

SUBMISSION PURSUANT TO SECTION 92(2) OF THE EP&A ACT (1979) TO RAISE THE HEIGHT OF THE EASTERN EMPLACEMENT

AREA

AUGUST 2004

SUBMISSION PURSUANT TO SECTION 96(2) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979 TO MODIFY THE CONSENT ISSUED IN RESPECT TO DEVELOPMENT APPLICATION NO. 309-11-2001-i FOR THE ASHTON COAL PROJECT AT CAMBERWELL



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1 INTRODUCTION

Ashton Coal Operations Limited (ACOL) is the management entity established by White Mining Limited for the Ashton Coal Project. ACOL has engaged Henry Walker Eltin Pty Limited to mine and rehabilitate the north-east open cut.

ACOL seeks the Minister for Infrastructure, Planning and Natural Resources' support to modify the development consent issued in respect to Development Application No. 309-11-2001-i pursuant to the provisions of Section 96(2) of the Environmental Planning and Assessment Act, 1979 as amended.

The following submission provides the information required by Clause 115 of the Environmental Planning and Assessment Regulation 2000.

2 NAME AND ADDRESS OF APPLICANT

Name:	Mr I Callow on behalf of Ashton Coal Operations Pty Limited.	
Street Address:	Glennies Creek Road	
	Camberwell NSW 2330	
Postal Address:	PO Box 699	
	Singleton NSW 2330	

3 DESCRIPTION OF DEVELOPMENT TO BE CARRIED OUT UNDER CONSENT

Development Application No:	309-11-2001-i.		
Consent Authority:	Minister for Planning.		
Date of Determination:	11 October 2002 and as amended on 15 October		
	2003 by the Minister Assisting the Minister for		
	Infrastructure and Planning (Planning		
	Administration).		
Applicant:	White Mining Limited.		
Description of Development:	Development of an open cut coal mine, an		
	underground coal mine and construction and		
	operation of associated surface facilities, known as		
	the Ashton Coal Project.		



The principle objective of White Mining Limited was to develop an economically feasible plan for the safe and efficient recovery of viable coal assets. In developing the plan and operating the mine, recognition has been given to the following:

- Ensuring that the selected mining methods are safe and efficient;
- Minimising any adverse social, environmental and amenity impacts;
- Maximising the recovery of the mineable resources within the area;
- Increasing employment opportunities within the local community;
- Maintaining a cost effective business, with low capital and operating costs;
- Minimising surface impacts;
- Efficient mine layout, with a low development ratio in the underground mine;
- In-built flexibility to adapt to changing environments or strategy;
- Low operating costs;
- Minimum capital expenditure requirements; and
- Informing local residents and land owners of the project and potential impacts and benefits of the mine.

4 TITLE PARTICULARS OF THE LAND

The land particulars described within the consent are listed as follows:

Land described as Lot 101 DP 635131; Part Lot 11 DP 261916; Lot 3 DP 195598; Part Lot 70 DP 752499; Part Lot 701 DP 828294; Lot 1 DP 745486; Part Lot 1243 DP 1007536; Lot 1 DP 195598; Lot 59 DP 752499; Crown land including Crown Road adjoining Lot 1 DP 745486; Lot 128 DP 752499 (Reserve No. 89555); Travelling Stock Reserve No. 66768; Part Camberwell Temporary Common; Main Northern Railway corridor; Glennies Creek Rd reserve; and New England Highway reserve; Parish of Vane.

5 DESCRIPTION OF THE PROPOSED MODIFICATION TO DEVELOPMENT CONSENT

5.1 Background

Since the Ashton Coal Project received development consent from the Minister for Planning, ACOL and their respective team of sub-consultants have sought to construct and operate the mine in accordance with all statutory regulations. ACOL regularly review all facets of the project having regard to its statutory obligations and those matters listed within **Section 3** above.

