

**S96 (2) Application to Modify
Development Consent
DA 309-11-2001-i**

November 2006

Ashton Coal Operations Pty Ltd



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1. Introduction

Parsons Brinckerhoff Australia (PB) has been engaged by Ashton Coal Operations Pty Ltd (hereafter referred to as Ashton Coal) to provide documentation to accompany an application under Section 96 (2) of the Environmental Planning and Assessments Act, 1979 (EP&A Act).

Ashton Coal operates the Ashton Coal Mine and associated coal handling and preparation facilities, which were granted development consent by the NSW Minister for Planning (DOP) on 11 October 2002 in response to development application DA 309-11-2001. On 27 January 2005 the Minister for Infrastructure and Planning provided consent to modify the development consent (DA 309-11-2001-i).

The offsite emplacement of Ashton Coal's coal tailings is required to provide tailings storage capacity during the period where the underground mine is producing concurrent to the open cut mine, prior to the "Barrett Pit" final void being available for tailing deposition.

Ashton Coal and Macquarie Generation have reached agreement to utilise Macquarie Generation's Ravensworth Final Void No: 4 East for the offsite emplacement of Ashton Coal's coal tailings.

The planning approvals pathway consists of submitting two Section 96 (2) applications to modify both Ashton Coal's DA 309-11-2001-i and Macquarie Generation's DA 144/93 development consents.

This modification of DA 309-11-2001-i seeks to allow offsite emplacement of coal tailings and approval for pipelines associated with this offsite emplacement, rather than currently approved co-disposal of coal tailings at the Ashton Mine site.

Emplacement of fly ash generated by Bayswater Power Station by Macquarie Generation in Ravensworth Void No: 4 was approved by Singleton Council via Development Consent DA 144/93 in December 1993. Separate Section 96 (2) application and Statement of Environmental Effects (SEE) documents have been submitted to Singleton Council seeking to modify DA 144/93 to allow the emplacement of coal tailings in place of fly ash.

A Statement of Environmental Effects (SEE), provided as a separate report, details the potential environmental impacts and mitigation management strategies associated with the modification of this approval.

1.1 Ravensworth Final Void No. 4 East

Please note, Ravensworth Final Void No. 4, as referred to in this report, is also referred to as Ravensworth No: 2 Mine Void in other documentation and approvals. In this application for modification this void will be referred to as Ravensworth Final Void No. 4, and the part of Ravensworth Final Void No. 4 subject of this application for modification will be referred to as Ravensworth Final Void No. 4 East.

2. Planning approvals

The planning approvals pathway consists of submitting two Section 96 (2) applications to modify Ashton Coal's DA 309-11-2001-i and Macquarie Generation's DA 144/93 development consents.

Figure 2 illustrates the proposed pipelines route and emplacement area for the project and the demarcation of land covered by the two separate Section 96 (2) applications. **Section 5** details land title particulars.

2.1 Existing DA 309-11-2001-i

The use of offsite emplacement is required to provide tailings storage capacity for the period where the underground mine is producing concurrent to the open cut mine, prior to the "Barrett Pit" final void being available for tailing deposition. Ashton Coal has commenced approved installation of longwall mining equipment which, when operational, will lead to an increase in the volume of reject material in early 2007. Coarse reject will be disposed in the overburden stockpile. It is proposed that fine rejects be emplaced offsite within Ravensworth Final Void No. 4 East.

In October 2002 the Minister for Planning granted development consent to Development Application (DA) 309-11-2001. This approval was subsequently modified in January 2005 (attached as **Appendix B**).

DA 309-11-2001-i was supported by an EIS entitled *Ashton Coal Project, Environmental Impact Statement, 2001* which provided details for the establishment of an open cut and underground coal mine, coal preparation plant and associated surface infrastructure.

The accompanying EIS stated that tailings would initially be placed in two (2) storage ponds, located adjacent to the CHPP for a period of five (5) years. Coal tailings would then be emplaced in transition ponds on the surface of the overburden dump and eventually into the final void, following the completion of open cut mining activities within the 'Barrett Pit'.

2.2 Existing DA 144/1993

In December 1993, Singleton Council granted development consent to Macquarie Generation DA 144/93, enabling the use of the Ravensworth Final Void No. 4 (including Ravensworth Final Void No. 4 East) for the disposal of fly ash produced by the Bayswater Power Station, for an approximate period of thirty (30) years.

DA 144/93 was an application for consent for designated development and was supported by an EIS entitled *Bayswater Power Station, Fly Ash Disposal in Ravensworth No. 2 Mine Void and Mine Rehabilitation, Environmental Impact Statement, 1993*. The accompanying EIS detailed the emplacement of approximately 45 million tonnes of fly ash via above ground pipelines into the northern, eastern and western arms of the Ravensworth Final Void No. 4 prior to capping and revegetation to final landform. Ravensworth Final Void No. 4 East currently remains unfilled.

Under a separate Section 96 (2) application to Singleton Council, Ashton Coal (in conjunction with Macquarie Generation) is seeking to modify Macquarie Generation's Development Consent DA 144/93 to allow the deposition of coal tailings in place of fly ash in Ravensworth Final Void No: 4 East.

2.3 DA 309-11-2001-i S96 (2) Modification application

Ashton Coal formally applies to the Department of Planning to modify the existing Development Consent granted by the Department of Planning in respect to DA 309-11-2001-i, pursuant to the provisions of Section 96 (2) of the *EP&A Act 1979*, as amended, for the offsite emplacement of tailings and construction, operation and maintenance of pipelines associated with offsite emplacement.

Ashton Coal requests that Condition 1.2 of the 2005 Consent Conditions be modified by the insertion of the following words in relation to coal tailings emplacement:

"Document titled Section 96(2) Application to Modify Development Consent DA 309-11-2001-i, November 2006, prepared by Parsons Brinckerhoff"

"Document titled Statement of Environmental effects to Support Section 96(2) Application to Modify Development Consent DA 309-11-2001-i, November 2006, prepared by Parsons Brinckerhoff"

These documents provide the supporting information required by Clause 115 of the Environmental Planning and Assessment Regulation 2000 (EP&AR 2000) to support an application to modify development consent.

3. Name and address of applicant

In accordance with Clause 115 (1a) of the EP&AR 2000, a Section 96 application to modify development consent is required to include the name and address of the applicant.

The name and address of the applicant is:

Name: Ashton Coal Operations Pty Ltd

Street Address: Glennies Creek Road

CAMBERWELL, NSW, 2330

Postal Address: PO Box 699

SINGLETON, NSW, 2330

4. Description of development under existing consent

In accordance with Clause 115 (1b) of the EP&AR 2000, a Section 96 application to modify development consent is required to include a description of the development to be carried out under the consent (as previously modified).

A description of the development to be carried out under the consent includes:

Development Application Number: DA 309-11-2001-i

Consent Authority: Department of Planning (then Department of Planning Infrastructure and Natural Resources)

Applicant: Ashton Coal Operations Pty Ltd

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.

5. Title particulars of land

In accordance with Clause 115 (1c) of the EP&AR 2000, a Section 96 application to modify development consent is required to include the address, and the formal title, of the land on which the development is to be carried out.

The formal title particulars of the land traversed by the proposed pipeline route are provided in **Table 1**.

Table 1 Land Titles Details

Lot/ Portion	DP	Lease Type	Owner of Land	County
1	745486	ML1533	Ashton Coal	Durham
11	261916	ML1533	Ashton Coal	Durham
2	1089848	ML1349	Macquarie Generation	Durham

The land traversed by the proposed pipeline route is located within the Singleton Local Government Area (LGA) (as illustrated in **Figure 1**).

A total of three (3) lots are traversed by the proposed pipelines. Traversed land is owned by Ashton Coal and Macquarie Generation.

The New England Highway road reserve at Ravensworth is also traversed by the pipeline. The RTA has provided conditional approval for these works. The pipeline will be trenched through the bed of Bowmans Creek and under the New England Highway bridge crossing. Preliminary discussions have been held with an officer of the Department of Natural Resources has been undertaken.

An agreement has been made between Macquarie Generation and Ashton Coal for the use of the land owned by Macquarie Generation, consenting to the use of this land for the construction, operation and maintenance of the pipelines and Ravensworth Final Void No.4 East for tailings emplacement.

6. Description of proposed modification

In accordance with Clause 115 (1d) of the EP&AR 2000, a Section 96 application to modify development consent is required to include a description of the proposed modification to the development consent. This application for modification is to allow offsite emplacement of coal tailings and seeks approval for pipelines associated with this offsite emplacement.

The proposed modification is described in more detail below:

6.1 Pipeline route alternatives

The proposed pipelines route has been selected so as to minimise environmental impacts such as erosion, vegetation loss, and habitat destruction, whilst providing sufficient access for future operational and maintenance activities.

Four alternative pipelines routes were considered (as illustrated in **Figure 3**). Essentially the route of all four alternatives are similar, however each alternative has been modified to provide improved environmental outcomes.

Each alternative and its merits are discussed below:

6.1.1 Alternative 1

The first pipelines alignment represents the most direct route considered.

This alignment was considered as it is a direct route to the Ravensworth Final Void No. 4 East and utilised the existing access track within Macquarie Generation owned land for both access and bunding purposes.

This alignment was discounted as it required clearing of native plantation and Casuarina Woodland and unnecessarily crossed to the western side of the existing access road within Macquarie Generation land. This alignment also potentially impacted on items of potentially non-indigenous heritage significance.

6.1.2 Alternative 2

The second pipeline alignment represented a refinement of alternative 1, avoiding existing vegetation and removing the need to traverse to the western side of the existing access road.

This alignment was considered to be an improvement on alternative 1 as it negated the need to clear existing native plantation and Casuarina Woodland and the unnecessary crossing of the existing access road.

The alignment was discounted as it directly impacted on items of potentially non-indigenous heritage significance.

6.1.3 Alternative 3

Alternative 3 was considered an improvement on alternatives 1 and 2. Alternative 3 avoids the potential items of non-indigenous heritage significance and better utilises the existing access track within Macquarie Generation owned land.

This alignment is an improvement on alternatives 1 and 2 as it avoids the need to clear existing native plantation and Casuarina Woodland, does not impact on the old farm buildings and maximises use of existing access roads.

The alignment was discounted due to the single discharge point into the Ravensworth Final Void No. 4 East.

6.1.4 Alternative 4

Alternative 4, the preferred alternative is the same route as alternative 3 but utilises a multi point ring main distribution configuration located around the perimeter of the Ravensworth Final Void No. 4 East. The ring main configuration allows greater control over the discharge and beaching of tailings into the Ravensworth Final Void No. 4 East.

This alternative has been selected as it maximises environmental and engineering outcomes.

6.2 Bowmans Creek crossing alternatives

Five alternatives were considered for the crossing at three locations on Bowmans Creek (as illustrated in **Figure 3**). Each alternative and its merits are discussed below:

6.2.1 Alternative 1

The first alternative consists of laying double-sleeved pipe on the bed of Bowman's Creek.

This alternative was considered satisfactory in the early stages of scoping the project as there was to be only two pipelines, one tailings pipeline and a decant water return pipeline. This alternative presented minimal disruption and environmental impact to the creek as soils would not be excavated or disturbed.

Given that the design now incorporates four double sleeved pipelines each with a significant sleeve (and a fifth unsleeved pipeline) the laying of the pipelines on the creek bed is not considered feasible. The crossing alternative also presents potential hazards in the event of flooding.

6.2.2 Alternative 2

This alternative consists of fixing the pipelines to the New England Highway Bridge over Bowmans Creek. Whilst this alternative presents improved environmental outcomes in terms of aquatic flora and fauna and stream flows, preliminary consultation with the Roads and Traffic Authority indicated that authorisation would not be provided to fix the pipe work to the New England Highway Bridge.

6.2.3 Alternative 3

This alternative consists of a pipe bridge was proposed immediately west of the New England Highway Bridge over Bowmans Creek. This option was discounted, as the visual impact to passing motorist was significant and the construction of support structures on either bank would have major impact on existing vegetation.

6.2.4 Alternative 4

This alternative consists of a pipe bridge was proposed approximately 100m east of the New England Highway Bridge over Bowmans Creek. This option was discounted, as the visual impact to passing motorist was still significant and the construction of support structures on either bank would have a greater impact on existing vegetation.

6.2.5 Alternative 5

This alternative is the preferred and most feasible option to traverse Bowmans Creek.

This alternative includes trenching through the bed of Bowmans Creek in an area previously cleared of vegetation for the recent installation a Telstra cable. The trench will continue along the northern bank of Bowmans Creek until it passes under the New England Highway Bridge. Each of the pipelines will be double sleeved to capture potential spills that may occur from pipeline breakages.

The pipelines will be trenched to a depth of approximately 1.5m.

Pipes located in the northern bank of Bowmans Creek shall be located in a sand bed with excavated topsoil materials reinstated following commissioning.

Once in place the pipelines at the creek crossing will be encased by a 600mm layer of concrete. Natural material will be backfilled and compacted over the concrete, aggregate of up to approximately 250mm in diameter will be used to cover the backfilled material. The aggregate layers covering the pipelines will be engineered to ensure a level consistent with the existing creek bed.

6.3 Proposed pipelines

The proposed pipelines will comprise of five parallel, above ground, high density polyethylene (HDPE) pipes and associated infrastructure (as illustrated in **Figure 4** and detailed in **Figure 5**) which will traverse approximately 5 kilometres from Ashton Coal's CHPP to Ravensworth Final Void No. 4 East.

These pipelines include:

- two pipelines to transport tailings reject produced by Ashton Coal's CHPP to the Ravensworth Final Void No. 4 East
- a decant water pipeline to transport decant water from the eastern end of Ravensworth Final Void No. 4 East back to Ashton Coal's CHPP for reuse
- a water sharing pipeline to transport water from Ashton Coal CHPP (originating from Glennies Creek Colliery) to Newpac No. 1 Colliery's existing services corridor, located south of the Ravensworth Final Void No. 4 East

- a clean water line to transport water from Ashton Coal CHPP to the flocculant plant adjacent to the south west corner of Ravensworth Final Void No. 4 East

The majority of the length of the pipelines (north of the flood level near the New England Highway Bridge to the Ravensworth Final Void No. 4 East) will be enclosed by a vegetated earthen bund/s, which will be approximately 500mm high and approximately 2 metres wide. The earthen bund will be constructed from excavated fill. The total width of the pipelines (inclusive of bunds) will be approximately 6 metres. A typical cross section is illustrated in **Figure 5**.

The southern section of the pipeline traverses the New England Highway and Bowmans Creek (approximately 350 metres east of Ashton Coal CHPP). From north of the flood level near the New England Highway Bridge to the eastern side of Ashton Coal's acoustic bund the pipeline will be double sleeved (pipe in pipe configuration). The pipeline and sleeves will be designed with flushing capability. A spare tailings line will be installed in this section. The pipework at the creek crossing will be concrete encased and covered in rock to the level of the creek bed.

A 'Part 3a' permit (under the Rivers and Foreshores Improvement Act) for the creek crossing and excavation works within 40 metres of Bowmans Creek will be obtained. Preliminary discussions have been held with an officer of the Department of Natural Resources has been undertaken and verbal confirmation of the preferred alternative creek crossing obtained.

The northern end of the sleeve open will discharge into a storage basin located north of the flood level near the New England Highway Bridge. The southern end of the sleeve open will discharge inside the acoustic bund at Ashton Coal CHPP.

The pipeline may be below ground in sections inside the acoustic bund of Ashton Coal CHPP. Earthen bunds will not be constructed as containment engineering controls are currently integrated into the Ashton Coal CHPP.

The engineering design of the pipelines will integrate drain points, siphon points, storage basins and culverts along the pipeline route, as required, to effectively manage surface water. Natural drainage basins will be utilised for spill collection where possible, however fill may be imported from the overburden re-win pit for constructing artificial basins, when deemed necessary. The design of all pipelines will allow for the subsidence effects of both Ashton Coal and Newpac's underground operations.

Ashton Coal will be responsible for all maintenance, annual reporting and management of the pipelines. Maintenance activities will include regular visual inspections from vehicle and continuous monitoring utilising electronic flow measurement/leak detection system.

The tailings and decant water pipelines will be operational for a period of five years or until Ravensworth Final Void No. 4 East reaches capacity.

6.3.1 Tailings pipelines

Ashton Coal's CHPP comprises of two modules (400 tonne/hour unit and a 600 tonne/hour unit). The two tailings pipelines will commence within Ashton Coal's CHPP and terminate at the Ravensworth Final Void No. 4 East.

Ashton Coal CHPP produces approximately 5.2 million tonnes per annum (Mtpa) of Run of Mine (ROM) coal and 15% fine reject equivalent to 810,000 tonnes per annum (tpa). Tailings will be mixed with water to form tailings slurry for transportation to Ravensworth Final Void No. 4 East. The tailings slurry to the Ravensworth Final Void No. 4 East is expected to consist of approximately 45% fine reject.

Two equal sized pipelines will be utilised for the transportation of tailings reject slurry from the modules to Ravensworth Final Void No. 4 East.

Both pipelines will be the same diameter, being designed at approximately DN 280mm to allow tailings reject slurry from the larger 600 tonne/hour unit to be pumped through either pipeline. Tailings reject material from the 400 tonne unit will be delivered to the Ravensworth Final Void No. 4 East through the addition of process waters. The pipelines will consist of butt welded HDPE pipes. These pipelines will commence within Ashton Coal CHPP and terminate around the walls of the Ravensworth Final Void No. 4. East. The sleeved sections of these pipelines will be approximately 350NB.

The flow rate and pipework size has been selected to ensure tailings velocity is sufficient to avoid settlement and potential blockages.

The design flow rate for each of the tailings pipelines is 70 litres per second with a combined flow rate of 140 litres per second.

The two tailings pipelines will converge into the tailings reject distribution pipeline at a point adjacent to the south/western end of Ravensworth Final Void No 4. East. The distribution line comprises of a single pipeline ring main configuration located around the top of the north, west and south walls of the Ravensworth Final Void No. 4 East. The distribution pipeline will be butt welded HDPE pipes of approximately DN 315mm. Tailings distribution will be configured to ensure tailings commence beaching from the western end of the void at a slope of 5 degrees, with decant flowing to the eastern end of the void.

A flocculation injection system will be located immediately south of the western end of Ravensworth Final Void No. 4 East. Once prepared, flocculant will be transferred through pipework and injected within 6 metres of the tailings discharge point. The injection of flocculant assists in binding the solids within the slurry and allows the water to separate from the tailings more efficiently.

6.3.2 Decant water pipeline

A decant water pipeline will commence from the decant pump located in the south eastern corner of Ravensworth Final Void No 4. East and will terminate at Ashton Coal's CHPP. The decant water pipeline will reclaim decant water from the void and return it for reuse in the Ashton Coal CHPP.

The decant water pipeline will consist of a butt welded HDPE pipe of approximately DN 250mm. The sleeved section of this pipe work will be approximately 300NB.

The maximum expected flow rates for this line is 80 litres per second.

The decant water pipeline will operate intermittently and will be dependant on the decant recovery.

6.3.3 Water sharing pipeline

An existing water sharing pipeline currently operates between Ashton Coal and Glennies Creek Colliery. This pipeline will be extended to incorporate Newpac in water sharing arrangements. In order to facilitate water sharing from Glennies Creek Colliery to Newpac via Ashton Coal the water sharing pipeline will be extended from Ashton Coal's CHPP to a tee installed where the water sharing pipeline reaches the Newpac Services Corridor (south of the western end of the to Ravensworth Final Void No.4 East). This tee will allow the transfer of water to Newpac, or when directed for flood mitigation, transfer water to Ravensworth Final Void No.4 East.

Newpac will be responsible for the water sharing pipeline to be constructed within Newpac's Services Corridor under their existing approval.

The water sharing pipeline from Ashton Coal to Ravensworth Final Void No. 4 East will consist of a butt welded HDPE pipe of approximately DN 250mm. The sleeved section of the pipe work will be approximately 300NB.

The expected flow rate for water sharing pipeline transferring of water to Newpac is 30 litres per second. When utilised for flood mitigation, the expected flow rate is 60 litres per second.

The water sharing pipeline to Newpac will still be operational after the Ravensworth Final Void No. 4 East reaches capacity. Ashton Coal will continue to operate, inspect and maintain their section of this pipeline.

6.3.4 Clean water pipeline

A clean water pipeline will commence from existing pipework within Ashton Coal's CHPP and terminate at the flocculant plant, adjacent to the south west corner of Ravensworth Final Void No. 4 East. The clean water pipeline will utilise water from the Hunter River extracted as part of Ashton Coals existing water access licenses.

Clean water provided by the pipeline will initially be utilised in the construction of the infrastructure associated with offsite coal tailings emplacement. During emplacement operation the clean water will be utilised in the preparation of liquid flocculant, which is injected into the tailings discharge to improve the recovery of decant water from the tailings.

The clean water pipeline will consist of a butt welded HDPE pipe of approximately DN 110mm. Being clean water no sleeve section will be required for this pipe work.

The maximum expected flow rate for this line is 8 litres per second.

The clean water pipeline will operate intermittently and will be dependant on the rate of flocculant preparation.

6.3.5 Flood mitigation system

Flood mitigation capability has been integrated into the design of the pipelines. The two tailings pipelines, water sharing pipeline and associated pumping systems have been designed to assist during periods of significant rainfall at Ashton Coal site. The system allows for the rapid discharge of rainwater collected in Ashton Coal infrastructure and

mining areas to be discharged to the Ravensworth Final Void No. 4 East for interim storage.

6.4 Construction

Construction of the proposed pipelines is expected to take approximately 2 months. It is anticipated that the pipelines will be commissioned in early 2007.

Construction will generally be undertaken in accordance with Ashton Coal's approved operations.

A construction workforce of approximately 15 – 20 people are anticipated to be employed in construction works. The workforce will be generally sourced from local contractors.

Office and crib facilities for construction crews will be established to the east of Ravensworth Final Void No. 4 East.

The generation of construction waste is expected to be minimal. Any general waste or pipeline waste will be reused or recycled where possible or transported offsite and disposed of at an appropriate facility by contractors. Appropriate waste receptacles will be available on site for the collection of general waste. Portable toilets will be made available on site for use by construction contractors.

Earthen bunds along the pipeline route will be constructed from material extracted from the overburden re-win pit located immediately south of the eastern end of the Ravensworth Final Void No. 4 East.

Power to the office and crib facilities and for construction equipment will be provided by diesel generators.

Construction access and deliveries of construction equipment and materials to the site will be via land formally known as land formally known as Brunkers Lane.

6.5 Operation and maintenance

The tailings and decant water pipeline will be operational for a period of approximately five (5) years or until the Ravensworth Final Void No. 4 East reaches capacity, at which time the pipelines may be decommissioned. The water sharing pipeline will continue to operate after the Ravensworth Final Void No. 4 East reaches capacity.

It is estimated that the tailings pipelines will be replaced once during their expected 5 year lifetime.

The tailings and Newpac water sharing pumps will be driven from a motor control cabinet (MCC) located within Ashton Coal.

The pipelines will be visually inspected from a vehicle on a regular basis for any breakages or leaks.

Emergency response contracts will be established (prior to commissioning of the pipelines) with an appropriate contractor(s) to respond to emergencies such as spill clean ups etc and to undertake emergency repairs to the pipelines.

The pumps associated with the pipelines are centrally controlled and monitored from a control room located at Ashton Coal. The monitoring of flow rate is a form of leak detection that can be enabled to monitor pipeline performance continuously.

Subsidence monitoring of the longwalls beneath the pipelines will be undertaken as part of Newpac's approved operations.

7. Statement of modification

Under Clause 115 (1)(e) of the EP&AR 2000, a Section 96 application to modify development consent is required to include a statement that indicates:

- (1)(e)(i) that the modification is merely intended to correct a minor error, misdescription or miscalculation, or
- (1)(e)(ii) that the modification is intended to have some other effect, as specified in the statement

This Section 96 application has therefore been prepared in accordance with clause 115(1)(e)(ii), which is to modify an existing development consent while not significantly increasing the environmental effects of the total development.

8. Description of expected impacts of modifications

The proposed Section 96 (2) modification to DA 309-11-2001-i will entail minimal additional environmental impact. The majority of the proposed pipelines route will be constructed in an area heavily disturbed by previous mining land (consisting of mining overburden) and agricultural land uses.

The proposed pipelines are consistent with existing mining and power station uses within the surrounding area.

The construction and operation of the proposed pipelines will have minimal noise, air quality and visual impact in the immediate local area.

No non-mine owned residences are located within 2km of the pipelines. The Ashton EIS describes the village of Camberwell as being located approximately 1.5 km east of the mine surface facilities, being approximately 2km from the southern extent of the pipelines.

As described in **Section 6** the pipelines route has been selected to minimise environmental impact by avoiding standing of existing native vegetation and woodland, items of indigenous and non-indigenous heritage and minimising excavation and therefore disturbance to soils.

For a detailed description of minimal environmental impacts of the proposed emplacement area and associated mitigation measures refer to the separate Statement of Environmental Effects Report.

9. Substantially the same development

In accordance with Clause 115 (1i) of the EP&AR 2000 the following is a statement that confirms that the proposed Section 96(2) modification will remain substantially the same as the development that was originally approved.

The proposal seeks to modify aspects of the approved Ashton Coal consent, to allow offsite emplacement of coal tailings and approval for pipelines associated with this offsite emplacement.

The proposal is considered substantially the same development as approved as:

- the proposal does not seek any alteration to mine extraction rates or production
- there is no alteration to hours of operation or staff numbers resulting from the proposal
- the total volume of emplaced material associated with this modification remains the same as previous approved

These proposed changes are only minor and do not change the intent of the development approved in DA 309-11-2001-i, as originally approved by the Department of Planning.

10. Land owner consent to application

Clause 115 (1h) of the EP&AR 2000 requires that a signed statement be provided by the owner/s of the land, if the applicant is not the owner of the land consenting to the making of the application.

In mid 2006 Macquarie Generation agreed to the use of property for the construction and operation of the pipelines between Ashton Coal CHPP and Ravensworth Final Void No: 4 East.

Evidence of land owners consent to the application is provided in the “Application to Modify a Development Consent” form attached as **Appendix B**.

11. Application to consent authority

In accordance with Clause 115 (1i) of the EP&AR 2000 this application to modify DA 309-11-2001, as subsequently modified, is being made to the Department of Planning.

12. Conclusions and recommendations

Ashton Coal, as the applicant, seeks to modify the consent DA 309-11-2001, as subsequently modified, granted by the Department of Planning to allow offsite emplacement of coal tailings and approval for pipelines associated with this offsite emplacement.

