



Moolarben Coal Mines Pty Limited

**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.

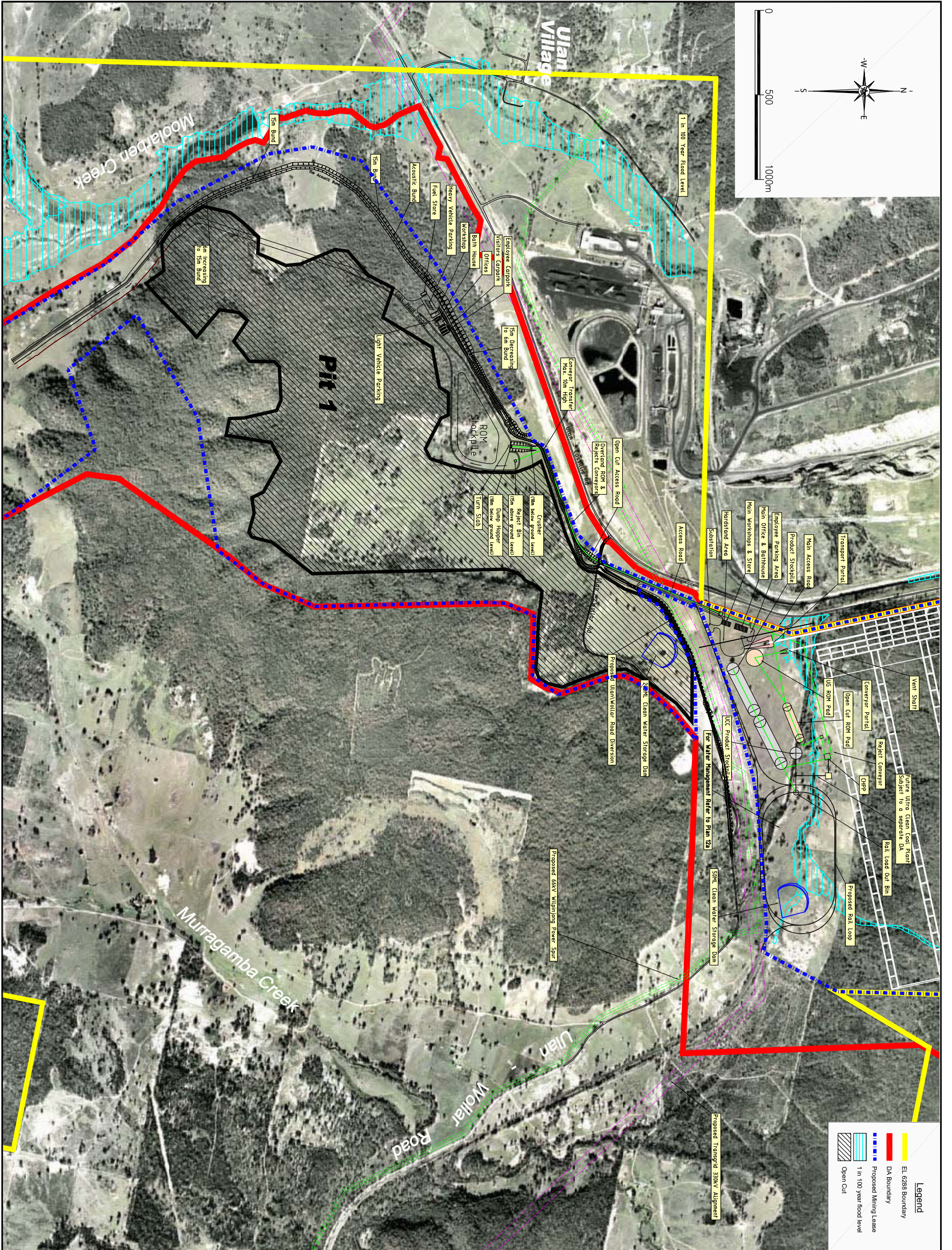
The modifications are considered to be minor, being a rearrangement of certain infrastructure facilities and administrative modifications. The proposed modification will have no additional environmental impacts other than that previously assessed and approved by the Minister for Planning.

