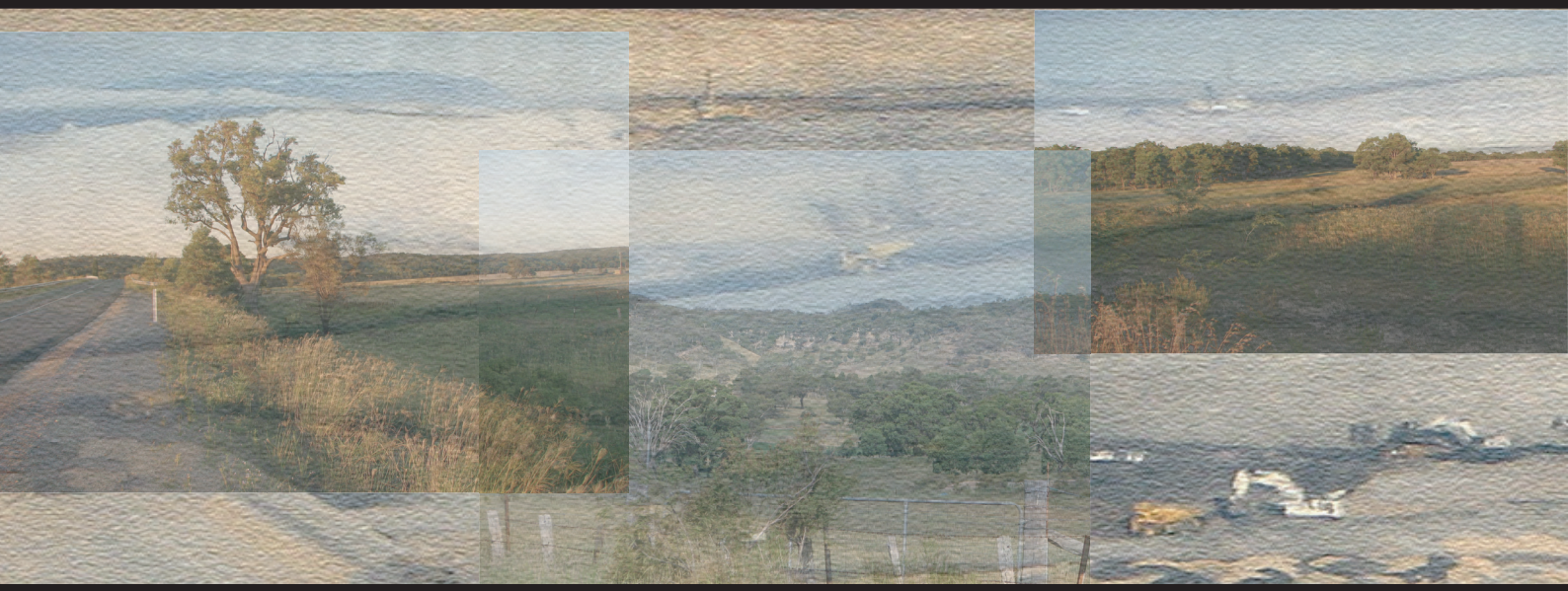
MOOLARBEN COAL PROJECT



RESPONSE TO SUBMISSIONS

Moolarben Coal Mines Pty Limited

Moolarben Coal Mine Pty Limited

Moolarben Coal Project

RESPONSE TO SUBMISSIONS
incorporating
a
Preferred Project

Wells Environmental Services

December 2006

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Overview

Moolarben

Moolarben Coal Mine Pty Limited (Moolarben) is a wholly owned subsidiary of Felix Resources Limited (Felix) a publicly listed Australian mining company. Felix is the owner (or part owner) and manager of the Ashton Coal Open Cut and Underground mines near Singleton and the Yarrabee and Minerva Open Cut coal mines in Queensland.

Project Application

Felix has made application to the Minister for Planning (Minister) for project approval for the construction and operation of the Moolarben Coal Project near Mudgee as a Major Project under Part 3A of the *Environmental Planning & Assessment Act 1979* (EP&A Act).

The project application for the Moolarben Coal Project has been on public exhibition and been the subject of a hearing by a Panel of Experts, commonly referred to as the Independent Hearing and Assessment Panel (IHAP), which was appointed by the Minister during the months of October and November 2006.

Response to Submissions

This Response to Submissions incorporating a Preferred Project ("Report") is provided pursuant to section 75H(6) of the *EP&A Act* as requested by the Director-General of Planning in his letter of 2 November 2006. The context of this Report is further described at Section 3.2.1. As such this Report:

- Is the response of Moolarben to the issues raised in the public submissions;
- Provides for a Preferred Project that modifies the Moolarben Coal Project to minimise its environmental impact in response to submissions; and
- Provides a replacement Statement of Commitments for the Moolarben Coal Project in further response to the submissions.

Report

This Report:

- Responds to submissions made following the exhibition of the Moolarben Coal Project and made by the public to the IHAP;
- Is based upon the Moolarben Coal Project as originally proposed for approval and as described in the Environmental Assessment Report lodged with the application for project approval;
- Adopts minor modifications to the Moolarben Coal Project for which approval is sought by the Minister;
- Provides a revised assessment for groundwater, subsidence, archaeology and noise issues for the "Preferred Project";

- Adopts a substituted Statement of Commitments; and
- Incorporates issues raised by Government Agencies and the IHAP.

Greenhouse Climate Change and ESD

Importantly, this report addresses greenhouse gas (GHG) emissions from the Moolarben Coal Project considering Scope 1, Scope 2 and Scope 3 GHG emissions in the context of climate change and the principles of "ecologically sustainable development" (ESD). This is done in Section 5.1.3 and in a report by Holmes Air Sciences.

1 The Moolarben Coal Project

1.1 Objectives of Moolarben Coal Project

The Moolarben Coal Project was developed with regard to Moolarben Coal Mine's principal objectives to:

- Safely, efficiently and profitably maximise the economic recovery of coal reserves within the area;
- Conduct mining operations with socially acceptable environmental impacts;
- Conduct mining operations in a manner which promotes good relations with the local community, neighbours and statutory authorities;
- Maximise where possible the economic benefits of the Project to the residents of the Mid Western Regional Council local government area; and
- Adhere to the principles of ecologically sustainable development.

