

ORDER

COURT DETAILS

Court	LAND AND ENVIRONMENT COURT OF NEW SOUTH WALES
Division	Class 1
Registry	Level 4, 225 Macquarie Street, Sydney
Case number	11154 of 2012

TITLE OF PROCEEDINGS

Applicant	HUNTER ENVIRONMENT LOBBY INC
First Respondent	MINISTER FOR PLANNING AND INFRASTRUCTURE
Second Respondent	ASHTON COAL OPERATIONS PTY LTD

DATE OF JUDGMENT/ORDER

Date made or given	17 April 2015
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Date entered

TERMS OF JUDGMENT/ORDER

Orders made:

- 1) The appeal is upheld.
- 2) Project application number MP 08_0182 is approved subject to the conditions in Annexure A.
- 3) Exhibits to be returned.

SEAL AND SIGNATURE

Court seal

Signature

Capacity

Date

ANNEXURE A

Project Approval

Section 75J of the *Environmental Planning & Assessment Act 1979*

The Land and Environment Court of New South Wales approves the project application referred to in schedule 1, subject to the conditions in schedules 2 to 5.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.

Sydney

2015

SCHEDULE 1

Application Number:

08_0182

Proponent:

Ashton Coal Operations Pty Limited

Approval Authority:

Land and Environment Court

Land:

See Appendix 1

Project:

Ashton Coal Mine - South East Open Cut Project

Modification 1 – August 2018

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DEFINITIONS

Amended plans submitted to the Commission	Comprises the correspondence (and attachments to the correspondence) of 21 May 2012, 8 June 2012, 27 June 2012, 31 July 2012 and 5 September 2012. These documents are annexed to the Commission's determination report (4 October 2012).
Annual Review	The review required by condition 3 of schedule 5
Ashton Coal Project	The development approved under DA 309-11-2001-i, as modified
Ashton mine complex	The combined operations of the project and the Ashton Coal Project
BCA	Building Code of Australia
Biodiversity Offset Strategy	The conservation and enhancement program outlined in Table 15, described in the EA, and depicted conceptually in Figure 8 of Appendix 5
CCC	Community Consultative Committee
CHPP	Coal Handling and Preparation Plant
Commission	The NSW Planning Assessment Commission
Conditions of this approval	Conditions contained in schedules 2 to 5 inclusive
Council	Singleton Shire Council
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning and Environment
Dol Water	Department of Industry – Crown Lands and Water Division
DRG	Division of Resources and Geoscience within the Department
EA	Environmental Assessment titled <i>Ashton Coal South East Open Cut Project & Modification to the Existing ACP Consent – Environmental Assessment Report</i> (5 volumes), dated November 2009, including the Response to Submissions
EA (Mod 1)	The letter prepared by MinterEllison, and dated 9 December 2015, and the associated Response to Submissions Report titled <i>Ashton Coal Mine – South East Open Cut Project Approval, Administrative Modification of Conditions</i> , prepared by Ashton Coal Operations Pty Limited and dated March 2018
EEC	Endangered ecological community, as defined under the <i>Threatened Species Conservation Act 1995</i>
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence issued under the POEO Act
Evening	The period from 6pm to 10pm
Feasible	Feasible relates to engineering considerations and what is practical to build or carry out
Incident	A set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in this approval
Land	In general, the definition of land is consistent with the definition in the EP&A Act. However, in relation to the noise and air quality conditions in schedules 3 and 4 of this approval it means the whole of a lot, or contiguous (or nearby) lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this approval
LPB	Low Permeability Barrier to be constructed between the mine and Glennies Creek
Material harm to the environment	Harm to the environment is material if it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Mining operations	Includes all overburden removal and coal extraction, processing, handling, storage and transportation activities carried out on site
Minister	NSW Minister for Planning (or delegate)
Mitigation	Activities associated with reducing the impacts of the project
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
OEH	Office of Environment & Heritage
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Privately-owned land	Land that is not owned by a public agency or a mining company (or its subsidiary), excluding the land holding containing the former St Clements Church
Project	The development as described in the project application and documents listed in condition 2 of Schedule 2
Proponent	Ashton Coal Operations Limited, or its successors in title
Public infrastructure	Linear and related infrastructure that provides services to the general public, such as roads, railways, water supply, electricity, gas supply, drainage, sewerage, telephony, telecommunications etc
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements

Rehabilitation	The treatment or management of land disturbed by the project for the purpose of establishing a safe, stable and non-polluting environment
Response to Submissions	The Proponent's responses to issues raised in submissions, including those titled <i>Responses to NSW Planning Letter of 23 November 2009</i> , undated, <i>Response to Submissions</i> , dated June 2010, <i>Conceptual Alluvial Groundwater Management Strategy</i> , dated November 2010, <i>Additional Information and Project Revisions</i> , dated January 2011, and <i>Transmission Line Realignments and Conservation Area Interactions</i> , dated 3 June 2011
RMS	Roads and Maritime Service
ROM	Run of Mine
SA NSW	Subsidence Advisory NSW (formerly the Mine Subsidence Board)
Secretary	Planning Secretary under the EP&A Act or nominee
Site	The land referred to in schedule 1, and listed in Appendix 1
Southern Conservation Area	The conservation area established under development consent DA 309-11-2001-i for the Ashton Coal Project, as indicated in Figure 9 of Appendix 6 (see area labelled 'Biodiversity and Aboriginal Heritage Conservation Area')
Statement of commitments	The Proponent's commitments in Appendix 3

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance criteria established under this approval, the Proponent **must** implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the project.

TERMS OF APPROVAL

2. The Proponent **must** carry out the project generally in accordance with the:
 - (a) EA, EA (Mod 1) and the project layout;
 - (b) Amended plans submitted to the Commission; and
 - (c) Statement of Commitments.

Notes:

- The layout of the project is shown in Appendix 2.
- The Statement of Commitments (of July 2012) is reproduced in Appendix 3.

2A. The Proponent must carry out the project in accordance with the conditions of this approval.

3. If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.
4. The Proponent **must** comply with any requirement/s of the Secretary arising from the assessment of:
 - (a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted by the Proponent in accordance with this approval; and
 - (b) the implementation of any actions or measures contained in these documents.

LIMITS ON APPROVAL

Mining Operations

5. Mining operations for the project may take place 12 years from the commencement of mining operations on the site.

*Note: Under this approval, the Proponent is required to rehabilitate the site and perform additional undertakings to the satisfaction of the **Secretary** and **DRG**. Consequently, this approval will continue to apply in all other respects other than the right to conduct mining operations until the site has been properly rehabilitated.*

Lapsing of Approval

- 5A.
 - (a) This project approval shall lapse 5 years after the date that approval is granted unless the project is commenced before that day.
 - (b) The Secretary may, on application by the Proponent made before the time in (a) expires, extend the time to commence the project by two years.

Coal Production

6. The Proponent **must** not extract more than:
 - (a) 3.6 million tonnes of ROM coal from the open cut mining operations in a calendar year; and
 - (b) 8.6 million tonnes of ROM coal from the combined Ashton mine complex in a calendar year.

Coal Transport

7. The Proponent **must**:
 - (a) not transport coal from the site by road (except in an emergency situation and with the prior approval of the Secretary in consultation with Council); and
 - (b) restrict coal processing and transport to/from the CHPP to a maximum of:
 - 8.6 million tonnes of ROM coal in any calendar year; and
 - 5 train movements (average) a day, for the combined Ashton mine complex.

For the purposes of this condition, each train entering and exiting the site is classified as 2 train movements and a day refers to the 24 hours from midnight to midnight the next day.