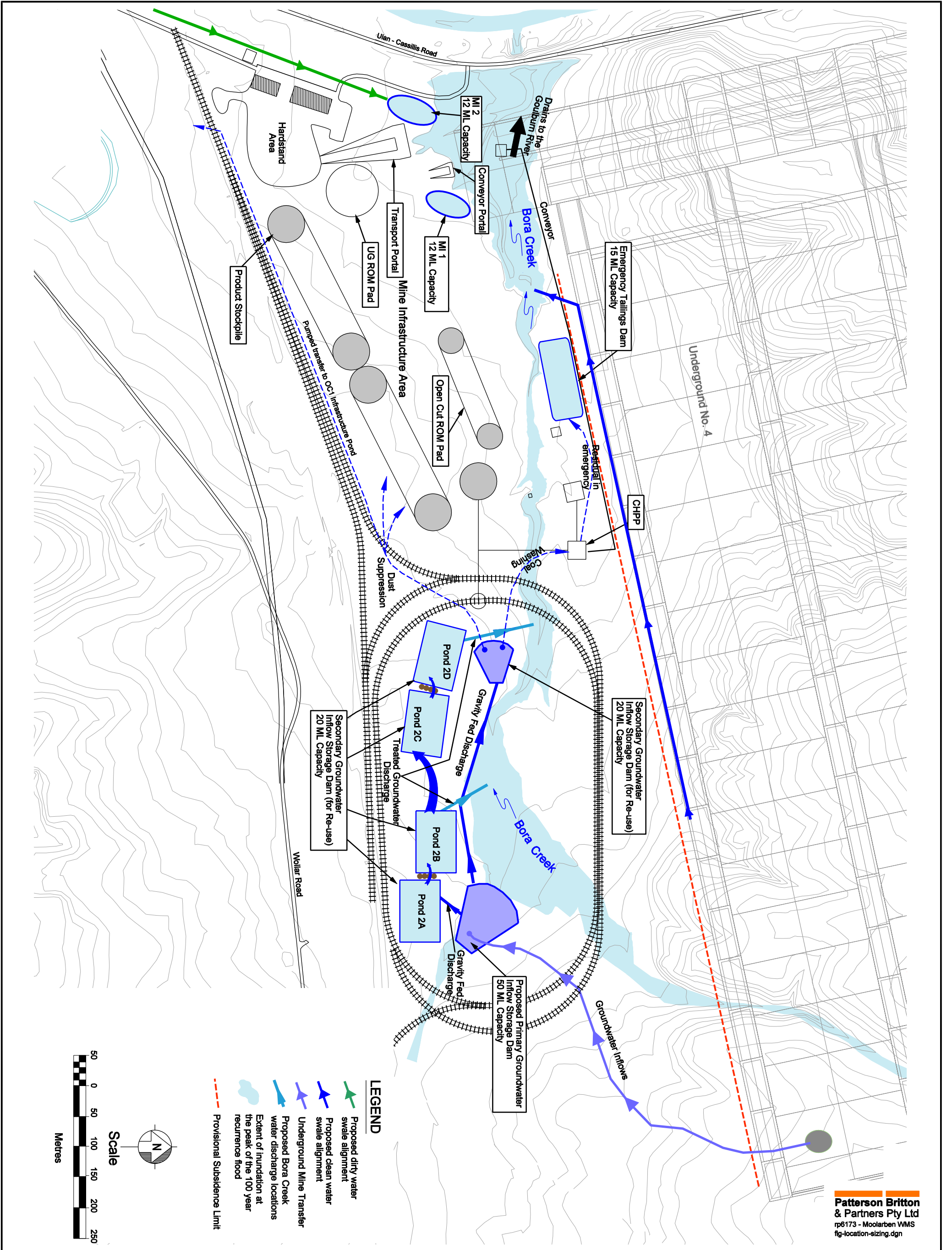
FIGURES

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

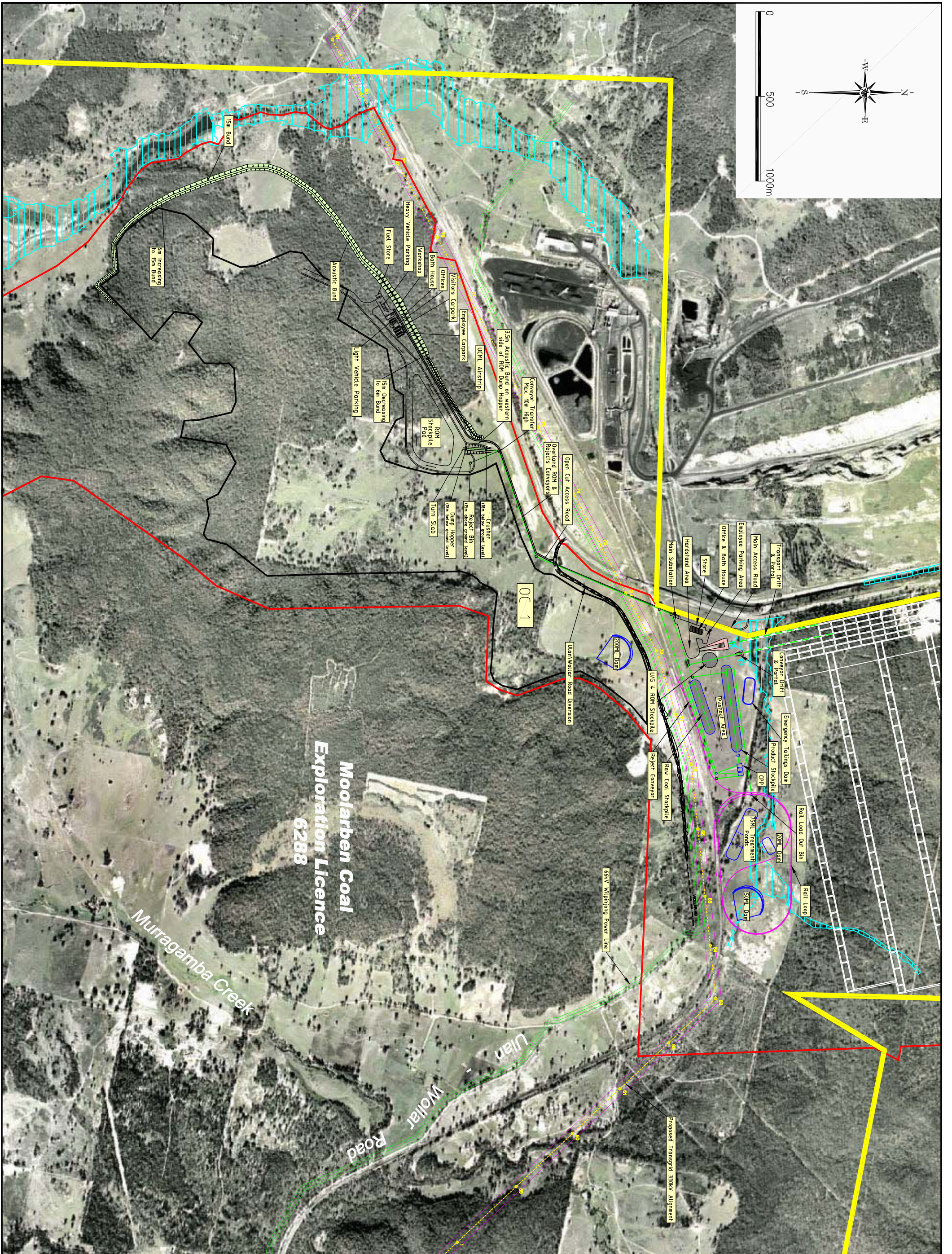
Figure 2: The water management in the infrastructure area as shown by Figure 12a in the Environmental Assessment Report.

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





Patterson Britton & Partners Pty Ltd
 rp6173 - Moolarben WMS
 fig-location-sizing.dgn



Moolarben Coal
Exploration Licence
6288

Murragamba Creek

Ulan Wollar Road

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

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

1. 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

2. 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) 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
- (b) 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 ³ |
| Particulate matter < 10 µm (PM ₁₀) | Annual | 30 µg/m ³ |

Table 8: Short term impact assessment criteria for particulate matter

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

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 ² /month | 4 g/m ² /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 ³ |
| Particulate matter < 10 µm (PM ₁₀) | Annual | 30 µg/m ³ |

Table 11: Short term land acquisition criteria for particulate matter

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

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

²Excludes 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.

³Background PM₁₀ concentrations due to all other sources plus the incremental increase in PM₁₀ concentrations due to the mine alone.

⁴Incremental increase in PM₁₀ 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 ² /month | 4 g/m ² /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.