The benefits of relocating the tailings storage and associated infrastructure include:

- consolidate this volume of tailings to a discrete area
- minimising noise impact
- minimising air quality impact
- minimising visual impact
- ensuring the void will be rehabilitated

13. References

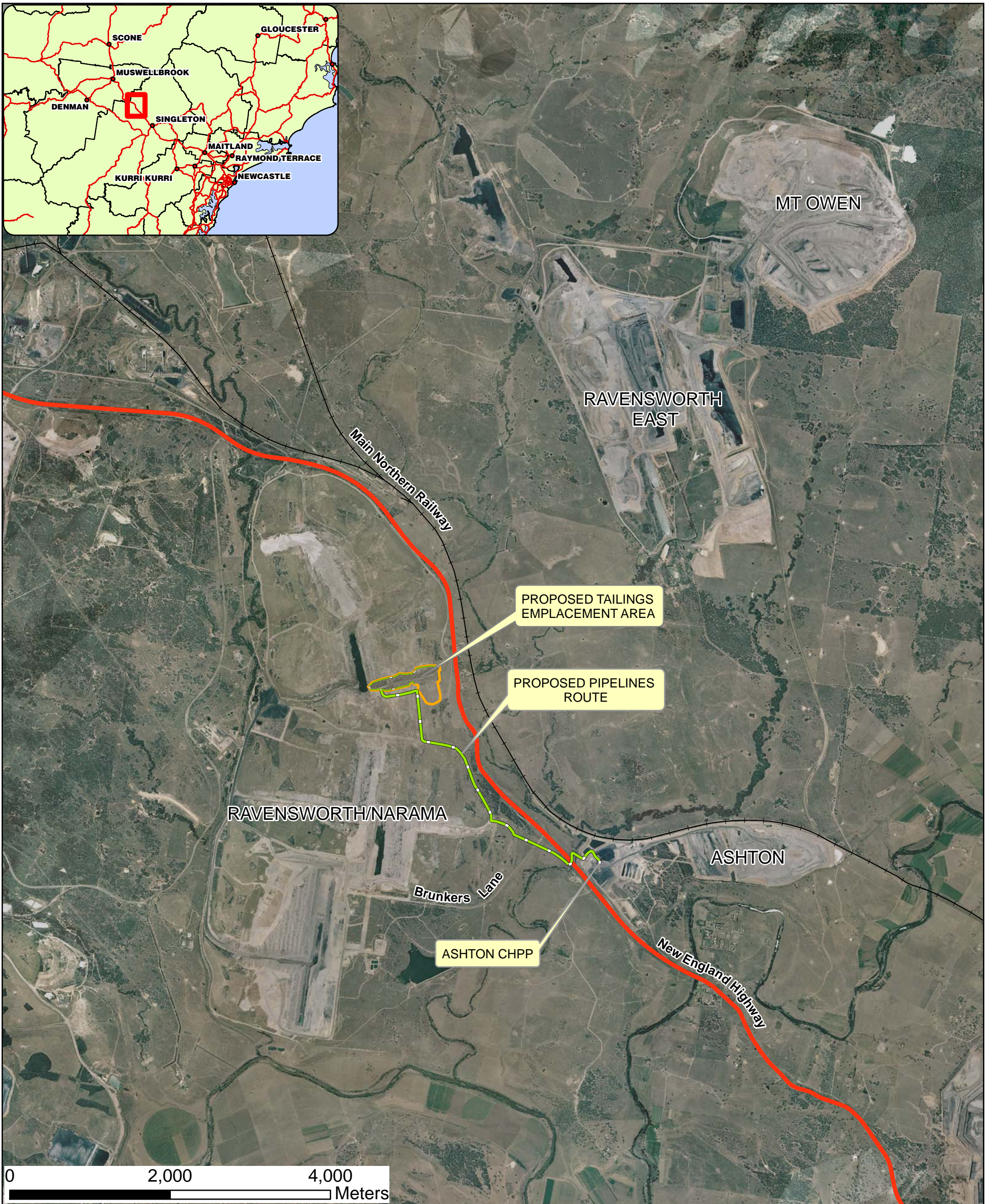
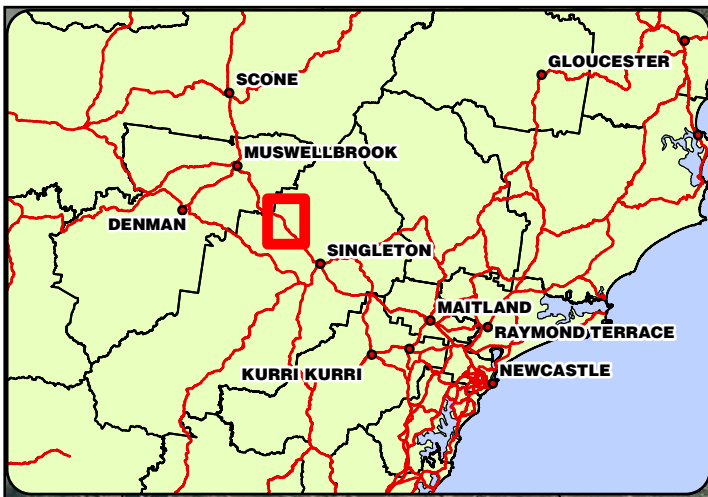
HLA-Envirosciences (1996) *Environmental Impact Statement Nardell Underground Coal Mine*. Report prepared for Nardell Coal Corporation.

HLA-Envirosciences (2000) *Environmental Impact Statement Ravensworth Waste Management Centre*. Report prepared for Theiss Environmental Services.

HLA-Envirosciences (2001) *Environmental Impact Statement White Mining Limited Ashton Coal Project*. Report prepared for White Mining Limited.

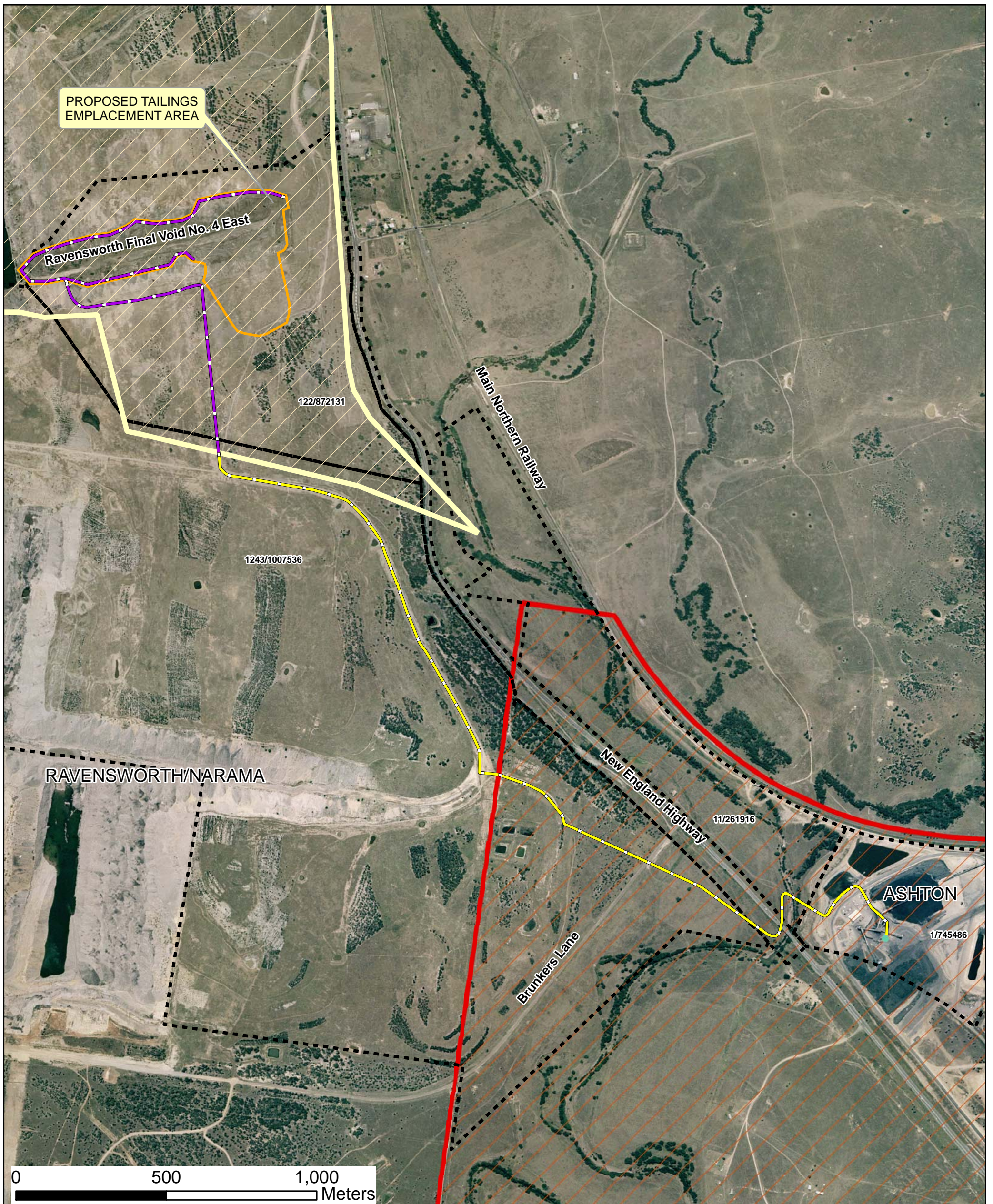
Pacific Power (1993) *Bayswater Power Station Fly Ash Disposal in Ravensworth No. 2 Mine Void and Mine Rehabilitation Environmental Impact Statement*.

Figures



	New England Highway
	Proposed Pipelines Route
	Ravensworth Final Void No.4 East
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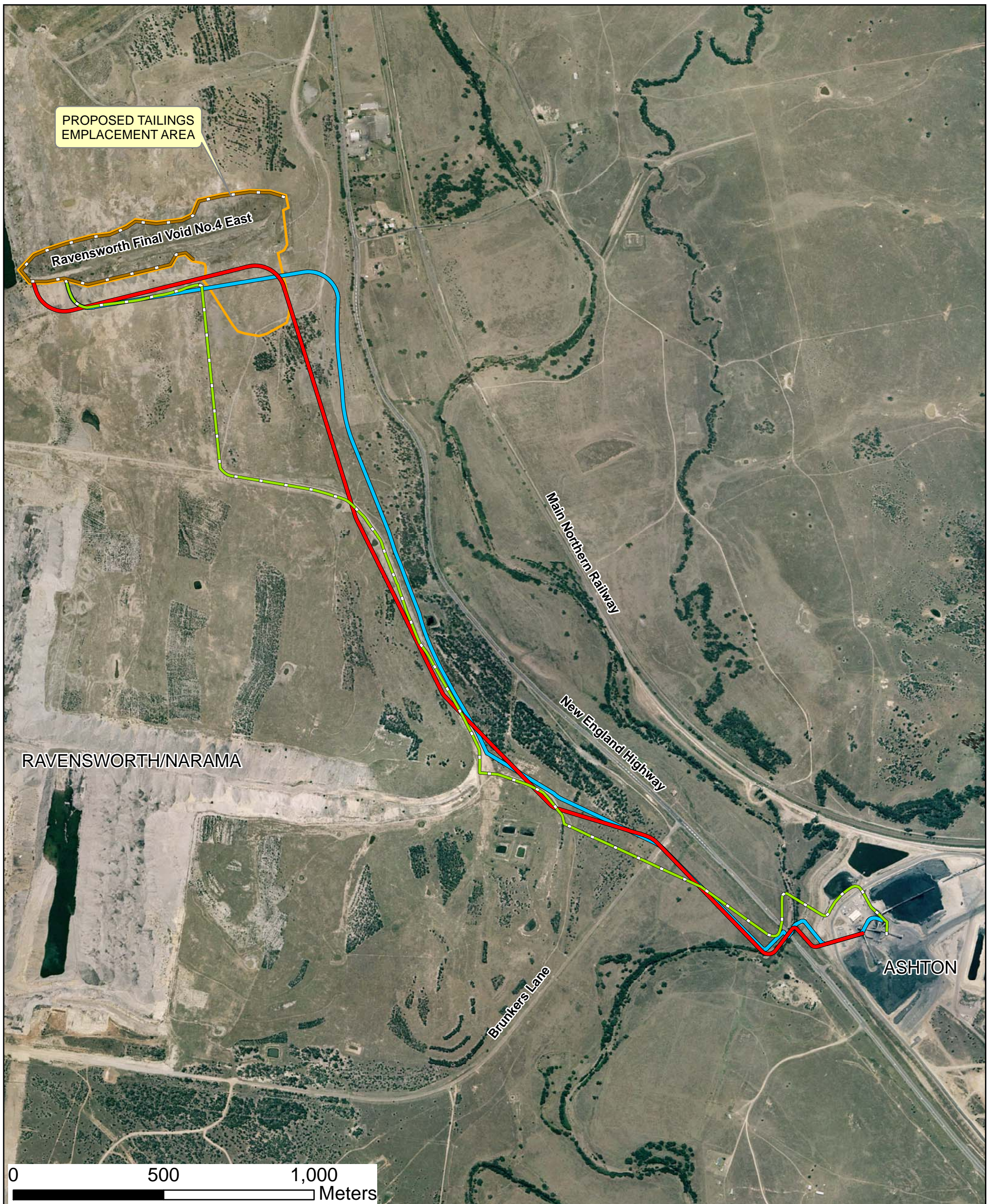
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Client:		Ashton Coal Operations	
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Layout Size:		A3	
GIS Proj:		J:\A402-SGL\PROJ\21185XX\2118508\2118508A\5_WrkPapers\GIS\Projects	
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Drawn:	CSB	Date:	11 July, 2006
Designed:	CSB	Date:	11 July, 2006
Checked:	WJ	Date:	11 July, 2006
DWG. No.:	2118508A_4003	Fig. No.:	1



— Ashton Coal - Section 96(2) Approval
— Macquarie Generation - Section 96(2) Approval
 Ravensworth Final Void No.4 East
 Ashton Coal Project EIS Boundary
 Macquarie Generation EIS Boundary

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 PDF File: 2118508A_4007_Surveyed_Route_080806


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Project:			
Client:		Datum: MGA 94 / Zone 56	Scale: 1:12,000
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Layout Size: A3		Designed: CSB	Date: 30 October, 2006
GIS Proj: J:\A402-SGL\PROJ\21185XX\2118508\2118508A\5_WrkPapers\GIS\Projects		Checked: WJ	Date: 30 October, 2006
		DWG. No: 2118508A_4004	Fig. No. 2





	Alternative One	Ravensworth Final Void No.4 East
	Alternative Two	
	Alternative Three	
	Alternative Four	
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PDF File:	2118508A_Figure5_080606	

Title:				Pipelines Route Alternatives	
Project:		Proposed Ashton Tailings Pipelines		Datum:	MGA 94 / Zone 56
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		Fig. No.:	3	Date:	11 July, 2006





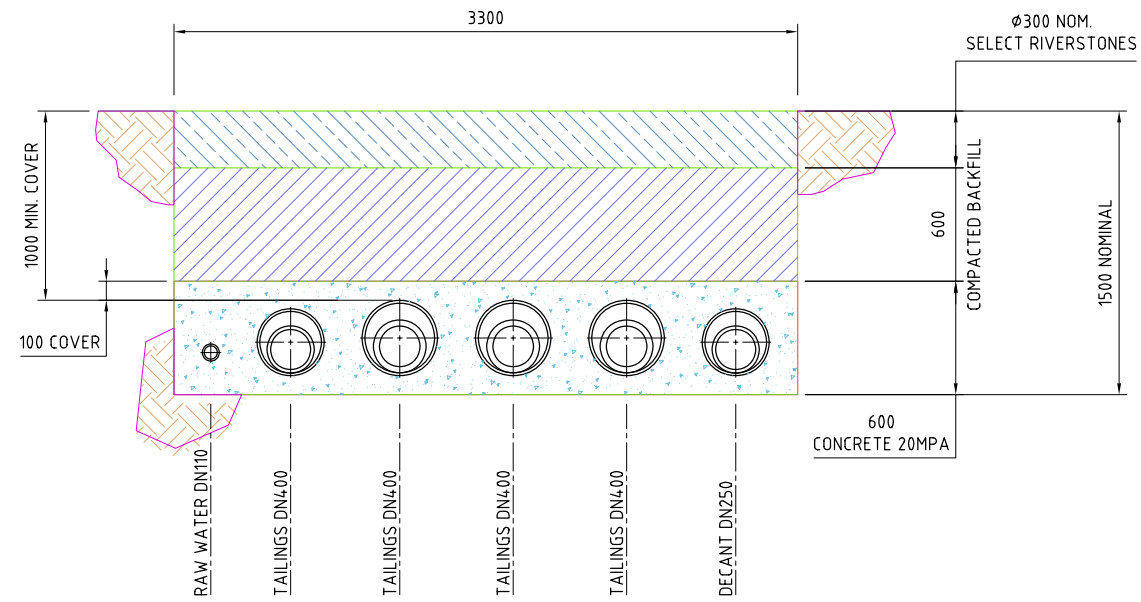
 Proposed Pipelines Route

 Cross Sections

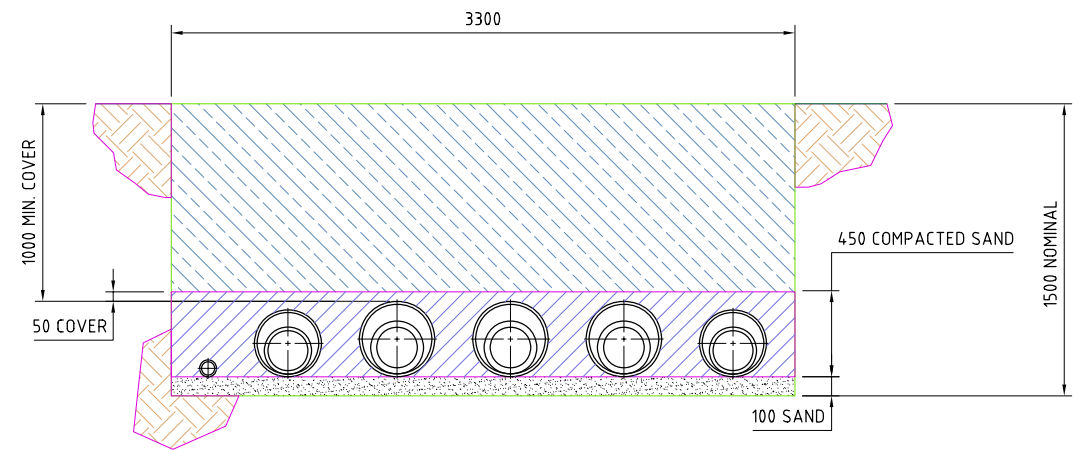
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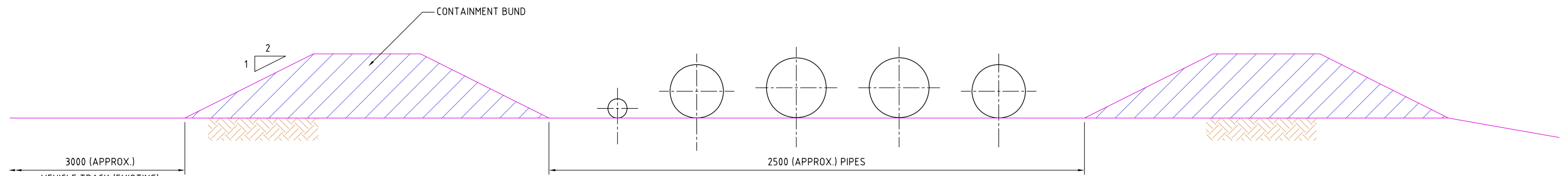
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		Date: 11 July, 2006	
		Designed: CSB	
		Date: 11 July, 2006	
		Checked: WJ	
		Date: 11 July, 2006	
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		Fig. No. 4	



SECTION A
SCALE 1 : 20



SECTION B
SCALE 1 : 20

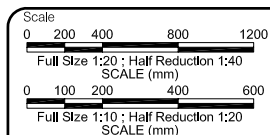


SECTION C
SCALE 1 : 10

REV	DESCRIPTION	DATE	APPROVED
01	REVISED ISSUE	01.11.06	
00	ORIGINAL ISSUE	01.07.05	

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0 100 200 400 600	Drawing Check		
Full Size 1:10 : Half Reduction 1:20	AHR		30.06.05
SCALE (mm)	Design Check		
	DCF		29.06.05
	Project Approval		

PB PARSONS BRINCKERHOFF

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Singleton NSW 2330
Australia

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Facsimile +61 2 6572 4080
Email: singleton@pb.com.au

Client	Job No
ASHTON COAL OPERATIONS	2118508A
Project	Drawing No
PROPOSED ASHTON PIPELINES	FIGURE 5
	Cad File
	Rev
	FIG 5 01

Appendix A

Existing Ashton Coal
DA 309-11-2001-i



Department of
Infrastructure, Planning and Natural Resources

**Mining & Extractive Industries
Major Development Assessment**
Phone: (02) 9762 8154
Fax: (02) 9762 8707
Email: mike.young@dipnr.nsw.gov.au
Level 4 Henry Deane Building
20 Lee Street
GPO Box 3927
Sydney NSW 2001

Our Reference: S03/ 00074

Mr Steve McGrath
General Manager
Singleton Shire Council
PO Box 314
SINGLETON NSW 2330

Attention: Mark Ihlein
Manager, Planning and Development Services

Dear Mark,

**Ashton Coal Mine
Notice of Determination of Modification**

I wish to advise that on 27 January 2005, the Minister Assisting the Minister for Infrastructure and Planning (Planning Administration), the Hon Diane Beamer MP, approved Ashton Coal Mine's application for modification of development consent (DA No. 309-11-2001-i) to allow it to increase the height of its eastern overburden emplacement area by 10 metres to RL 135 metres, thereby removing the need to construct the western emplacement area and associated infrastructure.

I have attached two signed copied of the notice of modification for your information and would appreciate it if you would place one copy on display in your offices. I have also attached a copy of the consolidated conditions of consent (as modified) for your information.

If you have any questions in relation to this matter, please contact me on ~~9762 8154~~

92286442

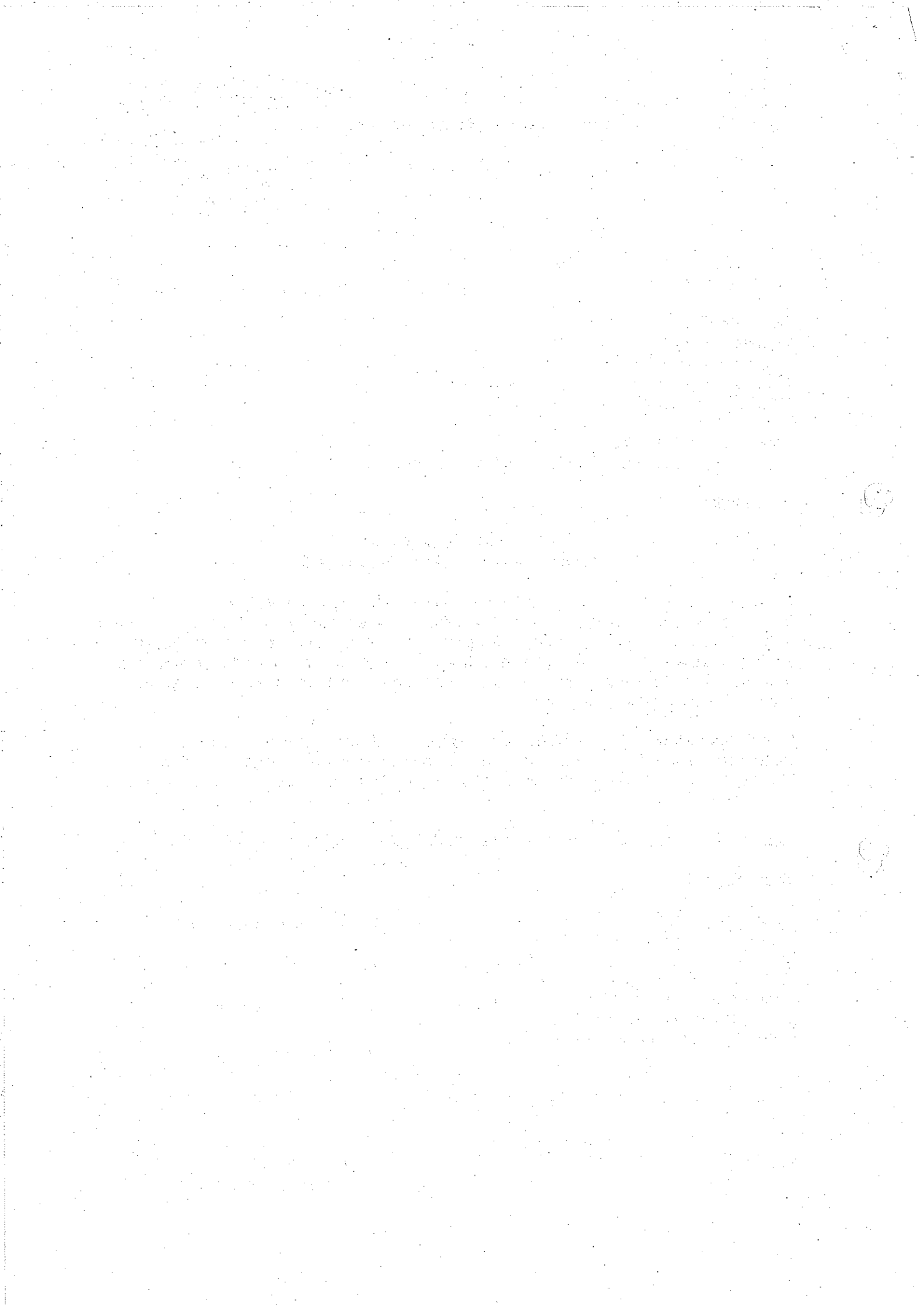
Yours sincerely,

Mike Young
Senior Environmental Planning Officer
Mining & Extractive Industries
Major Development Assessment

10/2/05

Noted
KHH

Singleton Council	
Received	
14 FEB 2005	
Doc. No.	515.05
File Ref	M36-2 <input checked="" type="checkbox"/> Encl
Action Officer/s	
MP/DS	MS



**NOTICE OF A MODIFICATION TO A DEVELOPMENT CONSENT
UNDER SECTION 96(2)
OF THE
ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979**

Under Section 96(2) of the *Environmental Planning and Assessment Act 1979*, I, the Minister for Infrastructure and Planning, modify the development consent referred to in Schedule 1, as set out in Schedule 2.



**Diane Beamer MP
Minister Assisting the
Minister for Infrastructure and Planning
(Planning Administration)**

Sydney, 27 January 2005

File No: S03/00074

SCHEDULE 1

The development consent (DA 309-11-2001) granted by the Minister for the Ashton Coal Project on 11 October 2002.

SCHEDULE 2

1. Delete Condition 1.2 of Schedule 2, and replace with:
 - 1.2 The Applicant shall carry out the development generally in accordance with the:
 - (a) development application No.309-11-2001-i as amended by the document in subclause (v);
 - (b) EIS, 3 volumes, dated November 2001, prepared by HLA-Envirosciences Pty Ltd and certified in accordance with Section 78A(8) of the Act;
 - (c) Aboriginal Cultural Heritage Assessment dated July 2001, prepared by the Upper Hunter Wonnarua Council and forwarded in a letter from WML received 12 December 2001;
 - (d) conceptual design for upgrade works to Glennies Creek Road provided to SSC and PlanningNSW by WML dated 10 December 2001;
 - (e) information provided to PlanningNSW by WML on 4 February 2002, titled "Ashton Coal Project Meeting – PlanningNSW";
 - (f) additional information relating to flora and fauna surveys, the diversion of Bowmans Creek, water quality, groundwater, air quality and Aboriginal cultural heritage provided by HLA-Envirosciences to PlanningNSW and other government agencies, dated 28 February 2002;

[The page contains extremely faint, illegible text, likely bleed-through from the reverse side of the document. The text is scattered across the page and does not form any recognizable words or sentences.]

9

9

**DETERMINATION OF A DEVELOPMENT APPLICATION
FOR STATE SIGNIFICANT AND INTEGRATED DEVELOPMENT
UNDER SECTION 80 OF THE
ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979**

I, the Minister for Planning, under section 80 of the *Environmental Planning and Assessment Act 1979* ("the Act"), determine the development application ("the Application") referred to in Schedule 1 by granting consent subject to the conditions set out in Schedule 2.

