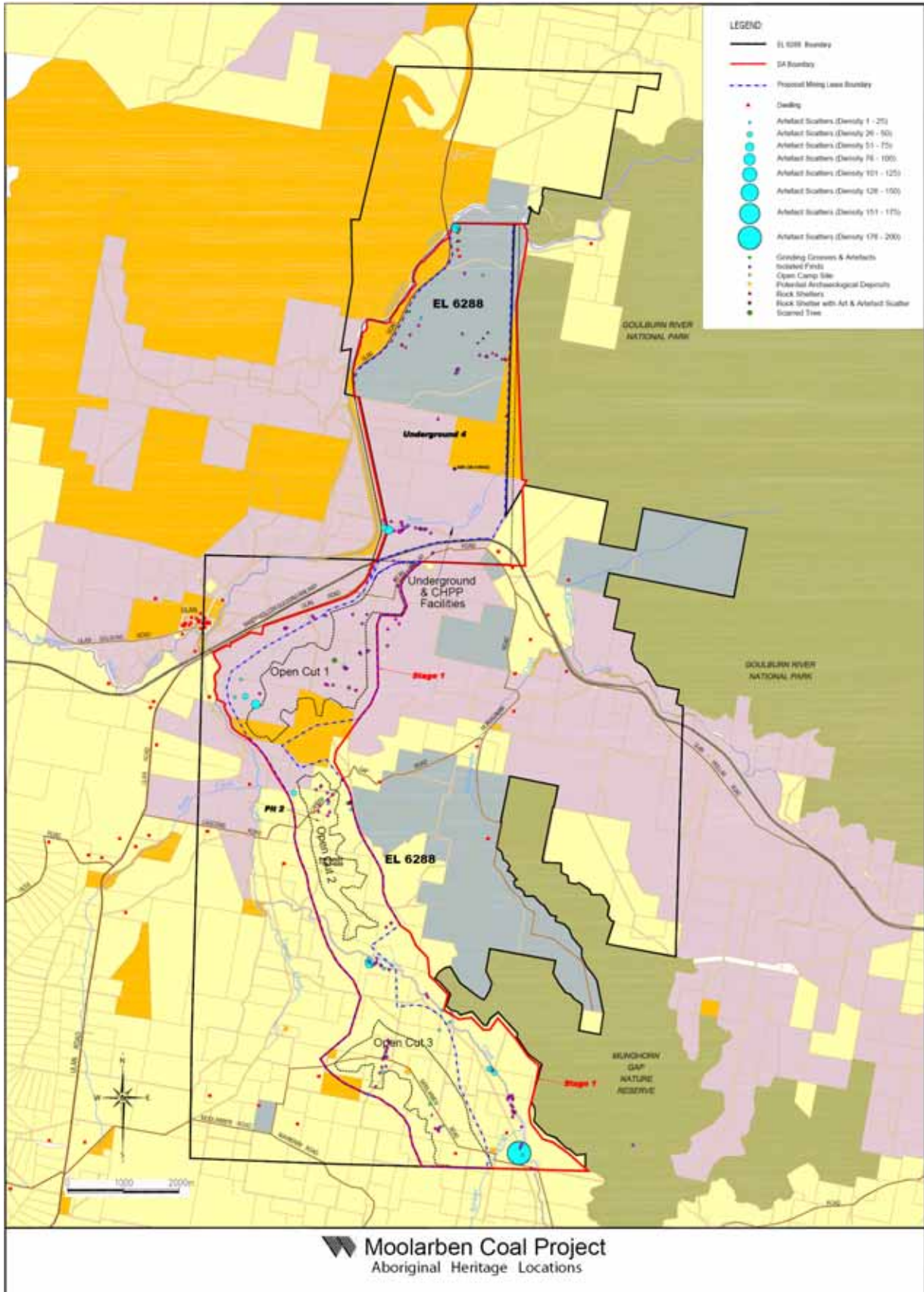








## APPENDIX 9 ABORIGINAL HERITAGE



Site Name	Site Type	X Centre	Y Centre	Artefact Density	Management Recommendation
S1MC1	Scarred Tree	760670	6424444	1	Left insitu
S1MC2	Artefact Scatter	760840	6424339	14	Surface Collection
S1MC3	Isolated Find	760846	6424309	1	Surface Collection
S1MC4	Isolated Find	760866	6424307	1	Surface Collection
S1MC5	Artefact Scatter	760867	6424306	3	Surface Collection
S1MC6	Isolated Find	760890	6424301	1	Surface Collection
S1MC7	Isolated Find	760867	6424294	1	Surface Collection
S1MC8	Isolated Find	760548	6424002	1	Surface Collection
S1MC9	Isolated Find	760508	6424018	1	Surface Collection
S1MC10	Isolated Find	760645	6424004	1	Surface Collection
S1MC11	Artefact Scatter	760924	6423968	3	Surface Collection
S1MC12	Isolated Find	760933	6423948	1	Surface Collection
S1MC13	Isolated Find	761054	6423910	1	Surface Collection
S1MC14	Isolated Find	761050	6423907	1	Surface Collection
S1MC15	Isolated Find	761252	6425269	1	Surface Collection
S1MC16	Isolated Find	761168	6425107	1	Surface Collection
S1MC17	Isolated Find	760997	6425271	1	Surface Collection
S1MC18	Isolated Find	759777	6425026	1	Conservation
S1MC19	Isolated Find	759786	6425012	1	Conservation
S1MC20	Isolated Find	759816	6425028	1	Conservation
S1MC21	Isolated Find	760296	6425214	1	Conservation
S1MC 22	Isolated Find	760297	6425216	1	Conservation
S1MC 23	Isolated Find	760269	6425239	1	Conservation
S1MC24	Isolated Find	760514	6425250	1	Surface Collection
S1MC25	Isolated Find	761802	6425783	1	Surface Collection
S1MC26	Isolated Find	761766	6425183	1	Conservation
S1MC27	Isolated Find	761828	6425100	1	Conservation
S1MC28	Isolated Find	761627	6425002	1	Conservation
S1MC29	Isolated Find	761619	6424707	1	Conservation
S1MC30	Isolated Find	761135	6424559	1	Surface Collection
S1MC31	Isolated Find	761132	6424567	1	Surface Collection
S1MC32	Isolated Find	761124	6424585	1	Surface Collection
S1MC33	Isolated Find	761125	6424584	1	Surface Collection
S1MC34	Isolated Find	761128	6424583	1	Surface Collection
S1MC35	Isolated Find	761125	6424584	1	Surface Collection
S1MC36	Isolated Find	761255	6424616	1	Conservation
S1MC37	Isolated Find	761255	6424616	1	Conservation
S1MC38	Isolated Find	761279	6424617	1	Conservation
S1MC39	Isolated Find	761279	6424617	1	Conservation
PAD 1	Pad 1	761452	6424581	N/A	Conservation
PAD 2	Pad 2	761265	6423464	N/A	Conservation