1.2 The Moolarben Coal Project as Originally Proposed

The Moolarben Coal Project as originally proposed is described in the Environmental Assessment Report that was placed on exhibition and which submissions were made and comprises:

- Recovery of some 127 Mt of coal with initial capital investment valued at some $150m;
- Production of some 10 Mtpa of product coal;
- Some 220 construction and 317 full time jobs;
- Three staged open cut mines to produce coal about 8 Mtpa of ROM coal;
- An underground mine producing about 4 Mtpa of ROM coal;
- Supply coal to the export and the domestic markets;
- Coal handling, preparation, stockpiling and rail loading facilities to a capacity of up to some 14 Mtpa of coal;
- Mine access roads, internal access roads and haul roads;
- Water management (surface and sub-surface) infrastructure;
- 66kV transmission line and substation;

- Water discharge scheme to the Goulburn River and/or possible water sharing and reuse with adjoining coal mines;
- Overburden and coarse reject within mined-out voids and emplacement areas;
- In pit reject and tailings disposal and emergency tailings storage; and
- Relocation, closure and temporary closure of public roads within the mine area.

1.3 The Process to Date

1.3.1 Project Application

On 20 December 2005 Moolarben lodged with the Director General of Planning (Director–General) an application to the Minister for the project approval by the Minister under section 75E of Part 3A of the EP&A Act to carry out the Moolarben Coal Project as a Major Project under the Major Projects SEPP.

1.3.2 Notice of Application

A public notice was placed in the Mudgee Guardian newspaper on 22 December 2005 pursuant to clause 8F(3)(b) of the *Environmental Planning & Assessment Regulations 2000* advising that the project application had been made to the Minister.

1.3.3 Environmental Assessment Requirements

On 20 January 2006, pursuant to section 75F of the EP&A Act the Director-General issued his requirements for the Environmental Assessment Report for the Moolarben Coal Project. Pursuant to the power to do so under section 75F(3), the Director-General modified those requirements by notice issued on 16 March 2006 (refer **Appendix A1**).

1.3.4 Environmental Assessment Report

The Environmental Assessment Report was lodged with the Department of Planning and on 15 September 2006 the Director-General issued a letter, pursuant to section 75H(2) of the *EP&A Act* advising that "…*the Environmental Assessment (EA) for the Moolarben Coal Project adequately addresses the Director-General's requirements issued on 16 March 2006, and has been accepted for public exhibition*" (refer **Appendix A2**).

1.3.5 Independent Hearing and Assessment Panel

By letter of 15 September 2006 (refer **Appendix A3**) the Director-General advised that "*… the Minister for Planning has directed that an Independent Hearing and Assessment Panel (Panel of Experts) be constituted to assess certain aspects of the project in more detail… Under its terms of reference, the Panel of Experts is required to assess the following:*

- *Groundwater impacts;*

- *Subsidence impacts; and*
- *Noise impacts".*

The Independent Hearing and Assessment Panel (IHAP) hearing was advertised in conjunction with the public notification of the Environmental Assessment Report and a number of individuals and government agencies made submissions and presentations to the IHAP hearing.

1.3.6 Agency Consultation

The Department of Planning consulted with relevant Government Agencies which made submissions in the course of the assessment process. The issues raised by the Government Agencies together with the response of Moolarben are contained in **Appendix A4**.

1.3.7 Exhibition

The Environmental Assessment Report was placed on public exhibition from Monday 18 September 2006 until Monday 23 October 2006 resulting in submissions from individuals and Non-Government Organisations (NGO's) (refer **Appendices A5 and A6**).

1.3.8 The IHAP

The IHAP comprised:

- Dr Jim Galvin (Chairman) in relation to subsidence;
- Mr Colin Mackie in relation to groundwater; and
- Mr Peter Karantonis in relation to noise.

1.3.8.1 IHAP Hearing

The IHAP held a public hearing in Mudgee on 7, 8 and 9 November 2006.

Some of the members of the public and some NGO's who made submissions to the public exhibition of the Environmental Assessment Report also made submissions to the IHAP.

Government Agencies also made submissions to the IHAP in respect of the Project.

1.3.8.2 IHAP Report

The IHAP will conclude its report to the Minister taking this Report into account.

1.3.8.3 Response to Submissions

By letter of 2 November 2006 (refer **Appendix A7**) the Director General has required that Moolarben provide "*a response to the issues raised in the submissions*".

This Report is submitted in response to that requirement. It incorporates some minor modifications to the Moolarben Coal Project particularly in relation to the underground mine plan, some bunding at Open Cuts 1 and 3 and a replaced set of Project Commitments.

The response in this Report will be made publicly available on the website of the Department at www.planning.nsw.gov.au/asp/major_projects.asp and the website of Moolarben at www.moolarbencoal.com.au.

2 Public Exhibition and IHAP Submissions

2.1 Public Submissions to Exhibition of the Project

The submissions made by the public and NGO's with regard to a range of issues arising out of the proposal for the Moolarben Coal Project have been considered by Moolarben and categorised. The categorisation and the persons or entity making the submission has been tabulated in Appendix A5 of this Report.

2.2 Public Submissions to the IHAP

Submissions were made by the public with regard to issues for which the IHAP was convened as well as on other aspects of the Moolarben Coal Project. These issues are also addressed in this Report and identified in Appendix A6 along with the response of Moolarben. Please note that Moolarben have provided responses in this Report to some IHAP submissions but only where directed by the Chairman of IHAP.

2.3 Particular Submission Issues

Whilst all issues raised in public submissions during the assessment process have been categorised and responded to in Appendix A6 some issues have been discussed further in **Section 5** of this Report.

2.4 Submissions by Government Agencies

The Moolarben Coal Project as detailed in the Environmental Assessment Report was developed involving an interactive and responsive assessment process with Government Agencies.

The Government Agencies have provided reviews on the Moolarben Coal Project and made reports to the IHAP. Issues raised in these reports have been considered by Moolarben and have been taken into account in this Report.

The Agencies' that raised issues in respect of the Project are as follows:

- Department of Primary Industries – Mineral Resources – "DPI – MR";
- Department of Environment and Conservation – "DEC";
- Department of Natural Resources – "DNR";
- Mid Western Regional Council – "Council";
- Roads & Traffic Authority;

- Department of Lands;
- Hunter-Central Rivers Catchment Management Authority; and
- NSW Health.

3 Preferred Project

Moolarben has developed the Preferred Project to address issues raised during the public exhibition of the Moolarben Coal Project and the IHAP process that will reduce the environmental effects of the Moolarben Coal Project.