The reasons for the imposition of conditions are to:

- a) minimise any adverse environmental impacts associated with the development;
- b) provide for environmental monitoring, reporting, and independent review; and
- c) set requirements for mine infrastructure provision.

Andrew Refshauge MP
Minister for Planning

Sydney, 11 October

2002

File No. S01/00200

SCHEDULE 1

Development Application: DA No. 309-11-2001-i;

Applicant: White Mining Limited (ACN009 713 893) ("the Applicant");

Consent Authority: The Minister for Planning;

Land: 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 Roads 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;

Proposed 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 (ACP);

State Significant Development

The proposed development is within a class of development classified as State Significant development by virtue of a Declaration made by the Minister on 29 June 2001 since it is a new coal mine which would require a new mining lease;

Integrated Development

The proposed development requires additional approvals from the DEC under the *Protection of the Environment Operations Act 1997*; DIPNR under the *Water Act 1912*; DEC under the *National Parks and Wildlife Act 1974*; RTA and Singleton Shire Council under the *Roads Act 1993*; and MSB under the *Mine Subsidence Compensation Act 1961*. Consequently it is classified as integrated development under section 91 of the *Environmental Planning and Assessment Act 1979*.

BCA Classification:

Class 10 – Portal, electrical substations, fan building, explosive magazines, conveyor structures, reclaim tunnels, railway bridges, pumping stations

Class 10(a) - Vehicle wash facilities, fuel farms, sewage treatment plant

Class 10(b) - Coal conveyors and coal crushing facility and associated infrastructure

Class 9(b) - Bath house

Class 8 - Coal preparation plant building, train loading station and compressor house

Class 7 - Warehouse buildings, workshops and water tanks

Class 5 - Administration buildings, rail loading control room

Note: If the Applicant is dissatisfied with this determination, section 97 of the Act grants it a right of appeal to the Land and Environment Court, which is exercisable within 12 months of receiving notice of this determination. To determine the date from which this consent operates refer to section 83 of the Act. To determine the date upon which this consent may lapse refer to section 95(1) of the Act.

SCHEDULE 2

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In this consent, except in so far as the context or subject-matter otherwise indicates or requires, the following terms have the meanings indicated:

AEMR	Annual Environmental Management Report
Act	<i>Environmental Planning and Assessment Act, 1979</i>
ACP	Ashton Coal Project
Applicant	White Mining Ltd
BCA	Building Code of Australia
CCC	Community Consultative Committee
construction	any activity required to be undertaken for the construction of the proposed development including site preparation, demolition, construction of roads, environmental bunds, surface facilities, rail infrastructure, and water management infrastructure, and any activity requiring a Construction Certificate
Council	Singleton Shire Council
DA	Development Application
Department	NSW Department of Planning
Director-General	Director-General of the NSW Department of Infrastructure, Planning and Natural Resources, or delegate
DLWC	NSW Department of Land and Water Conservation (<i>now the Department of Infrastructure, Planning and Natural Resources</i>)
DPI – Agriculture	Department of Primary Industries – Agriculture
DPI – Fisheries	Department of Primary Industries - Fisheries
DPI – Minerals	Department of Primary Industries - Minerals
dust	any solid material that may become suspended in air
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EPA	NSW Environment Protection Authority (<i>now the Department of Environment and Conservation</i>)
EPL	Environment Protection Licence issued under the <i>Protection of the Environment Operations Act, 1997</i>

First Workings	workings which establish access to the coal resource area and which does not result in surface subsidence. First Workings do not include longwall extraction of coal
GTA	General Term of Approval
Minister	Minister for Infrastructure and Planning, or delegate
Mtpa	Million tonnes per annum
MOP	Mining Operation Plan
MSB	Mine Subsidence Board
NPWS	NSW National Parks and Wildlife Service (<i>now the Department of Environment and Conservation</i>)
operation/mining operations	any activity that results in the production, or intended production, of quantities of coal product to be transported off site. Includes vegetation removal and soil stripping relating to overburden removal and coal extraction.
POEO Act	<i>Protection of the Environment Operations Act, 1997</i>
Principal Certifying Authority	the Minister or an accredited certifier, appointed under section 109E of the Act, to issue a Part 4A Certificate as provided under section 109C of the Act
Regulation	<i>Environmental Planning and Assessment Regulation, 2000</i>
RIC	Rail Infrastructure Corporation
RTA	NSW Roads and Traffic Authority
project site/DA area	the land to which this consent applies
Secondary Workings	Extraction of coal by longwall mining or pillar extraction that may result in surface subsidence
Surface facilities	coal crushing facilities, coal preparation plant and associated coal handling facilities, coal stock piles, water storage dams, administration offices, bath house, heavy workshop, vehicle washdown stations, outdoor storage compound, equipment storage area, warehouse, and parking areas, explosive magazine, electrical substations, rail siding, train loading station, highway underpass, and roadworks.
WML	White Mining Limited

<p>Note To assist with the explanation of the intent of certain conditions in this consent, a number of flow charts are provided in the attached Schedule A which illustrate various processes contained in this consent.</p>

Red type represents 15 October 2003 modification
Blue type represents 27 January 2005 modification

1. GENERAL

Obligation to Minimise Harm to the Environment

- 1.1 There is an obligation on the Applicant to prevent and minimise harm to the environment throughout the life of the project. This requires that all practicable measures are to be taken to prevent and minimise harm that may result from the construction, operation and, where relevant, decommissioning of the development.

Scope of Development

- 1.2 The Applicant shall carry out the development generally in accordance with the:

- a) development application No.309-11-2001-I as amended by the document in subclause v);
- b) EIS, 3 volumes, dated November 2001, prepared by HLA Enviro-sciences Pty Ltd and certified in accordance with Section 78A(8) of the Act;
- c) Aboriginal Cultural Heritage Assessment dated July 2001, prepared by the Upper Hunter Wonnarua Council and forwarded in a letter from WML received 12 December 2001;
- d) conceptual design for upgrade works to Glennies Creek Road provided to SSC and PlanningNSW by WML dated 10 December 2001;
- e) information provided to PlanningNSW by WML on 4 February 2002, titled "Ashton Coal Project Meeting – PlanningNSW";
- f) additional information relating to flora and fauna surveys, the diversion of Bowmans Creek, water quality, groundwater, air quality and Aboriginal cultural heritage provided by HLA Enviro-sciences to PlanningNSW and other government agencies, dated 28 February 2002;
- g) information relating to groundwater impacts provided by HLA-Enviro-sciences to PlanningNSW dated 14 March 2002;
- h) additional information relating to subsidence impacts, groundwater impacts, agricultural impacts, project justification and blasting impacts provided by HLA Enviro-sciences to PlanningNSW dated 28 March 2002;
- i) additional water management information provided to DEC and other NSW Government agencies prepared by HLA Enviro-sciences Pty Ltd, dated 5 April;
- j) fax from WML to PlanningNSW dated 13 May 2002 relating to a meeting held on 7 May 2002;
- k) letter from HLA Enviro-sciences to PlanningNSW dated 16 May 2002, relating to flora and fauna surveys and agricultural impacts;
- l) description and proposed diversion option 2 provided by WML to PlanningNSW dated 17 May 2002; and

- m) response to public submissions from HLA Envirosiences to PlanningNSW dated 31 May 2002;
- n) additional information provided by WML regarding Northern Woodland Remnant dated 31 May 2002.
- o) additional information and letter provided by WML to PlanningNSW regarding Salinity and Green Offsets for the Project dated 20 June 2002;
- p) revised Aboriginal cultural heritage survey provided by HLA Enviro-sciences to PlanningNSW dated 24 June 2002;
- q) letter from HLA-Envirosiences to PlanningNSW dated 2 July 2002 relating to Green Offsets report;
- r) letter from HLA-Envirosiences to NPWS dated 3 July 2002 relating to Aboriginal cultural heritage;
- s) additional information relating to Aboriginal cultural heritage from HLA-Envirosiences to PlanningNSW dated 15 July 2002;
- t) fax from WML to PlanningNSW dated 25 July 2002 relating to Aboriginal consultation;
- u) letter from WML to PlanningNSW dated 12 August 2002 relating to a conservation area;
- v) amendment to DA from WML to PlanningNSW titled "Description of Alternate Mine Layout for Underground Mine (Option 4) dated 6 September 2002;
- w) fax from WML to PlanningNSW dated 13 September 2002 relating to an internal coal haul road;
- x) Submission Pursuant to Section 96(2) of the Environmental Planning and Assessment Act 1979, dated August 2004, prepared by Ashton Coal Operations Pty Limited;
- y) Supplementary Air Quality Information, dated 9 November 2004, prepared by Holmes Air Sciences; and
- z) conditions of this consent.

- 1.3 If there is inconsistency between the above, either the conditions of this consent or the most recent document shall prevail to the extent of the inconsistency.

Provision of Documents

- 1.4 Where practicable, the Applicant shall provide all draft documents and reports required to be submitted to the Director-General under this consent in an appropriate electronic format. Approved versions of documents are to be provided as a hard copy. Provision of documents and reports to other parties, as required under this consent, shall be in a format acceptable to those parties and shall aim to minimise resource consumption.

Note: at the date of this consent, an appropriate electronic format for submission to the Director-General is the "portable document format" (pdf) or another format that may be readily converted to portable document format.

- 1.5 Nothing in this consent prevents the Applicant from combining reporting requirements under this consent with identical or similar reporting requirements for submission to another relevant party. Reporting requirements shall only be combined with the prior agreement of the Director-General of Planning and the Director-General (or equivalent) of the other relevant party, if reporting to that party is to be modified.

Note: the purpose of conditions 1.4 and 1.5 is to provide for minimisation of resource utilisation (particularly paper) associated with administration of this consent.

- 1.6 The Applicant shall make the following documents available to the public upon request at the mine site and SSC, and shall post all documents on the internet, within 14 days of approval of the documents by the Director-General or relevant agency:
- a) this consent;
 - b) any licences or approvals for the mine obtained from Government agencies;
 - c) the Mining Operations Plan; and
 - d) all documents required under this consent, including the environmental management strategy, environmental management plans, AEMR's, SMIARs, and Independent Audits.

Statutory Requirements

- 1.7 The Applicant shall ensure that all licences, permits and approvals for the development are obtained and kept up-to-date as required.

Dispute Resolution

- 1.8 In the event that a dispute arises between the Applicant and Council or the Applicant and a public authority other than the Department, in relation to a specification or requirement applicable under this consent, the matter shall be referred by either party to the Director-General, or if not resolved, to the Minister, whose determination of the dispute shall be final and binding on all parties. For the purpose of this condition, "public authority" has the same meaning as provided under section 4 of the Act.

Note: Section 121 of the *Environmental Planning and Assessment Act 1979* provides mechanisms for resolution of disputes between the Department, the Director-General, councils and public authorities.

Compliance

- 1.9 The Applicant shall ensure that employees, contractors and sub-contractors are aware of, and comply with, the conditions of this consent relevant to their respective activities.

- 1.10 At least two weeks prior to each of the events listed from a) to b) below, an independent person(s) or organisation(s), approved by the Director-General, shall certify in writing to the satisfaction of the Director-General, that the Applicant has complied with all conditions of this consent applicable prior to that event. Where an event is to be undertaken in stages, the Applicant may, subject to the agreement of the Director-General, stage the submission of compliance certification consistent with the staging of activities relating to that event:
- a) commencement of construction; and
 - b) commencement of mining operations.
- 1.11 Notwithstanding condition 1.10 of this consent, the Director-General may require an update report on compliance with all, or any part, of the conditions of this consent. Any such update shall meet the requirements of the Director-General and be submitted within such period as the Director-General may agree.
- 1.12 The Applicant shall meet the reasonable requirements of the Director-General in respect of the implementation of any measure necessary to ensure compliance with the conditions of this consent, and general consistency with the documents listed under condition 1.2 of this consent. The Director-General may direct that such a measure be implemented in response to the information contained within any report, plan, correspondence or other document submitted in accordance with the conditions of this consent, within such time as the Director-General may agree.
- 1.13 Any compliance report or compliance update required under condition 1.10 or 1.11 of this consent shall be made available for public inspection on request.
- 1.14 If at any time, the Director-General is made aware of the occurrence of any environmental impacts from the proposal that pose serious environmental and/or amenity concerns, due to the failure of environmental measures required by the Conditions of Consent to ameliorate the impacts, the Director-General may order the Applicant to cease the activities causing those impacts until those concerns have been addressed to the satisfaction of the Director-General.

Period of Approval/Project Commencement

- 1.15 This consent provides approval for mining for a period of 21 years from the date of granting of a mining lease pursuant to this consent.

Note: Conditions of this consent may require activities to be carried out by the Applicant beyond the period of approval for mining.

- 1.16 Date of commencement of construction and Mining Operations is to be notified in writing to the Director-General, and SSC, at least two weeks prior to commencement of construction and Mining Operations respectively.

Security Deposits and Bonds

- 1.17 Security deposits and bonds will be paid as required by DPI - Minerals under mining lease approval conditions.

Prohibition of Works

1.18 The Applicant shall not construct any diversion of Bowmans Creek as proposed in the EIS.

1.19 The Applicant shall not construct any private haul road from the site to the Macquarie Generation coal conveyor as proposed in the EIS.

2. MINE MANAGEMENT

Mine Management Plan, Operations and Methods

- 2.1 No mining undertaken in accordance with this consent shall occur until the Applicant has submitted and had accepted by the DPI - Minerals, a Mining Operations Plan (MOP) in accordance with current guidelines issued by DPI - Minerals.
- 2.2 The MOP shall:
- a) be prepared in accordance with DPI - Minerals Guidelines for the Preparation of Mining Operations Plans (Document 08060002.GUI or its most recent equivalent);
 - b) demonstrate consistency with the conditions of this consent and any other statutory approvals;
 - c) demonstrate consistency with the Environmental Management Strategy and Environmental Management Plans for the project site;
 - d) provide the basis for implementing mining operations, environmental management, and ongoing monitoring;
 - e) include a mine rehabilitation and Land Use Management Plan; and
 - f) identify a schedule of proposed mine development for the period covered by the plan and include:
 - (i) the area proposed to be impacted by mining activity and resource recovery mining methods and remediation measures;
 - (ii) areas of environmental, heritage or archaeological sensitivity and mechanisms for appropriately minimising impact;
 - (iii) water management, and
 - (iv) proposals to appropriately minimise surface impacts.
- 2.3 In preparing the MOP, the Applicant shall consult with affected service authorities and make arrangements satisfactory to those authorities for the protection or relocation of those services.
- 2.4 A copy of the MOP, excluding commercial in confidence information, shall be forwarded to SSC and the Director-General within 14 days of acceptance by DPI - Minerals.
- 2.5 At least two years prior to the cessation of mining operations the Applicant shall investigate, determine and report, taking account of the potential community benefits, on a final strategy for the future use of the mine site, weirs, dams and any other infrastructure in consultation with the Department, DIPNR and SSC and for approval of DPI - Minerals and the Director-General.
- 2.5A The Applicant shall submit a detailed design and management plan to the DPI-Minerals. The Applicant shall not place overburden on the eastern emplacement area above RL 125 metres until the DPI_Minerals has approved the plan.

2.5B Prior to placing overburden on the eastern emplacement area above RL 125 metres, the Applicant shall revise the Mine Operations Plan (MOP) for the development to the satisfaction of the DPI-Minerals. The revised MOP shall:

- a) demonstrate consistency with the commitments made in documents listed in condition 1.2 and compliance with conditions of this consent; and
- b) include a schedule for the rehabilitation of the eastern emplacement area.

Spontaneous Combustion

2.6 The Applicant shall prepare, prior to the commencement of Mining Operations, a Spontaneous Combustion Management Plan to the satisfaction of DPI - Minerals.

Limit on Production/Hours of Operation

2.7 Annual production of coal from the ACP shall not exceed 5.2 Mtpa of ROM coal.

2.8 Hours of operation at the development shall be as follows:

Operation	Operating Hours
Open cut mining	7am-10pm Monday to Saturday, and 8am-10pm Sunday
Underground Mining, Train loading, and CHPP operation	24 hrs, 7 days
Blasting	9am-5pm Monday to Saturday.

3. LAND AND SITE ENVIRONMENTAL MANAGEMENT

Appointment of Environmental Officer

- 3.1 The Applicant shall employ a suitably experienced Environmental Officer(s) for the duration of activities undertaken under this consent whose appointment is to receive prior approval by the Director-General. The Officer(s) shall:
- a) be responsible for the preparation of the environmental management plans;
 - b) be responsible for considering and advising on matters specified in the conditions of this consent and compliance with such matters;
 - c) be responsible for receiving and responding to complaints in accordance with condition 10.3;
 - d) facilitate an environmental induction and training program for all persons involved in any activities undertaken under this consent; and
 - e) have the authority to require reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts and failing the effectiveness of such steps, to stop work immediately if an adverse impact on the environment is likely to occur.
- 3.2 The Applicant shall notify the Director-General, DPI - Minerals, DEC, RTA, MSB, DPI - Fisheries, SSC, and the CCC of the name and contact details of the Environmental Officer(s) upon appointment and any changes to that appointment.

Environmental Management Strategies and Plans

- 3.3 The Applicant shall prepare an Environmental Management Strategy providing a strategic context for the environmental management plans (refer condition 3.6). The Environmental Management Strategy shall be prepared following consultation with the DEC, DPI - Minerals, SSC, DPI - Fisheries, RTA, MSB, DPI - Agriculture, and the Department, to the satisfaction of the Director-General. The strategy shall be provided to the Director-General no later than two weeks before the first environmental management plan under condition 3.6 is submitted.
- 3.4 The Environmental Management Strategy shall include, but not be limited to:
- a) statutory and other obligations which the Applicant is required to fulfill during construction and mining, including all approvals and consultations and agreements required from authorities and other stakeholders, and key legislation and policies;
 - b) definition of the role, responsibility, authority, accountability and reporting of personnel relevant to environmental management, including the Environmental Officer(s);

- c) overall environmental management objectives and performance outcomes, for ~~construction, mining and decommissioning of the mine~~, for each of the key environmental elements for which management plans are required under this consent;
 - d) overall environmental and social objectives for the project, and a strategy for the restoration and management of the environmental and social values affected by mining operations within the context of those objectives;
 - e) identification of cumulative environmental impacts and procedures for dealing with these at each stage of the development;
 - f) overall objectives and strategies to promote economic productivity within the area affected by mining;
 - g) procedures to ensure that all relevant approvals, management plans, and procedures are complied with by all staff and contractors;
 - h) processes for conflict resolution in relation to the environmental management of the project;
 - i) a conceptual project schedule indicating when key activities would be undertaken and proposed timeframes and proposed timeframes for submission and approval of Environmental Management Plans; and
 - j) documentation of the results of consultations undertaken in the development of the Environmental Management Strategy.
- 3.5 The Applicant shall make copies of the Environmental Management Strategy available to DIPNR, DEC, DPI - Minerals, SSC, DPI - Fisheries, RTA, MSB, DPI - Agriculture, and the Department, and the CCC within fourteen days of approval by the Director-General.
- 3.6 The Applicant shall prepare the following environmental management plans, which may also form part of the Mining Operations Plan:
- a) Subsidence Environmental Management Plan (refer condition 3.18)
 - b) Archaeology and Cultural Heritage Management Plan (refer condition 3.36)
 - c) Flora and Fauna Management Plan (refer condition 3.46)
 - d) Erosion and Sediment Control Plan (refer condition 3.50)
 - e) Soil Stripping Management Plan (refer condition 3.51)
 - f) Landscape and Revegetation Management Plan (refer condition 3.55)
 - g) Final Void Management Plan (refer to condition 3.56)
 - h) Bushfire Management Plan (refer condition 3.57)
 - i) Land Management Plan (refer condition 3.58)
 - j) Site Water Management Plan and Groundwater Management Plan (refer condition 4.24)
 - k) Waste Management Plan (refer condition 5.3)
 - l) Construction Air Quality Management Plan (refer condition 6.10)
 - m) Operations Air Quality Management Plan (refer condition 6.10)
 - n) Blasting/Vibration Management Plan (refer condition 6.26)
 - o) Road Closure Management Plan (refer to condition 6.27)
 - p) Construction Noise Management Plan (refer condition 6.42)
 - q) Noise Management Plan (refer condition 6.43)
 - r) Lighting Management Plan (refer condition 6.56)

Environmental management plans are to be reviewed, and updated as necessary, at least every 5 years or as otherwise directed by the Director-General, in consultation with the relevant government agencies. Plans shall reflect changing environmental circumstances and changes in technology or best-practice management procedures.

- 3.7 The Applicant may, subject to written approval of the Director-General, divide the preparation and submission of any environmental management plans required under this consent, listed in condition 3.6, between open cut and underground mining operations. Any intention to divide environmental management plans shall be declared and approved in the Environmental Management Strategy (condition 3.3).
- 3.8 The Applicant shall make copies of the environmental management plans in condition 3.6 above available to the relevant government agencies, SSC and the CCC, within 14 days of approval.

Subsidence Management

General

- 3.9 The Applicant shall design underground mining operations to ensure no direct hydraulic connection between the Bowmans Creek alluvium and the underground workings can occur through subsidence cracking. In order to achieve this criteria the Applicant shall assess levels of uncertainty in all subsidence predictions, and provide adequate contingency in underground mine design to ensure sufficient sound rock is maintained to provide an aquaclude between the Bowmans Creek alluvium, and the underground mine goaf.
- 3.10 The Applicant shall make every reasonable effort to ensure that any member of the public entering an area affected by subsidence in the mining area is made aware of any danger caused by the surface subsidence, including impacts on roads.
- 3.11 The Applicant shall monitor and remediate any mine subsidence related impact including cracking, slumping, and erosion and provide stabilising structures in any areas that have significant risk of destabilisation occurring as a result of longwall panel mining, in accordance with DIPNR guidelines, to the satisfaction of DIPNR and in consultation with DEC and DPI - Fisheries.
- 3.12 The Applicant shall maintain an access road from the New England Highway to property No. 130 (refer EIS Volume 3, Figure 3.13). Any realignment of the existing access road shall be designed and constructed by the Applicant in consultation with the owner of property No. 130, Council, DPI - Minerals, the local Aboriginal community, and DEC, and to the satisfaction of the Director-General. The Applicant shall submit design and plans for any realignment to the Director-General for approval one month prior to commencement of construction of the realignment. The Applicant shall have prepared and registered by the Land Titles Office a right of way over any realignment of the access road in favour of the landowner of property No. 130. The Applicant shall be responsible for rehabilitation and revegetation of any disused sections of the access road after realignment.
- 3.13 At least nine (9) months prior to the extraction of coal from Longwall Panel 1, as defined in the EIS, by longwall mining or other mining methods requiring approval under Section 138 of the Coal Mines Regulation Act 1982, the Applicant shall advise the landowner of property No. 130 of the Applicant's plans for future mining activities

and the specific impacts (based on best available information) affecting each property.

- 3.14 At least one month prior to the commencement of the following activities, the Applicant shall notify the owner of property No. 130 (refer EIS Volume 3, Figure 3.13) in writing of the proposed activity and any potential impacts due to that activity:
- a) construction of development headings (first workings) under the property; and,
 - b) lodgement of an application in accordance with Section 138 of the *Coal Mine Regulation Act, 1982* to longwall mine (secondary workings) under the property.
- 3.15 The Applicant shall monitor the condition of watercourses above longwall panels in the mining area, during mining and continue monitoring until completion of post mining rehabilitation to the satisfaction of DPI - Fisheries, to identify any impacts on aquatic habitats or fish passage, and implement appropriate actions if and when adverse impacts occur.
- 3.16 ¹No tunnelling or mining shall occur directly underneath the piers or abutments of Bowmans Creek Bridge. The RTA must approve access tunnel layouts in the vicinity of the Bridge.
- 3.17 ²The angle of draw for the mine subsidence after removal of the coal is to be kept outside of the New England Highway Road Reserve.

Subsidence Environmental Management Plan

- 3.18 The Applicant shall prepare and implement a Subsidence Environmental Management Plan (SEMP) to detail an environmental management framework, practices and procedures to be followed during longwall mining activity at the mine. This Plan shall include, but not necessarily be limited to:
- a) demonstration of consistency with commitments made in documents listed in condition 1.2 and compliance with the conditions of this consent;
 - b) detailed description of the proposed underground mining operations, the existing surface and underground environment, and predicted subsidence impacts on the following:
 - (i) surface topography;
 - (ii) geological integrity;
 - (iii) surface water hydrology and erosion;
 - (iv) groundwater systems;
 - (v) Aboriginal cultural heritage;
 - (vi) terrestrial and aquatic ecosystems;
 - (vii) land capability and agricultural suitability; and,
 - (viii) any surface improvements, including roads, dams, transmission lines, pipelines, cables, fences, water gauging stations, and buildings;
 - c) a detailed remediation strategy to remediate potential impacts identified in subclause b);

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² Incorporates RTA General Term of Approval

- d) consideration of the cumulative impacts of subsidence due to multiple seam extraction;
- e) identification of all statutory and other obligations that the Applicant is required to fulfil in relation to management of subsidence, including all consents, licences, approvals and consultations;
- f) a description of the roles and responsibilities for all relevant employees involved in the management of subsidence;
- g) environmental policies and principles to be applied to the management of subsidence;
- h) standards and performance measures to be applied to subsidence management, and a means by which environmental performance can be periodically reviewed and improved;
- i) management practices and procedures to ensure that environmental performance goals are met and to comply with the conditions of this consent;
- j) detail actions to be taken in the event of an emergency leading to adverse environmental impacts;
- k) a remediation strategy to address any identified damage to Bowmans Creek occurring through mining-induced subsidence. Any remediation strategy would involve works that would require approvals to be granted by DIPNR for implementation, and therefore must be submitted to DIPNR for approval. The remediation strategy is to include the following provisions:
 - (i) Identification of approval requirements for implementation of any works required;
 - (ii) Reporting of options to address degradation or obstruction to fish passage through the affected reach;
 - (iii) Vegetation re-establishment in affected areas of the creek banks, breakout points and submerged areas of the creek;
 - (iv) Locations for installation of any artificial bed controls which may be required to arrest actual or potential erosion along the affected reach;
 - (v) Timeframes to achieve remediation of each zone of degradation in the channel and sign off point for the entire affected corridor of creek affected by mining-induced subsidence;
 - (vi) Identification of Aboriginal heritage values and measures to minimise impacts on these values;
 - (vii) rehabilitation works, particularly re-snagging in consultation with DPI - Fisheries and the Upper Hunter River Rehabilitation Initiative (managed by Macquarie University and DIPNR);
 - (viii) provision of compensatory habitat for subsidence impacts;
- l) ³provision for forwarding the position of weekly workings to the RTA when underground mining occurs within 200 metres of the New England Highway road reserve;
- m) specific consideration of measures to address any requirements of DEC, DIPNR, DPI - Fisheries, DPI - Minerals, MSB, DPI - Agriculture, RTA, and the Council;

³ Incorporates RTA General Term of Approval

- n) results of consultation with the CCC, the local Aboriginal community, and affected landholders;
- o) the environmental monitoring requirements outlined under conditions 3.19-3.22 of this consent;

The Applicant shall submit the SEMP for the approval of the Director- General at least one month prior to the submission of an application for secondary workings (longwall mining) under section 138 of the *Coal Mines Regulation Act 1982*, or in such period otherwise agreed by the Director-General. An application for secondary workings (longwall mining) under section 138 of the *Coal Mines Regulation Act 1982* shall not be made until written approval has been received from the Director-General. Upon receipt of the Director-General's approval, the Applicant shall supply a copy of the SEMP to Council, DEC, RTA, DPI - Fisheries, and DIPNR within 7 days. The Applicant shall make the SEMP available for public inspection on request.