PAD 3	Pad 3	761265	6423392	N/A	Conservation

Site Name	Site Type	X Centre	Y Centre	Artefact Density	Management Recommendation
S1MC40	Artefact Scatter	760441	6421958	12	Test Excavations and Salvage
S1MC41	Isolated Find	760384	6421732	1	Test Excavations and Salvage
S1MC42	Isolated Find	760408	6421838	1	Test Excavations and Salvage
S1MC43	Artefact Scatter	760558	6421874	9	Test Excavations and Salvage
S1MC44	Isolated Find	760550	6421657	1	Test Excavations and Salvage
S1MC45	Isolated Find	760582	6421721	1	Test Excavations and Salvage
S1MC46	Isolated Find	760547	6421941	1	Test Excavations and Salvage
S1MC47	Isolated Find	760637	6422033	1	Test Excavations and Salvage
S1MC48	Isolated Find	760569	6421916	1	Test Excavations and Salvage
S1MC49	Isolated Find	760543	6422069	1	Test Excavations and Salvage
S1MC50	Isolated Find	760340	6422126	1	Test Excavations and Salvage
S1MC51	Isolated Find	760434	6422195	1	Test Excavations and Salvage
S1MC52	Isolated Find	760422	6422175	1	Test Excavations and Salvage
S1MC53	Artefact Scatter	759942	6422062	39	Conservation
S1MC54	Artefact Scatter	760966	6421764	3	Conservation
S1MC55	Rockshelter&Artefacts	760964	6421902	8	Conservation
S1MC56	Rockshelter&Artefacts	760936	6421882	1	Conservation
S1MC57	Artefact Scatter	760906	6421882	16	Conservation
S1MC58	Artefact Scatter	761241	6419040	10	Conservation
S1MC59	Artefact Scatter	761274	6419089	8	Conservation
S1MC60	Artefact Scatter	761555	6418906	12	Conservation
S1MC61	Isolated Find	761650	6418891	1	Conservation
S1MC62	Isolated Find	761503	6418958	1	Conservation
S1MC63	Isolated Find	761502	6418979	1	Conservation
S1MC64	Isolated Find	761502	6418979	1	Conservation
S1MC65	Isolated Find	761382	6418984	1	Conservation
S1MC66	Artefact Scatter	761345	6418974	24	Conservation
S1MC67	Artefact Scatter	761298	6418996	52	Conservation
S1MC68	Isolated Find	761300	6419026	1	Conservation
S1MC69	Isolated Find	761300	6419031	1	Conservation
S1MC70	Isolated Find	761427	6419023	1	Conservation
S1MC71	Isolated Find	761427	6419023	1	Conservation
S1MC72	Isolated Find	761421	6419023	1	Conservation
S1MC73	Isolated Find	761429	6419089	1	Conservation
S1MC74	Isolated Find	761687	6419730	1	Conservation
S1MC75	Isolated Find	761683	6419722	1	Conservation
S1MC76	Isolated Find	761683	6419722	1	Conservation
S1MC77	Isolated Find	761597	6419653	1	Conservation
PAD 4	Pad 4	761685	6419735	N/A	Conservation