3.1 Objectives of Preferred Project

The Preferred Project provides for:

(a) Changes the underground mine plan from that proposed in the Environmental Assessment Report as shown in **Figure 1** with the objectives of:

- Protecting the Drip from any consequences of subsidence;
- Protecting water flows at the Drip;
- Protecting the Goulburn River Corner Gorge from any consequences of subsidence;
- Protecting significant Aboriginal sites in the underground mine area; and
- Minimising the impacts on Aboriginal sites in the underground mine area.

(b) Construction of an environmental bund around the south western corner of Open Cut 1 and an acoustical barrier around the dump hopper at Open Cut 1 as shown by **Figure 2** with the objectives of:

- Ameliorating noise effects at Ulan Village, the Ulan School and two Churches; and
- Reducing noise to the south east of Open Cut 1.

(c) Construction of a six (6) metre high environmental bund around the western and southern sides of Open Cut 3 facilities as shown by **Figure 3** with the objectives of:

- Reducing noise effects; and
- Reducing visual and lighting impacts.

(d) New Statement of Commitments by which Moolarben commits to:

- Protection of The Drip;
- Protection of the Goulburn River Corner Gorge;
- The best achievable noise at the Ulan village and its school and two churches;
- Traffic safety;
- Continued water availability at rural locations;
- Land acquisition of properties affected beyond identified environmental goals;

- Co-operation with adjoining mining companies in relation to cumulative environmental impacts on properties and the environment;
- Minimisation of environmental consequences of mining by the adoption of water sharing plans with adjoining mines;
- The application of 'best management practices';
- The utilisation of 'best available technology economically achievable';
- Best practice environmental monitoring and management plans; and
- The implementation of the proposed Offset Strategy (refer **Section 5.1.7**).

3.2 Preferred Project Description

3.2.1 Overview

By his letter dated 2 November 2006 the Manager Mining and Extractive Industries, on behalf of the Director-General of the Department of Planning (Appendix A7) "*required (Moolarben) to prepare a response to the issues raised in (the) submissions*" made as a result of the public exhibition of the Environmental Assessment for the Moolarben Coal Project from Monday, 18 September 2006 until Monday, 23 October 2006.

The request was made in accordance with section 75H(G)(a) of the *Environmental Planning and Assessment Act, 1979*.

In response to a number of the submissions Moolarben proposes some minor modifications to the Moolarben Coal Project which have been termed in this Report as the "Preferred Project" and which is described in this Section 3.

Consistently with the term "Preferred Project" this Report is sometimes referenced as the "Preferred Project Report".

3.3 Preferred Underground Mine Plan

The Preferred Underground Mine Plan is shown in Figure 1. The plan varies from the plan originally proposed in that:

- The layout will now contain eight (8) longwall panels orientated generally in an east-west direction;
- Originally proposed longwall panels nine (9) to fourteen (14) will continue to be orientated in a north-south direction; and
- The northern extremity of longwall panels 9, 13 and 14 is shortened from the northern end.

The features of the Preferred Underground Mine Plan include:

- A minimum setback of 500 metres from The Drip;

- A minimum setback of 450 metres from the Goulburn River Corner Gorge and associated cliffs;
- Maximum protection to identified important Aboriginal sites; and
- Reduced exposure to damage to cliff lines in the underground mining area that contain items of aboriginal heritage.

3.4 Environmental Bunds and Acoustical Barrier

The Preferred Project proposes the following additional works as shown in Figures 2 and 3:

- The extension of the southern end of the 15 metre high environmental bund for Open Cut 1 in an easterly direction to provide further acoustical mitigation to residence No 5 as shown on Figure 2; and
- The construction of a 3.5 metre high acoustical barrier between the Open Cut 1 run of mine dump hopper and the village of Ulan as shown on Figure 2; and
- The construction of a 6 metre high landscaped environmental bund around the western and southern sides of Open Cut 3 facilities as shown on Figure 3.

3.5 Commitments by Moolarben

The Preferred Project proposes new Statement of Commitments to replace those contained within Section 6 of the Environmental Assessment Report.

The revised commitments will address issues raised in the assessment process to date and will ensure the minimisation of the environmental effects and the maximisation of the economic and social aspects of the Moolarben Coal Project. The revised commitments are:

(1) ***Protect The Drip and Goulbourn River Gorge***

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.

(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.

(3) ***Replace Water***

Moolarben will compensate or replace waters (similar quality and quantity) lost by a 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 any conditions of approval.

(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 and conditions of approval.

(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 landholder) any land affected by operations of the Moolarben Coal Project:

(a) Outside the Ulan Village by noise of 5dB(A) or more above the project noise goal for that property;

(b) Within the Ulan Village and prior to the completion of mining operations in Open Cut 1 by noise in excess of 38dB(A)$_{Leq\ 15\ min}$;

(c) By air quality effects in excess of Tables 3, 4 and 5 of the Response to Submissions Report; and

(d) Due to affectations on the properties in Table 6.

(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.

(8) ***Voluntary Planning Agreement***

Moolarben will enter into a Voluntary Planning Agreement with Mid Western Regional Council joining the Minister for Planning incorporating the principles that Moolarben will make:

(a) An upfront payment of $600,000 on the first shipment of product coal from Open Cut No.1;

(b) An upfront payment of $250,000 on the first shipment of product coal from Underground No.4;

(c) An annual community infrastructure contribution of $50,000 whilst mining operations are being carried out;

(d) An annual road maintenance contribution of $40,000 whilst mining is being carried out;

(e) A contribution for the cost of or carrying out the road works recommended in the Project Application that are directly attributable to the operations of Moolarben.

(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.

(13) **Ecology**

Moolarben will enter into a Voluntary Planning Agreement with the Minister for Planning that will:

(a) Require Moolarben to transfer the land contained within Lot 20 and part Lot 88 of DP 755454 to the Minister for the Environment for incorporation into the national park estate;

*(b) Manage the area shown on **Figure 5** as "Enhancement and conservation of lands" during the life of the Moolarben Coal Project in accordance with the offset strategy described in the Environmental Assessment Report in Appendix K and Section 5.1.7 of this Report;*

(c) Before Open Cut mining progressively for each open cut establish a Property Vegetation Plan by the owner of the relevant land and the Hunter-Central Rivers Catchment Management Authority for the respective mining area to ensure the management of those areas in accordance with the Offset Strategy for those areas as described in Section 5.1.7 of the Response to Submissions Report and the Environmental Assessment Report for the Moolarben Coal Project.

4 Preferred Project Assessment

Set out below is a revised assessment of the Preferred Project. Copies of the assessment reports prepared for this Report are contained in **Appendices A8** and **A9** in respect of subsidence effects, **A10** in respect of groundwater, **A11** in respect of noise and blasting and **A12** in respect of noise goals for the Ulan Village.