Subsidence Monitoring

3.19 The Applicant shall undertake a detailed and ongoing monitoring program of subsidence resulting from mining to the satisfaction of the Director-General and the DPI - Minerals and in consultation with DIPNR, DEC, DPI - Fisheries and according to the recommendations of any independent expert review [refer to Conditions 8.3-8.7]. The monitoring program shall extend from commencement of construction throughout the life of the mine and for a period of at least five years after the completion of mining, or other such period as determined by the Director-General in consultation with DIPNR, DEC, DPI - Fisheries and DPI - Minerals. Monitoring shall be supported by visual as well as technical records. Monitoring shall include, but not be limited to, the following:

- a) monitoring of all relevant subsidence parameters including vertical subsidence and ground strain;
- b) results of detailed inspections of underground workings and coal seams noting any changes in roof or floor conditions, or any water inflows which may indicate the presence of geological features such as faults, dykes or joints;
- c) records of surface geological mapping or subsurface investigation which may indicate the presence of geological structures, and assessment of any possible correlation between surface features and features in underground workings at seam level;
- d) monitoring of the propagation and extent of subsidence-induced cracking including:
 - (i) plotting exact location, depth, and characteristics of surface cracks; and,
 - (ii) monitoring the extent of cracking connecting surface cracks to the collapsed goaf area;
- e) regular monitoring of all water inflows to the underground mine including location and flowrate of inflows. Water quality analysis should be conducted if a significant change in water flow or discolouration is observed at any time to identify the possible source of the water;
- f) monitoring of groundwater levels and quality;

- g) a survey of affected stream channel systems, including monitoring of rainfall, surface water flows, water ponding, and water quality;
- h) monitoring of Bowmans Creek as required by condition 3.20;
- i) monitoring of changes to surface water run-off and erosion;
- j) monitoring of cultural heritage sites;
- k) monitoring of impacts to agricultural land;
- l) monitoring of impact of subsidence on existing vegetation and terrestrial and aquatic ecosystems;
- m) monitoring and evaluation of subsidence management and remediation techniques identified in the SEMP; and
- n) a comparison of predicted subsidence impacts with actual impacts, and updating of predicted impacts for future longwalls and long-term impacts, particularly on groundwater systems and salinity.

3.20 The Applicant is to conduct a detailed Stream Monitoring Program on Bowmans Creek developed in consultation with DIPNR and DPI - Fisheries. This monitoring is to commence at commencement of construction, or as otherwise directed by the Director-General, and is to be supported with visual records as well as technical records. The River monitoring program shall include, but not be limited to:

- a) a detailed benchmark survey of the affected length of Bowmans Creek, and the reaches from the nearest upstream bedrock control point from the effective zero point of subsidence to the nearest downstream control point from the effective zero point of subsidence (usually measured by the 20 mm limit of subsidence). This survey is to be completed at least one year prior to mining affecting the stream channel system, or as otherwise directed;
- b) pre-mining assessment including:
 - (i) identification of stable bedrock control points along the affected reach, and the nature and extent of bedrock control points.
 - (ii) identification of stable cross sectional survey control points along the affected reach.
 - (iii) identification of chain pillar survey control points to establish the change in vertical reduced levels and bed gradient change.
 - (iv) identification of stable control monitoring points to establish bedload transport through the affected reach.
 - (v) assessment of the extent of existing pool-riffle sequences, rock bar and cobble chute pools and bed gradient steepening through riffle sequences.
 - (vi) assessment of bank stability provision by existing vegetation galleries along the affected reach of Bowmans Creek.
 - (vii) the extent, floristics and structure of any existing wetlands or standing pools along the length of the affected reach of Bowmans Creek.
 - (viii) existing water quality and exchange/discharge rates of local groundwaters (both alluvial and underlying bedrock) to Bowmans Creek; and,
 - (ix) monitoring to benchmark fish, macroinvertebrates and aquatic habitat; water velocities and flow rates; and current geomorphological design and stability of the creek.
- c) immediate post-mining monitoring (at least twice in the period within one year of each longwall pass under Bowmans Creek), including:

- (i) extent of change in level and gradient from each control point identified in the pre-mining survey.
 - (ii) extent of change in cross section between each survey control point identified in the pre-mining survey.
 - (iii) change in pool-riffle sequence, depth and width of pools, location of breakout points for flood waters from the subsided troughs overlying each extracted longwall panel.
 - (iv) change in stream power relations through each chain pillar and chute/riffle sequence along the extent of the affected stream.
 - (v) obstruction to fish passage through reverse gradient slopes on the downstream face of each subsidence trough.
 - (vi) cumulative changes in stream power and tractive stress along the affected reach.
 - (vii) impacts on existing vegetation communities along Bowmans Creek from subsidence or other impacts, and potential impacted areas from potential breakout points along the channel (such as the southern length of subsidence overlying longwall panels 5, 6 and 7 beyond the incised meander of Bowmans Creek); and
 - (viii) monitoring to assess impacts to fish, fish passage, macroinvertebrates and aquatic habitat; water velocities and flow rates; and geomorphological design and stability of the creek.
- d) long term monitoring on a bi-annual basis extending for at least five years after longwall mining has been completed under Bowmans Creek;
- (i) changes in bed gradients, control point locations, pool/riffle locations and chute depths and energies along the affected reach of the creek.
 - (ii) changes in bedload transport rates, bed material sorting/imbrication, bedrock control exposure and energy relations in the affected reach of the creek.
 - (iii) drainage of local groundwaters into and water quality changes in each pool of Bowmans Creek, including an assessment of pool maintenance periods during dry periods resulting from discharge of local groundwaters into Bowmans Creek.
 - (iv) vegetation community changes along the length of the affected channel.
 - (v) long term changes in biological communities within the affected reach of the creek; and
 - (vi) monitoring to assess impacts to fish, fish passage, macroinvertebrates and aquatic habitat; water velocities and flow rates; and geomorphological design and stability of the creek.
- 3.21 ⁴A detailed survey of the New England Highway road corridor is to be undertaken. Permanent monitoring stations must be installed as part of the initial survey. The initial survey is to be undertaken jointly with the RTA.
- 3.22 ⁵Subsidence monitoring on the New England Highway is to be undertaken on a 3 monthly basis until the cessation of the mining process and pending ground movement.
- 3.23 The Applicant shall report on monitoring conducted and provide a full interpretation results in the SMAR (condition 3.24) and the AEMR.

⁴ Incorporates RTA General Term of Approval

⁵ Incorporates RTA General Term of Approval

Subsidence Monitoring and Impact Assessment Report

3.24 The Applicant shall prepare and implement a Subsidence Monitoring and Impact Assessment Report (SMIAR) for each longwall panel or group of panels for which an application for secondary workings approval under s.138 of the *Coal Mines Regulation Act 1982* will be sought. The report is to be submitted for approval to the Director-General, in consultation with and taking into account requirements of the Director-General of the DPI - Minerals, the DEC, DIPNR and DPI - Fisheries, at least one month prior to the submission of the s.138 application to the DPI - Minerals. The Director-General may require Independent Expert Review (conditions 8.3-8.7) of a SMIAR prior to approval. No application for secondary workings approval under s.138 of the *Coal Mines Regulation Act 1982* longwall panels proposed in the SMIAR shall be made until written approval is received from the Director-General.

Note: A protocol is currently being developed by DPI - Minerals for interagency consultation on Subsidence Management Plans which would require approval prior to s138 applications being lodged. This protocol may, if implemented, overlap with the requirements of this consent such as submission and approval of Subsidence Monitoring and Impact Assessment Reports. The Applicant may apply for combination of these reporting requirements under condition 1.5 if the DPI - Minerals protocol is established and implemented.

3.25 Subsidence Monitoring and Impact Assessment Reports shall be consistent with the conditions of this consent, the Environmental Management Strategy and relevant environmental management plans.

3.26 The Applicant shall not apply, under section 138 of the *Coal Mines Regulation Act 1982*, for any longwall panels involving mining that may impact the Bowmans Creek alluvium until at least three longwall panels in the Pikes Gully Seam have been completed (panels 1, 2, and 3 as described in document referenced in 1.2v)) and the first SMIAR has been approved by the Director-General.

3.27 SMIARs and s138 applications are to be prepared and submitted in the following sequence:

SMIAR No	To be submitted at completion of panel No	Panel currently being extracted	Panels in s138 Application
1	3	4	5, 6, 7 (PGS)
2	6	7	8, 9, 10, 11 (ULS)
3	10	11	12, 13, 14 (ULS)
4	13	14	15, 16, 17, 18 (ULLS)
5	17	18	19, 20, 21 (ULLS)
6	20	21	22, 23, 24, 25 (LBS)
7	24	25	26, 27, 28 (LBS)

Note:
 PGS – Pikes Gully Seam
 ULS – Upper Liddell Seam
 ULLS – Upper Lower Liddell Seam
 LBS – Lower Barrett Seam
 Panel numbers as described in document referenced in 1.2v)

Note: Prior to the commencement of longwall mining on the first group of panels, the Applicant is required to submit a Subsidence Environmental Management Plan under condition 3.18 and report on baseline monitoring in the AEMR.

3.28 Subsidence Monitoring and Impact Assessment Reports shall include, but not be limited to:

- a) detailed description of the proposed group of longwall panels and workings to be applied for in the section 138 application;
- b) comparison of subsidence impacts predicted for completed sections of the underground mine with actual impacts recorded through subsidence monitoring;
- c) update information describing the existing environment in the area to be mined including geology, groundwater, surface water, surface topography, aboriginal heritage, land capability, and aquatic and terrestrial ecosystems based on monitoring results from programs under conditions 3.19-3.23 and 4.26, current knowledge and incorporating cumulative impacts from any mining completed on other seams in the area;
- d) revise subsidence impact predictions for the area to be mined taking into account the results of the above review;
- e) ⁶a Groundwater Management Report prepared by an independent expert to the satisfaction of DIPNR, addressing:
 - (i) work done under and the level of compliance with, the groundwater management measures defined in the Groundwater Management Plan; and
 - (ii) identification of trends in groundwater monitoring data and comparison with predictions, in documents referred to in condition 1.2 and any previous SMIARs, over the life of mining operations.
- f) ⁷For SMIAR No. 1, an independent audit of groundwater conditions in panels 1, 2, and 3, and any current monitoring on panel 4, conducted by an independent expert. The audit brief and independent expert are to be approved by DIPNR prior to audit commencement.
- g) revise the assessment of the impacts of subsidence on geology, groundwater, surface water, surface topography, aboriginal heritage, agricultural suitability, and aquatic and terrestrial ecosystems in the area proposed to be mined;
- h) detailed assessment of assumptions and uncertainty in predictions and demonstration that sufficient contingency has been built into in the proposal to address this uncertainty;
- i) demonstrate compliance of the proposal with the conditions of this consent, particularly condition 3.9, and relevant licences, approvals, standards and policies;
- j) ⁸a review of the Mine Plan should excessive subsidence occur on the New England Highway so as to ensure that the Highway is maintained in a safe, serviceable and repairable condition;

⁶ (deleted)

⁷ (deleted)

⁸ Incorporates RTA General Term of Approval

- k) details of feasible options to appropriately avoid, minimise and remediate impacts from subsidence;
- l) specific consideration of any requirements of DEC, DIPNR, DPI - Fisheries, DPI - Minerals, MSB, RTA, and the Council,
- m) results of consultation with CCC, the local Aboriginal community, and affected landholders;
- n) justification of the proposed longwall extraction plan;
- o) review the implementation of the SEMP (condition 3.18) and identify any parts of the plan that require modification. If the SEMP requires modification a copy of the revised SEMP shall be submitted with the SMIAR.

Adverse longwall mining subsidence impacts

3.29 The Applicant shall investigate and undertake to the satisfaction of the Director-General, and in consultation with DEC, DIPNR and DPI - Fisheries, alternative mine plans if subsidence impacts, such as impacts on groundwater systems, and potential long-term salinity impacts, as a result of the mine are demonstrated to be greater than those predicted in the EIS or SMIARs. This may include altering mining methods or restricting longwall mining in certain areas.

Heritage Assessment, Management and Monitoring

General

3.30 ⁹The Applicant shall provide for permanent conservation of the land shown on the indicative plan in Schedule 3 (the "conservation area") through establishment of a Conservation Agreement with the Minister for the Environment under Part 4, Division 7 of the *National Parks and Wildlife Act 1974*. The purpose of the Conservation Agreement shall be to protect and conserve Aboriginal cultural heritage, and biodiversity, within the conservation area and any other purpose agreed to by the Applicant and the Minister for the Environment. The agreement shall include provision for the developing of a Plan of Management for the conservation area, developed in consultation with the local Aboriginal community, which reflects the purpose of the Conservation Agreement. The content of the Plan of Management shall be as agreed by the relevant parties and generally in accordance with the following principles:

- a) the area shall be conserved in perpetuity;
- b) agriculture and grazing shall be allowed in areas where such activities would not compromise or conflict with:
 - (i) conservation of Aboriginal cultural heritage sites;
 - (ii) conservation of biodiversity; or,
 - (iii) commitments regarding revegetation and management of native habitat areas, particularly the southern woodland remnant, made in documents referred to in condition 1.2;
- c) weed control and bushfire protection measures shall be permitted as necessary;
- d) underground mining of the conservation area shall be permitted, in accordance with this consent;

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- e) specific measures shall be developed to ensure conservation of Aboriginal heritage and threatened species;
- f) rehabilitation and revegetation works shall be permitted where they do not conflict with conservation of Aboriginal cultural heritage;
- g) a permanent access road across the area shall be permitted; and
- h) access to the area by the local Aboriginal community shall be permitted.

The Applicant shall commence negotiations with the Minister for the Environment within six months of the granting of the mining lease. The Applicant shall provide a copy of the agreement to the Director General and SSC within 14 days of the agreement being signed.

- 3.31 The Applicant shall report on results of cultural heritage surveys and monitoring of the site before, during, and after mining operations annually in the AEMR. The purpose of the reporting shall be to identify new areas or increases to the area identified in condition 3.30 for the establishment of Conservation Agreements as defined in condition 3.30. The Applicant shall submit AEMRs to DEC and the Director-General for consideration. Following evaluation of the reporting in the AEMRs, the Director-General may, in consultation with DEC, request the Applicant to establish a Conservation Agreement following the procedure in condition 3.30.
- 3.32 Within six months of the commencement of mining operations, the Applicant shall make a contribution of \$50,000 towards a trust fund set up by the Department and the Public Trustee for the purposes of a regional study into Aboriginal cultural heritage as defined by the Trust Deed.
- 3.33 The Applicant shall provide the local Aboriginal community with the opportunity to recover artefacts as approved by the s90 permits, and arrange access to Aboriginal heritage on the site upon receipt of a request.
- 3.34 If, during the course of any activities conducted under this consent, the Applicant becomes aware of any heritage or archaeological sites not previously identified, all work likely to affect the site shall cease immediately. The Applicant shall then consult with relevant authorities and decide on an appropriate course of action prior to recommencement of work. The relevant authorities may include DEC, the NSW Heritage Office, and the relevant local Aboriginal community. Any necessary permits or consents shall be obtained and complied with prior to recommencement of work.
- 3.35 The Applicant shall consult regularly with the local Aboriginal community using consultation principles and strategies consistent with those outlined in the *"Guidelines for best practice community consultation in the NSW Mining and Extractive Industries"* or relevant DEC guidelines when available. The results of these consultations shall be documented in the AEMR.

Archaeology and Cultural Heritage Management Plan

- 3.36 The Applicant shall prepare an Archaeology and Cultural Heritage Management Plan (ACHMP) to address Aboriginal and European cultural heritage issues. The Plan shall be prepared in consultation with the local Aboriginal community, and DEC, and to the satisfaction of the Director-General. The Plan shall include but not be limited to:

- a) demonstration of consistency with commitments made in documents listed in condition 1.2 and compliance with the conditions of this consent;
- b) identification of all areas of conservation within the DA area;
- c) provision of management strategies including procedures and protocols for conservation and protection of Aboriginal heritage sites for all parts of the DA area;
- d) identification of any salvage, excavation and monitoring programs for any cultural heritage/archaeological sites within the DA area;
- e) details of any Section 90 applications to be lodged, or consents obtained from DEC;
- f) details of consultation undertaken with the local Aboriginal community in the preparation of this Plan;
- g) details of procedures and programs to implement monitoring requirements in condition 3.37.
- h) details of the measures to fully document, in accordance with the NSW Heritage Office guidelines, any non-indigenous heritage sites that will be required to be removed as a result of the development; and
- i) details of proposed monitoring that will be undertaken in the areas adjacent to the non-indigenous heritage sites identified within the EIS.

The ACHMP shall be submitted for the approval of the Director-General no later than one month prior to the commencement of construction of the development, or within such period otherwise agreed by the Director-General. Construction shall not commence until written approval has been received from the Director-General. Upon receipt of the Director-General's approval, the Applicant shall supply a copy of the ACHMP to Council, DEC, and local Aboriginal community groups within 14 days. The Applicant shall make the ACHMP available for public inspection on request.

Monitoring

- 3.37 The Applicant shall monitor the effectiveness of the measures outlined in the Archaeology and Cultural Management Plan (Condition 3.36). A summary of monitoring results shall be included in the AEMR.

Note No Aboriginal archaeological sites shall be disturbed in any way without the prior approval of the Director-General of DEC, under section 90 of the *National Parks and Wildlife Act 1974*.

Flora and Fauna Assessment, Management and Monitoring

General

- 3.38 The revegetation of the DA area shall include, as a minimum, vegetation as shown on the Conceptual Final Landform and Vegetation Patterns plan attached as Figure A to information submitted to the Department on 28 March 2002 where this activity does not impact on Aboriginal heritage values.

- 3.39 Domestic stock and, where necessary, native fauna shall be excluded from all bushland revegetation areas.
- 3.40 Revegetation of areas not to be disturbed by open-cut mining, surface infrastructure, or overburden emplacement shall be completed within 6 years of the granting of a mining lease.
- 3.41 The Applicant shall use, to the greatest extent possible, indigenous seed and propagation materials in revegetation of the site. This shall be based on an environmentally sensitive program of seed collection on the site and from surrounding vegetation remnants, subject to landholders consent.
- 3.42 If threatened species are identified on the site during construction or operation of the coal mine, the Applicant shall cease any work immediately which could adversely impact on the species pending investigation and consultation with relevant government agencies. The Applicant shall engage a suitably qualified ecologist to investigate, and identify appropriate amelioration measures.
- 3.43 Those areas proposed to be mined and those areas proposed to be revegetated both by natural means and by direct seeding/planting shall be mapped so that the spatial and temporal relationship between the sequence of vegetation clearing, mining and habitat rehabilitation is clearly demonstrated.
- 3.44 Natural drainage patterns shall be re-established as far as practical.
- 3.45 During the life of the mine and until the revegetated areas are established to the satisfaction of the DPI - Minerals, the Applicant shall maintain the revegetated areas. Maintenance shall include, where necessary, but not be limited to:
- a) replanting failed or unsatisfactory areas;
 - b) repairing erosion problems;
 - c) fire management, fire suppression or fire encouragement;
 - d) pest and weed control;
 - e) control of feral animal populations;
 - f) maintain and repair fencing;
 - g) fertiliser application; and
 - h) application of lime or gypsum to control pH and improve soil structure.

Flora and Fauna Management Plan

- 3.46 The Applicant shall prepare and implement a Flora and Fauna Management Plan (FFMP) for the DA area. The Plan is specifically required to outline procedures for clearing or disturbing vegetation and other habitat types, along with measures for habitat reinstatement and management. The Plan shall be prepared in consultation with DEC and SSC, and to the satisfaction of the Director-General. The Plan shall be prepared by an appropriately qualified and experienced ecologist. The ecologist shall be responsible for providing advice to minimise potential impacts upon threatened and protected fauna species that may utilise the site and to provide expert advice on the regeneration and reconstruction of flora and fauna habitat on mined areas. The Plan shall include but not be limited to:
- a) demonstration of consistency with commitments made in documents listed in condition 1.2 and compliance with the conditions of this consent;
 - b) details of strategic vegetation management, outlining timeframes for clearing and re-vegetation activities and a map illustrating the Plan. The Plan should aim to maximise scope for new vegetation to establish and restore ecological integrity;

- c) details of the creation, landscaping and management of on-site vegetation to provide habitat for the Grey-crowned Babbler and other threatened species likely to occur on the site;
- d) details of the creation, landscaping and management of ponds along Bowmans Creek, where practical, to provide for Green and Golden Bell Frog habitat; the creation of new habitat must be based on current findings related to nearby populations and must be integrated with existing habitat for this species on the site at Bowmans Creek and Bettys Creek, and with habitat which is proposed to be created on Bettys Creek by Glendell Mine;
- e) details of the schedule for clearing activities incorporating seasonal habitat requirements for species such as bats and other mammals, with the objective of avoiding incidents during sensitive hibernation and breeding periods.
- f) details of pre-clearance inspections, including the identification and inspection of trees containing tree hollows, including stags, prior to clearing of any vegetation;
- g) details of how micro habitats including dead trees, stags, stumps and hollow branches will, where practical, be salvaged and relocated to areas depauperate of tree hollow habitat and in the recreation of habitat areas;
- h) details of the establishment of roost and denning boxes appropriate for bat and avifauna species and methods for their regular maintenance. The details on the specific height, aspect, design, location and timing for the placement of the roosts and nest boxes shall consider any publicly available results and recommendations following the ongoing fauna habitat monitoring program occurring at the Mt Owen mine;
- i) details of the methods for strategically placing felled trees between cleared and remnant bushland to provide runways of ground cover for dispersion of animals;
- j) details of measures to care for any animals injured or found during clearing activities, including the use of WIRES to attend to fauna as necessary, and the methods for their relocation if appropriate. This shall include measures for harbouring and releasing nocturnal animals at night;
- k) strategies for the establishment of long-term post-mining land use objectives over the site;
- l) measures to re-instate vegetation communities and to use local endemic species for revegetation as soon as possible;
- m) methods to actively manage existing areas of remnant vegetation (habitat management zones) through fencing (using animal friendly materials) to exclude grazing animals and control of feral animals where practical, revegetate where appropriate, and maintain weed and fire controls;
- n) strategies for the establishment of wildlife corridor links to adjoining habitat areas and integration of rehabilitation works with nearby mines;
- o) details of strategies for the exclusion of grazing stock on areas of native bushland reconstruction;
- p) measures to monitor the success of revegetated areas and plant additional species where necessary;

- q) methods of revegetation;
- r) consideration of Aboriginal heritage management to ensure that activities under the Plan do not impact on Aboriginal heritage values;
- s) development of a protocol for identifying and managing significant impacts on any threatened flora and fauna species not identified in the EIS, during construction or operation of the mine; and
- t) details of the habitat monitoring required under this consent.

The FFMP shall be submitted for the approval of the Director-General, in consultation with DEC, no later than one month prior to the commencement of construction of the development, or within such period otherwise agreed by the Director-General. Construction shall not commence until written approval has been received from the Director-General. Upon receipt of the Director-General's approval, the Applicant shall supply a copy of the FFMP to Council, DIPNR, DPI - Fisheries, and DEC, within 14 days. The Applicant shall make the FFMP available for public inspection on request.

Monitoring

- 3.47 The regeneration works shall be monitored by an appropriately qualified and experienced ecologist. The results of the monitoring and the effectiveness of the revegetation and the FFMP shall be reported annually as part of the Annual Environmental Management Report in accordance with the Department of Mineral Resource's Guidelines to the Mining, Rehabilitation and Environmental Management Process (March 1998) or its latest version.
- 3.48 The Applicant shall prepare a detailed monitoring program of habitat areas on the site, including any wetlands and aquatic habitats, during the development and for a period after the completion of the development to be determined by the Director-General in consultation with DEC. The monitoring program shall be included in the FFMP and a summary of the results shall be provided in the AEMR. The program shall:
- a) monitor impacts attributable to the development and include monitoring of the success of any restoration or reconstruction works. The Applicant shall carry out any further works required by the Director-General and DPI - Minerals as a result of the monitoring;
 - b) establish an ongoing monitoring program of the existing and proposed revegetated areas to assess their floristics and structure and to propose contingency measures for improvements to revegetation if required; and
 - c) establish an ongoing monitoring program of fauna species diversity and abundance and the effectiveness of reconstructed ecosystems in providing fauna habitat and contingency measures should impacts be identified as occurring.

Note: Emphasis should be given to the need for monitoring of the effectiveness of rehabilitation to learn from the process. It should be noted that both positive and negative outcomes need to be reported, to maximise the opportunity to incorporate best practice principles into future mining proposals. The information obtained from the monitoring shall be used to guide future revegetation efforts on the mine site.

Erosion and Sediment Control

General

3.49 Sedimentation dams must be constructed to contain or treat surface water runoff from all mining areas and areas disturbed by mining including overburden dumps, topsoil stockpiles, unsealed roads and areas cleared of vegetation. Sedimentation dams must be designed:

- a) so that the maximum flow velocity through the dams meets DIPNR guidelines;
- b) to prevent short circuiting;
- c) if inflow is likely to contain oil or other deleterious floating matter a baffle must be installed at the outlet to prevent discharge of that matter; and,
- d) so as to avoid impacts on Aboriginal heritage values.

Erosion and Sediment Control Plan

3.50 The Applicant shall prepare an Erosion and Sediment Control Plan (ESCP) for the surface facilities and mining operations in consultation with DIPNR and SSC, taking account of the DLWC "Draft Guideline for Establishment of Stable Drainage Areas on Rehabilitated Minesites" or its latest version, and to the satisfaction of DIPNR, and the Director-General. The Erosion and Sediment Control Plan shall include but not be limited to:

- a) demonstration of consistency with commitments made in documents listed in condition 1.2 and compliance with the conditions of this consent;
- b) details of temporary and permanent sediment and erosion control systems to be used during both mine construction and operation, including for earthworks associated with landscaping;
- c) details of soil salinity management where relevant;
- d) ¹⁰measures that will be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction and operation activities.
- e) ¹¹demonstration that the Plan is in accordance with the requirements for such plans outlined in *Managing Urban Stormwater: Soils and Construction* (available from the Department of Housing) or its latest version for construction, or *Managing Urban Stormwater: Council Handbook* (available from the DEC) or its latest version, for operation;
- f) details of the proposed measures to maximise the retrieval of topsoil for subsequent use in the rehabilitation program;
- g) consideration and management of erosion and sedimentation of surface watercourses/waterbodies, including all creeklines within the DA areas;

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¹¹ Incorporates DEC General Term of Approval

- h) consideration of Aboriginal heritage management to ensure that activities under the Plan do not impact on Aboriginal heritage values;
- i) measures to construct banks, channels and similar works to divert stormwater away from disturbed and contaminated land surfaces such as mine workings, haul roads, overburden disposal areas, coal handling areas and wastewater treatment facilities. All diversion banks, channels and points of discharge must be constructed or stabilised so as to minimise erosion and scouring; and
- j) a program for reporting on the effectiveness of the sediment and erosion control systems and performance against objectives contained in the approved Erosion and Sediment Control Management Plan, and EIS.

The Applicant may submit ESCPs for construction and mine operation separately. The ESCP(s) shall be submitted for the approval of the Director-General, and DIPNR, no later than one month prior to the commencement of construction or operation of the development, as appropriate, or within such period otherwise agreed by the Director-General. Construction or operation, as appropriate, shall not commence until written approval has been received from the Director-General and DIPNR. Upon receipt of the Director-General's approval, the Applicant shall supply a copy of the ESCP to Council and DPI - Minerals within 14 days. The Applicant shall make the ESCP available for public inspection on request.