Hours of Operation

8. The Proponent **must** restrict all constructions works, and mining operations (apart from ROM coal handling, conveyor transport from the CHPP and maintenance) during the first two years of mining operations, to day and evening periods only. Night-time maintenance work during the period when mining operations are restricted to day and evening only must not cause increased noise levels (LA eq 15 min) at any privately owned residence.

Prior to undertaking mining operations during the night time period, the Proponent **must** submit plans demonstrating that mining operations have advanced so as to be consistent with the EA's Year 3 mining progression plan, to the satisfaction of the Secretary.

Note: The Year 3 mining progression plan is shown in Appendix 2.

STRUCTURAL ADEQUACY

9. The Proponent **must** ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA and **SA NSW**.

Notes:

- Under Part 6 of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works;
- Part 8 of the EP&A Regulation sets out the requirements for the certification of the project; and
- The Project is located in the Patrick Plains Mine Subsidence District. *Under section 21 of the Coal Mine Subsidence Compensation Act 2017, the Proponent is required to obtain the Chief Executive of SA NSW's approval before carrying out certain development in a Mine Subsidence District*

DEMOLITION

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

NO DEVELOPMENT WORK UNTIL PROJECT CAN BE IMPLEMENTED

- 10A. The Proponent must not carry out any development work on the Project site until it has:
- (a) Purchased, leased or licensed property 129 from the owner of property 129.

INFRASTRUCTURE

Protection of Public Infrastructure

11. Unless the Proponent and the applicable authority agree otherwise, the Proponent **must**:
- (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and
- (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the project,

except where such works have been compensated through the *Mining Act 1992*.

Transmission Line Realignment

12. **Prior to commencing construction of the project within the existing 132 kV and 66 kV transmission line alignment shown on Figure 4 in Appendix 2, the Proponent must re-construct the 132 kV and 66 kV transmission lines within the proposed alignment corridor shown on Figure 4 in Appendix 2, unless otherwise agreed with the Secretary.** In constructing the transmission lines, the Proponent **must, to the satisfaction of the Secretary**, avoid direct impacts on:
- (a) significant Aboriginal sites, including the Ridge Peak and Glennies Bluff sites (see Appendix 6);
- (b) the Southern Conservation Area (see Appendix 6); and
- (c) areas containing River Red Gum (*Eucalyptus camaldulensis*).

OPERATION OF PLANT AND EQUIPMENT

13. The Proponent **must** ensure that all the plant and equipment used at the site, or to transport coal from the site, is:
- (a) maintained in a proper and efficient condition; and
- (b) operated in a proper and efficient manner.

RELATIONSHIP BETWEEN APPROVALS

14. Requirements, responsibilities or permissions under this approval do not duplicate equivalent requirements, responsibilities or permissions under the development consent for the Ashton Coal Project (DA 309-11-2001-i).

Note: The similar form of conditions under development consent DA 309-11-2001-i is intended to facilitate co-ordinated management of the Ashton mine complex, rather than to duplicate requirements, responsibilities or permissions.

STAGED SUBMISSION OF STRATEGIES, PLANS AND PROGRAMS

15. With the approval of the Secretary, the Proponent may:
- (a) submit any strategy, plan or program required by this approval on a progressive basis; and
 - (b) combine any strategy, plan or program required by this approval (including the CCC) with any similar strategy, plan or program required for the Ashton Coal Project.

CAMBERWELL VILLAGE ENHANCEMENT STRATEGY

16. The Proponent **must** prepare and implement a Camberwell Village Enhancement Strategy for the project to the satisfaction of the Secretary. This strategy must:
- (a) be prepared in consultation with Council, the CCC, relevant State authorities and the residents of Camberwell Village, and be submitted to the Secretary within 12 months after the commencement of mining operations, unless otherwise agreed by the Secretary;
 - (b) include a long term vision for Camberwell Village;
 - (c) provide for the implementation of a range of community enhancement measures, that are consistent with the concepts described in the EA and/or the long term vision, with additional consideration of the viability of providing basic community infrastructure and services (eg. reticulated sewer and/or water, kerb and guttering); and
 - (d) detail the framework that would be implemented to ensure adequate funding of the community enhancement measures.
-

SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS

ACQUISITION UPON REQUEST

1. Upon receiving a written request for acquisition from an owner of the land listed in Table 1, the Proponent **must** acquire the land in accordance with the procedures in **conditions 8 – 9** of Schedule 4.