4.1 Subsidence

4.1.1 Overview

Numerous submissions raised concerns in relation to the anticipated subsidence impacts associated with the Underground No. 4 Mine operations. The Preferred Underground Mine Plan has been developed with the purpose of addressing those concerns.

The Preferred Underground Mine Plan contains eight (8) east-west orientated longwall panels (LW1 to 8) and six (6) north-south orientated longwall panels (LW9 to 14). Longwall panels 1 to 8 have been moved approximately 70 metres to the north.

Longwall mining will now be set back a minimum of 500 metres from The Drip and 450 metres from the Goulburn River Corner Gorge cliff lines to protect those natural features.

4.1.2 Report by Strata Engineering

Strata Engineering Pty Limited have prepared a report on subsidence on the Preferred Underground Mine Plan. This report is at **Appendix A8**. Reported subsidence impacts of the Preferred Underground Mine Plan are summarised as follows:

4.1.2.1 The Goulburn River - The Drip and the Goulburn River Corner Gorge.

Longwalls 13 and 14 have been set back 500 metres and 450 metres respectively from The Drip and the Corner Gorge cliff lines. As The Drip and Goulburn River Corner Gorge are outside the angle of draw and are at such a distance from the underground mining operations these features are not expected to be subjected to subsidence impacts.

4.1.2.2 Aboriginal Sites

Aboriginal sites previously assessed as having “Moderate” to “High” likelihood of being damaged by cracking or collapse are now given a “Low” damage likelihood rating. Aboriginal site S1MC 280 is now considered to have a “Moderate” damage likelihood (previously a “High” damage likelihood site) whilst S1MC 256 and 261, that were previously given a “Low” likelihood of damage rating, now have a “High” and “Moderate” damage likelihood rating. Both of these sites are of “Low” scientific significance.

4.1.2.3 General Subsidence Predictions

Predictions of maximum subsidence impact parameters due to the preferred layout of the Moolarben longwalls generally remain unchanged, with some adjustments due to cover depth variation.

4.1.3 Report by Mine Subsidence Engineering

4.1.3.1 Overview

Mine Subsidence Engineering Consultants Pty Limited (MSEC) has undertaken an assessment of the predictions of subsidence, upsidence and valley closure and likely impacts of ground movements on cliff lines at The Drip and Goulburn River Corner Gorge in the context of the Preferred Underground Mine Plan, (refer **Appendix A9**).

4.1.3.2 The Drip and the Goulburn River Corner Gorge

Whilst valley upsidence and closure movements of about 100 mm were predicted at The Drip and Goulburn River Corner Gorge due to the previously proposed mine layout, upsidence and closure movements of less than 10 mm and 30 mm respectively are predicted for the Preferred Project Underground Mine Plan.

MSEC report that due to the increased set back distances of The Drip and Goulburn River Corner Gorge from long wall mining the assessed risk of a rock fall is extremely low to negligible and is a lower risk than that for the original mine plan. Because of the increased set back distances no rock falls due to long wall mining as set out in the Preferred Underground Mine Plan are anticipated in the area of The Drip or the Goulburn River Corner Gorge or within the immediate cliff lines of the Goulburn River.

4.1.3.3 The Goulburn River and Creeks

Fracturing of creek beds that are located directly above the long wall panels is likely to occur due to predicted subsidence, valley upsidence and closure movements. Some minor fracturing of the bed of the Goulburn River might occur, but, as the method to predict upsidence and closure is empirical and based on conservative upper bound prediction curves, it is more likely that no mining-induced fracturing will occur, since predicted upsidence and closure movements and predicted ground strains under the Preferred Underground Mine Plan are very small and may not be measurable.

If mining induced fractures occur in the base of the Goulburn River they will be localised in nature and relatively minor in size and they will only be visible in areas where the bedrock is exposed. Because of the increased set back distances and the condition of the river north and northwest of proposed long walls 11, 12, 13 and 14 it is unlikely that any fracturing of the bed rock will be observed and it is unlikely that any fracturing will result in any increased rate of diversion of surface water into near surface sub-strata.

4.2 Groundwater

4.2.1 Overview

Peter Dundon & Associates have prepared a groundwater assessment of the potential impacts of the preferred mine plan, including recommended management and mitigation measures. This assessment supplements the more comprehensive groundwater assessment that was presented in the Environmental Assessment Report.

The additional studies undertaken to assist in the preparation of this assessment include the installation and hydraulic testing of Triassic piezometers and further groundwater flow modelling.

This assessment is presented within **Appendix A10**.

4.2.2 Groundwater Assessment of Preferred Project

The assessment of Preferred Project incorporating new groundwater flow modelling has predicted inflow rates to the Moolarben Underground No. 4 mine that are very similar overall to those predicted in the Environmental Assessment Report. Drawdown predictions are similar in the Ulan seam and the Permian Coal Measures overburden, but the new modelling has led to slightly higher predicted drawdowns in the Triassic sandstones compared with the previous modelling.

The groundwater levels are predicted to decline locally by up to about 3m in the Triassic above the northern half of Underground No.4, but drawdowns at the Goulburn River are predicted to be much less than 1m. These drawdowns have occurred following the adoption of a higher failure zone than previously modelled. Based on monitoring around Ulan, it is considered that impacts are unlikely to be this great.

The new modelling results indicate that regional impacts on baseflow contributions to the Goulburn River and the minor tributaries are likely to be similar to those outlined in the Environmental Assessment Report.

4.3 Acoustics, Visuals and Night Lighting

4.3.1 Overview

As outlined at Section 3.4 above, the Preferred Project proposes additional acoustical attenuation works which will have the further benefit of ameliorating visual and managing night lighting effects. The location of the works are shown on Figures 2 and 3.

These additional works involve:

i). The 15 metre high environmental bund at Open Cut 1 being extended from its southern end in an easterly direction to provide further acoustical mitigation to Residence No. 5;

ii). A 3.5 metre acoustical barrier being constructed between the Open Cut 1 run of mine dump hopper and Ulan Village; and

iii). The construction of a 6 metre high landscaped environmental bund around the western and southern sides of Open Cut 3 facilities.