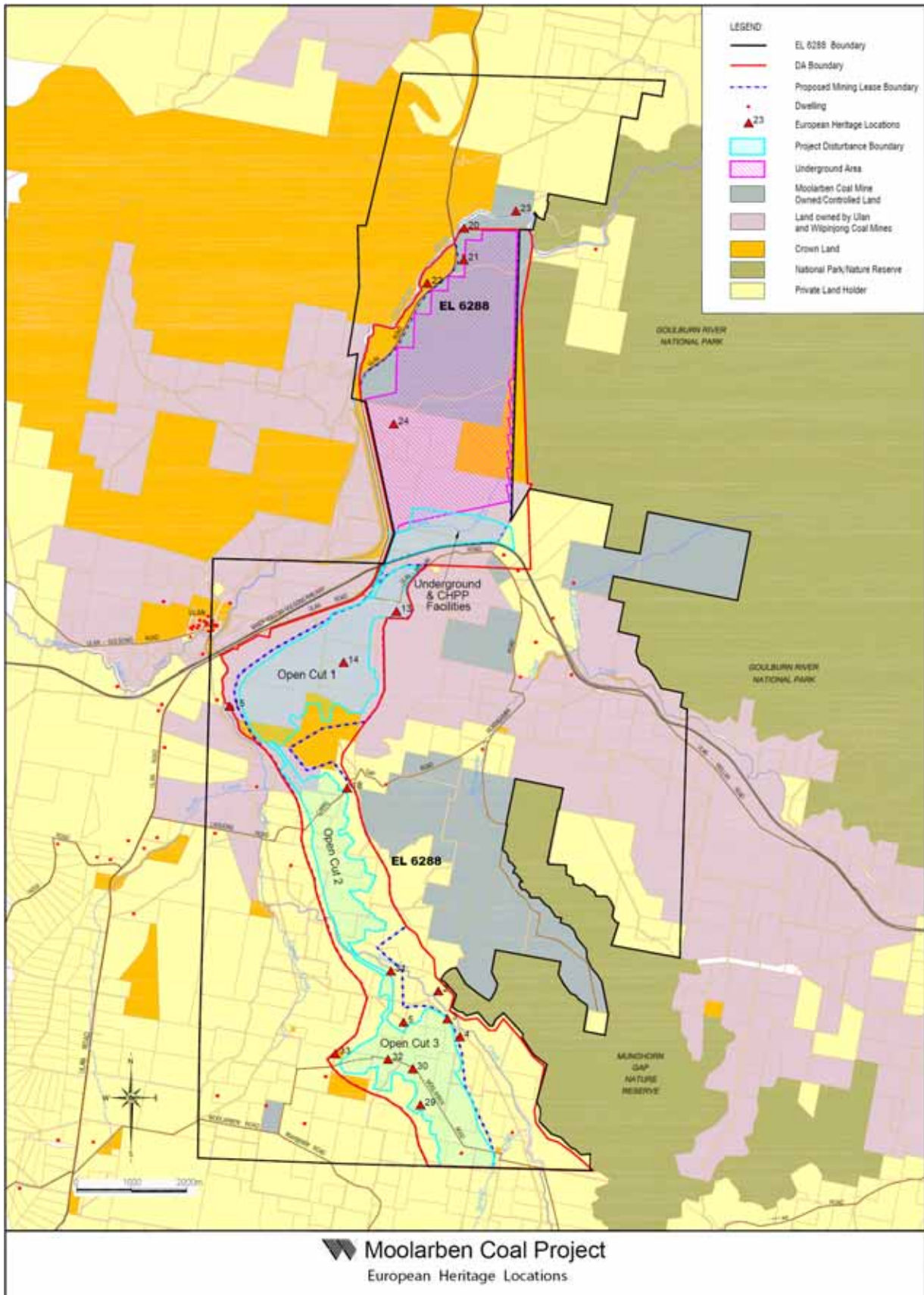
Site Name	Site Type	X Centre	Y Centre	Artefact Density	Management Recommendation
PAD 5	Pad 5	761685	6419735	N/A	Conservation
PAD 6	Pad 6	761341	6420748	N/A	Conservation
36-3-0222	Artefact Scatter	760420	6420820	6	Intensive Recording and Salvage
36-3-0223	Isolated Find	760420	6420880	1	Intensive Recording and Salvage
S1MC78	Artefact Scatter	761628	6417183	12	Test Excavations and Salvage
S1MC79	Isolated Find	761592	6417154	1	Test Excavations and Salvage
S1MC80	Isolated Find	761535	6417281	1	Surface Collection
S1MC81	Isolated Find	761547	6417308	1	Surface Collection
S1MC82	Isolated Find	761563	6417309	1	Surface Collection
S1MC83	Isolated Find	761557	6417330	1	Surface Collection
S1MC84	Artefact Scatter	761580	6417360	6	Surface Collection
S1MC85	Isolated Find	761613	6417323	1	Surface Collection
S1MC86	Isolated Find	761612	6417508	1	Surface Collection
S1MC87	Isolated Find	761615	6417500	1	Surface Collection
S1MC88	Isolated Find	761608	6417465	1	Surface Collection
S1MC89	Isolated Find	761591	6417421	1	Surface Collection
S1MC90	Isolated Find	761579	6417403	1	Surface Collection
S1MC91	Isolated Find	761631	6417624	1	Surface Collection
S1MC92	Isolated Find	761659	6417596	1	Surface Collection
S1MC93	Isolated Find	761659	6417588	1	Surface Collection
S1MC94	Artefact Scatter	761638	6417728	3	Surface Collection
S1MC95	Isolated Find	762537	6415994	1	Surface Collection
S1MC96	Isolated Find	762530	6416009	1	Surface Collection
S1MC97	Isolated Find	762523	6416029	1	Surface Collection
S1MC98	Isolated Find	762475	6416038	1	Surface Collection
S1MC99	Isolated Find	762553	6416059	1	Surface Collection
S1MC100	Isolated Find	762414	6416282	1	Surface Collection
S1MC101	Isolated Find	762415	6416282	1	Surface Collection
S1MC102	Artefact Scatter	762379	6416477	3	Surface Collection
S1MC103a	Artefact Scatter	762693	6416081	2	Surface Collection
S1MC103	Artefact Scatter	763978	6415601	184	Conservation
S1MC104	Artefact Scatter	764042	6415564	4	Conservation
S1MC105	Isolated Find	763996	6415683	1	Conservation
S1MC106	Isolated Find	764013	6415735	1	Conservation
S1MC107	Isolated Find	766017	6415739	1	Conservation
S1MC108	Isolated Find	764026	6415756	1	Conservation
S1MC109	Isolated Find	764023	6416068	1	Conservation
S1MC110	Isolated Find	764118	6416246	1	Conservation
S1MC111	Isolated Find	764135	6416310	1	Conservation
S1MC112	Isolated Find	764136	6416312	1	Conservation
S1MC113	Isolated Find	764140	6416326	1	Conservation
S1MC114	Isolated Find	764148	6416337	1	Conservation
S1MC115	Isolated Find	764124	6416425	1	Conservation
S1MC116	Isolated Find	764114	6416357	1	Conservation
S1MC117	Isolated Find	764095	6416462	1	Conservation