The environmental impact statement identified two primary out of pit locations for the placement of excavated overburden until the mine reached a stage where material could be disposed of within pit. The two primary out of pit locations were described as the eastern emplacement and western emplacement areas. The two emplacements were to be constructed within the first two years of commencement of mining operations.

The eastern emplacement was proposed to cover an area of 78 hectares and hold approximately 12 Mbcm of overburden material at a final height of RL 125 metres with slopes of 10.0 degrees. The western emplacement was proposed to cover an area of about 47 hectares and hold 5 Mbcm of overburden material at a final height of RL 105 metres with slopes of 10.0 degrees.

The western emplacement required the construction of a purpose built road incorporating dual carriageways being constructed under the Bowman's Creek overbridge to facilitate the transport of overburden. To reduce the western emplacement area's visual impact it was proposed to construct an environmental bund parallel to the New England Highway to visually screen the emplacement area from the motoring public. Two dirty water dams were to be strategically sited and constructed between the western emplacement and Bowman's Creek. The purpose of these dams was to capture run-off from the emplacement and to act as detention/sedimentation ponds until the emplacement was complete and fully revegetated.

ACOL have vigorously pursued the construction and development of the open-cut operations. At the time of compiling this report ACOL have received approval to operate their rail loading facility and are in the final stages of commissioning the coal handling and preparation plant for the mine's trial shipments of coal to the Port of Newcastle.

The Ashton open-cut operations have been undertaken in accordance with statutory, environmental and community obligations

5.2 **Proposed Modifications**

Consistent with the objectives of developing an efficient, safe and environmentally responsible mining operation, ACOL engaged Co-Resources Pty Limited, in conjunction with Runge Pty Limited (mine planners and engineers), to review mining and out of pit overburden operations associated with the open-cut mine. The revision of operations has identified that the eastern emplacement area should be redesigned in order to hold a volume of 15.5 Mbcm of overburden. **Figures 1 & 2** show the redesigned facility.



In order for the eastern emplacement to hold 15.5 Mbcm of overburden material whilst maintaining the same "footprint", sedimentation dams 3 and 4 will not be constructed, whilst sedimentation dam 5 will be enlarged. It is necessary for the height of the facility to be raised to RL135 metres with slopes of 14 degrees.

The current pit design requires an out-of-pit dump capacity of 18.8 million cubic metres, at 25% swell and including provision for emplacement of reject material from the Coal Handling & Preparation Plant.

ACOL have engaged the services of specialist environmental consultants to review the modification of enlarging the eastern emplacement in lieu of constructing the western emplacement haul road and associated dams. The findings of studies in relation to acoustics, air quality, visuals and surface water management associated with constructing the eastern emplacement to hold 15.5 Mbcm of overburden material are summarised below.

ACOUSTICS

ACOL engaged Spectrum Acoustics to undertake an acoustical assessment of constructing the eastern emplacement to RL 135 and eliminating the western emplacement from the project. Noise modelling utilizing RTA Technologies Environmental Noise Model was undertaken based on dumping of overburden under various atmospheric conditions and at either the south, north or east dumps.

The south dump of the eastern emplacement is the nearest point to residences within the village of Camberwell. The south dump was modelled on the basis that overburden dumping operations was to occur behind a leading edge that had been constructed to a final height of RL 135 under favourable climatic conditions.

The results of noise modelling show that under worst case environmental conditions, noise levels will comply with Department of Environment and Conservation (DEC), formerly known as the Environmental Protection Authority, planning limits at all nearby residential locations, provided the following noise control measures are observed, these being:

- Under neutral atmospheric conditions, dumping can occur at all locations;
- Under south easterly wind conditions, dumping can occur at all locations;
- Under temperature inversion conditions, dumping should only occur at the eastern or northern faces of the emplacement; and
- Under north westerly wind conditions, dumping should only occur at the northern face of the emplacement.