4.3.2 Acoustical, Visual and Lighting Assessment of Preferred Project

Spectrum Acoustics have undertaken a noise and vibration assessment of the Preferred Mine Plan which is provided in **Appendix A11**. In summary the result of the acoustical works will be as follows:

i). The extension of the 15 metre high environmental bund at Open Cut 1 to the east will increase noise levels at the Sword's (Residence No. 5) property up to 2 dB(A) during the construction period of the southern side of the bund. After completion of the bund construction there will be a 1 to 2 dB(A) reduction at the Sword's property from the initial mining in Open Cut 1 at the southern end during year 1. As mining moves to the north, noise effects will reduce.

ii). The bund extension will also provide a visual screen from the Sword's property (Residence No. 5) to Open Cut 1 that will further reduce visual impacts.

iii). The construction of the 3.5 metre high acoustical barrier between the Open Cut 1 run of mine dump hopper and the Ulan Village will reduce the worst case predicted noise levels in the village and other receivers located to the west of Open Cut 1. The modelled noise level reduction is 2 dB(A). The acoustic barrier is intended to ameliorate the noise impacts when east to south east winds occur.

iv). The construction of the 6 metre high landscaped environmental bund around the western and southern sides of Open Cut 3 will also provide a visual barrier to the surface facilities from those properties to the west of Open Cut 3. This bund will screen the impacts of building lights and service vehicles. Noise from air-conditioning and operations at the facilities will also be reduced.

The conclusions of Spectrum Acoustics with regard to achievable project noise goals for noise sensitive properties, apart from the Ulan Village, is summarised in **Table 1** from **Appendix A11**.

Table 1: Recommended day, evening and night-time noise criteria for locations outside Ulan Village

Receiver	Intrusive criteria dB(A),$L_{eq(15min)}$		
	Day	Evening	Night
R8 Davies	35	35	35
R46D UCML (Mitchell)	35	35	35
R16 Little & Salter	35	35	35
R15 Green	35	35	35
R7 Wallis	35	35	35
R13 (N6) Renshaw	35	35	35
R12 M & J Transport	35	35	35
R26 Robinson	38	38	38
R49 Brooks "Olive Lea"	38	38	38
R169 Tinker "Primo Park"	37	37	37
R173 Richter	37	37	37
R5 Swords	35	35	35

R20 Williamson	35	35	35
R6 Thompson	35	35	35
R22 Aiton	38	38	37
R23 Woodhead	38	38	37
R41A Libertis	38	38	37
R63 Whitaker	38	38	37
R64 Goninan & Boland	38	38	37
R172 Kimber	38	38	37
R170 (N3) Roberts	38	38	37
R58 Bevege	35	35	35
R37 Szymkarczuk	37	35	35
R29 Mayberry (E)	35	35	35
R33 Mayberry (K&R)	35	35	35
R36 Rayner	35	35	35
All other receivers	35	35	35

4.3.3 Noise Goals

4.3.3.1 Ulan Village

The Ulan Village is dealt with in the report of Spectrum Acoustics (Appendix A11) and the Planning Report by Wells Environmental Services on Noise at Ulan Village (**Appendix A12**).

The existing acoustic environment in the Ulan Village already exceeds INP preferred levels due to existing mining operations.

For a period of 3 years during the operation of Open Cut 1, noise at Ulan Village will exceed the preferred Chapter 2 of the INP goals despite the application of "best technology economically achievable" and "best management practices" by Moolarben. The economic benefits of the Moolarben Coal Project are identified in the Planning Report (Appendix A12) and Environmental Assessment Report.

Where the ideal noise goals strictly in accordance with Chapter 1 of the INP cannot be achived, the planning approval authority can choose to accept the level of impact having regard to the economic and social benefits flowing from the development to the community and protection outcomes for the community.

In this regard the Moolarben Coal Project night time achievable noise goal within the Ulan Village is 38dB(A)$_{Leq(15min)}$. Moolarben has made a commitment to purchase any residence impacted by the project within the Ulan Village above the 38dB(A)$L_{eq(15\ min)}$ night time achievable noise goal if so requested by the landholder.

The day, evening and night time noise criteria recommended for Moolarben for Ulan Village is shown in **Table 2**.

Table 2: Recommended day, evening and night-time noise criteria for Ulan Village.

Receiver	Intrusive criteria dB(A),$L_{eq(15min)}$		
	Day	Evening	Night
Ulan Village	46	39	38

4.3.3.2 Areas Outside of Ulan Village

Project specific noise goals for noise sensitive properties are shown at Table 1 in Section 4.3.2 above. The noise goal for the Moolarben Coal Project for other properties will be 35dB(A)$_{Leq\ 15\ min}$ by day, evening and night.

Moolarben has made a commitment to purchase residences outside the Ulan Village where such properties will be impacted 5dB(A) or more above the project specific noise goal if requested.

4.4 Archaeology

4.4.1 Overview

The Preferred Underground Mine Plan will result in a real reduction in the level of subsidence impacts on Aboriginal sites of significance, (refer **Appendix A13**).

4.4.2 Report by ARAS

The Aboriginal sites that were assessed as having a high risk from expected subsidence impacts and which were assessed to be either of scientifically high (being sites S1MC280 and S1MC264) or medium (being site S1MC287) significance are no longer under threat from subsidence impact.

Under the Preferred Underground Mine Plan only one site being S1MC256 is now likely to be significantly affected by subsidence impact. This site has been assessed to be of low scientific significance. This site shall be recorded in accordance with the procedures outlined in the Environmental Assessment Report.

5 Response to Submissions

5.1 Introduction

Appendices A4, A5 and A6 to this Report identify the issues raised in submissions and Moolarben's response to those submissions.

A number of specific issues were raised by Department of Planning and IHAP whereby Moolarben were requested to specifically address the following issues:

5.1.1 Voluntary Planning Agreement with Mid Western Regional Council.

Moolarben has adopted the following Project Commitment:

(8). ***Voluntary Planning Agreement***

Moolarben will enter into a Voluntary Planning Agreement with Mid Western Regional Council joining the Minister for Planning incorporating the principles that Moolarben will make:

(a) An upfront payment of $600,000 on the first shipment of product coal from Open Cut No.1;

(b) An upfront payment of $250,000 on the first shipment of product coal from Underground No.4;

(c) An annual community infrastructure contribution of $50,000 whilst mining operations are being carried out;

(d) An annual road maintenance contribution of $40,000 whilst mining is being carried out;

(e) A contribution for the cost of or carrying out the road works recommended in the Project Application that are directly attributable to the operations of Moolarben.

Moolarben has discussed the terms of the proposed Voluntary Planning Agreement with the Mid Western Regional Council and has submitted a draft to the Mid Western Regional Council.