Table 1: Land subject to acquisition upon request

Receiver No.	Acquisition Basis
18	Volunteered by the proponent
23	Volunteered by the proponent
34	Volunteered by the proponent
35	Volunteered by the proponent
83	Air quality
120	Air quality
121	Air quality
129	Air quality and Noise
130	Air quality and Noise
182	Noise
185	Noise
188	Noise

For the purposes of acquisition under this condition, parcels of land that are in close proximity and operated as a single agricultural enterprise should be included as part of the land to be acquired. Where the Proponent and the owner(s) cannot agree on whether non-contiguous parcels of land should be included, either party may refer the matter to the Secretary for resolution. The Secretary's decision as to the lands to be included for acquisition under the procedures in **conditions 8 - 9** of schedule 4 shall be final.

Note: To interpret the locations referred to in Table 1, see the applicable figures in Appendix 4.

PAYMENT FOR THE PROVISION OF ALTERNATIVE ACCOMMODATION

2. At any stage during the mining operations on site (involving overburden removal and coal extraction), the owners of land listed in Table 1 and in Table 2 may:
 - (a) find alternate accommodation for their primary place of residence in the Muswellbrook, Singleton or Cessnock local government areas, that is of an equivalent standard to the landowner's existing dwelling (including associated facilities such as a pool); and
 - (b) request the Proponent to pay the reasonable costs associated with:
 - (i) relocating to the alternate accommodation;
 - (ii) renting of the alternate accommodation during the mining operations on site (involving overburden removal and coal extraction); and
 - (iii) relocating back to the existing dwelling on the land.

Table 2: Land eligible for alternate accommodation

Receiver No.
117

Note: To interpret the locations referred to in Table 2, see the applicable figures in Appendix 4.

Within 1 month of receiving a written request from any of the landowners in Table 1 and Table 2, the Proponent **must** enter into a suitable agreement with the landowner to pay the reasonable costs referred to in this condition.

If, at the end of this period, the Proponent and landowner cannot reach a suitable agreement for the payment of these costs, then either party may refer the matter to the Secretary for resolution.

Unless otherwise agreed by the parties, the landowner would be responsible for entering into any necessary contractual arrangements with the owner of the alternative accommodation.