The Ashton Coal Project environmental impact statement noise level predictions show widespread exceedences of the 38 dB(A) noise goal due to operations associated with the western overburden emplacement. These exceedences were predicted to be in the 1 - 3 dB magnitude range and potentially impact eight residences. By not constructing the western emplacement, Spectrum Acoustics' assessment predicts that noise goal exceedences will be halved to four.

Appendix 1 contains a complete copy of the Spectrum Acoustics report entitled "Noise Impact Assessment – Proposed Modification to Operations – Ashton Coal Mine, Camberwell, NSW" and dated May 2004.

AIR QUALITY

ACOL engaged Holmes Air Sciences to undertake an air quality assessment of constructing the eastern emplacement to RL 135 and eliminating the western emplacement from the project. Air quality modelling utilizing the Industrial Source Complex (ISC)3 model was undertaken in the assessment of enlarging the eastern emplacement to RL 135 metres.

The results of air quality modelling demonstrate that the construction of an enlarged eastern emplacement extends the dust concentrations and deposition contours to the west, however, the DEC assessment criteria is not exceeded.

ACOL can construct an enlarged eastern emplacement under the same operational and management controls (consistent with approvals for the current design of the eastern emplacement) whilst meeting air quality assessment criteria for annual average TSP, PM_{10} and deposition. If operations exceed the 24 hour average PM_{10} criterion of 50 $\mu g/m^3$, ACOL will continue to employ best practice controls to minimise impacts.

Appendix 2 contains a complete copy of Holmes Air Sciences report entitled "Assessment of Effects of Raising Eastern Emplacement Height to 135m and Elimination of the Western Emplacement" dated June 2004.

VISUALS

ACOL engaged Moir Landscape Architecture to undertake a visual impact assessment of enlarging the eastern emplacement and eliminating the western emplacement from the project. Thirteen (13) viewpoints were identified by Moir Landscape Architecture to assess the likely impact the proposal may have upon the local environment or the number of people likely to be affected.

The major findings of the visual impact assessment are:

- The eastern emplacement will be more visually prominent at RL 135;
- The primary visual impact will be during the construction phase;
- The residents of Camberwell village will experience a high visual impact until the emplacement is constructed and vegetated; and
- Visual impacts will be mitigated with the maturation of landscape screen plantings, including plantings of the environmental bund and off-site plantings.

A significant visual benefit is the elimination of the western emplacement, haul road, environmental bund and water storages that were previously proposed within the original environmental impact statement.

The visual impact mitigation strategies proposed in relation to the enlargement of the eastern emplacement are a combination of on-site and off-site tree plantings.

All on-site revegetation works and plantings will be consistent with the approved ACOL Environmental Management Strategy and associated environmental management plans, in particular the Landscape and Revegetation Management Plan. Plantings will include the use of indigenous species for ground cover, understorey and overstorey in all areas to be landscaped.

Off-site ACOL propose to undertake supplementary tree plantings within the Glennies Creek Road reservation and southern face of ridge between the village of Camberwell and eastern emplacement. Clumps of trees are proposed south of the emplacement at strategic locations along the New England Highway, and corner of Glennies Creek Road and the New England Highway.

Appendix 3 contains a complete copy of Moir Landscape Architecture report entitled Visual Impact Assessment – Ashton Coal Project and dated April 2004.

SURFACE WATER AND ROCK-LINED CHANNELS

Parsons Brinckerhoff Pty Limited was engaged to design the surface water facilities as a permanent stable facility in the landscape. A copy of the Parsons Brinckerhoff report is contained in **Appendix 4**.

Surface water run-off associated with the revised eastern emplacement design will be separated into two (2) distinct catchments, these being catchment No. 1 and Catchment No. 2, which are described below: -

CATCHMENT NO. 1

Contour drains along the southern face of the eastern emplacement and one-third (1/3) of the contour drains on the northern face of the emplacement will be directed to a common, graded rock-lined channel. The waters discharging from the rock-lined channel will be directed to Dam 5 situated east of the emplacement.