5.1.2 Land Ownership

5.1.2.1 Project Land Purchase Commitment

Moolarben has adopted the following Project Commitment:

(6) ***Land Purchase Commitment***

Moolarben will accept an obligation to purchase (if so required by any affected landholder) any land affected by operations of the Moolarben Coal Project:

(a) Outside the Ulan Village by noise of 5dB(A) or more above the project noise goal for that property;

(b) Within the Ulan Village and prior to the completion of mining operations in Open Cut 1 by noise in excess of 38dB(A)$_{Leq\ 15\ min}$;

(c) By air quality effects in excess of Tables 3, 4 and 5 of the Response to Submissions Report; and

(d) Due to affectations on the properties in Table 6.

5.1.2.2 Acquisition Criteria

Moolarben makes the commitment (refer to Sections 3.5 and 5.1.2.2 above) to purchase, if so requested by any affected landholder, any land that is affected by air quality effects due the operation of the Moolarben Coal Project beyond the levels specified in Table 3 (Long Term TSP), Table 4 (Short Term TSP) and Table 5 (deposition).

The air quality goals adopted by Moolarben (from the recent Bulga Consent) are shown in **Tables 3**, **4** and **5**.

Table 3: Long term land acquisition criteria for particular matter.

Pollutant	Averaging period	Criterion
Total suspended particular (TSP) matter	Annual	90 µg/m³
Particulate matter < 10µm (PM_{10})	Annual	30 µg/m³

Table 4: Short Term land acquisition criteria for particulate matter

Pollutant	Averaging Period	Criterion	Percentile	Basis
Particulate matter < 10 µm (PM_{10})	24 Hour	150 µg/m³	99[2]	Total[3]
Particulate matter < 10 µm (PM_{10})	24 Hour	50 µg/m³	98.6	Increment[4]

[1] *Based on the number of block 24 hour averages in an annual period*

[2] *Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Director-General in consultation with the DEC.*

[3] *Background PM_{10} concentrations due to all other sources plus the incremental increase in PM_{10} concentrations due to the development alone.*

[4] *Incremental increase in PM_{10} concentrations due to the development alone.*

Table 5: 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	2 g/m²/month	4 g/m²/month

Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS 3580. 10.1-1991: Methods for Sampling and Analysis of Ambient Air – Determination of Particulates – Deposited Matter – Gravimetric Method.

5.1.2.3 Property Acquisitions

Table 6 identifies the properties predicted to be affected by noise, vibration and dust modelling beyond acceptable levels and are identified as such in the Environmental Assessment Report at the various stages of the project.

The Moolarben Land Purchase Commitment includes the properties in Table 6.

Table 6: Property acquisitions related to Project stages

Stage of Acquisition	Receptor Name
Open Cut 1	G Tuck-Lee (R25)

& Main Infrastructure Area	Hoare (R24) M&J Transport (R12)
Open Cut 2	P Renshaw (R13) R&N Williamson (R20) K&S Thompson (R6) M&P Swords (R5)
Open Cut 3	E Mayberry (R29) K&R Mayberry (R33) D&Y Rayner (R36)

5.1.3 Greenhouse Gas Emissions and ESD

5.1.3.1 Submissions

This part addresses the issues raised in a number of public submissions received by Moolarben on greenhouse gas (GHG) emissions as a result of the Moolarben Coal Project.

The submissions assert failure of the Environmental Assessment Report to consider GHG emissions, and particularly Scope 3 GHG emissions resulting from the ultimate burning of coal produced by the Moolarben Coal Project which would result in anthropogenic climate change.

Submissions also asserted an alleged failure to consider the principles of ecologically sustainable development (ESD) including the "precautionary principle" and the "principle of intergenerational equity".

The assertion is that a consideration of Scope 3 GHG emissions is required and that failure to do so is a breach of the ESD principles. This position is supported by the decision of the Land and Environment Court in the recently decided *Gray v The Minister for Planning & Ors* ([2006] NSWLEC 720).

5.1.3.2 Greenhouse Gas Emissions

Appendix A14 is a report by Holmes Air Sciences on potential Scope 1, 2 and 3 GHG emissions from the actual operation of the Moolarben Coal Project (Scope 1 and Scope 2 emissions) and emissions that indirectly result from activity occurring as a consequence of the Moolarben Coal Project and include GHG emissions from the transport of the Moolarben coal to the market (by rail to the port and by ship to overseas markets) and the burning of the Moolarben coal.

There is difficulty in assessing Scope 3 emissions as the destination of the coal, its transport route, the type of use of coal and the methods and purposes of burning it are not known and variable.

5.1.3.3 Concepts of ESD

In New South Wales ESD has been incorporated into various legislation including, relevantly to the Moolarben Coal Project, the *Protection of the Environment Administration Act 1991* (NSW) (POEA Act).

Section 6(2) of the POEA Act provides that ESD requires the effective integration of economic and environmental considerations in decision making processes. The principles of ESD are achieved through the application of:

(a) "The precautionary principle";

(b) The concept of "Intergenerational equity"; and

(c) "Conservation of biological diversity and ecological integrity"; and

(d) The concept of "Improved valuation and pricing and incentive mechanisms".

The principles of ESD as set out in section 6(2) of the POEA Act are adopted by the EP&A Act, one of the objects of which is to encourage "*ecologically sustainable development*".

In *Gray v Minister for Planning & Ors* ([2006] NSWLEC 720), the Land & Environment Court held that there is a requirement for the consent authority, or other decision maker, to have regard to the principles of ESD when making decisions under Part 3A of the EP&A Act and held that when determining an application for project approval there must be a consideration of downstream effects of the burning of the Project's coal and other Scope 3 GHG emissions as they are causally linked to the mining of coal.

The ESD principles relevant to the Project are:

1. The "*Precautionary principle*";

2. The principle of "*Intergenerational equity*";

3. The principle of "*Conservation of biological diversity*".

5.1.3.4 Application of ESD Principles to the Moolarben Coal Project

5.1.3.4.1 The Precautionary Principle

The precautionary principle was considered in the decision of *Telstra Corporation Limited v Hornsby Shire Council [2006] NSWLEC 133* (Telstra Decision) where Preston C J considered whether the principles of ESD and in particular the precautionary principle was a relevant consideration for a consent authority when determining a development application under Part 4 of the EPA Act. In particular Preston C J considered whether ESD and the precautionary principle were an element of the public interest consideration required to be considered under section 79C(1) of the EP&A Act.

Preston C J held that the precautionary principle applied when:

(a) There is a threat of serious or irreversible environmental damage; and

(b) There is scientific uncertainty as to the nature and scope of the threat to environmental damage.