Site Name	Site Type	X Centre	Y Centre	Artefact Density	Management Recommendation
S1MC118	Isolated Find	764026	6416575	1	Conservation
S1MC119	Isolated Find	764027	6416566	1	Conservation
S1MC120	Isolated Find	764095	6416601	1	Conservation
S1MC121	Isolated Find	764111	6416632	1	Conservation
S1MC122	Isolated Find	764066	6416619	1	Conservation
S1MC123	Isolated Find	764064	6416622	1	Conservation
S1MC124	Isolated Find	764070	6416630	1	Conservation
S1MC125	Isolated Find	764058	6416612	1	Conservation
S1MC126	Isolated Find	764056	6416612	1	Conservation
S1MC127	Isolated Find	764121	6416573	1	Conservation
S1MC128	Isolated Find	764161	6416333	1	Conservation
S1MC129	Isolated Find	764118	6416557	1	Conservation
S1MC130	Artefact Scatter	762600	6418163	23	Conservation
S1MC131	Isolated Find	762763	6418104	1	Conservation
S1MC132	Artefact Scatter	763451	6417107	33	Conservation
S1MC133	Artefact Scatter	763477	6417119	7	Conservation
S1MC134	Isolated Find	763507	6417086	1	Conservation
S1MC135	Artefact Scatter	763535	6417042	32	Conservation
S1MC136	Artefact Scatter	762737	6417948	5	Conservation
S1MC137	Isolated Find	762338	6418398	1	Conservation
S1MC138	Isolated Find	762315	6418451	1	Conservation
S1MC139	Artefact Scatter	762549	6417807	23	Test Excavations and Salvage
S1MC140	Artefact Scatter	761278	6416654	4	Conservation
S1MC141	Isolated Find	761409	6416796	1	Test Excavations and Salvage
S1MC142	Isolated Find	761479	6417036	2	Test Excavations and Salvage
S1MC143	Artefact Scatter	761535	6417066	3	Test Excavations and Salvage
S1MC144	Isolated Find	761519	6417142	1	Test Excavations and Salvage
PAD 8	Pad 8	761478	6421053	0	Conservation
PAD 9	Pad 9	761552	6421040	0	Conservation
PAD 10	Pad 10	761551	6421051	0	Conservation
PAD 11	Pad 11	761426	6420964	0	Conservation
PAD 12	Pad 12	761318	6420832	0	Conservation
S1MC225	Isolated Find	761752	6425887	1	Conservation
S1MC226	Isolated Find	761726	6426232	1	Conservation
S1MC227	Isolated Find	761825	6426206	1	Conservation
S1MC228	Artefact Scatter	762428	6426370	13	Conservation
S1MC229	Isolated Find	762430	6426375	1	Conservation
S1MC230	Artefact Scatter	761640	6426786	69	Test Excavations and Salvage
S1MC231	Isolated Find	761907	6426804	1	Test Excavations and Salvage
S1MC232	Isolated Find	761926	6426825	1	Test Excavations and Salvage