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).
-

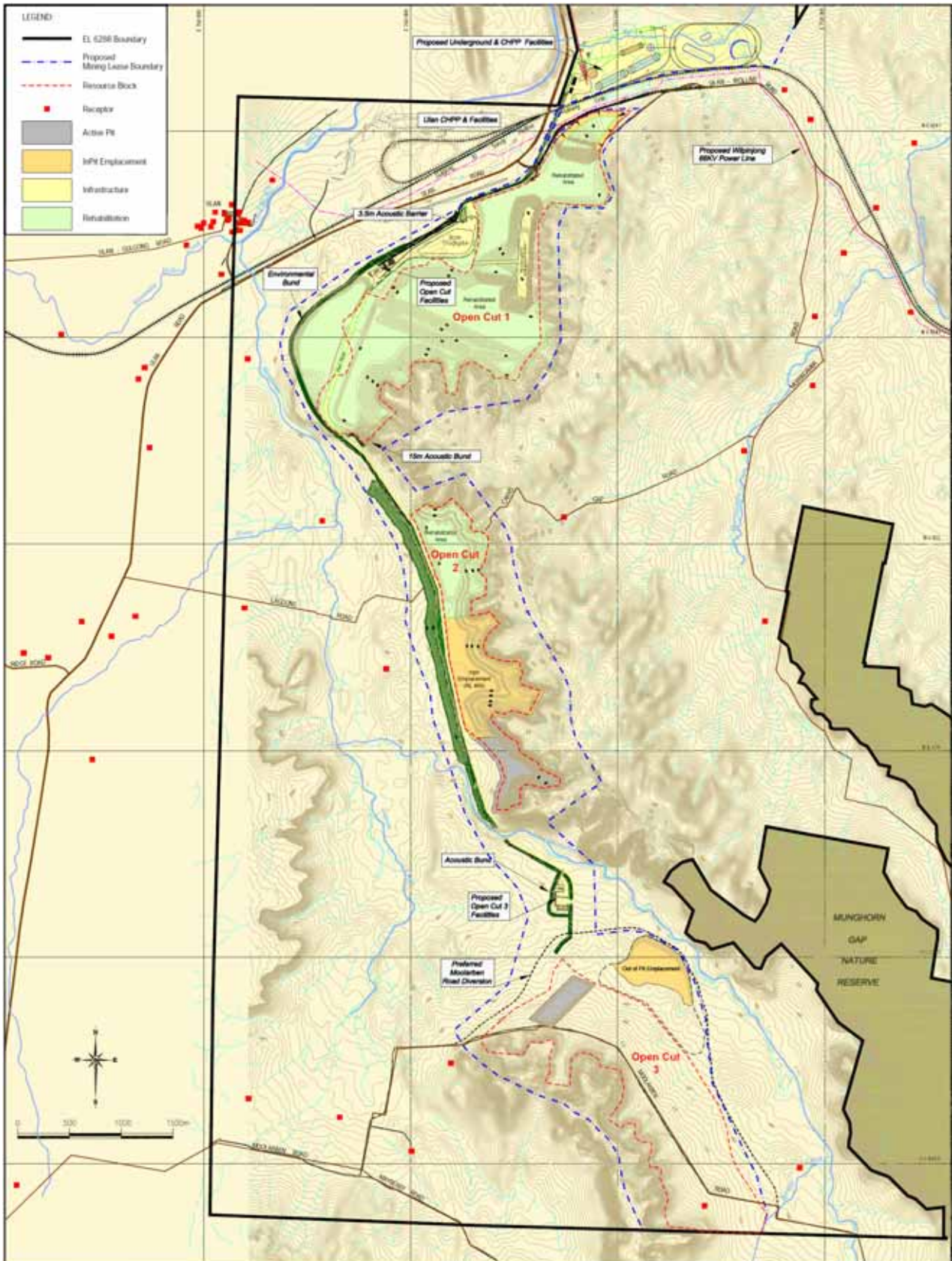
**APPENDIX 1
SCHEDULE OF LAND**

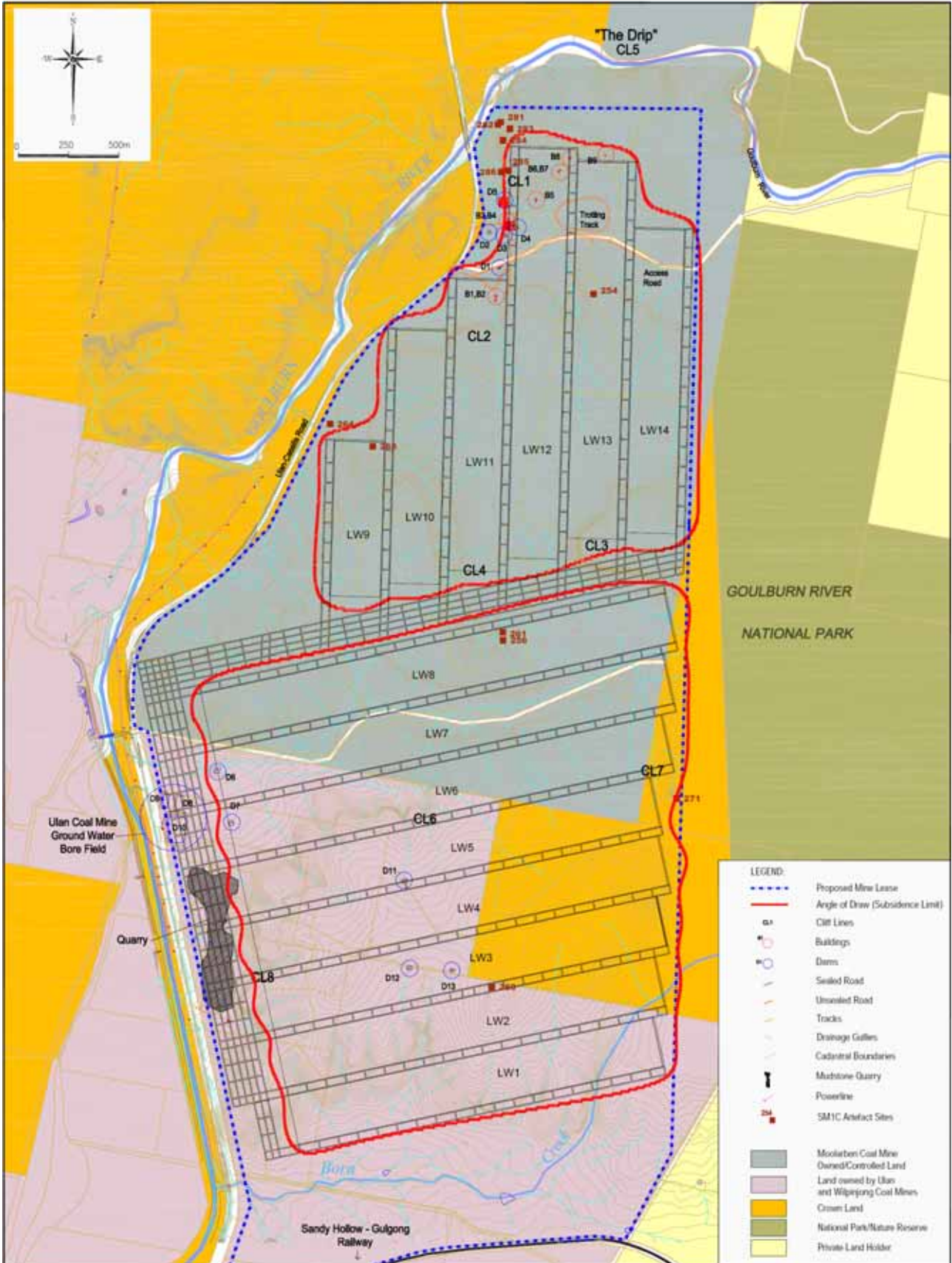
| OWNER | DESCRIPTION | | PARISH | COUNTY |
|--------------------------------|--------------------|-----------|---------------------------|---------------|
| C Mayberry | Pt. Lot 157 | DP 755442 | Moolarben | Phillip |
| C Mayberry | Pt. Lot 6 | DP 115031 | Moolarben | Phillip |
| C Mayberry | Pt. Lot 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 |

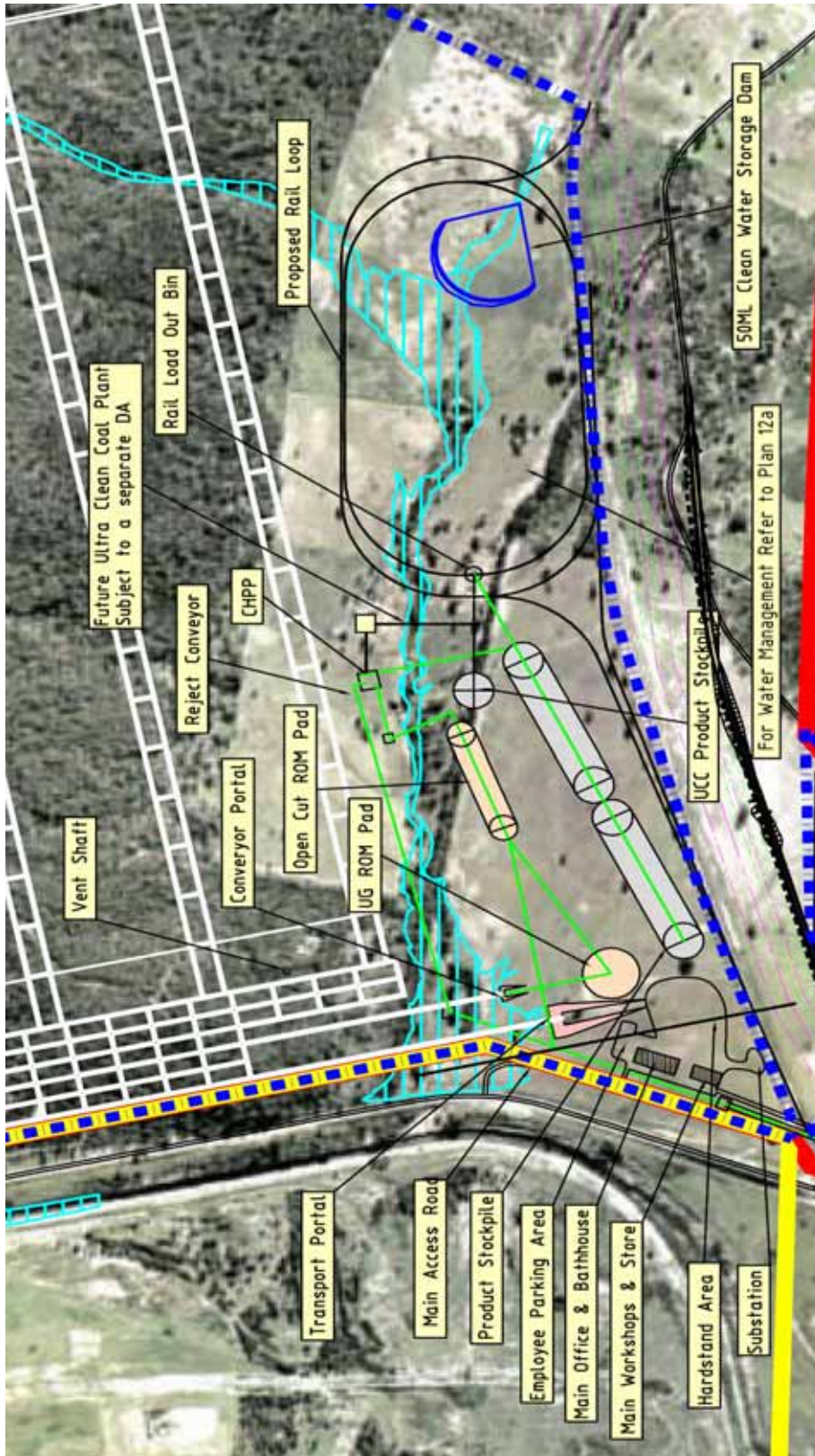
| OWNER | DESCRIPTION | | PARISH | COUNTY |
|----------------------------------|--|-----------|------------------------|---------|
| MJ & PM Swords | Pt. Lot 193 | DP 755442 | Moolarben | Phillip |
| MJ & PM Swords | Pt. Lot 44 | DP 755442 | Moolarben | Phillip |
| MJ & PM Swords | Pt. Lot 62 | DP 755442 | 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**