CATCHMENT NO. 2

The western contour drains on the northern face of the eastern emplacement will be directed to a rock-lined channel to be constructed down the proposed northern access ramp. Run-off from the area described as Catchment No. 2 will be directed into the existing open cut and utilised in mining operations.

All the proposed contour drains associated with the revised eastern emplacement have been designed to capture peak flows produced by a 1 in 100 year Average Recurrence Interval (ARI) storm event. The spacing of the drains will be kept to a maximum of 50 metres (slope distance) and graded at 1% to minimise potential erosion. The contour drains will be kept to a maximum length of 800 metres. The eastern emplacement will be a permanent feature within the landscape, and accordingly both the channels will be lined with 750mm thick hard rock rip-rap underlain with Bidim A44 geotextile. Plans showing the design of contour drains, rock-lined channels and water catchments for the redesigned Eastern Emplacement are contained within Appendix 4.

The approved Site Water Management Plan for the eastern emplacement area details runoff reporting to three stormwater detention ponds located immediately north and east of the Eastern Emplacement. Stormwater detention dams 3 and 4 will not be constructed, as the runoff from Catchment No. 2 will be conveyed to the existing open cut and utilised for mining operations.

Stormwater detention pond 5 will be enlarged to capture a 1:20 year, 24 hour duration ARI storm event. The dam will have a capacity of 65 mega litres. The facility has been engineered to ensure that the contour drains and rock lined channels have an indefinite life.

The proposed modifications result in a positive environmental outcome to that originally proposed within the environmental impact statement. No disturbance will occur to those lands originally required for the western emplacement, haul road environmental bund and water storages. The construction of these facilities was assessed as impacting upon aboriginal archaeology, air quality, acoustics, stream alignment and soils, in terms of sedimentation and erosion.

The original environmental impact statement identified that the eastern emplacement constructed to a height of RL125 would have a visual impact upon the locality. The visual impact would only by reduced after the eastern emplacement was fully constructed and revegetated. With time and maturing of plantings, the visual impact would be minimised.

The redesign of the eastern emplacement area still retains a visual impact, especially during the construction phase. The visual impacts can be softened by both on-site and off-site plantings. Environmentally, the benefits of redesigning the eastern emplacement area (as described above) significantly outweigh the approach of constructing two separate emplacement areas as originally sought.

The redesigned eastern emplacement area will necessitate modification to condition numbers 1.2 and 5.1 as follows:

- (a) **Insert** the following text as condition number 1.2 (y) "The submission made pursuant to Section 96(2) of the Act in relation to the western and eastern emplacement facilities"; and
- (b) **Delete** the following text in condition number 5.1 "The Applicant shall construct and manage the overburden emplacements as set out in the EIS, and to the satisfaction of the DMR; and" and **replace** it with the following text: 5.1 "The Applicant shall construct and manage the eastern overburden emplacement as set out in the EIS and submission pursuant to Section 96(2) of the Act, and to the satisfaction of the DMR; and".

6 COMMUNITY CONSULTATION

In relation to the Ashton Coal Project there was extensive consultation with all stakeholders including local property owners, residents, government agencies, Singleton Council and the local Wonnarua Aboriginal community leading to the development consent.

The development consent was granted by the Minister subject to number of conditions including the establishment of the Ashton Community Consultative Committee (CCC). The CCC comprised the following members:

•	Singleton Council:	Cr Fred Harvison (Chairperson) Fiona Scanes
•	Department of Mineral Resources:	Monique McDonald
•	Community Representatives:	Mrs Thelma DeJong Mrs Deidre Oloffson Mr John McInerney (Vacancy currently exists)
•	ACOL Representatives:	Ian Callow (General Manager) Colin Davies (Environmental Officer)

The CCC had its inaugural meeting on 18 November 2003 and since that time has met twice covering the following issues:

- Liaison with the local community regarding Section 94 Contributions;
- Detailed explanation of the complaint process;
- Location of site environmental monitoring stations; and
- Installation by ACOL of rain diverters on local residences mine owned and nonmine owned.