Site Name	Site Type	X Centre	Y Centre	Artefact Density	Management Recommendation
S1MC233	Artefact Scatter	761954	6426840	2	Test Excavations and Salvage
S1MC234	Isolated Find	761990	6426858	1	Test Excavations and Salvage
S1MC235	Isolated Find	762126	6426823	1	Test Excavations and Salvage
S1MC236	Artefact Scatter	762199	6426811	14	Test Excavations and Salvage
S1MC237	Isolated Find	762202	6426805	1	Test Excavations and Salvage
S1MC238	Isolated Find	762211	6426803	1	Test Excavations and Salvage
S1MC239	Isolated Find	762220	6426805	1	Test Excavations and Salvage
S1MC240	Artefact Scatter	762231	6426802	7	Test Excavations and Salvage
S1MC241	Artefact Scatter	762272	6426800	10	Test Excavations and Salvage
S1MC242	Isolated Find	762291	6426800	1	Test Excavations and Salvage
S1MC243	Isolated Find	762310	6426800	1	Test Excavations and Salvage
S1MC244	Artefact Scatter	761552	6426828	30	Conservation
S1MC245	Isolated Find	761747	6426767	1	Test Excavations and Salvage
S1MC246	Isolated Find	761820	6426775	1	Test Excavations and Salvage
S1MC247	Isolated Find	761831	6426745	1	Test Excavations and Salvage
S1MC248	Isolated Find	761863	6426758	1	Test Excavations and Salvage
S1MC249	Isolated Find	761863	6426771	1	Test Excavations and Salvage
S1MC250	Isolated Find	761860	6426773	1	Test Excavations and Salvage
S1MC252	Isolated Find	761867	6426779	1	Test Excavations and Salvage
S1MC253	Isolated Find	761870	6426772	1	Test Excavations and Salvage
S1MC254	Artefact Scatter	763332	6431357	2	Conservation
S1MC255	Isolated Find	763332	6431357	1	Conservation
S1MC256	Artefact Scatter	762878	6429620	23	Monitor subsidence
S1MC257	Artefact Scatter	762850	6429600	4	Conservation
S1MC258	Artefact Scatter	762865	6429652	2	Conservation
S1MC259	Isolated Find	762889	6429671	1	Conservation
S1MC260	Isolated Find	762849	6429605	1	Conservation
S1MC261	Rockshelter&Artefact	762876	6429660	2	Conservation
S1MC262	Isolated Find	762876	6429676	1	Conservation
S1MC263	Isolated Find	762177	6430458	1	Conservation
S1MC264	Grinding Grooves &Artefacts	762010	6430705	78	Monitor subsidence: Intensive recording.
S1MC265	Artefact Scatter	762224	6430592	3	Conservation
S1MC266	Isolated Find	763000	6431393	1	Conservation
S1MC267	Rockshelter&Artefact	761945	6430063	10	Monitor subsidence