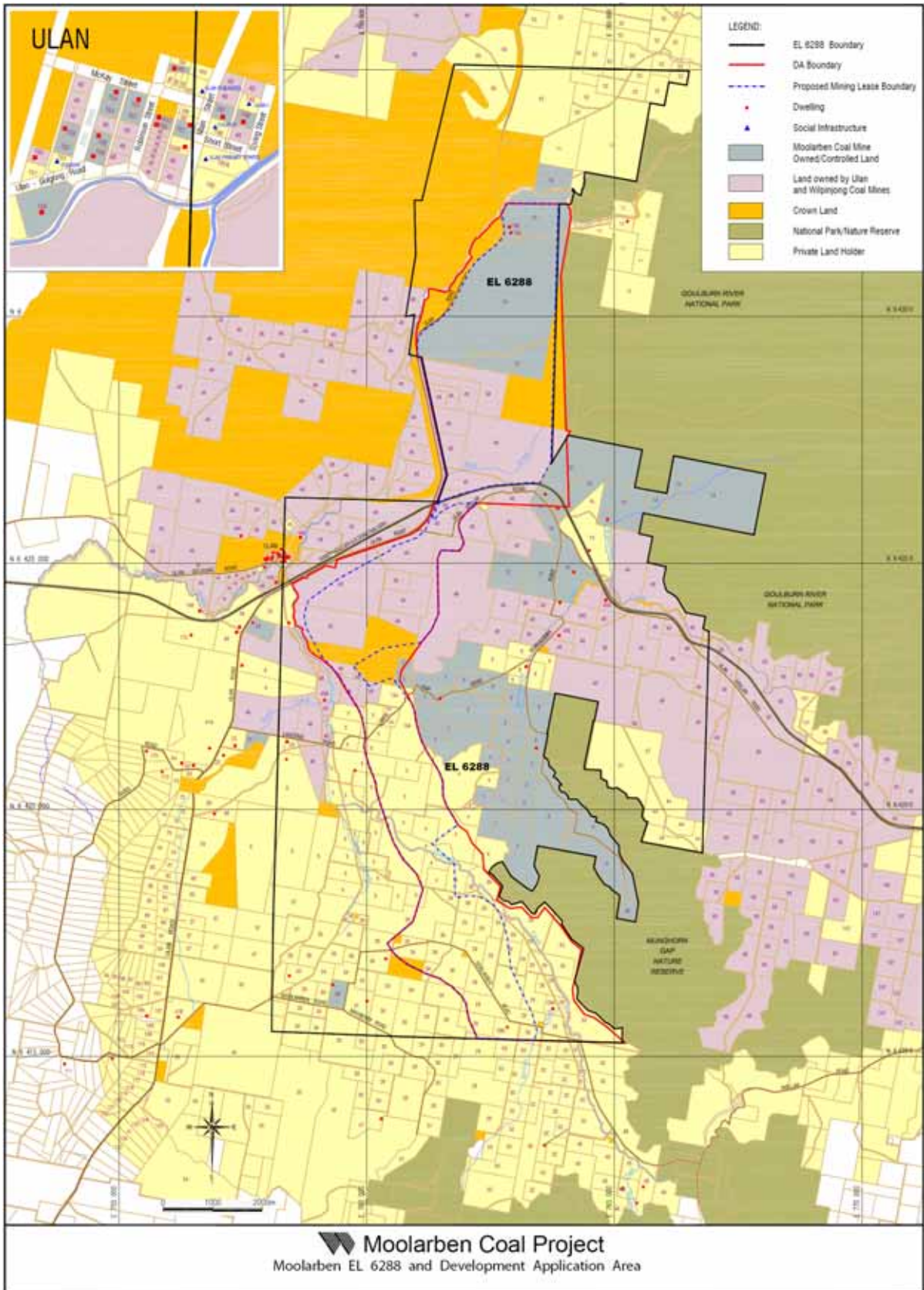
Moolarben acknowledges the need for it to contribute to the upgrade and maintenance of aspects of the local road system affected by the operation of the Moolarben Coal Project and commits to implement the Voluntary Planning Agreement in satisfaction of the principles of that agreement.