The purpose of the CCC is to review the various environmental management plans, discuss ACOL's performance against the consent conditions, provide feedback before and after the meeting to the local community members.

In conjunction with the CCC, ACOL has distributed eight (8) Newsletters since the grant of the Development Consent addressing such issues as:

- Hours of operation of mining activities;
- Appointment of Environmental Officer;
- Environmental Management Plans;
- Undertaking of structural surveys;



- Environmental Monitoring System;
- Employment of local residents; and
- Dust and noise compliance criteria.

In relation to the proposed modifications, ACOL has consulted with the community in and around Camberwell Village via personal visits. The modification is also on the agenda for the next CCC meeting scheduled for 31 August 2004.

Furthermore, although the formal application is being lodged in August 2004, ACOL has discussed the modification with Singleton Council and the Department of Mineral Resources. A formal presentation is planned for Singleton Council on 13 September 2004.

7 EFFECT OF MODIFICATIONS

The effect of the modification as detailed will allow the construction of the Ashton Coal Project to continue with less environmental impact than that originally proposed within the environmental impact statement. Benefits accrue to the community, environment and ACOL.

The modification proposed is not intended to have any other effect upon the consent originally granted.

The environmental benefits of the proposal are as follows:

- <u>The open cut operations are contained to the area located north of the New</u> England Highway, thereby confining the visual impact;
- <u>It will avoid the need for approximately 200,000 truck movements beneath the bridge over Bowmans Creek on the New England Highway;</u>
- It will obviate the potential for inadvertent discharge of dirty or saline waters into Bowmans Creek;
- <u>It will avoid the need to disturb Aboriginal artefacts identified by Witter</u> <u>Archaeology (June 2002) at the Waterhole Site, the High Ridge Workshop Site,</u> <u>the Ashton Homestead Site and some of the Oxbow Site;</u>
- <u>It will avoid the need to construct a large sediment control dam in an area</u> <u>subject to subsidence; and</u>
- <u>The total number of residences at which predicted noise goal exceedances</u> occur will be halved from eight to four by removing the western emplacement option (Spectrum Acoustics page 13).

8 DESCRIPTION OF EXPECTED IMPACTS OF THE MODIFICATION

With the exception of short term visual impacts relating specifically to the eastern emplacement area involving its increased size and height to RL 135 metres AHD, no other environmental impacts will occur as a consequence of the consent being modified. Additional on-site and off-site plantings of indigenous ground cover, shrubs and trees are proposed to ameliorate the revised design of the eastern emplacement. These additional plantings will enhance the screening of the facility.

The structure has been designed to cater for its permanency within the landscape. No long term stability (hydrological, geotechnical, engineering) or environmental issues are envisaged for the Eastern Emplacement.

No amendments or modifications are necessary in relation to the existing Environmental Management System or associated Environmental Management Plans for the construction of the modified emplacement.

9 DEVELOPMENT TO REMAIN SUBSTANTIALLY THE SAME AS THAT DEVELOPMENT THAT WAS ORIGINALLY APPROVED

ACOL give an undertaking to the effect that the development (as to be modified) will remain substantially the same as the development that was originally approved.

10 OWNERS CONSENT TO THE MAKING OF THE APPLICATION

This application relates to raising the height of the Eastern Emplacement Area by 10 metres from RL 125 to RL 135. The Eastern Emplacement Area is wholly contained within a valid Mine Lease, so Owners Consent is not required.

11 APPLICATION IS MADE TO THE CONSENT AUTHORITY

This application is being made to the Minister Assisting the Minister for Infrastructure and Planning (Planning Administration) to modify consent conditions numbers 1.2 and 5.1 pursuant to Section 96(2) of the Act.

NOISE IMPACT ASSESSMENT REPORT

AIR QUALITY ASSESSMENT REPORT

VISUAL IMPACT ASSESSMENT REPORT

DRAINAGE AND CHANNEL DESIGN REPORT