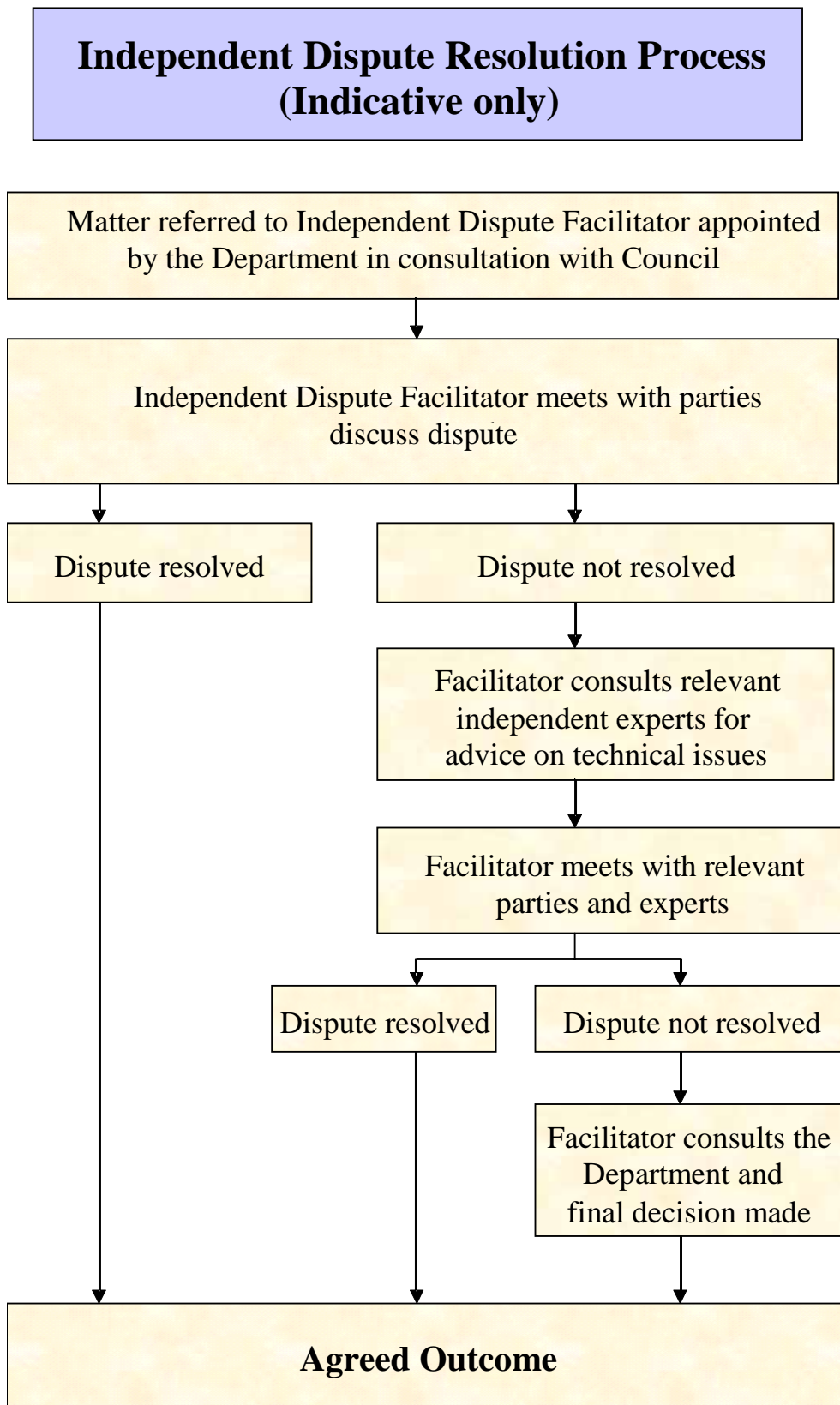
Site Name	Site Type	X Centre	Y Centre	Artefact Density	Management Recommendation
S1MC268	Isolated Find	761875	6430102	1	Conservation
S1MC269	Isolated Find	761882	6430110	1	Conservation
S1MC270	Isolated Find	762024	6430287	1	Monitor subsidence
S1MC271	Rockshelter&Artefacts	763749	6428829	8	Monitor subsidence
S1MC272	Artefact Scatter	763827	6428747	2	Conservation
S1MC273	Isolated Find	762660	642864	1	Conservation
S1MC274	Isolated Find	761580	6426932	1	Conservation
S1MC275	Isolated Find	761878	6426869	1	Conservation
S1MC276	Isolated Find	761877	6426917	1	Conservation
S1MC277	Isolated Find	761862	6426931	1	Conservation
S1MC278	Isolated Find	761688	6426940	1	Conservation
S1MC279	Isolated Find	761551	6426963	1	Conservation
S1MC280	Rockshelter&Artefacts	762822	6427883	45	Monitor subsidence: Intensive recording.
S1MC281	Artefact Scatter	762865	6432219	11	Monitor subsidence
S1MC282	Artefact Scatter	762851	6432207	65	Monitor subsidence
S1MC283	Rockshelter&Artefacts	762912	6432185	6	Monitor subsidence
S1MC284	Rockshelter&Artefacts	762877	6432127	8	Monitor subsidence
S1MC285	Rockshelter&Artefacts	762905	6431976	2	Monitor subsidence
S1MC286	Rockshelter&Artefacts	762868	6431969	28	Monitor subsidence
S1MC287	Rockshelter&Artefacts	763240	6430143	28	Monitor subsidence: Intensive recording.
S1MC288	Rockshelter&Artefacts	763336	6430223	1	Monitor subsidence: Intensive recording.
S1MC289	Rockshelter&Artefacts	763795	6429838	9	Monitor subsidence: Intensive recording.
S1MC290	Rockshelter&Artefacts	763739	6429835	5	Monitor subsidence: Intensive recording.
S1MC291	Isolated Find	763726	6429853	1	Monitor subsidence: Intensive recording.
S1MC292	Isolated Find	763406	6429904	1	Monitor subsidence: Intensive recording.
S1MC293	Isolated Find	763385	6429901	1	Monitor subsidence: Intensive recording.
S1MC294	Rockshelter&Artefacts	763673	6429849	2	Monitor subsidence: Intensive recording.
S1MC295	Isolated Find	763273	6429928	1	Monitor subsidence: Intensive recording.
S1MC296	Rockshelter&Artefacts	763503	6429961	12	Monitor subsidence: Intensive recording.
S1MC297	Rockshelter&Artefacts	763420	6430329	5	Monitor subsidence: Intensive recording.
PAD 7	Pad 7	763846	6428750	0	Conservation
S1MC298	Artefact Scatter	759258	6423654	75	Test Excavation & Salvage
S1MC299	Isolated Find	759331	6423850	1	Surface Collection
S1MC300	Artefact Scatter	759071	6423798	41	Intensive Recording & Surface Collection
S1MC301	Artefact Scatter	758997	6424100	10	Surface Collection
S1MC302	Artefact Scatter	758881	6423779	20	Surface Collection