**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. |

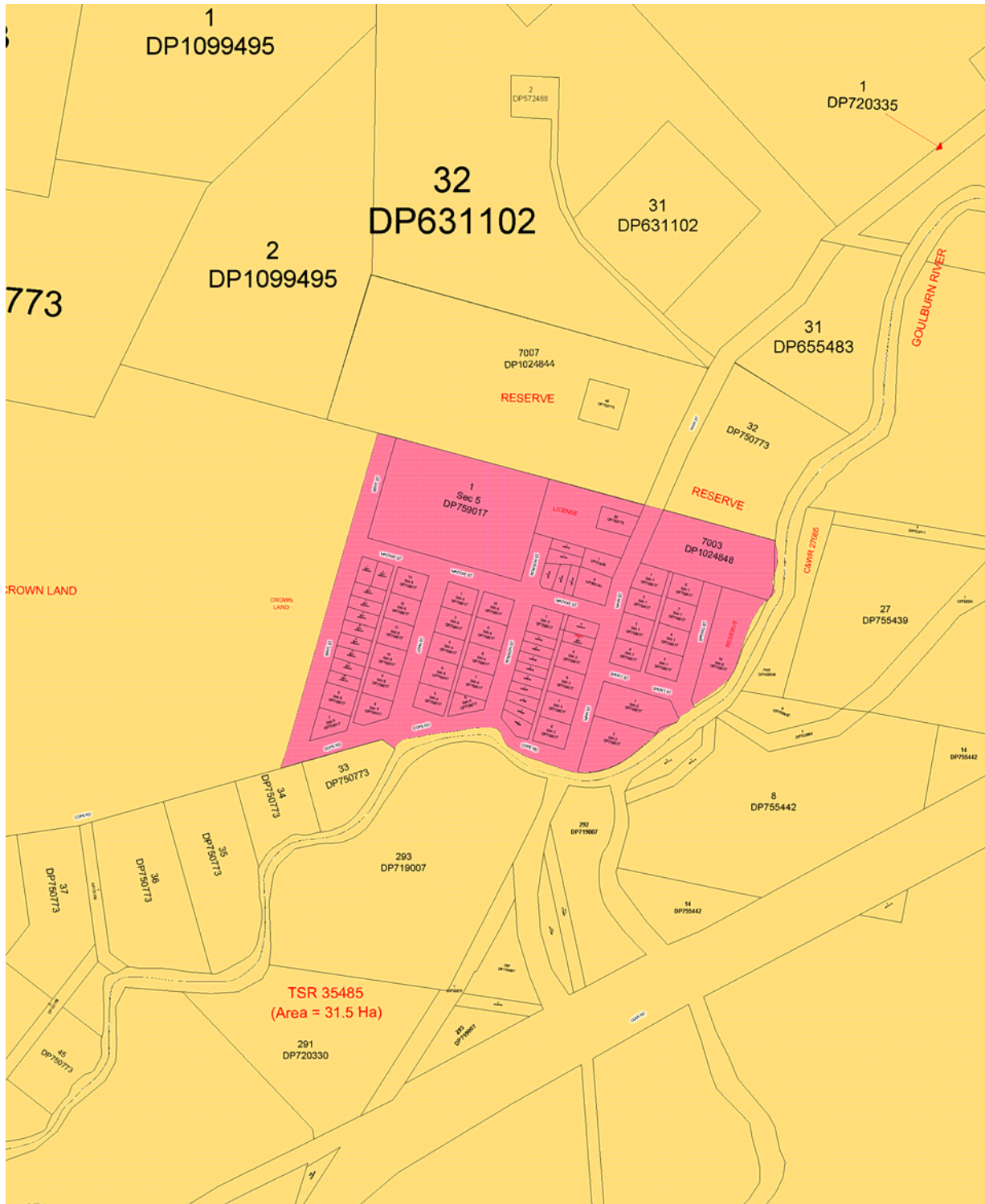
Note: The "Road Maintenance Contribution – General" and "Community Infrastructure Contribution" must be reviewed and adjusted to take into account any increase in the CPI over time.

APPENDIX 5 PROPERTY NUMBERS

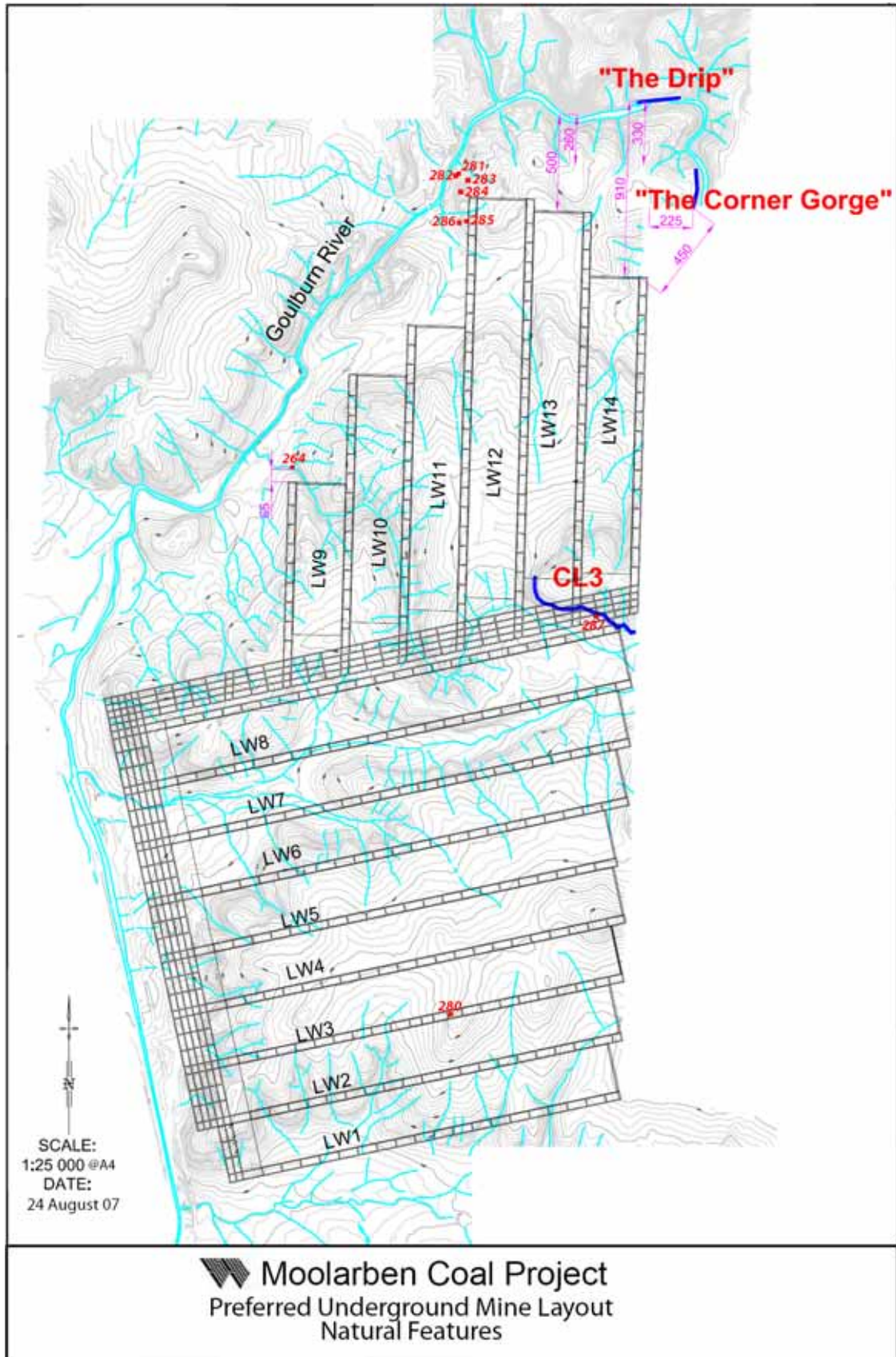


| No | NAME | No. | NAME |
|---------------|--|--------|--|
| 1 | Moolarben Coal Mines Pty Limited | 88 | G.D. & R.A. Walls |
| 2 | Moolarben Coal Mines Pty Limited | 89 | M.V. & H.M. Glover & E. & B.J. Tomlinson |
| 3 | Moolarben Coal Mines Pty Limited | 90 | S.A. Powell |
| 4 | M. Swords | 91 | H.M. 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. Imrie | 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. Redkober |
| 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. Wooley [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