3.51 The Applicant shall prepare a Soil Stripping Management Plan (SSMP) to the requirements of DPI - Minerals and DIPNR that shall include, but not be limited to:

- a) demonstration of consistency with commitments made in documents listed in condition 1.2 and compliance with the conditions of this consent;
- b) details of the management of soil stockpiles, soil stripping techniques and scheduling; and
- c) a program for reporting on the effectiveness of the soil stripping methods and performance against objectives contained in the Soil Stripping Management Plan, and EIS.

The SSMP shall be submitted for the approval of DPI - Minerals and DIPNR, no later than one month prior to the commencement of construction of the development, as appropriate, or within such period otherwise agreed by the DPI - Minerals and DIPNR. Construction shall not commence until written approval has been received from DPI - Minerals and DIPNR. Upon receipt of approval, the Applicant shall supply a copy of the SSMP to Council, and the Department within 14 days. The Applicant shall make the SSMP available for public inspection on request.

Site Rehabilitation Management

3.52 The Applicant shall carry out rehabilitation of all mine areas in accordance with the requirements of any Mining Lease granted by the Minister for Mineral Resources and ensure the progressive rehabilitation of the area is also to the satisfaction of DIPNR. The rehabilitation shall also have regard to DPI - Minerals' *Synoptic Plan – Integrated Landscapes for Minesite Rehabilitation (1999)* for the Upper Hunter, or its latest version.

Visual Amenity and Landscaping

General

- 3.53 The Applicant shall design buildings and structures associated with the development with a colour scheme which aims to minimise the visual impact of the development on surrounding land uses and maximise the ability of the development to "blend into" local vegetation and other visual components.
- 3.54 The Applicant shall ensure that visual bunding is installed at strategic locations around the site, generally in accordance with the EIS, to minimise impacts on visual amenity.

Landscape and Revegetation Management Plan

- 3.55 The Applicant shall prepare a Landscape and Revegetation Management Plan (LRMP) for approval by the Director-General. The Plan shall be prepared in consultation with the SSC and DPI - Minerals. The plan shall have regard to DPI - Minerals's *Synoptic Plan – Integrated Landscapes for Minesite Rehabilitation (1999)* for the Upper Hunter, or its latest version. The Plan shall include, but not be limited to, the following:
- a) demonstration of consistency with commitments made in documents listed in condition 1.2 and compliance with the conditions of this consent;
 - b) an on-site landscaping strategy detailing design and proposed planting of trees and shrubs and the construction of mounding or bunding along Glennies Creek Road and the New England Highway;
 - c) appropriate erosion control and sediment control practices for earthworks associated with the landscaping;
 - d) details of visual appearance of all buildings, structures, facilities or works (including paint colours and specifications);
 - e) details, specifications, and staged work programs to be undertaken, maintenance of all landscape works and maintenance of building materials and cladding;
 - f) details of how vegetation screening and fauna protection corridors will be incorporated into the proposed visual and landscaping works; and
 - g) use of indigenous species and fauna habitat reconstruction in revegetation areas.

The LRMP shall be submitted for the approval of the Director General, no later than one month prior to the commencement of construction of the development, or within such period otherwise agreed by the Director General. Construction shall not commence until written approval has been received from the Director General. Upon receipt of approval, the Applicant shall supply a copy of the LRMP to Council, and DPI - Minerals within 14 days. The Applicant shall make the LRMP available for public inspection on request.

3.55A Within 1 month of placing overburden on the eastern emplacement area above RL 125 metres, the Applicant shall:

- a) commence implementation of an on-site and off-site landscaping strategy to minimise the visual impacts of the eastern emplacement area which includes tree planting along Glennies Creek Road, the slopes of the ridge south of Glennies Creek Road and adjacent to the New England Highway; and
- b) revise the Landscape and Revegetation Management Plan for the development to demonstrate consistency with the commitments made in documents listed in condition 1.2 and compliance with the conditions of this consent,

to the satisfaction of the Director-General.

Final Void Management

3.56 The Applicant shall prepare a Final Void Management Plan (FVMP) to the satisfaction of the Director-General, in consultation with DPI - Minerals, DIPNR, and SSC. The Plan shall include, but not be limited to, the following:

- a) demonstration of consistency with commitments made in documents listed in condition 1.2 and compliance with the conditions of this consent;
- b) an investigation of options for future use of the final void;
- c) a re-examination and validation of groundwater modelling of the potential effects on the local and regional groundwater;
- d) details of a strategy for the long term management of the final void;
- e) details of strategies to minimise any adverse impacts where the assessment indicates the potential for degradation to surrounding water resources; and
- f) details of programs for catchment management, including the types of fertilisers used in the rehabilitation programs to ensure that there is little residual risk of nutrient enrichment of final void water.

The FVMP shall be submitted for the approval of the Director General, no later than the end of year 5 of the development or within such period otherwise agreed by the Director General. Upon receipt of approval, the Applicant shall supply a copy of the FVMP to Council, DIPNR, and DPI - Minerals within 14 days. The Applicant shall make the FVMP available for public inspection on request. The FVMP shall be reviewed and updated every five years, or as otherwise agreed by the Director General.

Bushfire and other Fire Controls

3.57 The Applicant shall:

- a) provide adequate fire protection works on site, including the availability of trained personnel, water tankers and fire fighting equipment and annual hazard reduction measures with particular attention to boundaries of adjoining landholdings;
- b) make available to the Rural Fire Service and emergency services when required, water carts and trucks in cases of bushfire incidents on the mine site;

- c) submit an annual report on fire management activities to the Singleton Fire Control Officer; and
- d) prior to commencement of mining operations prepare a Bushfire Management Plan for all its holdings contained in the DA area, to the satisfaction of SSC and the Rural Fire Service.

Land Management

3.58 The Applicant shall, prepare a Land Management Plan (LMP) for the areas of the proposed surface facilities, and its holdings in the DA area, to provide for proper land management in consultation with DIPNR, DPI - Agriculture, DEC, and SSC, and to the satisfaction of the Director-General. The plan shall include, but not be limited to:

- a) demonstration of consistency with commitments made in documents listed in condition 1.2 and compliance with the conditions of this consent;
- b) a strategy for sustainable land management, including rehabilitation, revegetation, and habitat reconstruction works, for the land proposed to be swapped for the existing Camberwell Common and Travelling Stock Reserve. The strategy is to be funded and implemented by the Applicant and developed in consultation with the Camberwell Common Trust, the Rural Lands Protection Board, DIPNR, Singleton Landcare, and the Hunter Catchment Management Trust. The strategy must have the approval of the Camberwell Common Trust and the Rural Lands Protection Board before submission to the Director-General. In the event that the land swap is not finalised when the LRMP is submitted, the Applicant shall provide an indicative timetable for implementation of the strategy and completion of the land swap;
- c) a strategy for sustainable land management and enhancement of agricultural values and production across the entire site, taking into account biodiversity and Aboriginal heritage values as appropriate;
- d) pastures and vegetation management;
- e) prevention and rehabilitation of land degradation;
- f) control of weed infestation on topsoil stockpile material;
- g) assessment of the potential for recycling of standing timber removed from the site;
- h) eradication of vermin and noxious weeds as required by the Rural Lands Protection Board, the Upper Hunter Weeds Authority, the Prickly Pear Authority and other relevant authorities; and,
- i) feral animal control.

The LMP shall be submitted for the approval of the Director General, no later than one month prior to the commencement of mining operations, or within such period otherwise agreed by the Director General. Mining operations shall not commence until written approval has been received from the Director General. Upon receipt of approval, the Applicant shall supply a copy of the LMP to Council, DIPNR, DPI - Agriculture, DEC, and DPI - Minerals within 14 days. The Applicant shall make the LMP available for public inspection on request.

3.59 The Applicant shall minimise the removal of trees and other vegetation from the proposed surface facilities area, and restrict any clearance to the areas occupied by mine activity, buildings and paved surfaces, and those areas necessary for fire control in accordance with SSC requirements.

4. WATER MANAGEMENT AND MONITORING

General

Surface Water

- 4.1 ¹²Except as may be expressly provided by a licence under the Protection of the Environment Operations Act 1997 in relation of the development, section 120 of the Protection of the Environment Operations Act 1997 must be complied with in and in connection with the carrying out of the development.
- 4.2 ¹³Any release of surplus minewater from the mine must comply with the requirements of the Hunter River Salinity Trading Scheme and any licence issued under the Protection of the Environment Operations Act unless otherwise directed by the DEC.
- 4.3 ¹⁴The concentration of a pollutant in wastes discharged under the Hunter River Salinity Trading Scheme must not:
- a) cause salinity in the Hunter River to exceed 900 micro Siemens/cm (uS/cm) measured at Singleton.
 - b) contain more than 120 milligrams per litre (mg/l) of non-filtrable residue; and
 - c) be of a pH less than 6.5 or greater than 9.5.
- 4.4 Any application to the DEC for a licence under the Protection of the Environment Operations Act to discharge surplus minewater must be supported by a tributary impact statement. The tributary impact statement must include a geomorphologic evaluation of the watercourse and an assessment of the impact of the proposed discharge on the streams flora and fauna as well as any users and residents, downstream.
- 4.5 The Applicant shall develop contingency arrangements to dispose of excess saline water in a planned and managed manner to ensure that the mine water management system is not exceeded with a subsequent unmanaged discharge occurring.
- 4.6 ¹⁵Banks, channels and similar works must be constructed to divert stormwater away from disturbed and contaminated land surfaces such as mine workings, haul roads, overburden disposal areas, coal handling areas and wastewater treatment facilities. All diversion banks, channels and points of discharge must be constructed or stabilised so as to minimise erosion and scouring.
- 4.7 The works associated with the proposal shall not damage or interfere in any way with:
- a) vegetation outside the area of operation;
 - b) the stability of adjacent or nearby streams; or

¹² Incorporates DEC General Term of Approval

¹³ Incorporates DEC General Term of Approval

¹⁴ Incorporates DEC General Term of Approval

¹⁵ Incorporates DEC General Term of Approval

c) the quality of water in the stream or watercourse below its ANZECC beneficial water use classification prior to the commencement of mining operations.

4.8 The Applicant shall, in consultation with DIPNR, ensure that all soil and / or vegetation material to be removed from the area of operation is disposed of on an appropriate site where it will not be swept back into watercourses.

4.9 *(Deleted)*

Licences

4.10 The Applicant shall obtain a licence from DIPNR under Part 5 of the *Water Act 1912* for the bores and wells which intersect the groundwater table, including monitoring bores, dewatering bores, longwalls, and other excavations which intersect the groundwater table; and

4.11 The Applicant shall obtain a permit under Part 3A of the *Rivers and Foreshores Improvement Act 1948* or the *Water Management Act 2000*, as appropriate, for works within forty metres of a river as defined under the Act, prior to commencing any works for which the Approval is required.

Site Water Balance

4.12 The Applicant shall recalculate the mine water balance on a six-monthly basis to assess:

- a) whether climatic conditions and inflows to the mine are having a significant impact on mine water make and storage requirements; and,
- b) address issues of additional storage which may be necessary to cope with the increased water make into the water circuit of the mine.

The recalculated water balances shall be reported in the AEMR.

Groundwater

4.13 ¹⁶All surface and underground operations including long wall mining shall be conducted to minimise potential impacts on groundwater flow and quality of the alluvial groundwater resource, integrity of the alluvial aquifer and to minimise off-site effects.

4.14 The Applicant shall undertake regular assessments of the accuracy of the groundwater model against the predictions outlined in the EIS, to the satisfaction of DIPNR. The scope of the assessment shall be determined in consultation with DIPNR and shall include the consideration of the establishment of trigger levels via sensitivity testing, drawdown, pit seepage and river leakage. Should an assessment identify significant differences between the model and EIS predictions, the Applicant shall revise the assessment of the potential impacts on groundwater systems to the satisfaction of DIPNR and implement any further mitigation measures to the satisfaction of DIPNR. The trigger levels for re-assessment of groundwater impacts shall be included in the Groundwater Management Plan required in condition 4.24.

4.15 The Applicant shall develop contingency measures to manage any impacts identified by monitoring that the management strategies have failed to predict or control, particularly relating to groundwaters associated with the alluvial aquifers of

¹⁶ *(deleted)*

Bowmans Creek, Glennies Creek and the Hunter River, to the satisfaction of DIPNR. The implementation of contingency measures shall be linked to performance and cut-off criteria as determined in consultation with DIPNR and specified in the Site Water Management Plan, and shall include both water quality and aquifer pressure levels, should agreed standards or performance indicator levels not be achieved.

- 4.16 The Applicant shall prepare a statistical assessment to the satisfaction of DIPNR to initially benchmark the pre-mining natural variation in groundwater quality and quantity and to set trigger levels for accepting accountability. The assessment is to be documented in the SWMP (condition 4.24).
- 4.17 In the event that the development adversely affects groundwater users the Applicant shall, to the satisfaction of the DIPNR, liaise with the users to provide a replacement water supply of similar quality and quantity to that affected, until such time as the development ceases to impact on the users' water supply. The cut-off levels for depressurization of the alluvial aquifer and water quality parameters shall be determined in consultation with the DIPNR.

Wastewater management

- 4.18 ¹⁷A water management system must be constructed and utilised to manage the collection, storage, treatment, use and disposal of minewater, sewage effluent and other wastewater.
- 4.19 ¹⁸Bund(s) must be installed around areas in which fuels, oils and chemicals are stored. Bunds must:
- a) have walls and floors constructed of impervious materials;
 - b) be of sufficient capacity to contain 110% of the volume of the tank (or 110% volume of the largest tank where a group of tanks are installed);
 - c) have walls not be less than 250 millimetres high;
 - d) have floors graded to a collection sump; and
 - e) not have a drain valve incorporated in the bund structure.
- 4.20 ¹⁹A wastewater treatment facility with oil separator and sediment trap must be installed to treat drainage from the hardstand, vehicle servicing and general workshop areas.
- 4.21 ²⁰An area must be provided for the use of effluent from the sewage treatment plant. The design of the system must be in accordance with the DEC's draft guideline "Utilisation of Treated Effluent by Irrigation".
- 4.22 ²¹Wastewater utilisation areas must effectively utilise the wastewater applied to those areas. This includes the use for pasture or crop production, as well as ensuring the soil is able to absorb the nutrients, salts, hydraulic load and organic materials in the solids or liquids. Monitoring of land and receiving waters to determine the impact of wastewater application may be required by the DEC.

¹⁷ Incorporates DEC General Term of Approval

¹⁸ Incorporates DEC General Term of Approval

¹⁹ Incorporates DEC General Term of Approval

²⁰ Incorporates DEC General Term of Approval

²¹ Incorporates DEC General Term of Approval

Stream Gauging Infrastructure

- 4.23 The Applicant is to negotiate relocation of the stream gauging station located on Bowmans Creek (formally known as stream gauge 210130, Foybrook downstream of Bowmans Bridge) with DIPNR, prior to commencement of underground mining. The relocation of the gauging station will be at the Applicant's cost and will include all aspects of design, replacement, installation, commissioning, and any costs associated with correlation of data between the existing gauge and the new gauge. In line with NSW Government policy, the relocated gauging station is to accommodate fish passage. Any unforeseen cost associated with relocation of the gauging station will also be at the Applicant's cost.

Site Water Management Plan

- 4.24 ²²The Applicant shall prepare a Site Water Management Plan (SWMP) for the DA area, in consultation with DIPNR, DPI - Fisheries, and Council, to the satisfaction of the Director-General, which shall include, but not be limited to, the following matters:
- a) demonstration of consistency with commitments made in documents listed in condition 1.2 and compliance with the conditions of this consent;
 - b) management of the quality and quantity of surface and ground water within the DA area;
 - c) management of stormwater and general surface runoff diversion to ensure separate effective management of clean and dirty water;
 - d) measures to prevent the degradation of downstream surface water quality below the pre-mining ANZECC beneficial water use classification due to mining operations;
 - e) contingency plans for managing adverse impacts of the development on surface and groundwater quality, beyond trigger levels set in condition 4.14 and the Groundwater Management Plan;
 - f) details of any proposed water extraction or supply of water from other mines or off-site sources;
 - g) details of any reuse of contaminated water or circulation / distribution between ACP and other mines or operations. The volume of any such water transfers is to be documented in the AEMR;
 - h) ²³measures to develop and implement a Stormwater Management Scheme to mitigate the impacts of stormwater run-off from and within the premises following the completion of construction activities. The Scheme shall be consistent with the Stormwater Management Plan for the catchment. Where a Stormwater Management Plan has not yet been prepared the Scheme should be consistent with the guidance contained in *Managing Urban Stormwater: Council Handbook* or its latest version (available from the DEC);
 - i) measures to ensure that poorer quality class waters are effectively reused on the site including consideration of segregation of waters based on salinity classes and other levels of contamination;

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²³ Incorporates DEC General Term of Approval

- j) details of a strategy for the decommissioning of water management structures, including dirty water dams and clean water diversion dams;
- k) measures to isolate contaminated waters, including waters containing oil and grease, or other pollutants, operation chemical residues or other criteria, to avoid mixing with reuse or discharge waters;
- l) details of design and maintenance of all storages, diversions, transmission channels and sedimentation basins for the site, to minimise sedimentation of watercourses;
- m) measures to ensure adequate consultation with DIPNR, DEC, and the local Aboriginal community regarding design and location of surface water management structures;
- n) details of any licensing requirements for any extractions, storages, or other constructions on the site;
- o) measures for assessing chemical water quality impacts of the mining operation above and below the mine site
- p) projection of potential groundwater changes during mining (short term) and post-mining (long term) with particular attention given to the affect of changes to groundwater quality and mobilisation of salts;
- q) ²⁴a Groundwater Management Plan (GMP) to the satisfaction of DIPNR, which details monitoring, contingency and remediation measures, and release criteria. The GMP component of the SWMP is to be endorsed by DIPNR prior to commencement of mining operations;
- r) measures to implement the surface and groundwater monitoring requirements in this consent; and,
- s) a program for reporting on the effectiveness of the water management systems and performance against objectives contained in the approved Site Water Management Plans, and EIS.

The SWMP shall be submitted for the approval of the Director-General, no later than one month prior to the commencement of construction of the development, or within such period otherwise agreed by the Director-General. Construction shall not commence until written approval has been received from the Director-General and DIPNR. Upon receipt of the Director-General's approval, the Applicant shall supply a copy of the SWMP to Council, DEC, DPI - Minerals, DIPNR and DPI - Fisheries, within 14 days. The Applicant shall make the SWMP available for public inspection on request.

- 4.24A Within 1 month of placing overburden on the eastern emplacement area above RL 125 metres, the Applicant shall revise the Site Water Management Plan to demonstrate consistency with the commitments made in the documents listed in condition 1.2 and compliance with the conditions of this consent, to the satisfaction of the Director-General.

²⁴ (deleted)

Surface and Groundwater Monitoring

4.25 The Applicant shall:

- a) construct and locate surface and groundwater monitoring positions, as identified in the Site Water Management Plan in consultation with DIPNR and DEC, and to the satisfaction of the Director-General, prior to the commencement of construction;
- b) prepare a detailed monitoring program in respect of ground and surface water quality and quantity, including water in and around the DA area before, during and after mine operations in consultation with DIPNR, DEC, and DPI - Fisheries, and to the satisfaction of the Director-General. The monitoring program shall have the capacity to collect sufficient data to adequately assess:
 - (i) the impact of any licensed groundwater extraction on groundwater levels on neighbouring properties and in the locality, and to identify any water quality impacts;
 - (ii) the impact of the development on groundwaters and groundwater dependent ecosystems associated with the alluvial aquifer(s) of Bowmans Creek, Glennies Creek, and the Hunter River;
 - (iii) any licensing requirements associated with the monitoring works;
 - (iv) develop a contingency program, with identified stages of implementation, to address potential adverse impacts or degradation of the groundwater systems beyond predictions, particularly relating to the groundwater associated with the alluvial aquifer(s) of Bowmans Creek, Glennies Creek, and the Hunter River and to the groundwaters in the vicinity of any rejects. Degradation occurs where the quality classification of the groundwater system is reduced to a lower class; and
 - (v) any concerns or complaints from surrounding landholders on groundwater matters, and any ensuing actions these records, which shall be maintained and be available to DIPNR.

The monitoring program shall be incorporated in the Site Water Management Plan and shall include the duration (pre, during and post mining), sites to be sampled, frequency of sampling, the parameters to be measured, the need for any contingency plans, the reporting procedure and determination of appropriate cut-off criteria for monitoring purposes determined in consultation with DIPNR. The results of the monitoring program shall be reported in the AEMR. The monitoring program for post-mining shall be prepared by year 20 of mine operations and extend at least 5 years after mine closure or as determined by DIPNR.

- c) report on the monitoring results and raw data in the AEMR on the following matters:
 - (i) a basic statistical analysis (mean, range, variance, standard deviation) of the results for the parameters measured in individual bores / wells and as a subset of the aquifer;
 - (ii) an interpretation of the water quality results and changes in time for water quality and water levels (supported with graphs, contour plots showing changes in aquifer pressure levels);
 - (iii) an interpretation and review of the results in relation to cut-off criteria and predictions made in the EIS;
 - (iv) an interpretation of the water balance identifying the volume and make up of mine pit inflows as compared to Part V licence (required under Part V of the *Water Act 1912*), and predictions made in the EIS or previous AEMR; and

- (v) provide an electronic copy of the data forwarded to DIPNR.

Underground Mining Groundwater Monitoring

4.26 ²⁵Prior to the commencement of underground mining and subject to DIPNR approval, the licence holder shall develop and implement a surface and subsurface investigation and monitoring program to assess the likely fracturing of geological strata and hydraulic property changes above each longwall panel. The monitoring program shall provide an interpreted comparison of the results from all longwall panels against pre-mining baseline geological conditions, in order to assess the level of variability of fracture, changes in hydraulic properties between panels, and the impact on groundwater resources and surface expression from underground mining at varying depths. This investigation shall be repeated for each seam as it is mined from the site. The monitoring plan shall:

- a) measure the level of surface water flows, groundwater elevations and water quality prior to mining;
- b) assess the influence of mine-induced fracturing on aquifers and groundwater quantity;
- c) assess the influence of mine-induced fracturing and cross aquifer connection on groundwater quality;
- d) identify sampling locations, monitoring wells/bores along the mine path, to assess the impact of mining in mid goaf and at the predicted points of tension fracturing, at the edge of each long wall panel
- e) prescribe sampling and observation depths, monitoring frequency and parameters for monitoring; and
- f) specify the compilation, interpretation and reporting of groundwater data and analyses.

4.27 ²⁶All monitoring data shall be submitted to DIPNR in a report which, includes data, interpretation of results, and a discussion of monitoring results compared to groundwater and salinity impact predictions stated in the EIS.

4.28 ²⁷The licence holder shall develop a reporting mechanism, for inclusion in the EMP, in order to:

- a) verify the predictions of the groundwater modelling used in the Environmental Impact Statement; and
- b) assess the potential long term changes in groundwater flow and quality which may occur as a result of mining operations and changes to hydraulic properties, as a result of subsidence of the hard rock strata underlying the alluvium.

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5. HAZARDOUS MATERIALS AND OVERBURDEN MANAGEMENT

Overburden Emplacement and Management

- 5.1 The Applicant shall construct and manage the overburden emplacements as set out in the EIS, and to the satisfaction of the DPI - Minerals; and
- 5.2 The Applicant shall undertake measures, as far as practical, to prevent spontaneous combustion from occurring on the site.

Waste

- 5.3 One month prior to the commencement of construction works, the Applicant shall prepare and implement a Waste Management Plan (WMP) for the DA area in consultation with SSC and DEC and to the satisfaction of the Director-General. The Plan shall include, but not be limited to:
 - a) details of measures to facilitate waste management on site;
 - b) details of compliance with the Applicant's obligations under the *Protection of the Environment Operations Act, 1997*;
 - c) identification of all types and quantities of waste materials produced at the mine site during construction, commissioning and operation;
 - d) programs aimed at minimising the production of waste at the mine site through the implementation of operational and management measures;
 - e) details of the potential reuse and recycling avenues for waste materials produced at the mine site, including collection and handling procedures;
 - f) details of appropriate disposal routes in the event that reuse and recycling avenues are not available or are not practicable; and
 - g) programs for involving and encouraging employees and contractors to minimise waste production at the mine site and reuse / recycling where appropriate.
- 5.4 ²⁸The Applicant must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by a licence under the *Protection of the Environment Operations Act, 1997*. This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if it requires an environment protection licence under the *Protection of the Environment Operations Act, 1997*.
- 5.5 The Applicant shall dispose of all solid waste and putrescible matter from the site to the satisfaction of SSC or DEC, as relevant.

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6. AIR QUALITY, BLAST, NOISE AND LIGHT MANAGEMENT

Air Quality Management and Monitoring

Air Quality Standards/Goals and Performance Criteria

6.1 The Applicant shall comply with the following ambient air quality standards/goals:

Table 1 Long Term Particulate Matter Criteria

POLLUTANT	STANDARD / GOAL	AGENCY
Total Suspended Particulate Matter (TSP)	90ug/m ³ (annual mean)	NH & MRC
Particulate matter < 10um (PM ₁₀)	30 ug/m ³ (annual mean)	NSW DEC

Table 2 Short Term Particulate Matter Goal

POLLUTANT	STANDARD / GOAL	AGENCY
Particulate matter < 10um (PM ₁₀)	50ug/m ³ (24 hr average)	NSW DEC

Table 3 NSW DEC Amenity Based Criteria for Dust Fallout

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: dust is assessed as insoluble solids as defined by AS 3580.10.1-1991 (AM-19)

- 6.2 The Applicant shall ensure the prompt and effective rehabilitation of all disturbed areas of the DA area following the completion of mining and associated activities in that area to minimise the generation of wind blown dust.
- 6.3 ²⁹Activities occurring at the premises must be carried out in a manner that will minimise emissions of dust from the premises.
- 6.4 Raw coal dump hoppers must be fitted with:
- a) an automatically activated dust suppression water spray system; and

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- b) windshields. The windshields must be full walls on three sides with a height of not less than two metres above the dump grate.
- 6.5 Belt conveyors, other than those whose functions preclude it, must be enclosed on the top and at least one side. Belt scrapers must be installed to effectively remove material from the underside of each belt.
- 6.6 Air pollution control equipment must be fitted to all drilling rigs to prevent fines generated during drilling being discharged to the atmosphere.
- 6.7 An effective water spray system must be installed at open coal stockpiles and operated at sufficient frequency to maintain the entire surface of the stockpile and related coal handling areas in a condition that will minimise the emission of wind blown or traffic generated dust.
- 6.8 Mobile tankers equipped with a pump and sprays must be provided to suppress dust from unsealed roads when in use.
- 6.9 Roads for coal or overburden haulage must be surfaced in selected hard, non-friable material. Soft mudstone, clay stone and shale must not be used.