## APPENDIX 10 NON-ABORIGINAL HERITAGE



No	Place Name	Impact Status	Significance	Summary Recommendation
2	Farm site. Portion 218. Ph Moolarben	No impact	Local – moderate	No further action required In situ conservation.
3	Burial site, Roberts family. Portion 146, Ph Moolarben	Impact by Open Cut 3 development	Local – high	Exhumation. Discussion to be held with related families.
4	House & burial site. Portion 63, Ph Moolarben	Impact by Open Cut 3 development	Local – moderate	Exhumation. Discussion to be held with related families.
14	House site. Portion 178 Ph Moolarben	Impact by Open Cut 1 development	Local – moderate	Archival recording
15	Moolarben Dam	No impact	Local – moderate	In situ conservation
18	Carr's Gap Road. Portion 30. Ph Moolarben	Impact by Open Cut 2 development likely	Local – moderate	Archival recording In situ conservation. If impacted recovery works to be recommended
19	Farm site. 'Glen Moor', Portion 203 Ph Moolarben	No impact	Local –exceptional	Archival recording. In situ conservation.
20	Grave & memorial garden. Portion 30 Ph Lennox	No impact	Local - high	Area to be maintained.
22	Stock yards. Portion 34 Ph Lennox	No impact	Local – moderate	Archival recording. In situ conservation.
23	Natural environment. 'The Drip'	No impact	Local – high	Ensure public access is maintained
29	House site. Portion 45 Ph Moolarben	Impact by Open Cut 3 development	Local – moderate	Archival recording.
30	School site. Portion 176 Ph Moolarben	Impact by Open Cut 3 development	Local – moderate	Archival recording.
31	House site, Portion 228, Ph Moolarben	No impact	Local – moderate	Archival recording. In situ conservation.
32	House site. Portion 89 Ph Moolarben	Impact by Open Cut 3 development	Local – moderate	Archival recording.
33	Recreation Ground. Portion 204. Ph Moolarben	No impact	Local – moderate	Archival recording. In situ conservation.

APPENDIX 11  
INDEPENDENT DISPUTE RESOLUTION PROCESS



## **APPENDIX 2**

### **Specialist Studies**

Air Quality

Acoustics

Archaeology

Visual Impacts



## Air Quality



Suite 2B 14 Glen Street,  
Eastwood, NSW 2122  
Phone 61-2-9874-8644  
Fax 61-2-9874-8904  
E-mail : Nigel.Holmes@holmair.com.au  
ACN 003-741-035  
ABN 79-003-741-035

5 August 2008

Jonathan Berry  
Wells Environmental Services Pty Ltd  
3/95 High Street  
East Maitland  
NSW 2323

Dear Jonathan,

**Modifications to Approved Infrastructure arrangements for Moolarben Stage 1**

Thank you for your email dated 1 August 2008 asking for my assessment of the significance, from the perspective of air quality, of modifications to the infrastructure for the Moolarben Stage 1 project. The changes were detailed in two pdf figures attached to the email. These figures are also attached to this letter.

The changes relate to the locations of the CHPP, conveyors, emergency tailings dam, conveyor transfer stations, coal stockpiles, dams and the rail loop.