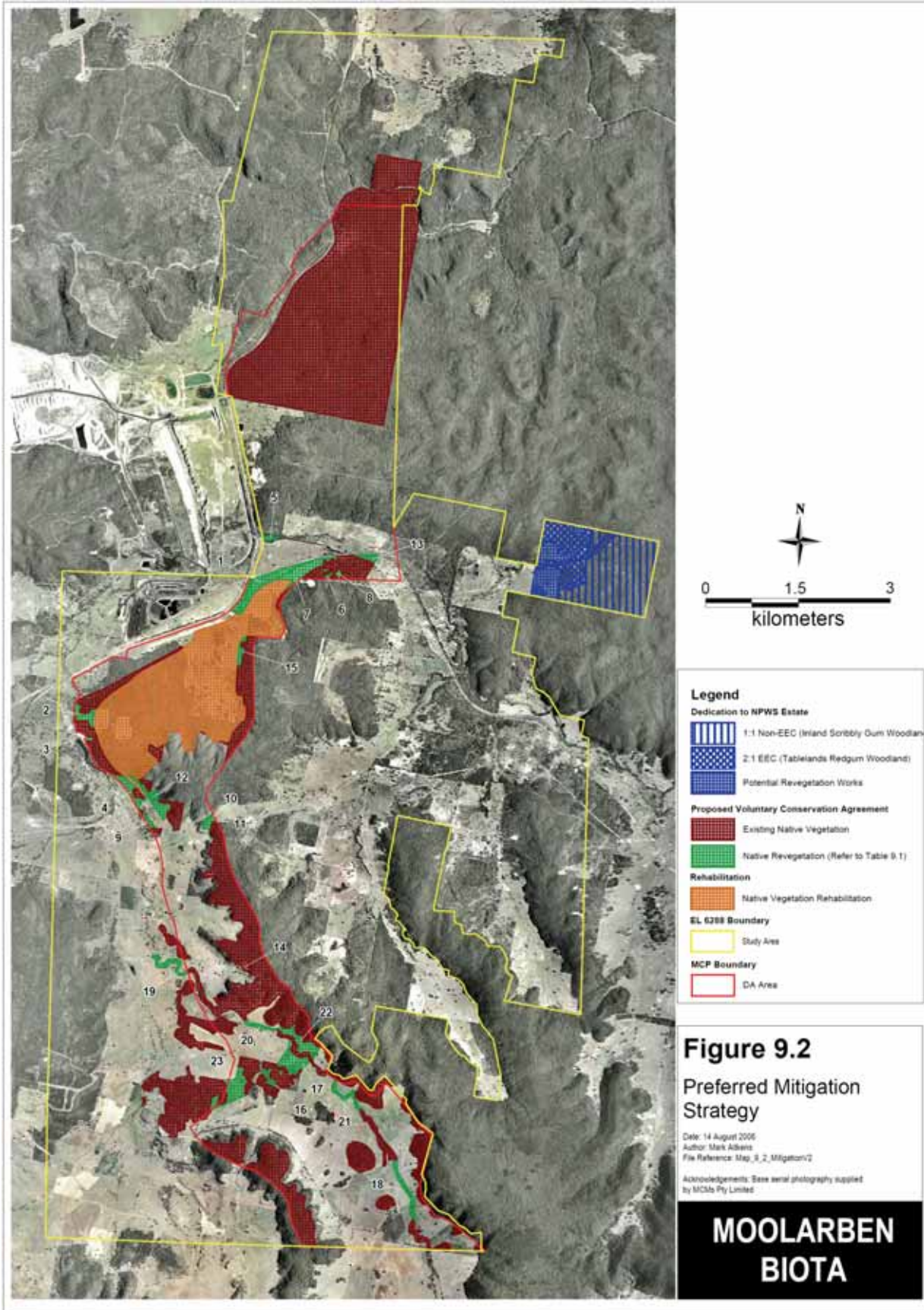
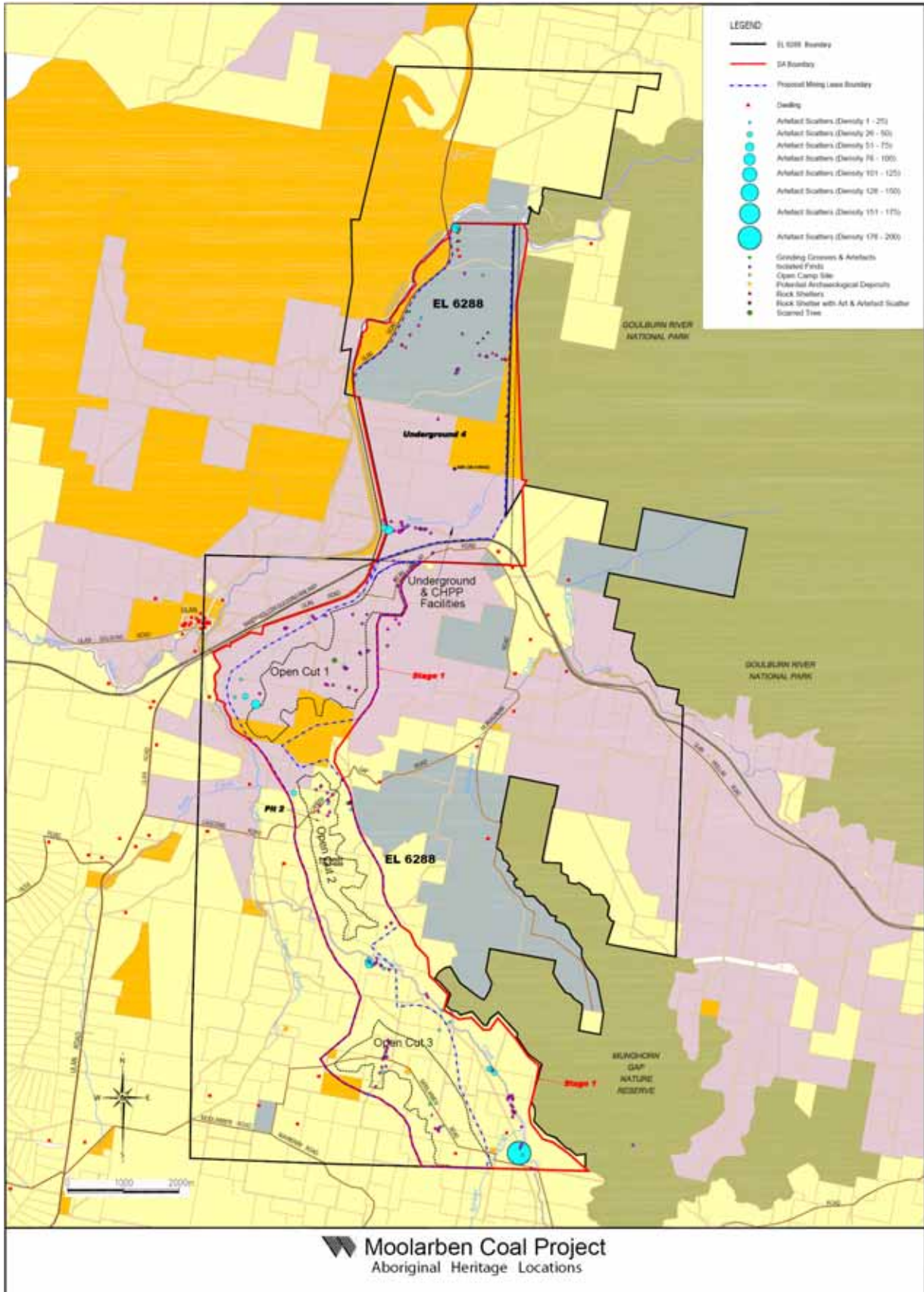


Figure 9.2
Preferred Mitigation Strategy
 Date: 14 August 2006
 Author: Mark Allers
 File Reference: Map_9.2_Mitigation/2
 Acknowledgements: Base aerial photography supplied by MCMs Pty Limited