Once these two condition precedents are met the precautionary principle will be activated. There will then be a shifting of the evidentiary burden of proof whereby the decision maker must assume that the threat of serious or irreversible environmental damage is no longer uncertain but is a reality.

In applying the precautionary principle the measures adopted should be proportionate to the potential threats. Preston C J also described the process as a cost-benefit analysis of the various options and the degree of precaution to be provided to the risks identified.

Applying the precautionary principle to the Project Moolarben argued that the conditions precedent for the application of the precautionary principle is not met. Based upon the assessment of GHG emissions by Holmes Air Sciences the impact of climate change from the project is almost immeasurable and once calculated is an extremely small addition in terms of climate change. Accordingly, there is no threat of serious or irreversible environmental change as a result of Scope 3, or Scope 1 or Scope 2 emissions from the Moolarben Coal Project.

5.1.3.4.2 Social Equity

ESD also involves the principle of social equity being intergenerational and intra-generational equity. Intergenerational equity requires the present generation to ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations.

Intra-generational equity involves considerations of equity within the present generation. The use of natural resources by one country class or within a country needs to take account of the needs of other countries (or sectors or classes within other countries)[1]. The application of intra-generational equity and intergenerational equity to the project will be met by the parent company of Moolarben, Felix Resources, undertaking research and trials into Ultra Clean Coal technology.

- Moolarben implementing measures which ensure diversity and ecological integrity are not compromised during the project;
- The project making significant positive economic contributions and local, regional, state and federal level;
- The entering into of a Voluntary Planning Agreement with Mid Western Regional Council which over the life of the project is expected to provide nearly $2.75 million worth of contributions to the Council;
- Providing export earnings and fuel for economic growth and development; and
- Entering into a Voluntary Planning Agreement with the Minister for Planning implementing the offset mitigation strategy.

5.1.3.4.3 Conservation of Biological Diversity and Ecological Integrity

ESD mandates that the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision making including in the formulation adoption and implementation of any economic and other development plan program or project. As detailed by Holmes Air Sciences the specific effect of Scope 3 GHG emissions from the Project are almost immeasurable. Therefore it is considered that there will be no measurable or material impact from the project on the conservation of biological diversity and ecological integrity as a result.

[1] Presentation to the National Trust Corporate Breakfast by the Honourable Brian J. Preston, "*Principles of Ecologically Sustainable Development*".

5.1.3.5 Holmes Air Sciences Report

The report by Holmes Air Sciences at Appendix A14 provides a:

- Revised assessment of Scope 1 and Scope 2 GHG emissions using site specific data that has become available since the Environmental Assessment Report was submitted;
- Consideration of Scope 3 GHG emissions potentially occurring including as a result of the burning of the coal mined by the Moolarben Coal Project; and
- Consideration of the total Scope 1, 2 and 3 GHG emissions that may occur as a result of the operation of the Moolarben Col Project and effect on climate change in the context of global warming and climate change as well as in the context of ESD principles.

Holmes Air Sciences conclude that:

- "*Total annual emission of $C0_2$ equivalent GHG emissions from mining and the burning of coal from the Moolarben Coal Project will be 0.112 Mt/year, estimating that this figure is 0.03% of the estimated GHG emissions from Australia in 2004 or 0.0004% of the estimated world's anthropogenic emission from combustion of fossil fuels in 2004*"
- "*Of the 10 Mtpa of product coal exported the total carbon content will be 6.618Mtpa which when burnt will produce approximately 24Mtpa of CO_2.*"
- "*While it is possible to assess the significance of the GHG emissions by comparing them with other sources of greenhouse gases it is also important to note that the efficiency with which the coal is used is also very important.*"
- There will be no measurable environment effect due to the GHG emissions from the Moolarben Coal Project including when the customer's use of the coal is taken into account.
- In practical terms, the effects of the aggregate from the Project being the aggregate of all Scope 1, Scope 2 and Scope 3 GHG emissions from the operation of the mine and the burning of the coal produced on climate change is unmeasurable.
- To the extent that GHG emissions from the Moolarben Coal Project effect climate change "*The total of the Scope 1, 2 and 3 GHG emissions from the Moolarben Coal Project (including mining, transporting the coal to Newcastle and burning the coal) could lead to an increase in global temperature of 0.000023 degree Celsius.*"
- In practice however the effects of global warming and associated climate change are the cumulative effect of many thousands of such sources.

Holmes Air Sciences' report that when Scope 1, 2 and 3 GHG emissions arising from the conduct of the Moolarben Coal Project would not be in breach of the principles of ESD.

5.1.4 Lighting

The Moolarben Coal Project has been designed with consideration of night lighting and its impacts on the amenity of the local area. The Environmental Assessment Report outlines and details those controls and mitigation measures that will be implemented to minimise adverse effects associated with night lighting and sky glow.

The Orana Regional Environmental Plan No. 1 – Siding Springs requires Development Applications within a 100 kilometre radius to consider the amount and type of light likely to be emitted by and from a development and the probable effect of that emission on the level of artificial sky glow at the Siding Springs Observatory. Although the Orana Regional Environmental Plan No. 1 – Siding Springs does not specifically apply to the Moolarben Coal Project, the project design should ensure there will be no impact on the Siding Springs Observatories.

5.1.5 Rail Capacity

The Australian Rail Track Corporation (ARTC) has responsibility for the rail corridor from Newcastle to Muswellbrook to Ulan. ARTC have advised Moolarben that they are presently undertaking a number of crucial projects to provide additional rail capacity. These projects include the redesign of Muswellbrook Yard, the introduction of a new safe working system and the construction of two additional passing loops on the route. These capacity enhancements, which ARTC will be able to deliver during the next twelve months, confirm the commitment that ARTC has always provided to coal producers in the Hunter Valley that they will provide rail track capacity ahead of demand. The response from ARTC is **Appendix A15**.

5.1.6 Matters Raised by Ulan Coal Mine

A submission was made by Ulan Coal Mines Limited ("UCML"), the owner and operator of the adjoining Ulan Coal Mine ("UCM") with regard to issues related to the interaction of the Moolarben Coal Project and the UCM.

A response to the UCML submission to the IHAP was provided by Moolarben to the IHAP (refer **Appendix A16**).

5.1.7 Vegetation Offsets and Mitigation Strategy

The Moolarben Coal Project proposed an "Offset Strategy" within the Environmental Assessment Report. Following consultation with Department of Environment and Conservation and Department of Planning a number of components of the Offset Strategy have been refined.