I confirm that from the point of view of air quality impacts these changes are minor. They would not alter the conclusions of the air quality assessment considered by the Department of Planning.

Yours faithfully,  
Holmes Air Sciences

A handwritten signature in black ink that reads "N.E. Holmes." The signature is written in a cursive, slightly slanted style.

Nigel Holmes PhD  
Atmospheric Physicist











## Acoustics





4 August 2008

Ref: 07289/2708

Mr Alan Wells  
Wells Environmental Services  
PO Box 205  
East Maitland NSW 2323

### NOISE IMPLICATIONS OF VARIATION TO APPROVED MCP LAYOUT

Dear Sir,

Thank you for forwarding drawings of the approved Moolarben Coal Project (MCP) Stage 1 and a proposed amendment in the drawing titled "Proposed S75W 03186F" for acoustic comment.

Having reviewed both plans and the noise assessment conducted by Spectrum Acoustics for the Stage 1 EA, it is evident that only small positional changes are proposed in the vicinity of the CHPP. It is my opinion that the small changes in distances from the approved and proposed source locations would result in a change in noise level no greater than a small fraction of a decibel at any assessed receiver.

The proposed amendments will not result in a measurable change in the noise levels predicted in EA1 and an acoustic re-assessment of the proposed changes is not required to assist with the regulatory authorities' consideration of the modification application.

Please call our office on 4954 2276 if you require further information.

Yours faithfully,

**SPECTRUM ACOUSTICS PTY LIMITED**

A handwritten signature in blue ink, appearing to read 'Neil Pennington', is written over a light blue horizontal line.

Neil Pennington  
Principal/Director

## Archaeology



PO Box 67, Katoomba NSW 2780  
Telephone: 61 2 4782 2733, Mobile: 0423 046 208 Facsimile: 61 2 4782 2933  
Email: A.R.A.S@bigpond.com ABN: 71 106 520 290

Mr Alan Wells  
Project Director  
Wells Environmental Services Pty Ltd  
PO BOX 205  
EAST MAITLAND NSW

1st of August 2008

Dear Alan,

**Re: Aboriginal Heritage Conservation Outcomes for Moolarben Coal  
Project Stage 1 Infrastructure Area: Re-design.**

Following our telephone conversation and your email of today on the above issue, I can confirm that by moving the proposed Infrastructure Area away from North Bora Creek, the following positive conservation outcomes were achieved for Aboriginal Cultural Heritage within Stage 1 of the MCP:

1. Permanent protection of three large open Aboriginal sites containing over 600 surface artefacts (i.e. S1MC 303, S1MC 304, S1MC 305);
2. Permanent protection of three important local Potential Archaeological Deposits contained within the above sites along an important section of Bora Creek; and
3. Increasing significantly the overall number of Aboriginal sites conserved along Bora Creek catchment as a cultural landscape feature.

If you have any queries about this letter or its contents, please don't hesitate to call me at the above numbers.

Yours truly,

Giles Hamm  
Director  
Archaeological Risk Assessment Services Pty Limited.

## Visual Impacts



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**O'HANLON DESIGN PTY LTD  
LANDSCAPE ARCHITECTS**

ABN 44 003 755 986

4 August 2008

Wells Environmental Services  
c/- PO Box 205  
EAST MAITLAND NSW 2323

60 Gladesville Road  
Hunters Hill 2110

Tel (02) 9816 5883  
qoh@qoh.net.au  
Fax (02) 9816 4179

Attention: Mr Alan Wells

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**STAGE 1 - MOOLARBEN COAL PROJECT**

**762-A-02**

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Dear Sir,

Moolarben Coal Operations Pty Ltd seeks to amend the Stage 1 consent for the Moolarben Coal Project. The main changes in the layout are relocation from the north of Bora Creek to south of Bora Creek

- the CHPP
- various conveyors
- emergency tailings stockpiles
- various dams and water retention facilities.

O'Hanlon Design Pty Ltd prepared the visual and lighting impact assessment for the Stage 1 Moolarben Coal Project in May 2006 - ref: 762-Z-05.

Moolarben Coal has provided the following documents for our review to assess the impact of the proposed changes.

- Proposed S75W modification: Pegasus Technical.
- Plan 12a - surface water management plan: Pegasus Technical.
- Plan 4 - Moolarben Coal Project Main Infrastructure Areas: Pegasus Technical.

The proposed changes slightly increase the visual impacts along the Ulan-Wollar Road and slightly reduce the viewers duration of exposure on the Ulan-Cassilis Road. The Ulan-Cassilis Road has been assessed as a primary travel route. Whilst providing a small improvement from locations along the Ulan-Cassilis Road the combined effect of the proposed relocation of the facilities is not significant in the overall visual impact of the Moolarben Coal Project.

Yours faithfully,

Edward (Terry) O'Hanlon  
Director  
O'Hanlon Design Pty Ltd