MOOLARBEN BIOTA

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 |

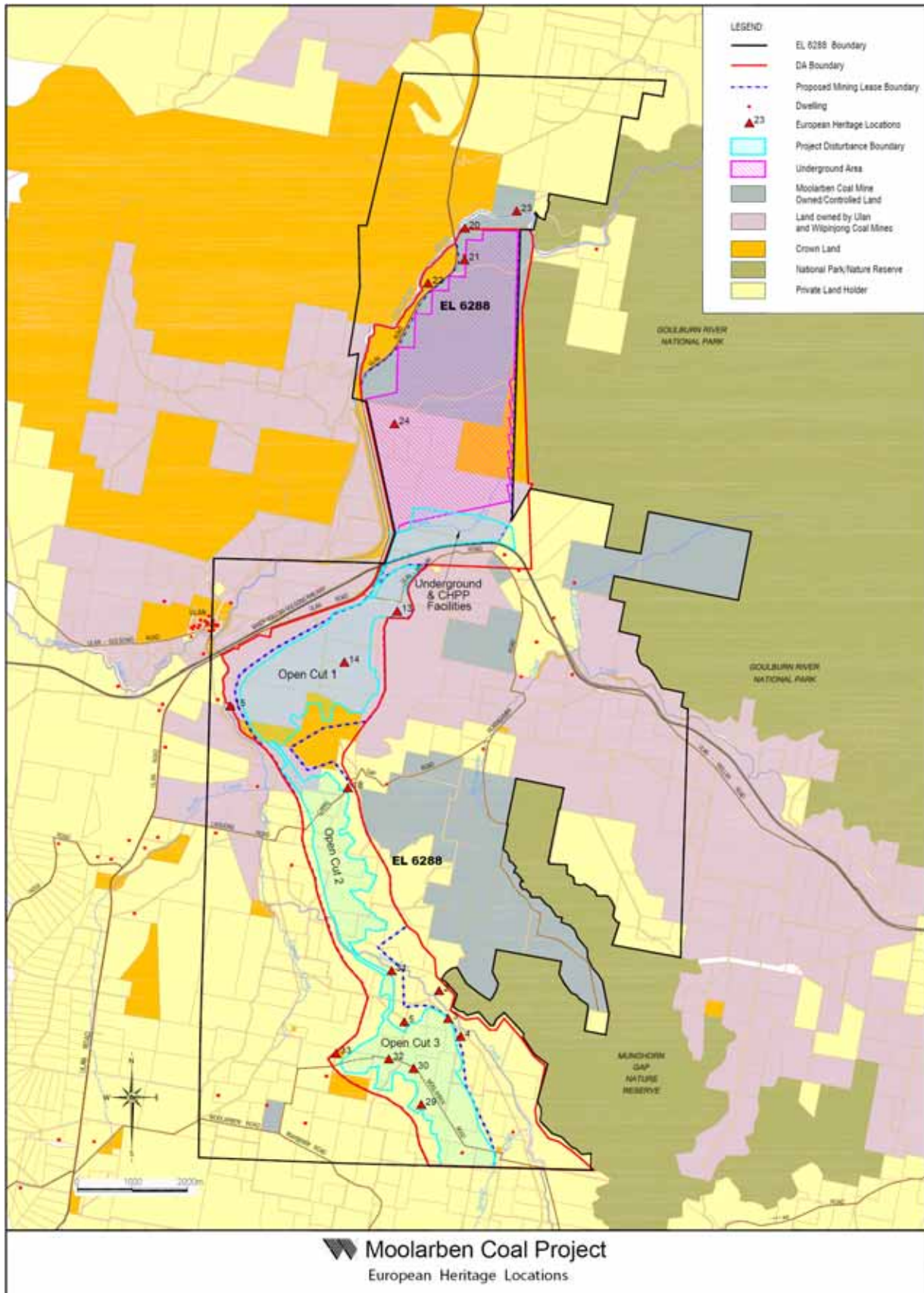
| Site Name | Site Type | X Centre | Y Centre | Artefact Density | Management Recommendation |
|-----------|------------------|----------|----------|------------------|---------------------------------|
| PAD 5 | Pad 5 | 761685 | 6419735 | N/A | Conservation |
| PAD 6 | Pad 6 | 761341 | 6420748 | N/A | 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 |

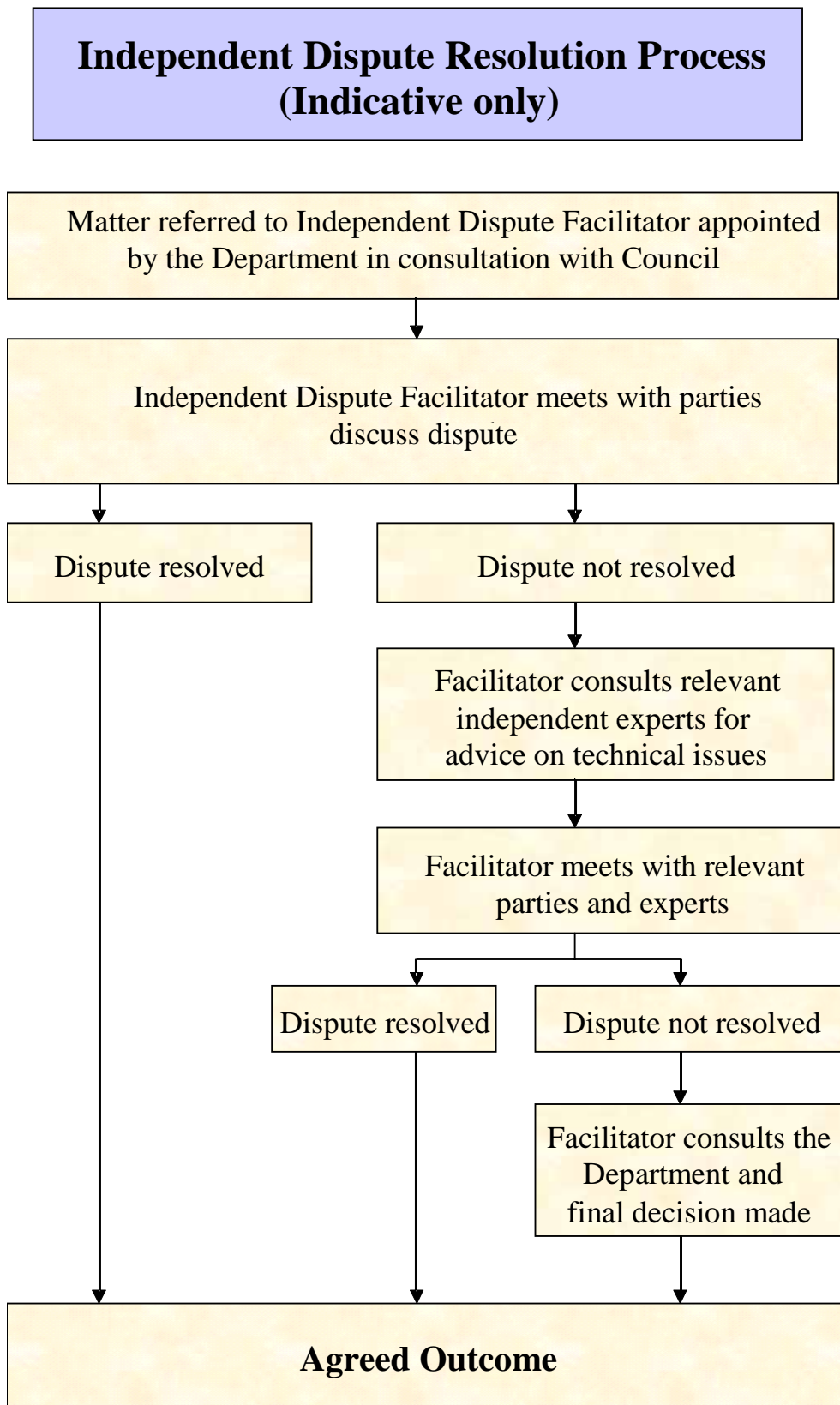
| Site Name | Site Type | X Centre | Y Centre | Artefact Density | Management Recommendation |
|-----------|-----------------------|----------|----------|------------------|---|
| S1MC268 | Isolated Find | 761875 | 6430102 | 1 | Conservation |
| S1MC269 | Isolated Find | 761882 | 6430110 | 1 | Conservation |
| 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



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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.