5.1.7.1 Transfer of Land

The Offset Strategy proposed is shown in **Figure 5** and provides for the transfer of approximately 237 ha of land (Lot 20 and part Lot 88 of DP 755454) to the Minister for the Environment for incorporation into the Goulburn River National Park. This land consists of:

i). 56.85 ha of White Box Yellow Box Blakely's Redgum Woodland (an endangered ecological community);

ii). 37.96 ha of disturbed land which has the opportunity to be revegetate itself back to WBYBBR Woodland; and

iii). 143 ha of Inland Scribbly Woodland which has significant revegetation prospects.

The Offset Strategy will be also be implemented pursuant to the commitment of Moolarben to:

(13) **Ecology**

Moolarben will enter into a Voluntary Planning Agreement with the Minister for Planning that will:

(a) Require Moolarben to transfer the land contained within Lot 20 and part Lot 88 of DP 755454 to the Minister for the Environment for incorporation into the national park estate;

*(b) Manage the area shown on **Figure 5** as "Enhancement and conservation of lands" during the life of the Moolarben Coal Project in accordance with the offset strategy described in the Environmental Assessment Report in Appendix K and Section 5.1.7 of this Report;*

(c) Before Open Cut mining progressively for each open cut establish a Property Vegetation Plan by the owner of the relevant land and the Hunter-Central Rivers Catchment Management Authority for the respective mining area to ensure the management of those areas in accordance with the Offset Strategy for those areas as described in Section 5.1.7 of the Response to Submissions Report and the Environmental Assessment Report for the Moolarben Coal Project.

The Offset strategy shall be implemented by entering into a Voluntary Planning Agreement ("Offset VPA") under section 93F of the EPA Act between Moolarben and the Minister for Planning requiring:

i). Moolarben to transfer the land described above to the Minister for the Environment;

ii). Conserve and enhance the native vegetation in the areas shown on Figure 5;

iii). Moolarben to progressively establish Property Vegetation Plans between the landowner of a mining area and the Hunter-Central Rivers Catchment Management Authority for the relevant mining area.

5.1.7.2 Voluntary Planning Agreement

Under the Preferred Project Offset Strategy those areas of land shown on Figure 5 as being for enhancement and conservation of lands under a Voluntary Planning Agreement will be revegetated and preserved by Moolarben.

5.1.7.3 Property Vegetation Plans

The Offset Strategy also provides that prior to mining being carried out Moolarben will establish between the landowner of the respective relevant mining area and the Hunter Catchment Management Authority a Property Vegetation Plan (PVP) under the *Native Vegetation Act, 2003*. The PVP will commit the owner of the land to:

i). Best practice agriculture;

ii). The retention of remnant vegetation at the date of Project Approval; and

iii). The enhancement of native vegetation in the fringe and escarpment areas around and through the areas appropriate to use for agriculture.

The PVP's will also ensure the continuation of viable rural pursuits on appropriately classified lands and soil type and the protection and enhancement of existing native vegetation on the sloping and escarpment areas of those farming units as indicated in Figure 5 to this Report. Continued and long term protection of the native vegetation established under the PVP's.

5.1.8 Moolarben Dam

Moolarben Dam has been considered within the blasting assessment presented in the Environmental Assessment Report, where blast and vibration levels are below levels that would cause damage. Within the Environmental Management System, Moolarben will prepare a Blast Management Plan. The Blast Management Plan will have regard to the protection of the Moolarben Dam.

Impacts to water levels and associated entitlements of Moolarben Dam would be a result of reduced flows within Moolarben, Lagoon and Ryans Creeks. Impacts to these creeks have been assessed within the Environmental Assessment Report and further in an assessment undertaken by Peter Dundon & Associates presented in **Appendix A10**. The assessments concluded that there will be a negligible impact to both surface water flows that may contribute to base flows and also to the underlying groundwater aquifers. The assessment has also concluded that any reduction in baseflow is likely to be a reduction in the saline water contribution to the Moolarben Creek and consequently, Moolarben Dam.

Should water levels and therefore entitlements within Moolarben Dam be adversely impacted by the proposed development, consideration would be given subject to regulatory approval to alter the discharge location proposed from Bora Creek to Moolarben Creek, upstream of Moolarben Dam.

5.1.9 Water Sharing Between MCP, UCML and Wilpinjong

As detailed within the revised Statement of Commitments, Moolarben will seek to agree and enter into a Mine Water Sharing Plan in respect of mining operations of the Ulan and Wilpinjong Coal Mines. Moolarben will endeavour to have that Mine Water Sharing Plan adopted and implemented under the auspices of the Director General of the Department of Planning.

5.1.10 Aboriginal Heritage

As detailed in paragraph 4.4 above, the impacts of the Preferred Project Mine layout on Aboriginal heritage from subsidence as a result of underground mining operations are significantly reduced.

5.1.11 Leachate Characterisation

Further characterisation of reject and overburden and leachate will be undertaken during and immediately prior to mining. Confirmation of this approach is contained within **Appendix A17** by Environmental Geochemistry International.

5.1.12 Traffic and Child Safety

A co-operative agreement will be developed between Moolarben, Ulan and Wilpinjong Coal Mines in relation to transport safety.

In terms of school transport, Moolarben Coal Mines had made a commitment to ensure that major shift changes do not occur between 8.15 am and 9.00 am Monday to Friday and 3.15

pm to 4.00 pm Monday to Friday so as to ensure that there is no significant conflict with school bus services.

Also detailed in the company statement of commitments, Moolarben has committed to entering into a Voluntary Planning Agreement with the Mid Western Regional Councils to contribute monies towards roads servicing the local area. It is anticipated that these monies will be spent ensuring adequate road safety for school buses.

6 Conclusions

Moolarben has demonstrated that it has:

- Consulted with all stakeholders;
- Responded to all submissions made and issues raised in the public exhibition and assessment process;
- Developed the Preferred Project to respond to submissions made on the public exhibition and raised by the IHAP;
- Assessed Scope 1, 2 and 3 greenhouse gas emissions related to the Moolarben Coal Project in accordance with the ESD principles.
- Assessed all of the other environmental impacts in accordance with the EP&A Act and the ESD principles;
- Demonstrated that environmental effects have been reduced/will be managed appropriately;
- Has made Project Commitments that will secure protection of interests of all stakeholders related to the operation of the Moolarben Coal Project; and
- Demonstrated material economic benefits to the local, regional, state and national community from the operation of the mine.

The Minister can be satisfied that it is available to him to grant project approval to construction and operation of the Moolarben Coal Mine.

Dated: 20 December 2006

Alan Wells

Wells Environmental Services