Air Quality Management Plans

- 6.10 The Applicant shall prepare a Construction Air Quality Management Plan (CAQMP), and an Operations Air Quality Management Plan (OAQMP), detailing air quality safeguards and procedures for dealing with dust and other air emissions from the ACP mine to the satisfaction of the Director-General. The CAQMP shall be prepared in consultation with SSC. The OAQMP shall be prepared following consultation with SSC and other nearby mines with the aim of achieving a consistent approach in the preparation of the ACP OAQMP. The Plans shall include, but not be limited to:
 - a) demonstration of consistency with commitments made in documents listed in condition 1.2 and compliance with the conditions of this consent;
 - b) the identification of adversely impacted properties in accordance with the criteria detailed in Tables 1, 2, and 3 of condition 6.1;
 - c) specifications of procedures that will be used for monitoring dust deposition, PM₁₀, and TSP for the purpose of undertaking independent investigations, including any joint investigations with nearby mines;
 - d) a mine operating plan that will allow dust emissions from the mine to be progressively reduced should real-time ambient measurements of PM₁₀ concentrations and/or meteorological observations or forecasts indicate that emissions from ACP are likely to exceed the 24-hour average PM₁₀ standards in Table 2 of condition 6.1. The plan is to be updated as the mine develops and at least on an annual basis and should indicate specific measures that will be used to reduce dust emissions and the threshold conditions under which each control measure will be triggered;
 - e) an outline of the procedure used to notify property owners and occupiers as identified in the EIS or by monitoring that are likely to be adversely impacted by emissions from the mine in excess of criteria detailed in Tables 1, 2, and 3 of condition 6.1;
 - f) a procedure to address potential dust impacts on residential tenants at mine-owned residences and at residences where an agreement has been made

- between a mining company and the landholder relating to exceedences of dust criteria, which is to be prepared in consultation with DEC, NSW Health, landowners of any residences potentially affected by dust levels exceeding the criteria in condition 6.1 as a result of the development, and the operators of other mining/industrial operations contributing to the impacts. This procedure shall:
- (i) ensure that all existing tenants of identified properties are advised in writing of the increase to fine particulate levels likely to occur at those locations during the operational life of the mine and that these increases are likely to result in exceedences of the criteria in condition 6.1. Information shall also be provided to the residents on the available research relating to the health effects of fine particulate matter;
 - (ii) ensure that all potential tenants are advised in writing of the increase to the fine particulate matter likely to occur at that location during the operational life of the mine prior to signing a residential tenancy agreement to occupy the residence. This advice must ensure that such tenants are aware that increases in emissions are likely to result in exceedences of the criteria in condition 6.1. Information shall also be provided to the residents on the available research relating to the health effects of fine particulate matter;
 - (iii) ensure that the advice provided to current and future tenants is based on current knowledge of ambient air quality monitoring, dispersion modelling results and air quality criteria; and,
 - (iv) provide a mechanism for providing current ambient air quality monitoring data, dispersion modelling results and air quality criteria to the residents of these affected residences.
- g) measures to reduce the potential for wind erosion from exposed surfaces, particularly the use of techniques that increase the surface roughness and reduce the potential for dust entrainment;
 - h) methods and frequency of making dust monitoring data publicly available, such as the placement of monitoring details and results on the internet;
 - i) details of an investigation program aimed at improving short-term modelling techniques, by better characterising dust source variations and focusing on the feasibility of developing shorter-term amenity indicators;
 - j) details of an investigation program aimed at improving modelling of real-time dust control strategies such as that employed at ACP;
 - k) the establishment of a protocol for handling dust complaints that include recording, reporting and acting on complaints;
 - l) appropriate mechanisms for community consultation;
 - m) outline of response and/or management measures to be undertaken in the event of complaints from a landowner where dust levels are demonstrated to be below the criteria in condition 6.1;
 - n) outlining proactive/predictive and reactive mitigation measures to be employed to minimize dust emissions including visible dust emanating from the site;
 - o) equipment to be available and used to control dust generation;
 - p) methods to determine when and how the mine operation is to be modified to minimise the potential for dust emissions, particularly from surface activities;
 - q) identification of longer term strategies directed towards mitigating dust levels;

- r) details of locations and frequency of ambient TSP and PM₁₀ monitors and dust deposition gauges at the residential areas as agreed by the Director-General; and
- s) a program to continue baseline monitoring undertaken prior to development consent.

The CAQMP and OAQMP shall be submitted for the approval of the Director-General, no later than one month prior to the commencement of construction and operation of the development, respectively, or within such period otherwise agreed by the Director-General. Construction or operation, as appropriate, shall not commence until written approval has been received from the Director-General. Upon receipt of the Director-General's approval, the Applicant shall supply copies of the CAQMP and OAQMP to Council, DEC, and DPI - Minerals, within 14 days. The Applicant shall make the CAQMP and OAQMP available for public inspection on request.

Air Quality and Dust Monitoring

6.11 ³⁰The Applicant shall submit to the DEC with a licence application a draft air monitoring program for long term PM₁₀, TSP and deposited matter emissions. The program must specify the data to be collected at regular intervals, continuously and during episodic periods relevant to specific operational and/or ambient conditions such that a representative picture of PM₁₀ TSP and deposited matter impacts at all receivers can be established. The monitoring must be conducted at a sufficient number of points to represent the wider area and account for possible weather (such as seasonal wind direction) and operational effects. The DEC will use the submitted draft monitoring program to include detailed licence conditions covering air monitoring locations, frequencies and methods. Monitoring locations for the mine operations, including sites for monitoring impacts of dust at the nearest non-mine owned residences and locations as may be determined to be necessary by the Director-General are to be decided in consultation with DEC. The sampling method, units of measure, interval and frequency of monitoring will be as set out in the *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW*.

6.12 The Applicant shall:

- a) establish real-time ambient monitoring stations to provide continuous measurements of PM₁₀ concentrations at the closest residences for which no agreements have been negotiated.
- b) provide quarterly reporting during operation and rehabilitation of the open cut mine on the performance of the control measures and results of the ambient air quality monitoring system, unless otherwise agreed by the Director-General. The reports shall be provided to the Director-General, CCC and SSC within seven days of completion of the report; and
- c) provide all results and analysis of air quality monitoring in the AEMR.

6.13 ³¹The following points (to be each of or representative of a defined group of all potentially affected properties) referred to in the table below are identified for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.

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Air Monitoring

DEC Identification no.	Type of Monitoring Point	Type of Discharge Point	Description of Location
At locations to be determined by the DEC based on the monitoring plan required by condition 6.11	Ambient air monitoring		At locations to be determined by the DEC based on the monitoring plan required by condition 6.11

6.14 ³²For each monitoring point determined by the DEC at the licence application stage the applicant must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1 of the following table. The applicant must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

Air

Pollutant	Units of Measure	Frequency	Sampling Method
Particulate Matter – PM ₁₀	µg/m ³	1 day in 6 or continuous	AM-18 or AS3580.9.8 – 2001
Total suspended particles	ug/m3	1 day in 6	AM-15
Particulates - Deposited Matter	g/m ² /month	Continuous	AM-19

6.15 ³³Monitoring for the concentration of a pollutant emitted to the air required to be conducted under this consent, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development or in order to comply with a relevant local calculation protocol must be done in accordance with:

- any methodology which is required by or under the POEO Act 1997 to be used for the testing of the concentration of the pollutant; or
- if no such requirement is imposed by or under the POEO Act 1997, any methodology which the general terms of approval or a condition of the licence or the protocol (as the case may be) requires to be used for that testing; or
- if no such requirement is imposed by or under the POEO Act 1997 or by the general terms of approval or a condition of the licence or the protocol (as the case may be), any methodology approved in writing by the DEC for the purposes of that testing prior to the testing taking place.

Exceedence of Dust Criteria/Goals

6.16 In the event that:

- a) a landowner or occupier considers that dust from the project at his/her dwelling is in excess of the criteria detailed in Tables 1, 2, and 3 of condition 6.1 above; or,
- b) a landowner, having selected a suitable site for a dwelling on his/her vacant land, considers that dust from the project at his/her future dwelling would be in excess of the criteria detailed in Tables 1, 2, and 3 of condition 6.1 above,

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and the Director-General is satisfied that an investigation is required, the Applicant shall, upon the receipt of a written request:

- a) consult with the landowner or occupant affected to determine his/her concerns;
- b) make arrangements for, and bear the costs of, following consultation with other nearby mines, appropriate independent dust investigations in accordance with the OAQMP, and to the satisfaction of the Director-General, to quantify the impact and determine the source of the effect and contribution of the ACP mine;
- c) modify the mining activity or take other steps in accordance with the OAQMP if exceedences are demonstrated to result from ACP related activity. This shall include:
 - (i) introduction of additional dust controls, on individual sources or on all sources on the site, or modify operations to ensure that the dust criteria are achieved; and/or;
 - (ii) enter into an agreement with the landowner or provide such forms of benefit or amelioration of the impact of dust as may be agreed between the parties as providing acceptable compensation for the dust levels experienced. The agreement may also be made following consultation with other nearby mines.
- d) conduct follow up investigation(s) to the satisfaction of the Director-General, where necessary.

Note: Vacant land in this condition means the whole of the lot in a current plan registered at the Land Titles Office as at the date of this consent that does not have a dwelling situated on the lot and is permitted to have a dwelling on that lot.

- 6.17 If the independent dust investigations in condition 6.16 above confirm that ambient dust levels at the residence or proposed residence are in excess of the relevant criteria detailed in Tables 1 and 3 of condition 6.1 above, and if the measures in condition 6.16 c) (i) above do not reduce the dust levels below the criteria in Tables 1 and 3 of condition 6.1, or if agreement in accordance with condition 6.16 (c)(ii) above cannot be reached, the Applicant shall, at the written request of the owner, acquire the relevant property. Acquisition shall be in accordance with the procedures set out in conditions 11.5-11.11.

In the case of cumulative dust levels in excess of the criteria in Table 1 and 3 of condition 6.1, should the Applicant form an agreement with the relevant contributing parties under a Joint Acquisition Management Plan pursuant to Condition 11.12, the Applicant shall purchase an affected property in accordance with this Plan. Should a Joint Acquisition Management Plan not be prepared between the relevant contributing parties, the Applicant shall acquire the property in accordance with conditions 11.5-11.11.

- 6.18 If the independent dust investigations in condition 6.16 above confirm that ambient dust levels at the residence or proposed residence are in excess of the relevant criteria detailed in Table 2 of condition 6.1 above, and if the measures in condition 6.16 c) (i) above do not reduce the dust levels below the criteria in Table 2 of condition 6.1, or if agreement in accordance with condition 6.16 (c)(ii) above cannot be reached, the Applicant shall, assess ambient dust levels and the incremental contribution of ACP to ambient dust levels as set out in Table 4 below:

Table 4 Short Term Particulate Matter Acquisition Criteria

POLLUTANT	CRITERIA	AGENCY
Particulate matter < 10um (PM ₁₀)	50 ug/m ³ (incremental contribution of ACP to ambient levels)	NSW DEC
Particulate matter < 10um (PM ₁₀)	150 ug/m ³ (cumulative)	US EPA

If the independent dust investigations in condition 6.16 above confirm that ambient dust levels at the residence or proposed residence are in excess of either of the relevant criteria detailed in Table 4 above the Applicant shall, at the written request of the owner, acquire the relevant property. Acquisition shall be in accordance with the procedures set out in conditions 11.5-11.11.

In the case of cumulative dust levels in excess of the criteria in Table 4, should the Applicant form an agreement with the relevant contributing parties under a Joint Acquisition Management Plan pursuant to Condition 11.12, the Applicant shall purchase an affected property in accordance with this Plan. Should a Joint Acquisition Management Plan not be prepared between the relevant contributing parties, the Applicant shall acquire the property in accordance with conditions 11.5-11.11.

- 6.19 If continued complaints and dust investigations confirm that ambient air quality criteria in Table 2 of condition 6.1 are being exceeded, but are less than the ambient dust levels in Table 4 of condition 6.18, the Applicant shall continue to negotiate with the landowner, and other nearby mines where relevant, until a resolution to the satisfaction of the Director General is reached.
- 6.20 If a landowner disputes any dust mitigation or other measures proposed by the Applicant in accordance with condition 6.16 above, the matter shall be referred by either the Applicant or landowner to the Director-General in consultation with SSC. If the matter cannot be resolved within 21 days, the matter shall be referred to the Independent Dispute Resolution Process.
- 6.21 Further independent investigation(s) shall cease if the Director-General is satisfied that the relevant criteria in Tables 1, 2, and 3 of condition 6.1 are not being exceeded and are unlikely to be exceeded in the future.

Blast Management and Monitoring

Airblast Overpressure Criteria

6.22 ³⁴The Airblast overpressure level from blasting operations carried out in or on the premises must not exceed:

- (a) 115 dB (Lin Peak) for more than 5% of the total number of blasts during each reporting period; and
- (b) 120 dB (Lin Peak) at any time.

At any residence or other noise sensitive receiver such as the St Clements Anglican Church and Camberwell Community Hall.

Ground vibration (ppv) Criteria

6.23 ³⁵The ground vibration peak particle velocity from blasting operations carried out in or on the premises must not exceed:

- (a) 2 mm/s for more than 5% of the total number of blasts carried out in or on the premises during each reporting period; and
- (b) Exceed 10 mm/s at any time

At any residence or other noise sensitive receiver such as the St Clements Anglican Church and Camberwell Community Hall.

Time of blasting

6.24 ³⁶Blasting operations on the premises may only take place between 9.00am and 5.00pm Monday to Saturday inclusive.

6.25 The Applicant shall, as a minimum, advise residents of Camberwell village and occupiers of buildings within two (2) kilometres of blasting locations of future blasting events on at least a monthly basis, and of any changes to the proposed blast schedules. Such program shall also be available on the internet.

Blasting/Vibration Management Plans

6.26 The Applicant shall prepare and implement a Blasting/Vibration Management Plan (BVMP) in consultation with SSC, and to the satisfaction of the Director-General. The Plan shall include, but not be limited to, the following matters:

- a) demonstration of consistency with commitments made in documents listed in condition 1.2 and compliance with the conditions of this consent;
- b) demonstration of compliance blasting criteria;
- c) proposed mitigation measures;
- d) remedial action;

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³⁵ Incorporates DEC General Term of Approval

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- e) monitoring methods and program in accordance with blast monitoring and inspection conditions;
- f) monitoring program for flyrock distribution;
- g) measures to be undertaken to demonstrate that ACP is achieving best practice in minimising air blast overpressure, ground vibration levels, fumes and odours from blasting activities;
- h) measures to protect underground utilities (e.g.: subsurface telecommunication and electric cables, irrigation lines) and livestock on non-mine owned land;
- i) measures to consider the blasting activities from other neighbouring mines. This shall include details of the proposed measures to ensure that cumulative blast related impacts are managed, such as through consultation with the other mines to coordinate blasting activities;
- j) measures to monitor and mitigate impacts of blasting on rail and road infrastructure;
- k) measures to manage and mitigate dust generation from blasting;
- l) procedures for the investigation of blast related complaints from ACP, in consultation with other mines in the event of cumulative related impacts
- m) procedures for the notification of occupiers of buildings and residents prior to detonation of each blast; and
- n) measures to ensure no damage by flyrock to people, property, livestock and powerlines.

The BVMP shall be submitted for the approval of the Director-General, no later than one month prior to the commencement of blasting, or within such period otherwise agreed by the Director-General. Blasting shall not commence until written approval has been received from the Director-General. Upon receipt of the Director-General's approval, the Applicant shall supply a copy of the BVMP to Council, DEC, and DPI - Minerals within 14 days. The Applicant shall make the BVMP available for public inspection on request.

6.27 The Applicant shall, in consultation with SSC, RTA and RIC, prepare and implement a Road and Rail Closure Management Plan (RRCMP) to the satisfaction of the Director-General. The Plan shall include, but not be limited to, the following matters:

- a) demonstration of consistency with commitments made in documents listed in condition 1.2 and compliance with the conditions of this consent;
- b) details of the proposed safety management measures during the period of the road closure and blast;
- c) details of the procedures for closing Glennies Creek Road the railway and the New England Highway, and the period which they will be closed during blasting activities;
- d) methods for ensuring the safety of road and rail users and the general public during the blast period;

- e) strategies for informing road and rail users and the local community of the proposed closures;
- f) details of the procedures for permitting the passage of emergency vehicles during the road closure. This shall also include details of the proposed methods for sufficiently notifying emergency service providers of the proposed times and period of the road closures;
- g) methods for clearing any debris resulting from a blast; and
- h) details of the disruptions that are likely to occur during the closure period.

The RRCMP shall be submitted for the approval of the Director-General, no later than one month prior to the commencement of blasting, or within such period otherwise agreed by the Director-General. Blasting shall not commence until written approval has been received from the Director-General. Upon receipt of the Director-General's approval, the Applicant shall supply a copy of the RRCMP to Council, RIC, RTA, DEC, and DPI - Minerals within 14 days. The Applicant shall make the RRCMP available for public inspection on request.

Blast Monitoring and Inspection

6.28 ³⁷To determine compliance with airblast overpressure and ground vibration criteria:

- a) Airblast overpressure and ground vibration levels must be measured at the most potentially affected residence or other noise sensitive receiver for all blasts carried out at the development; and
- b) Instrumentation used to monitor compliance must meet the requirements of Australian Standard 2187.2 of 1993.

The results of the blast monitoring must be submitted to DEC at the end of each reporting period and be summarised and interpreted in the AEMR.

6.29 The Applicant shall investigate any vibration problem(s) associated with above ground floor level of residential buildings which occur as a result of blasting at the mine in relation to the criteria in Conditions 6.22 and 6.23 above. Should such an investigation be necessary the Applicant shall advise the Director-General the result of such investigation and any proposed preventive/remedial measures.

6.30 Upon written request of the owner of any dwellings located in Camberwell Village or within two (2) kilometres of the blasting locations, the Applicant shall arrange at its own costs, for the inspection by a technically qualified person agreed to by both parties, to record the material condition of any structure on such property within 14 days of receipt of the request. The Applicant shall supply a copy of any inspection report, certified by the person who undertook the inspection, to the relevant property owner within fourteen (14) days of receipt of the report.

6.31 The Applicant shall arrange at its own costs, for the inspection by a technically qualified person agreed to by the Director-General, to record the material condition of the St Clements Anglican Church and Camberwell Community Hall prior to the commencement of blasting. The Applicant shall supply a copy of any inspection report, certified by the person who undertook the inspection, to the relevant property owner and the Director-General within fourteen (14) days of receipt of the report.

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6.32 Upon receipt of a written request from the relevant property owner or manager, the Applicant shall investigate any blasting impacts or exceedences of blast criteria associated with the development at the St Clements Anglican Church or Camberwell Community Hall. Should such an investigation be necessary the Applicant shall advise the Director-General the result of such investigation and any proposed preventive/remedial measures.

6.33 The Applicant shall incur the costs for any damage to Glennies Creek Road, the Railway, and the New England Highway resulting from any blast related activities. The repairs shall be undertaken to a standard acceptable to SSC, RTA and RIC.

Noise Control

Noise Criteria

6.34 ³⁸Except as may be expressly provided by a DEC licence, noise generated by the development must not exceed the limits specified in Table 5 below.

Table 5 Noise Limits (dB(A))

Location	Day	Evening	Night	
	L _{Aeq} (5min)	L _{Aeq} (5min)	L _{Aeq} (min)	L _A (min)
Any residence not owned by the Applicant or not subject to an agreement between the Applicant and the residence owner as to an alternate noise limit.	38	38	36	46

6.35 The Applicant shall ensure that the design, construction and operation of the ACP shall not create amenity problem(s) associated with low frequency vibration. In the event of a problem arising the Applicant shall, in consultation with the DEC, investigate the cause of any low frequency vibration associated with the ACP and report to the Director-General the result of any such investigation and practical mitigation measures that can be adopted to eliminate such problem.

Noise Acquisition Criteria

6.36 The acquisition zone for noise is defined by predicted or demonstrated exceedence of the noise levels shown in Table 6 below:

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Table 6 Acquisition Noise Limits (dB(A))

Location	Day	Evening	Night
	$L_{Aeq}(15\text{ minute})$	$L_{Aeq}(15\text{ minute})$	$L_{Aeq}(15\text{ minute})$
Any residence not owned by the Applicant or not subject to an agreement between the Applicant and the residence owner as to an alternate noise limit.	43	43	41

Interpretation of Noise Levels

6.37 ³⁹For the purpose of Conditions 6.34 and 6.36:

- Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays,
- Evening is defined as the period from 6pm to 10pm
- Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays.

6.38 ⁴⁰Noise from the premises is to be measured at the most affected point on or within the residential boundary or at the most affected point within 30m of the dwelling where the dwelling is more than 30m from boundary to determine compliance with the $L_{Aeq}(15\text{ minute})$ noise limits in condition 6.34. Where it can be demonstrated that direct measurement of noise from the premises is impractical, the DEC may accept alternative means of determining compliance. See Chapter 11 of the NSW Industrial Noise Policy. The modification factors presented in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise level where applicable.

6.39 ⁴¹Noise from the premises is to be measured at 1m from the dwelling façade to determine compliance with the $L_{A1}(1\text{ minute})$ noise limits in condition 6.34.

6.40 ⁴²The noise emission limits identified in condition 6.34 apply under the following meteorological conditions:

- a) wind speeds up to 3m/s at 10 metres above ground level; and
- b) temperature inversion conditions of up to 3°C/100m.

Hours of Operation

6.41 ⁴³Open cut mining activities must only be conducted between 7am to 10pm Monday to Saturday and 8am to 10pm Sundays and Public Holidays.

³⁹ Incorporates DEC General Term of Approval

⁴⁰ Incorporates DEC General Term of Approval

⁴¹ Incorporates DEC General Term of Approval

⁴² Incorporates DEC General Term of Approval

⁴³ Incorporates DEC General Term of Approval

Noise Management Plans

6.42 The Applicant shall prepare and implement, a Construction Noise Management Plan (CNMP) in consultation with SSC, to the satisfaction of the Director-General. The Plan shall include, but not be limited to the following matters:

- a) demonstration of consistency with commitments made in documents listed in condition 1.2 and compliance with the conditions of this consent;
- b) compliance standards;
- c) community consultation;
- d) complaints handling monitoring/system;
- e) site contact person to follow up complaints;
- f) methods for the management of construction related traffic noise impacts;
- g) mitigation measures;
- h) the design/orientation of the proposed mitigation methods demonstrating best practice;
- i) construction times;
- j) contingency measures where noise complaints are received; and
- k) monitoring methods and program to comply with requirements of conditions 6.44-6.48.

The CNMP shall be submitted for the approval of the Director-General, no later than one month prior to the commencement of construction, or within such period otherwise agreed by the Director-General. Construction shall not commence until written approval has been received from the Director-General. Upon receipt of the Director-General's approval, the Applicant shall supply a copy of the CNMP to Council, DEC, and DPI - Minerals within 14 days. The Applicant shall make the CNMP available for public inspection on request.

6.43 The Applicant shall prepare and implement a Noise Management Plan (NMP) for the ACP mine, to the satisfaction of the Director-General. The DEC, SSC, and nearby mines shall be consulted prior to the finalisation of the Noise Management Plan. The Plan shall include:

- a) demonstration of consistency with commitments made in documents listed in condition 1.2 and compliance with the conditions of this consent;
- b) details of the methods to comply with requirements of conditions 6.44-6.48;
- c) details regarding operating configuration; determining survey intervals; weather conditions and seasonal variations; selecting variations, locations, periods and times of measurements;
- d) detail management measures where the target criteria in condition 6.34 of this consent are predicted to be exceeded, or are exceeded during mining operations;
- e) redefine both the acquisition and management zones on a yearly basis in the AEMR, unless otherwise agreed by the Director-General. This review shall draw upon the noise monitoring results obtained during the previous year and

- incorporate noise modelling to provide a forward plan of predicted noise levels for the year ahead;
- f) specify the procedures for a noise monitoring program for the purpose of undertaking independent noise investigations;
 - g) outline the procedure to notify property owners and occupiers likely to be affected by noise from the operations;
 - h) establish a protocol for handling noise complaints that include recording, reporting and acting on complaints, particularly where complaints are received and it is demonstrated noise levels are in excess of the criteria contained in this consent;
 - i) record appropriate mechanisms for community consultation;
 - j) outline proactive/predictive and reactive mitigation measures to be employed on the site to limit noise emissions;
 - k) identify longer term strategies directed towards mitigating noise levels that exceed the noise target levels in condition 6.34;
 - l) outline measures to reduce the impact of intermittent, low frequency and tonal noise (including truck reversing alarms);
 - m) survey and investigate noise reduction measures from plant and equipment annually, subject to noise monitoring results and/or complaints received, and report in the AEMR at the conclusion of the first 12 months of operations and set targets for noise reduction taking into consideration valid noise complaints in the previous year; and
 - n) include details of the inter-relationship of this plan with Noise Management Plans of other mines in the area.

The NMP shall be submitted for the approval of the Director-General, no later than one month prior to the commencement of mining operations, or within such period otherwise agreed by the Director-General. Mining operations shall not commence until written approval has been received from the Director-General. Upon receipt of the Director-General's approval, the Applicant shall supply a copy of the NMP to Council, DEC and DPI - Minerals within 14 days. The Applicant shall make the NMP available for public inspection on request.

- 6.43A Within 1 month of placing overburden on the eastern emplacement area above RL 125 metres, the Applicant shall revise the Noise Management Plan to include a dumping strategy for the eastern emplacement area to minimise noise impacts and ensure compliance with the noise criteria in the consent, to the satisfaction of the Director-General.

Noise Monitoring

- 6.44 The Applicant shall conduct detailed noise monitoring surveys at potentially affected residences (including potentially affected residences to the east of the mine prior to the cessation of overburden emplacement activities on the eastern emplacement area), on a 3-monthly basis, to the satisfaction of the Director-General.
- 6.45 ⁴⁴A noise compliance assessment report shall be submitted to DEC and the Director-General within three months of commencement of normal operations at the premises and on an annual basis thereafter. The report shall be prepared by an accredited acoustical consultant and shall determine compliance with the noise limits in condition 6.34. Annual noise compliance reports may be incorporated into the AEMR.

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6.46 ⁴⁵Noise from the premises is to be measured at the most affected point on or within the residential boundary or at the most affected point within 30m of the dwelling where the dwelling is more than 30m from boundary to determine compliance with the $L_{Aeq(15 \text{ minute})}$ noise limits in condition 6.34. Where it can be demonstrated that direct measurement of noise from the premises is impractical, the DEC may accept alternative means of determining compliance. See Chapter 11 of the NSW Industrial Noise Policy. The modification factors presented in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise level where applicable.

6.47 ⁴⁶Noise from the premises is to be measured at 1m from the dwelling façade to determine compliance with the $L_{A1(1 \text{ minute})}$ noise limits in condition 6.34.

6.48 Noise monitoring results shall be of sufficient detail to assess whether ACP noise contains low-frequency, tonal or impulsive components as defined in Section 4 of the INP.

Exceedence of Noise Criteria

6.49 In the event that:

- a) a landowner or occupier considers that noise from the project at his/her dwelling is in excess of the criteria detailed in Table 5 of condition 6.34 above; or,
- b) a landowner, having selected a suitable site for a dwelling on his/her vacant land, considers that noise from the project at his/her future dwelling would be in excess of the criteria detailed in Table 5 of condition 6.34 above,

and the Director-General is satisfied that an investigation is required, the Applicant shall, upon the receipt of a written request:

- a) consult with the landowner or occupant affected to determine his/her concerns;
- b) make arrangements for, and bear the costs of, following consultation with other mine operations in the vicinity where necessary, appropriate independent noise investigations in accordance with the Noise Management Plan, and to the satisfaction of the Director-General, to quantify the impact and determine the source of the effect and the contribution of ACP to the effect;
- c) take steps in accordance with a noise reduction plan prepared as part of the Noise Management Plan, if exceedances are demonstrated to result from ACP. This shall include:
 - (i) introduction of additional controls, either on noise emission from individual sources on the site or on site operations or modify operations, to ensure that the criteria in the Table 5 of condition 6.34 above are achieved, as far as possible; or
 - (ii) with the agreement of the landowner, and in the case of cumulative impacts the other relevant mining operations, undertaking of noise control at the dwelling to achieve internal noise levels due to ACP alone or due to all mining activities, as relevant, which are at least 10dBA below the relevant external noise criterion in Table 5 of condition 6.34. Internal noise levels should be measured at the centre of any habitable room; or

⁴⁵ Incorporates DEC General Term of Approval

⁴⁶ Incorporates DEC General Term of Approval

- (iii) entering into an agreement with the landowner, and in the case of cumulative impacts the other relevant mining operations in the area and the landowner, to provide such other forms of benefit or amelioration of the impacts of noise as may be agreed between the parties, as providing acceptable compensation for the noise levels experienced;
- d) conduct follow up investigation(s) to the satisfaction of the Director-General, where necessary.