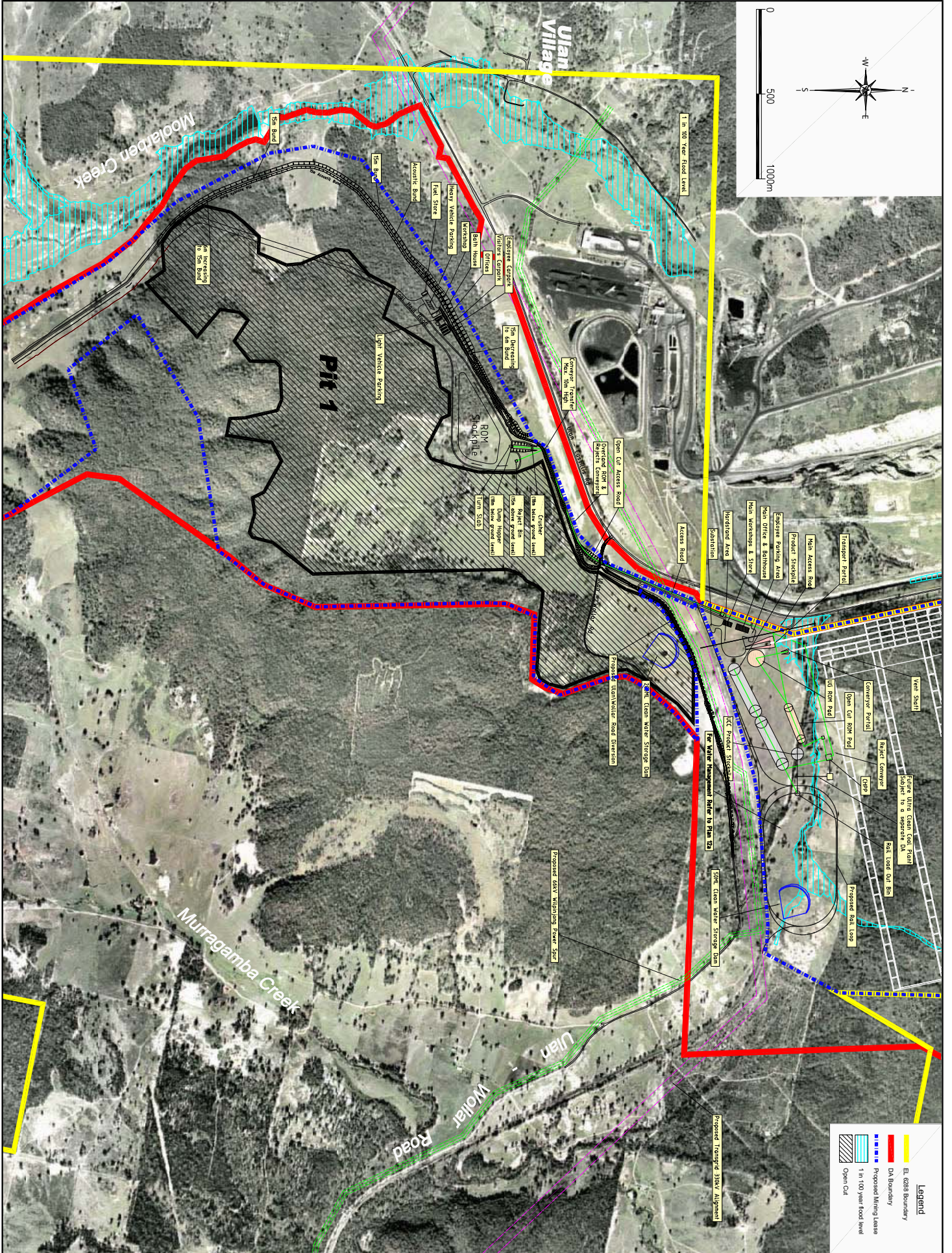
The changes relate to the locations of the CHPP, conveyors, emergency tailings dam, conveyor transfer stations, coal stockpiles, dams and the rail loop.

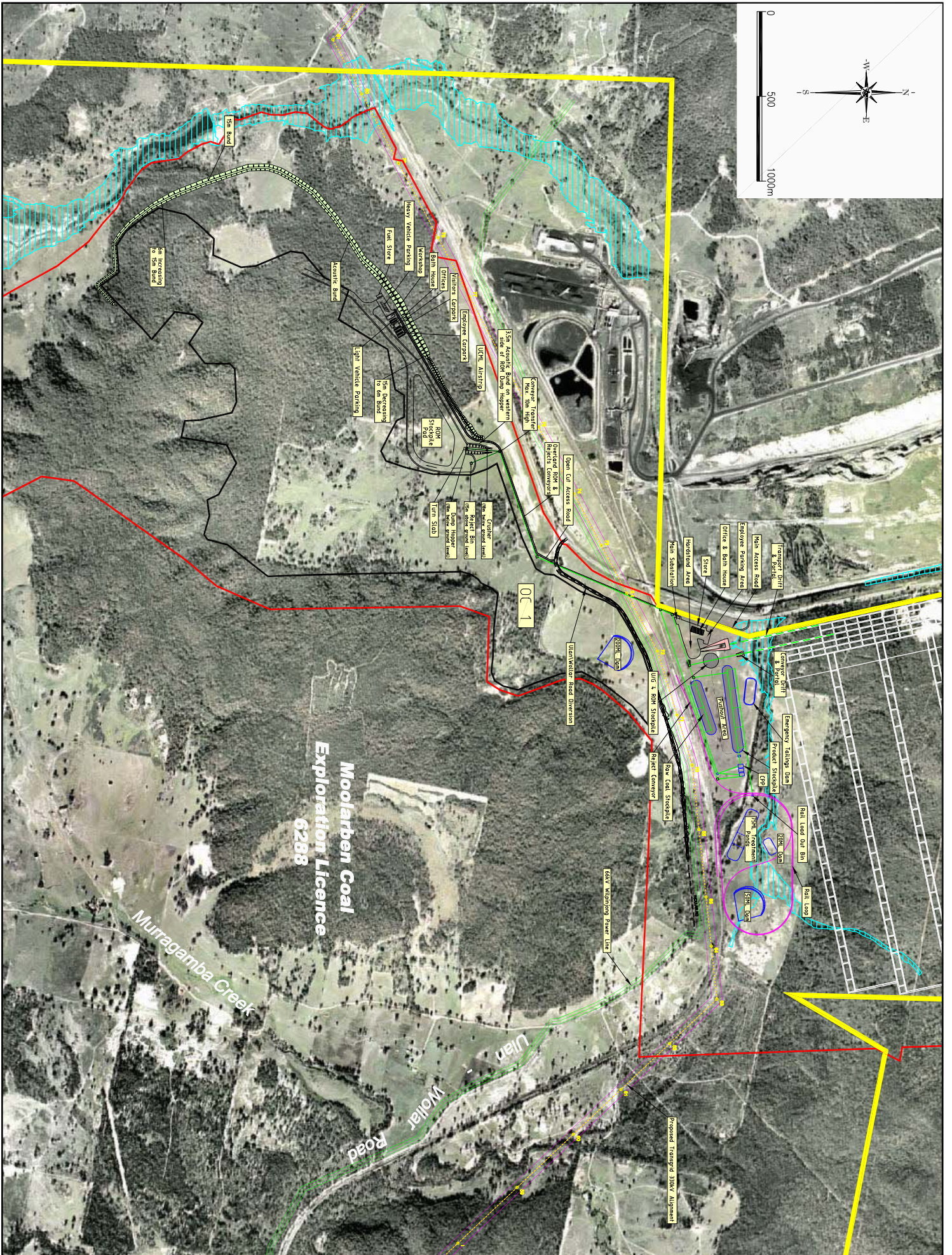
I confirm that from the point of view of air quality impacts these changes are minor. They would not alter the conclusions of the air quality assessment considered by the Department of Planning.

Yours faithfully,
Holmes Air Sciences

A handwritten signature in black ink that reads "N.E. Holmes." with a period at the end.

Nigel Holmes PhD
Atmospheric Physicist





Moolarben Coal
Exploration Licence
6288

Murrumbidgee Creek

Ulan

Moolarben Road

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

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



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

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4 August 2008

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

Attention: Mr Alan Wells

STAGE 1 - MOOLARBEN COAL PROJECT

762-A-02

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