Note: Vacant land in this condition means the whole of the lot in a current plan registered at the Land Titles Office as at the date of this consent that does not have a dwelling situated on the lot and is permitted to have a dwelling on that lot.

- 6.50 If the independent noise investigation(s) in condition 6.49 above confirms that noise criteria in condition 6.36 are being exceeded, and the measures in condition 6.49(c) do not reduce the noise levels below the criteria in Table 5 of condition 6.34, or establish an agreement acceptable to the relevant parties, the Applicant shall, at the written request of the landowner, acquire the relevant property. Acquisition shall be in accordance with the procedures set out in conditions 11.5-11.11.

In the case of cumulative levels in excess of the criteria in Table 6 of condition 6.36, should the Applicant form an agreement with the relevant contributing parties under a Joint Acquisition Management Plan pursuant to Condition 11.12, the Applicant shall purchase an affected property in accordance with this Plan. Should a Joint Acquisition Management Plan not be prepared between the relevant contributing parties, the Applicant shall acquire the property in accordance with conditions 11.5-11.11.

- 6.51 If continued complaints and noise investigations confirm that noise criteria in Table 5 of condition 6.34 are being exceeded, but are less than the noise levels in condition 6.36, the Applicant shall continue to negotiate with the landowner, and other mines in the vicinity where relevant, until a resolution to the satisfaction of the Director General is reached.
- 6.52 If a landowner disputes any noise mitigation or other measures proposed by the Applicant in accordance with condition 6.49 above, the matter shall be referred by either the Applicant or landowner to the Director-General in consultation with SSC. If the matter cannot be resolved within 21 days, the matter shall be referred to the Independent Dispute Resolution Process.
- 6.53 Further independent investigations shall cease if the Director-General is satisfied that the relevant criteria in Table 5 of condition 6.34 are not being exceeded and are unlikely to be exceeded in the future.

Lighting Emissions

- 6.54 All external lighting associated with the development shall comply with Australian Standard *AS4282(INT) 1995 - Control of Obtrusive Effects of Outdoor Lighting*. Prior to the commencement of mining operations, the Applicant shall certify in writing, to the satisfaction of the Director-General, that all relevant lighting associated with the development will meet the requirements of this condition, and has generally been designed and installed to minimise lighting impacts outside the site.

6.55 The Applicant shall design and construct all roads and areas where mobile equipment and vehicles move on the site to minimise off-site lighting impacts from equipment lighting and headlights. Lighting from equipment and vehicles shall not shine directly on residences or vehicles moving along public roads at any time.

6.56 The Applicant shall prepare a Lighting Management Plan (LMP) in consultation with SSC, and to the satisfaction of the Director-General. The Plan shall include, but not be limited to:

- a) demonstration of consistency with commitments made in documents listed in condition 1.2 and compliance with the conditions of this consent;
- b) details of the implementation of visual controls to screen, direct or manage all on-site lighting from mine related activities in respect of residences and roadways;
- c) details of the planting of vegetation screens along the mine boundary and around surface facilities and infrastructure;
- d) details of technical measures and work practices necessary to minimise the spillage of light from areas to be illuminated, and to minimise the total night time glow from the mine;
- e) details of the construction of mine facilities roads, and work areas, or placement of visual screens and/or overburden emplacements to screen lighting impacts;
- f) details of the proposed process and measures to address complaints that may be received from residents or road users impacted by lighting from the mine site; and,
- g) details of any other effective operating practices to manage potential lighting impacts.

The LMP shall be submitted for the approval of the Director-General, no later than one month prior to the commencement of mining operations, or within such period otherwise agreed by the Director-General. Mining operations shall not commence until written approval has been received from the Director-General. Upon receipt of the Director-General's approval, the Applicant shall supply a copy of the LMP to Council, DEC, and DPI - Minerals within 14 days. The Applicant shall make the LMP available for public inspection on request.

6.57 The Applicant shall report on the effectiveness of the lighting emission controls in the AEMR.

7. TRANSPORT AND UTILITIES

Road Transport

- 7.1 No coal shall be hauled from the mine site on public roads, except under emergency circumstances and with the prior written approval of the Director-General and SSC.
- 7.2 The Applicant shall ensure that all employees and contractors travelling to and from the mine site utilise the designated mine access road off Glennies Creek Road.
- 7.3 Any damage caused to the New England Highway pavement and shoulder caused by the movement of heavy vehicles for oversize equipment deliveries to the site shall be repaired at the Applicant's expense.
- 7.4 No coal shall be transported via any internal haul road to the Macquarie Generation conveyor as indicated in the EIS.

Note: Condition 1.19 prohibits the construction of the private coal haul road.

Road Construction

Local Roads

- 7.5 ⁴⁷The Applicant shall design and construct the following works in accordance with Council's *Development Design and Construction Specifications*:
 - a) widen the radius of Glennies Creek Road at the New England Highway intersection to overcome the acute intersection angle;
 - b) reseal the Glennies Creek Road surface from the New England Highway to the proposed mine entry road;
 - c) construct an AUSTROADS type B intersection incorporating a left turn speed reducing lane to the new entry, and widen the eastern side of Glennies Creek Road to allow a right turn ingress lane from the intersection and an external slip lane for Glennies Creek Road; and,
 - d) build a new realigned section of road to accommodate the new open cut mine.

Plans for all works shall be submitted and approved by Council prior to commencement of works.

- 7.6 The Applicant will construct upgrade works on Glennies Creek Road in accordance with the conceptual design provided in supplementary information referred to in condition 1.2, with the exception that the design standard is to be upgraded to 80kph. All works to be to the satisfaction of SSC.

State Roads

- 7.7 The Applicant shall obtain approval from the RTA for the upgrade of the intersection at Glennies Creek Road and the New England Highway, which shall be generally in accordance with the conceptual design provided in supplementary information referred to in condition 1.2.

⁴⁷ Incorporates Singleton Shire Council General Term of Approval

- 7.8 The Applicant shall obtain RTA approval under Section 138 of the Roads Act for all works within the New England Highway road reserve.
- 7.9 ⁴⁸The Applicant shall execute a Works Authorisation Deed with the RTA for the proposed road works on State Highway No. 9 New England Highway. The Works Authorisation Deed must be executed prior to commencement of any activity within the Highway road reserve.
- 7.10 ⁴⁹The Applicant shall bear all costs associated with the design, survey, approval, construction, maintenance, monitoring, rehabilitation and removal of all mine related infrastructure and works affecting the New England Highway road reserve.
- 7.11 ⁵⁰The Applicant shall pay to the RTA the cost incurred by the RTA of making good any damage to the New England Highway, and its associated structures, caused by activities associated with this consent. Provided however that the amount to be paid by the Applicant as aforesaid shall be reduced by such sum of money, if any, as may be paid to the RTA from the Mine Subsidence Compensation Fund constituted under the Mine Subsidence Compensation Act, 1961, in the form of a claim for compensation for the same damage.
- 7.12 ⁵¹Activities associated with this consent shall not restrict in any way the ability of the RTA and its contractors to access and/or undertake works to Bowmans Creek Bridge and its underside.
- 7.13 ⁵²Any adjustments or alterations to activities associated with this consent resulting from improvements/upgrade of the New England Highway shall be the responsibility of the Applicant and at no cost to the RTA.
- 7.14 ⁵³ *(Deleted)*
- 7.15 ⁵⁴ *(Deleted)*
- 7.16 ⁵⁵ *(Deleted)*
- 7.17 ⁵⁶ *(Deleted)*
- 7.18 ⁵⁷ *(Deleted)*
- 7.19 ⁵⁸ *(Deleted)*
- 7.20 *(Deleted)*
- 7.21 *(Deleted)*

Road Closures

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- ⁴⁸ Incorporates RTA General Term of Approval
⁴⁹ Incorporates RTA General Term of Approval
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⁵⁷ Incorporates RTA General Term of Approval
⁵⁸ Incorporates RTA General Term of Approval

7.22 The Applicant shall maintain signs on Glennies Creek Road and in Camberwell Village to provide at least 24 hours notice of temporary road closures. The location and wording of the signs are to be approved by SSC. Timetables for road closures are also to be available on the internet. A protocol is to be established in consultation with the emergency services during road closures. Notification shall also be provided to relevant emergency services via fax or other written means seven (7) days prior to the road closure.

Relocation of Electrical Transmission Lines

7.23 The Applicant shall, to the satisfaction of Energy Australia and at its own cost, undertake the relocation and/or construction of any electrical transmission lines which may be required as a result of the development. The Applicant shall also bear any costs associated with relocation of Registered Easements for relocated or new transmission lines required as a result of the development. Such work shall be completed prior to any existing line being affected by mining activity from ACP.

Utility Services

7.24 The Applicant shall, to the satisfaction of telecommunications providers and at its own cost, or by agreement with relevant parties, undertake the relocation of any telecommunications cables which may be required as a result of the development.

Rail Construction

7.25 The Applicant shall construct the proposed railway siding to the satisfaction of RIC and at its own costs.

8. MONITORING / AUDITING

- 8.1 In addition to the requirements contained elsewhere in this consent, the Director-General may, at any time in consultation with the relevant government authorities and Applicant, require the monitoring programs under this consent to be revised or updated to reflect changing environmental circumstances or changes in technology/operational practices. Changes shall be made and approved in the same manner as the initial monitoring programs. All monitoring programs shall also be made publicly available at SSC and on the internet within two weeks of approval by the relevant government authority.
- 8.2 All sampling strategies and protocols undertaken as part of any monitoring program shall include a quality assurance/quality control plan and shall be included in the relevant environmental management plan. Only accredited laboratories shall be used for laboratory analysis.

Third Party Monitoring / Auditing

Independent Expert Review

- 8.3 The Director-General may, in consultation with DEC, DPI - Fisheries, SSC, and other relevant agencies, direct the Applicant to, at the Applicant's own costs, provide ongoing funding for Independent Expert Review of documents, plans, and monitoring programs required by this consent. Independent expert(s) may be required provide independent advice to the Director-General, and through the Director-General to other regulatory authorities. The payments shall be paid according to a schedule specified by the Director-General, should Independent Expert Review be required.
- 8.4 Independent Expert Review shall be carried out by one or more independent experts in relevant disciplines and may include experts in subsidence, water quality / quantity, ecology, groundwater, air quality, noise, or cultural heritage. The Director-General shall select the relevant discipline(s) and appoint the expert(s) in consultation with relevant Government agencies and the Applicant.
- 8.5 The functions of any Independent Expert Review may include, but not be limited to, assessing and evaluating the following documents required under this consent:
- a) Environmental Management Plans;
 - b) Monitoring programs and compliance reports;
 - c) Subsidence Monitoring and Impact Assessment Reports; and,
 - d) Annual Environmental Management Reports.
- 8.6 The results of any review, including any specific recommendations, shall be submitted to the Director-General, DEC, DPI - Fisheries, DPI - Minerals, and other relevant agencies to be determined by the Director-General. Reports produced by a review shall be made public.
- 8.7 The Director-General may, after considering any submission made as a result of an Independent Expert Review, notify the Applicant of any requirements with regard to any recommendations made in the submission. The Applicant shall comply with those requirements within such time as the Director-General may require.

Independent Environmental Auditing

- 8.8 One year after commencement of construction and every three years thereafter until five years after completion of mining in the DA area, or as otherwise directed by the Director-General, the Applicant shall conduct an environmental audit of the mining and infrastructure areas of the development in accordance with ISO 14010 - Guidelines and General Principles for Environmental Auditing, and ISO 14011 - Procedures for Environmental Auditing (or the current versions), and in accordance with any specifications required by the Director-General. Copies of the report shall be submitted by the Applicant to the Director-General, SSC, DEC, DIPNR, DPI - Minerals, RTA, DPI - Fisheries, MSB, DPI - Agriculture and the CCC within two weeks of the report's completion for comment.
- 8.9 The independent environmental audit shall:
- a) assess compliance with the requirements of this consent, licences, and approvals;
 - b) assess the development against the predictions made in the EIS and the predictions and commitments made in the documents listed in condition 1.2;
 - c) assess the development against predictions made in SMIARs required under conditions 3.24-3.28.
 - d) review the effectiveness of the environmental management of the mine, including any mitigation works;
 - e) be carried out at the Applicant's expense; and
 - f) be conducted by a duly qualified independent person or team approved by the Director-General in consultation with SSC and other relevant agencies.
- 8.10 The Director-General may, after considering any submission made by the relevant government agencies, SSC and the CCC on the report, notify the Applicant of any requirements with regard to any recommendations in the report. The Applicant shall comply with those reasonable requirements within such time as the Director-General may require.

Meteorological Station(s)

- 8.11 The Applicant shall establish a meteorological station(s) at a relevant location(s) in accordance with the requirements of AS 2922 1987 "Ambient Air Guide for Siting of Sampling Units" or its updated version or as directed by the DEC. The Meteorological station(s) must be capable of recording wind direction and speed, temperature and sigma theta and be operated in accordance with the requirements of AS 2923-1987 "Ambient Air Guide Horizontal Wind for Air Quality Application", or subsequent relevant standards.

8.12 ⁵⁹The Applicant must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The applicant must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns:

Parameter	Units of measure	Averaging Period	Frequency	Method
Rainfall	mm/hr	1-hour	Continuous	AM-4
Sigma Theta @ 10 m Siting	°	1-hour	Continuous	AM-2
Temperature @ 10 m	K	1-hour	Continuous	AM-4
Temperature @ 2 m	K	1-hour	Continuous	AM-4
Atmospheric inversion	°C/100m		Continuous	See note
Total Solar Radiation @ 10 m	W/m ²	1-hour	Continuous	AM-4
Wind Direction @ 10 m	°	1-hour	Continuous	AM-2
Wind Speed @ 10 m	m/s	1-hour	Continuous	AM-2

Note: The Applicant shall calculate temperature inversion from measurements at 2 and 10m.

⁵⁹ Incorporates DEC General Term of Approval

9. REPORTING

Reports on Operations

- 9.1 The Applicant shall report on mine operations in accordance with the mine operations plan (refer to Condition 2.1).

Annual Environmental Management Report (AEMR)

- 9.2 The Applicant shall, throughout the life of the mine and for five years after completion of mining in the DA area, prepare and submit an Annual Environmental Management Report (AEMR) to the satisfaction of the Director-General and DPI - Minerals. The AEMR shall review the performance of the mine against the Environmental Management Strategy and the relevant Mining Operations Plans, the conditions of this consent, and other licences and approvals relating to the mine. To enable ready comparison with the predictions made in the EIS, diagrams and tables, the report shall include, but not be limited to, the following matters:

- a) an annual compliance audit of the performance of the project against conditions of this consent and statutory approvals;
- b) assess the development against the predictions made in the EIS and the terms and commitments made in the documents listed in condition 1.2;
- c) assess the development against predictions made in SMIARs required under conditions 3.24-3.28;
- d) ⁶⁰a Groundwater Management Report prepared by an independent expert to the satisfaction of DIPNR, addressing:
 - (i) work done under and the level of compliance with, the groundwater management measures defined in the Groundwater Management Plan; and
 - (ii) identification of trends in groundwater monitoring data and comparison with predictions, in documents referred to in condition 1.2 and any previous SMIARs, over the life of mining operations.
- e) a review of the effectiveness of the environmental management of the mine in terms of DEC, DIPNR, DPI - Minerals, and SSC requirements;
- f) results of all environmental monitoring required under this consent or other approvals, including interpretations and discussion by a suitably qualified person;
- g) reporting requirements under condition 3.31;
- h) identify trends in monitoring results over the life of the mine;
- i) an assessment of any changes to agricultural land suitability resulting from the mining operations, including cumulative changes;
- j) a listing of any variations obtained to approvals applicable to the DA area during the previous year;
- k) the outcome of the mine water balance for the year;

⁶⁰ (deleted)

- l) status of rehabilitation and revegetation works; and
- m) environmental management targets and strategies for the next year, taking into account identified trends in monitoring results.

9.3 In preparing the AEMR, the Applicant shall:

- a) consult with the Director-General during preparation of each report;
- b) comply with any reasonable requirements of the Director-General or other relevant government agency; and
- c) ensure that the first report is completed and submitted within twelve months of this consent, or at a date determined by the Director-General in consultation with the DPI - Minerals and the DEC.

9.4 The Applicant shall ensure that copies of each AEMR are submitted at the same time to the Director-General, DPI - Minerals, DEC, DIPNR, DPI - Fisheries, SSC and the CCC, and made available for public information at SSC within fourteen days of submission to these authorities.

Recording and Reporting Requirements

Monitoring Records

9.5 ⁶¹The results of any monitoring required to be conducted by the DEC's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development or in order to comply with any load calculation protocol must be recorded and retained as set out in conditions 9.6 and 9.7.

9.6 ⁶²All records required to be kept by the licence must be:

- in a legible form, or in a form that can readily be produced to a legible form;
- kept for at least 4 years after the monitoring or event to which they relate took place; and
- produced in a legible form to any authorised officer of the DEC who asks to see them.

9.7 ⁶³The following records must be kept in respect of any samples required to be collected:

- the date(s) on which the sample was taken;
- the time(s) at which the sample was collected;
- the point at which the sample was taken; and
- the name of the person who collected the sample.

9.8 ⁶⁴The Applicant must provide an annual return to the DEC in relation to the development as required by any licence under the Protection of the Environment Operations Act 1997 in relation to the development. In the return the Applicant must report on the annual monitoring undertaken (where the activity results in pollutant

⁶¹ Incorporates DEC General Term of Approval

⁶² Incorporates DEC General Term of Approval

⁶³ Incorporates DEC General Term of Approval

⁶⁴ Incorporates DEC General Term of Approval

discharges), provide a summary of complaints relating to the development, report on compliance with licence conditions and provide a calculation of licence fees (administrative fees and, where relevant, load based fees) that are payable. If load based fees apply to the activity the applicant will be required to submit load-based fee calculation worksheets with the return. This may form part of the AEMR.

10. COMMUNITY CONSULTATION / OBLIGATIONS

Community Consultative Committee

10.1 The Applicant shall:

- a) establish a Community Consultative Committee (CCC) and aim to hold the first meeting prior to submission of the Environmental Management Strategy. Should the CCC not be formed at the preparation of the Environmental Management Strategy or environmental management plans, the Applicant shall consult the CCC, once formed, on the Strategy and any management plans. The Applicant shall provide a report to the Director-General on the issues raised as a result of these consultations and the Director-General may require the Environmental Management Strategy or environmental management plans be revised in light of this report. Selection of representatives shall be to the satisfaction of the Director-General in consultation with the Applicant and SSC. The CCC shall comprise two (2) representatives of the Applicant (including the Environmental Officer), one (1) representative of SSC, and four (4) community representatives. The CCC shall be chaired by SSC.
- b) representatives from relevant government agencies, the local community, the local Aboriginal community, or other individuals may be invited to attend meetings as required by the Chairperson. The CCC may make comments and recommendations about the preparation and implementation of environmental management plans, monitor compliance with conditions of this consent relevant to the operation of the mine during the term of the consent. The Applicant shall ensure that the CCC has reasonable access to the necessary plans for such purposes. The Applicant shall consider the recommendations and comments of the CCC and provide a response to the CCC and Director-General.

10.2 The Applicant shall, at its own expense:

- (i) nominate two (2) representatives (including the Environmental Officer) to attend all meetings of the CCC;
- (ii) provide to the CCC regular information on the progress of work and monitoring results;
- (iii) promptly provide to the CCC such other information as the Chair of the CCC may reasonably request concerning the environmental performance of the development;
- (iv) provide access for site inspections by the CCC; and
- (v) provide meeting facilities for the CCC, and take minutes of CCC meetings. These minutes shall be available for public inspection at SSC within 14 days of the meeting, or as agreed by the CCC.

Complaint Handling Procedures

10.3 The Environmental Officer(s) employed by the mine (refer condition 3.1) shall be responsible for:

- a) establishing and maintaining a system for recording complaints with respect to construction works and mine operations on a dedicated and publicly advertised telephone line, 24 hours per day 7 days per week, entering complaints or comments in an up to date log book, or other suitable data base, and ensuring that an initial response is provided to the complainant within 24 hours;

- b) for providing a report of complaints received with respect to the construction and operation of the mine, every six months throughout the life of the project to the Director-General, SSC, DEC, DPI - Minerals, and the CCC, or as otherwise agreed by the Director-General. A summary of this report shall be included in the AEMR (conditions 9.2-9.4);
- c) maintaining access to documents on the ACP internet site, as required by this consent, and publicizing the address to the site to the public and regulatory authorities;
- d) consult with the environmental officer(s) employed by other mines in the vicinity to seek to co-ordinate a response to any complaints received regarding the operations of ACP and other mines.

10.4 ⁶⁵The Applicant must nominate at least two persons (and their telephone numbers) who will be available to the DEC on a 24 hours basis, and who have authority to provide information and to implement such measures as may be necessary from time to time to address a pollution incident or to prevent pollution from continuing as directed by an authorised officer of the DEC.

⁶⁵ Incorporates DEC General Term of Approval

11. PROPONENTS OBLIGATIONS

Cumulative Impact Management

- 11.1 In the event that the cumulative impact of noise or dust contributed to by the operation of the ACP mine and other nearby mining activities and any future mining/industrial operations, at dwellings, or proposed dwellings on vacant land (as described in Condition 6), in the vicinity of the operation, exceeds the noise or dust criteria contained in condition 6, the Applicant shall negotiate with the other mines and landowner(s) to determine appropriate arrangements to reasonably contribute to the management of the identified cumulative impacts or acquisition of the property to the satisfaction of the Director-General in proportion to their contributions to the impact.
- 11.2 If it is identified that total industrial noise levels at any point exceed the criteria set out in Condition 6.34, and that an industrial source from within the mine contributes significantly to this total, the Applicant shall prepare a report to the Director-General outlining the contribution from sources within the mine to the total measured noise level.
- 11.3 If agreement on appropriate contributions towards mitigation measures/acquisition cannot be reached from negotiations undertaken in accordance with condition 11.1, then the matter shall be referred to the Director-General in consultation with SSC by either the Applicant or landowner. If the matter is not resolved within 21 days of the referral, the matter will be referred to an Independent Dispute Resolution Process as determined by the Director-General, and resolved as agreed by the Director-General. The Independent Dispute Resolution Process shall determine the responsibilities of each of the mining companies in accordance with condition 11.1 above and actions to be undertaken. The decision of the Independent Dispute Resolution Process shall be final and binding on all parties, as agreed by the Director-General.
- 11.4 Prior to referral to the Independent Dispute Resolution Process, the Applicant shall provide the Director-General a report detailing the Applicant's reasons for being unable to reach agreement with the other parties, and the reasons for the criteria exceedences with demonstration that ACP's activities are not the sole cause of the exceedences.

Area of Affection – Land Acquisition

Note: In Conditions 11.5-11.11 "land" means the whole of a lot in a current plan registered at the Land Titles Office as at the date of this consent.

- 11.5 The Applicant shall negotiate and purchase property No. 115 as identified within the EIS (Volume 3 Figure 3.13), within six (6) months of a written request from the affected land owner. The owner of any dwelling, or vacant land where a dwelling is proposed (as described in Condition 6), located in areas that exceed noise and/or air quality criteria established in accordance with conditions 6.17, 6.18, and 6.50 of this consent, and at any time after the granting of development consent, may request the Applicant in writing to purchase the whole of that property.

11.6 In respect of a request to purchase land arising under condition 11.5, the Applicant shall pay the owner the acquisition price which shall take into account and provide payment for:

- a) a sum not less than the current market value of the owner's interest in the land at the date of this consent, as if the land was unaffected by the ACP the subject of this DA, having regard to:
 - (i) the existing use and permissible use of the land in accordance with the applicable planning instruments at the date of the written request; and
 - (ii) the presence of improvements on the land and/or any Council approved building or structure which although substantially commenced at the date of request is completed subsequent to that date.
- b) the owner's reasonable compensation for disturbance allowance and relocation costs within the Singleton or Muswellbrook Local Government Area, or within such other location as may be determined by the Director-General in exceptional circumstances; and
- c) the owner's reasonable costs for obtaining legal advice and expert witnesses for the purposes of determining the acquisition price of the land and the terms upon which it is to be acquired.

Notwithstanding any other condition of this consent, the Applicant may, upon request of the landowner, acquire any property affected by the project during the course of this consent on terms agreed to between the Applicant and the landowner.

11.7 In the event that the Applicant and any owner referred to in this condition cannot agree within the time limit upon the acquisition price of the land and/or the terms upon which it is to be acquired, then:

- a) either party may refer the matter to the Director-General, who shall request the President of the Australian Institute of Valuers and Land Economists to appoint a qualified independent valuer or Fellow of the Institute, who shall determine, after consideration of any submissions from the owners, a fair and reasonable acquisition price for the land as described in condition 11.6 and/or terms upon which it is to be acquired;
- b) in the event of a dispute regarding outstanding matters that cannot be resolved, the independent valuer shall refer the matter to the Director-General, recommending the appointment of a qualified panel. The Director-General, if satisfied that there is need for a qualified panel, shall arrange for the constitution of the panel. The panel shall consist of:
 - (i) the appointed independent valuer,
 - (ii) the Director-General or nominee, and
 - (iii) the President of the Law Society of NSW or nominee.

The qualified panel shall determine a fair and reasonable acquisition price as described in condition 11.6 above and/or the terms upon which the property is to be acquired.

11.8 The Applicant shall bear the costs of any valuation or survey assessment requested by the independent valuer, panel, or the Director-General and the costs of determination referred to in conditions 11.6 and 11.7.

11.9 Upon receipt of a determination pursuant to conditions 11.6 and 11.7, the Applicant shall, within 14 days, offer in writing to acquire the relevant land at a price not less than the determination. Should the Applicant's offer to acquire not be accepted by the owner within six (6) months of the date of such offer, the Applicant's obligations to purchase the property shall cease, unless otherwise agreed by the Director-General.

11.10 In the event that the Applicant and the land owner agree that only part of the land is to be transferred to the Applicant, the Applicant shall pay all reasonable costs associated with obtaining Council approval to any plan of subdivision and registration of the plan at the Office of the Registrar-General.

11.11 The provisions of conditions 11.5-11.10 do not apply to a land owner who is the holder of an authority under the Mining Act, 1992.

Joint Acquisition Management Plan

11.12 The Applicant shall, prior to commencement of mining operations of the ACP or as agreed in writing by the Director General, prepare a Joint Acquisition Management Plan as far as practical, with the agreement of surrounding existing and approved mines, to the satisfaction of the Director-General. The plan shall:

- a) provide details of a joint approach to be adopted by the Applicant, and surrounding existing and approved mines in regard to meeting the acquisition procedure requirements outlined in conditions 11.5-11.11 of this consent relating to the cumulative impacts of the ACP mine, and the surrounding existing and approved mines, should acquisition be required.

Contributions to Council

11.13 Prior to the commencement of construction, the Applicant shall enter into a legally binding agreement with SSC for financial and/or in kind contribution to SSC for the purpose of community enhancement to address the social, amenity and associated community infrastructure requirements arising from the operation of the development. The financial and/or in kind contribution shall be generally in accordance with the SSC Section 94 Contribution Plan No 1 (1993) and as agreed between the applicant and SSC. A copy of the agreement is to be forwarded to the Director-General.

Responsibility for the Costs of Remediation

11.14 The Applicant shall be responsible for the cost of all remedial works required including reasonable costs of Government agencies, arising from impacts of the mine not recoverable through the *Mine Subsidence Compensation Act 1961* including, but not limited to, remediation of natural features, rehabilitation of ecological systems, and the provision of supplementary water flows, as determined by the Director-General.

12. FURTHER APPROVALS AND AGREEMENTS

Statutory Requirements

- 12.1 The Applicant shall ensure that all statutory requirements including but not restricted to those set down by the Environmental Planning and Assessment Act 1979, Local Government Act 1993, Protection of the Environment Administration Act 1991, Protection of the Environment Operations Act 1997, Rivers and Foreshores Improvement Act 1948, Water Act 1912, National Parks and Wildlife Act 1974, and all other relevant legislation, Regulations, Australian Standards, Codes, Guidelines and Notices, Conditions, Directions, Notices and Requirements issued pursuant to statutory powers by the SSC, DEC, DPI - Minerals, DIPNR, RTA, DPI - Agriculture, DPI - Fisheries and other Government agencies, are fully met.

Structural Adequacy

- 12.2 Detailed plans and specifications relating to the design and construction of each structural element associated with the proposed development are to be submitted to the Principal Certifying Authority prior to the construction of each particular building or structure. Such plans and specifications must be accompanied by certification provided by a practicing professional structural engineer or an accredited certifier certifying the structural adequacy of the proposed building design and compliance with the Building Code of Australia.

Verification of Construction

- 12.3 All new buildings and structures, and alterations or additions to buildings and structures, shall be carried out in accordance with the relevant requirements of the BCA.
- 12.4 The Applicant shall provide to the Director-General and Council with copies of all Construction Certificates issued for buildings or structures and copies of all Occupation Certificates issued for the development.

Note: Part 4A of the *Environmental Planning and Assessment Act 1979* provides specific certification requirements.

- 12.5 The applicant shall ensure that arrangements are made for the Principal Certifying Authority to carry out INSPECTIONS of the building at the following stages of construction, as applicable:
- a) The PIER HOLES before they are filled with concrete.
 - b) The FOOTING TRENCHES with reinforcing steel in position before concrete is placed.
 - c) The REINFORCING STEEL when in position prior to placing concrete for slab/s, swimming pools or walls.
 - d) The FRAMEWORK including roof members, wall ties, vermin wire, flashings and cavities where applicable, prior to fixing of any internal sheets. Note: All plumbing and electrical work shall be completed.
 - e) The WET AREAS damp-proofing and flashing before lining or covering.
 - f) The building or structure when COMPLETED, prior to occupation/use.
- 12.6 The applicant shall ensure that arrangements are made for Council to carry out INSPECTIONS at the following stages as applicable:

- a) INTERNAL DRAINAGE LINES before the floor is laid, or concrete placed.
- b) EXTERNAL DRAINAGE LINES before backfilling of the trenches.

Information on booking inspections with Council may be obtained either by telephone on (02) 65 787 290 or in person at the CUSTOMER SERVICE Counter. Inspection requests are subject to the following:-

- (i) Applicants are required to nominate the relevant development application number and location prior to the inspection request being granted.
- (ii) Clerical staff only will receive all requests for inspections.
- (iii) Where building work is not prepared, ready for inspection, applicants will be required to re-book inspections through the Customer Service Centre for the next available day and a re-inspection fee may be charged.
- (iv) Requests for inspections must be received prior to 9.30am on the working day the inspection is required.
- (v) Inspections within the township of Singleton will be conducted as AM inspections (10.00am to 1.00pm) and PM inspections (2.00pm to 4.00pm). Inspections for all other areas will be carried out at some stage during the day nominated.

12.7 All demolition work shall be carried out in accordance with AS2601-1991 *The Demolition of Structures*.

Approvals within a Mine Subsidence District

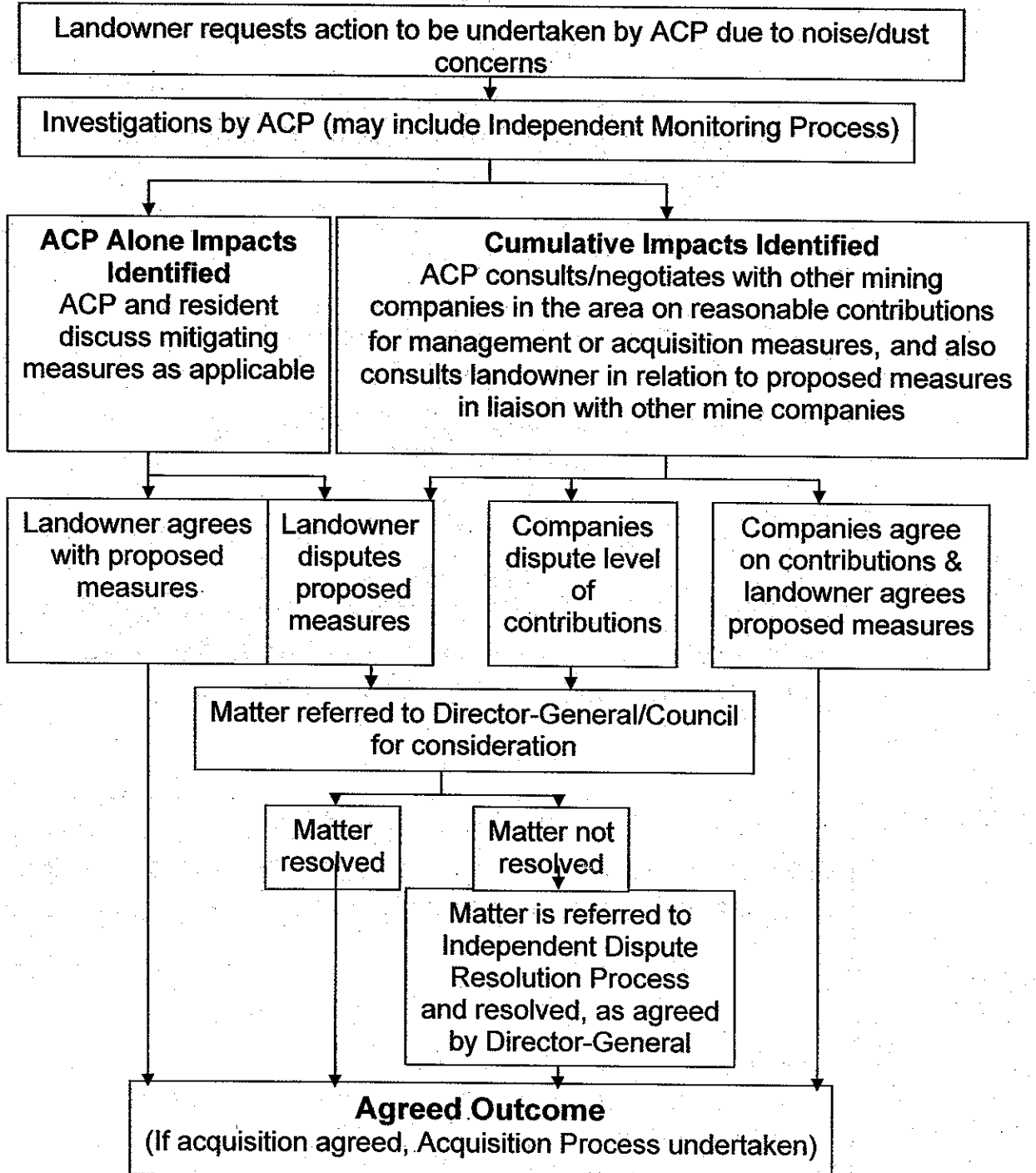
12.8 ⁶⁶The Applicant shall seek the approval of the Mine Subsidence Board for the construction of any improvements, including those related to the mine buildings and associated works, any relocation or diversion of infrastructure or existing improvements, prior to undertaking the works. The Applicant shall submit a copy of the final plans to MSB prior to commencement of construction.

⁶⁶ Incorporates MSB General Term of Approval

**SCHEDULE 3 – MAP OF AREA TO BE PLACED UNDER CONSERVATION
AGREEMENT**

**SCHEDULE A – EXPLANATORY FLOW CHARTS AND NOTES ON INDEPENDENT
DISPUTE RESOLUTION PROCESS**

Process for Management of Complaints for Noise/Dust Impacts



Independent Noise/Dust Monitoring Process

Resident considers noise/dust impacts from ACP alone or cumulatively with other mines are above stipulated criteria and makes written request to ACP for independent monitoring to be undertaken

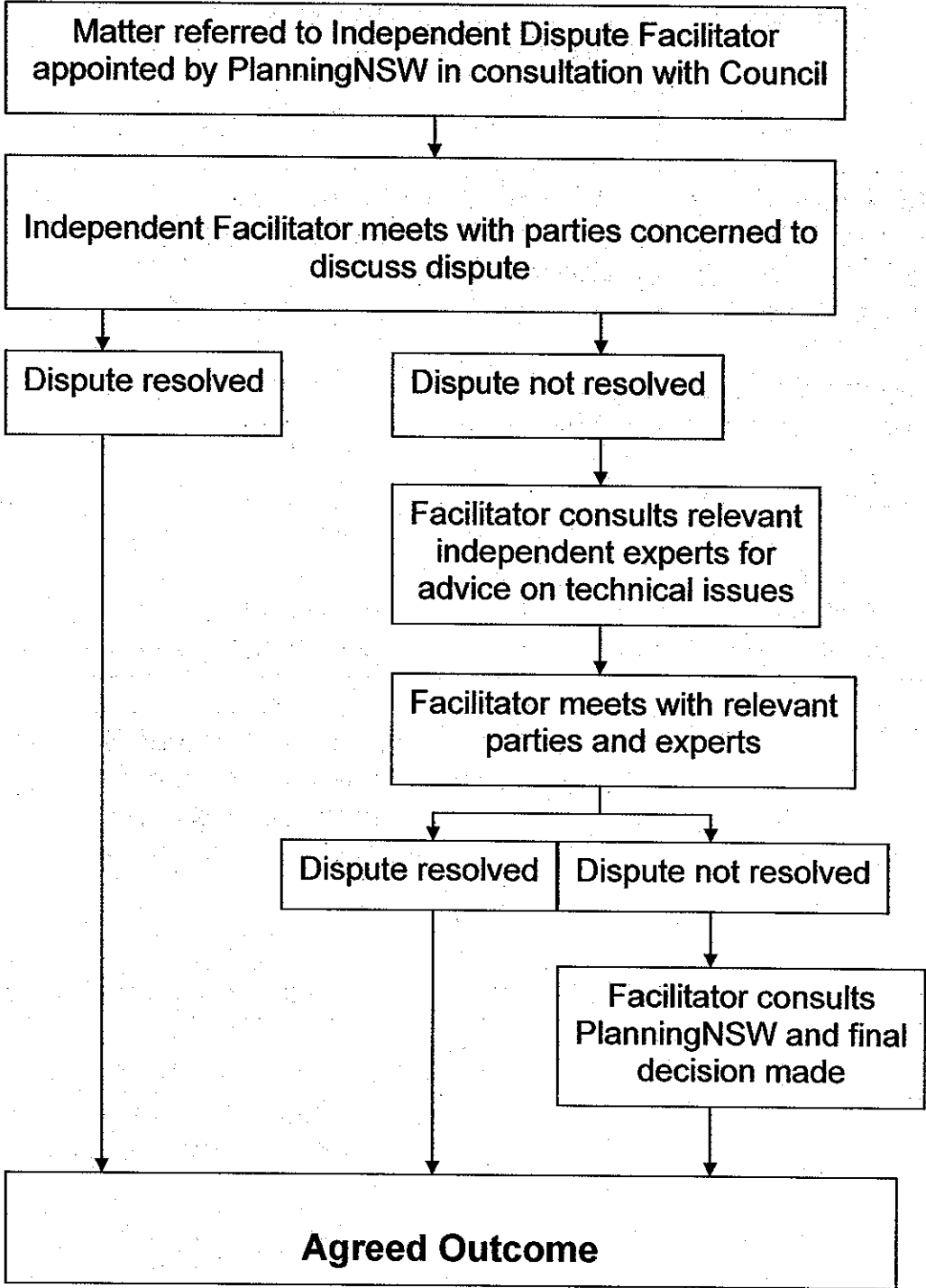
ACP approaches resident to discuss concerns and PlanningNSW for independent monitoring process to be triggered

PlanningNSW decides whether monitoring request is reasonable and if so appoints an independent noise/dust expert in consultation with resident and ACP (and other mines if cumulative impact is the nature of the complaint)

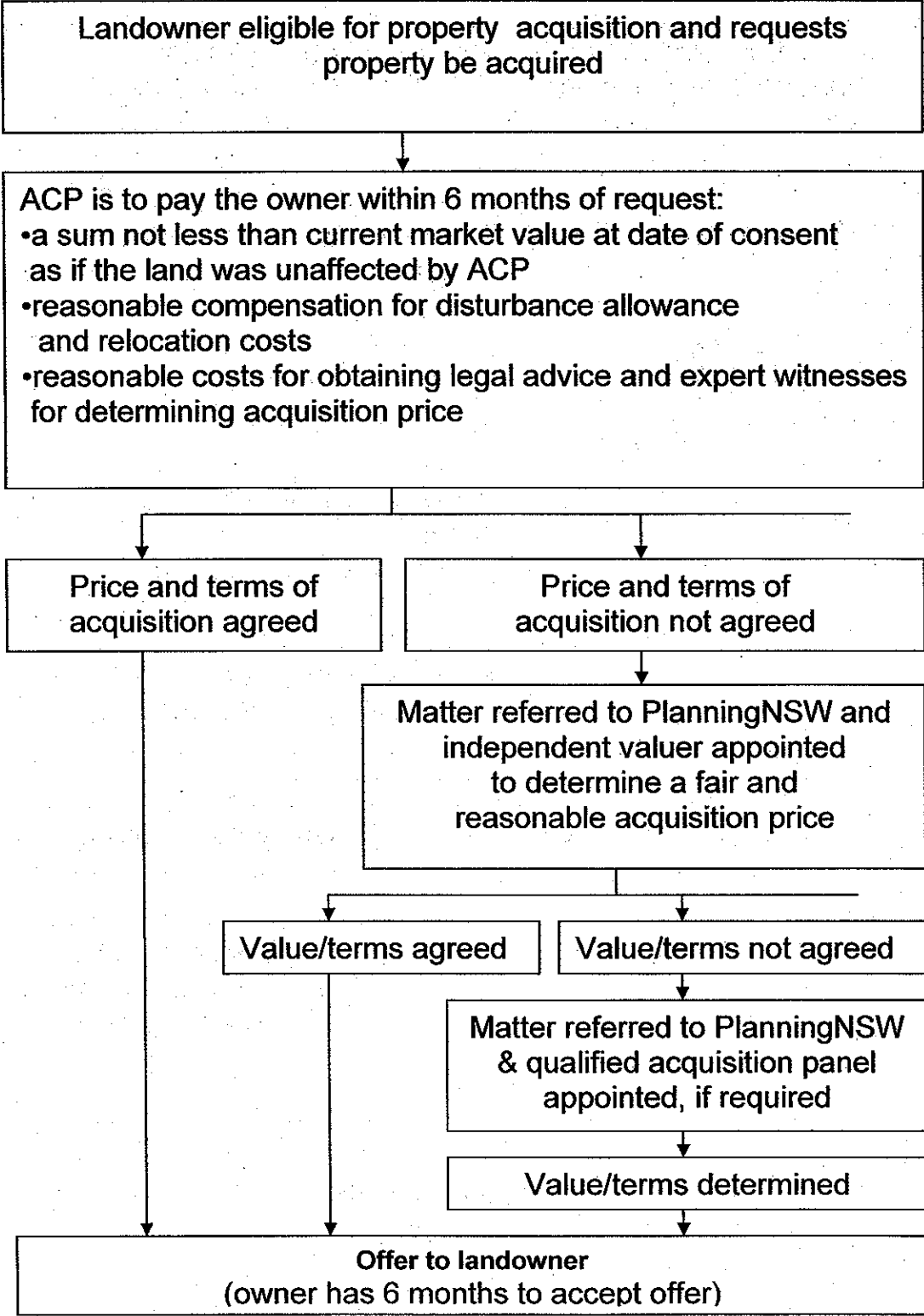
Monitoring undertaken in accordance with an agreed protocol in relation to impacts from the mine alone and/or cumulative impacts depending on the nature of complaint

Any impacts identified and relevant action undertaken in accordance with Process for Management of Complaints for Noise/Dust Impacts

Independent Dispute Resolution Process (Indicative only)



Acquisition Process



Notes for Independent Dispute Resolution Process

1. The process will be subject to a procedural protocol to ensure that the process is transparent and consistent.
2. The process will be subject to terms of reference on both a qualitative and quantitative basis against which judgements will be made.
3. In relation to disputes regarding noise impacts, the process will only result in agreed outcomes regarding mitigation measures proposed by the Applicant in the noise management zone. Acquisition is not an option in the noise management zone, unless otherwise privately agreed between the Applicant and landowner, and therefore acquisition will not be an option for the dispute resolution process to consider in these cases.

**SCHEDULE B – SUMMARY OF KEY DOCUMENTS REQUIRED UNDER THIS
CONSENT**

Note: The following table provides indicative information only and the conditions under Schedule 2 of this consent shall prevail in all circumstances.

ID	Document	Condition	Consultation	Approval authority	Timing	Comments
1	Conditions Compliance Report	1.10	N/A	Director General	Two weeks before construction	
2	Conditions Compliance Report	1.10	N/A	Director General	Two weeks before operation	
3	Conditions Compliance Report	1.11	N/A	Director General	As required by Director General	At discretion of Director General
4	Mining Operations Plan	2.1	As required by DPI - Minerals	DPI - Minerals	Prior to mining operations	
5	Spontaneous Combustion Management Plan	2.6	DPI - Minerals	DPI - Minerals	Prior to operations	
6	Environmental Management Strategy	3.3	DIPNR, DEC, DPI - Minerals, SSC, DPI - Fisheries, RTA, MSB, DPI - Agriculture, PlanningNSW	Director General	Two weeks before first EMP	
7	SEMP	3.18	DIPNR, DEC, DPI - Minerals, MSB, DPI - Fisheries, RTA, SSC, DPI - Agriculture	Director General	One month before first s138 application	
8	SMIAR	3.24	DPI - Minerals, DEC, DIPNR, DPI - Fisheries	Director General in consultation with DPI - Minerals, DEC, DPI - Fisheries	One month before subsequent s138 applications	
9	ACHMP	3.36	DEC, Aboriginal Community	Director General	One month prior to construction	
10	FFMP	3.46	DEC, SSC	Director General, in consultation with DEC	One month prior to construction	
11	ESCP	3.50	DIPNR, SSC	Director General	One month prior to construction	
12	SSMP	3.51	DPI - Minerals, DIPNR	DPI - Minerals, DIPNR	One month prior to construction	
13	LRMP	3.55	DPI - Minerals, SSC	Director General	One month prior to construction	
14	FVMP	3.56	DPI - Minerals,	Director	Year 5 of	

ID	Document	Condition	Consultation	Approval authority	Timing	Comments
			DIPNR, SSC	General	development	
15	Bushfire Management Plan	3.57		SSC, Rural Fire Service	Prior to mining operations	
16	LMP	3.58	DIPNR, DPI - Agriculture, DEC, SSC, Common Trust, RLPB, Landcare, HCMT	Director General, Common Trust, RLPB, DIPNR	One month prior to mining operations	
17	SWMP	4.24	DIPNR, DPI - Fisheries, SSC	Director General, DIPNR to endorse Groundwater Management Plan	One month prior to construction	
18	Groundwater monitoring program	4.24	DIPNR	DIPNR	Prior to underground mining	
19	Groundwater monitoring report	4.27	DIPNR	DIPNR	As required by DIPNR	
20	WMP	5.3	SSC, DEC	Director General	One month prior to construction	
21	CAQMP	6.10	SSC	Director General	One month prior to construction	
22	OAQMP	6.10	SSC, other mines	Director General	One month prior to operation	
23	BVMP	6.26	SSC	Director General	One month prior to blasting	
24	RRCMP	6.27	SSC, RTA, RIC	Director General	One month prior to blasting	
25	CNMP	6.42	DEC, SSC	Director General	One month prior to construction	
26	NMP	6.43	DEC, SSC, other mines		One month prior to operation	
27	Noise compliance report	6.45	DEC	DEC, Director General	3 months after commencement of operations, and in AEMR	
28	LMP	6.57	SSC	Director General	One month prior to operation	
29	Independent Expert Review	8.3	As required by DG	Director General	As required by DG	As required by DG
30	Independent Environmental Audit Report	8.8		Director General	One year after start of construction, then every 3 years thereafter	
31	AEMR	9.2		Director General, DPI - Minerals	Annually	
32	Complaints	10.3		Director	Every six months	

ID	Document	Condition	Consultation	Approval authority	Timing	Comments
	Register Report			General		
33	Joint Acquisition Management Plan	11.12	Other nearby mines	Director General	Prior to operation or as agreed by DG	
34	Management Plan Revisions	3.6	As required in original plan	Director General	Every 5 years	

Appendix B

Application to Modify a
Development Consent Form

Application to modify a development consent



Date received: ___/___/___ DA modification no: _____

You can use this form to apply to modify a development consent given by the Minister of Infrastructure, Planning and Natural Resources. If the changes you propose mean the development will not be substantially the same as that originally approved, please do not use this form. You will need to submit a new development application.

To complete this form, please place a cross in the boxes and fill out the white sections as appropriate. **To minimise delay in receiving a decision about your application, please ensure you submit all relevant information to us.** When your application has been assessed, you will receive a notice of determination.

1. Details of the applicant

NAME

Mr Ms Mrs Dr Other

First name

Peter

Family name

Barton

Company/organisation

Ashton Coal Operations Pty Ltd

ABN

22 078 556
500

STREET ADDRESS

Unit/street no.

Street name

Glennies Creek Road

Suburb or town

CAMBERWELL

State

NSW

Postcode

2330

POSTAL ADDRESS (or mark 'as above')

PO Box 699

Suburb or town

SINGLETON

State

NSW

Postcode

2330

CONTACT DETAILS

Daytime telephone

(02) 6576 1111

Fax

(02) 6576 1122

Mobile

0438 636 739

Email

pbarton@ashtoncoal.com.au

2. Identify the land

Unit/street no. (or lot no. for Kosciuszko ski resorts)

Street or property name

Suburb, town or locality

CAMBERWELL

Postcode

2330

Local government area

SINGLETON

Lot/DP or Lot/Section/DP or Lot/Strata no. ⁽¹⁾ ⁽²⁾

Please ensure that you put a slash (/) between lot, section, DP and strata numbers. If you have more than one piece of land, you will need to separate them with a comma eg 123/579, 162/2.

Lot 1 DP 745486, Lot 11 DP 261916 and Lot 2 DP 1089848

(1) Note: You can find the lot, section, DP or strata number on a map of the land or on the title documents for the land, if title was provided after 30 October 1983. If you have documents older than this, you will need to contact Department of Lands for updated details.

(2) Note: If the subject land is located within the Kosciuszko ski resorts area, DP and strata numbers do not apply.

3. Details of the original development consent

Describe what the original consent allows

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.

What is the development application no.?

DA 309-11-2001

What is the date of consent?

11 October
2002

What was the original estimated cost of development (including GST)?

4. Describe the modification you propose to make

Please indicate the type of modification you propose to make by placing a cross in the appropriate box below.

You need to submit with your application form a full description of the expected impacts of the modifications proposed, including relevant plans, drawings and compliance with relevant controls.

- A modification to correct a minor error, misdescription or miscalculation

Describe the error, misdescription or miscalculation

(Refer to section 96(1) of the *Environmental Planning and Assessment 1979 (EP&A) Act*)

- A modification that will have minimal environmental impact

Describe the modification and its expected impact

(Refer to section 96(1A) of the EP&A Act)

- Any other modification

Describe the modification and its expected impact

(Refer to section 96(2) of the EP&A Act)

Refer to report entitled "Section 96(2) Application to Modify Development Consent DA 309-11-2001-I" prepared by Parsons Brinckerhoff, November 2006

Will the modified development be substantially the same as the development that was originally approved?

- No ➤ Please submit a new development application.
- Yes ➤ Please provide evidence that the development will remain substantially the same.
(If you need to attach additional pages, please list below the material attached).

Refer to Section 9 of the report entitled "Section 96(2) Application to Modify Development Consent DA 309-11-2001-I" prepared by Parsons Brinckerhoff, November 2006

If your proposal is within Kosciuszko ski resorts area, please attach a copy of the Interim Lease Variation Approval received from the National Parks and Wildlife Service to your application.

5. Number of jobs to be created

Please indicate the number of jobs this will create. This should be expressed as a proportion of full time jobs over a full year. (e.g. a person employed full-time for 6 months would equal 0.5 of a full-time equivalent job; six contractors working on and off over 2 weeks equate to 2 people working full-time for 2 weeks, which equals approximately 0.08 of an FTE job.)

Construction jobs (full-time equivalent)

Operation jobs (full-time equivalent)

6. Application fee

For development that involves a building or other work, the fee for your application is based on the estimated cost of the development.

Clause 258 of the Environmental Planning and Assessment Regulation 2000 and the table attached to that clause set out how to calculate the fee for an application for modification of a consent.

If your development needs to be advertised to the public you may also need to include an advertising fee. Clauses 258 of the regulations includes details on these fees.

Note: Advertising fees attract GST, all other fees do not. Contact us if you need help to calculate the fee for your application.

Estimated cost of the development	Total fees lodged
<input type="text" value="\$2.55 million"/>	<input type="text" value="\$500"/>


7. Signatures

The owner(s)* of the land being developed must sign the application.

If you are not the owner of the land, you must ask the owner(s) of the land to sign the application. If the land is Crown land, an officer of the Department of Infrastructure, Planning and Natural Resources (previously known as Department of Land and Water Conservation) must sign the application.

As the owner(s)* of the above property, I/we consent to this application:

Signature



Name

MICHAEL CHAPMAN

Date

01/11/2006

Signature



ON BEHALF OF MICHAEL GENERATION

Name

MICHAEL HARKIN

Date

2/11/2006

* Note: For applications within the Kosciuszko ski resorts area, the approval of the lessee rather than owner is required.

The applicant, or the applicant's agent, must sign the application.

Signature



Name, if you are not the applicant

MICHAEL CHAPMAN

Date

01/11/2006

In what capacity are you signing if you are not the applicant?

8. Privacy policy

The information you provide in this application will enable us, and any relevant state agency, to assess your application under the *Environmental Planning and Assessment Act 1979* and other applicable state legislation. If the information is not provided, your application may not be accepted. If your application is for designated development or advertised development, it will be available for public inspection and copying during a submission period. Written notification of the application will also be provided to the neighbourhood. You have the right to access and have corrected information provided in your application. Please ensure that the information is accurate and advise us of any changes

Photographs



Photograph 1 Proposed Bowman's Creek crossing point in previously disturbed creek bed; looking toward Ashton Coal CHPP



Photograph 2 Proposed pipeline route looking along north bank of Bowman's creek; toward New England Highway Bridge



Photograph 3 Proposed pipeline route, looking toward Ravensworth Final Void No.4 East



Photograph 4 Proposed pipeline route; northern section looking toward Ravensworth Final Void No.4 East