PROPERTY 130 AND 182

- 2A. (a)** In the alternative to the owners of Property 130 and 182 (being a property listed in Table 1) making a request to the Proponent to acquire Property 130 and 182 in accordance with Condition 1 in Schedule 3 the owners of Property 130 and 182 may make a request in writing to the Proponent to:
- (i) require the Proponent to compensate the owners for the loss of the existing dairy business's net profits associated with the conversion of the owners' existing dairy farming operation to a beef cattle farming operation for the duration of coal production under this Project Approval; or
 - (ii) in the alternative to (a)(i) above, and to enable the existing dairy business to continue during mining operations, require the Proponent to provide alternative residential accommodation for the dairy manager as well as an agreed salary incentive for the dairy manager to move (should the dairy manager choose to do so) to the alternative residential accommodation, or at the owners' election an agreed salary incentive sufficient to allow the owners to employ a new dairy manager on the open market,
- (b) Upon receiving a request for the owners of Property 130 and 182 in accordance with this condition, the Proponent **must** make an offer to the owners of Property 130 and 182 to enter an agreement with the Proponent in relation to the payment and amount of compensation or the provision of alternative accommodation and salary incentive referred to in (a). Any such agreement **must** also address the interaction between the mining operations (including impacts of blasting) and the continued occupation and use of property 130 and 182.
- (c) If the Proponent and owners of Property 130 and 182 cannot agree to the terms of a compensation package in accordance with condition (a)(ii) then either party may refer the matter to the Secretary for resolution.
- (i) Upon receiving such a request, the Secretary shall request the president of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:
 - 1. consider submissions from both parties;
 - 2. determine a fair and reasonable compensation package for the owner of Property 130;
 - 3. prepare a detailed report setting out the reasons for any determination; and
 - 4. provide a copy of the report to both parties.
 - (ii) Within 14 days of receiving the independent valuer's report, the Proponent **must** make a binding written offer to the landowners in accordance with the independent valuer's determination.
 - (iii) The parties are bound by the independent valuer's determination.
 - (iv) If the owners of Property 130 and 182 refuse to accept the proponent's binding written offer under this condition within 6 months of the offer being made, then the proponent's obligations to enter into a compensation arrangement with the owners of Property 130 and 182 shall cease unless the Secretary determines otherwise.
 - (v) The Proponent **must** pay all reasonable costs associated with the determination of the process described in this condition (2A(c)).
- (d) If the Proponent enters into an agreement with the owner of Property 130 in accordance with this condition then the criteria in Table 6 [Noise], Tables 12, 13 and 14 [Dust] and Table 7 [Blasting] do not apply to Property 130.
- (e) If the Proponent and the owners of Property 130 and 182 enter into an agreement in accordance with this condition the Proponent is not required to acquire Property 130 and 182 in accordance with any conditions.

ADDITIONAL NOISE AND DUST MITIGATION UPON REQUEST

Additional Mitigation Measures

3. Upon receiving a written request from the owner of any residence on the land listed in Table 1 or Table 2, the Proponent **must** implement additional reasonable and feasible noise and/or dust mitigation measures (such as double glazing, insulation, air filters, first-flush roof water drainage system and/or air conditioning) at the residence in consultation with the owner.

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

NOISE

Noise Criteria

4. Except for the noise-affected land in Table 1, the Proponent **must** ensure that the noise generated by mining operations at the Ashton mine complex does not exceed the criteria in Table 3 at any residence on privately-owned land or on more than 25 per cent of any privately-owned land.

Table 3: Noise Criteria dB(A)

Receiver No.	Day (L_{Aeq} (15min))	Evening (L_{Aeq} (15min))	Night (L_{Aeq} (15min))	Night (L_{A1} (1 min))
18	46	46	42	51
23	43	43	40	51
34	42	42	39	51
35	41	41	39	51
111	35	35	35	51
114	45	45	38	51
117	42	42	36	51
151, the former St Clements Church	45 (L_{Aeq} (period), internal when in use and under all weather conditions)			
All other privately-owned land	35	35	35	45

Noise generated by the project is to be measured in accordance with the relevant requirements of the *NSW Industrial Noise Policy*. Appendix 8 sets out the requirements for evaluating compliance with these criteria.

Note: To interpret the locations referred to Table 3, see the applicable figure in Appendix 4.

Noise Acquisition Criteria

- Except for the noise-affected land in Table 1, if the noise generated by the Ashton mine complex causes sustained exceedances of the criteria in Table 4 at any residence on privately-owned land or on more than 25 per cent of any privately-owned land, then upon receiving a written request for acquisition from the landowner, the Proponent **must** acquire the land in accordance with the procedures in **conditions 8 - 9** of schedule 4.

Table 4: Noise Acquisition Criteria dB(A) L_{Aeq} (15min)

Receiver No.	Day (L_{Aeq} (15min))	Evening (L_{Aeq} (15min))	Night (L_{Aeq} (15min))
18	51	50	47
23	49	49	43
34	49	49	43
35	49	49	43
111	49	49	47
114	49	49	47
117	49	49	43
All other privately-owned land	41	41	41

Noise generated by the project is to be measured in accordance with the relevant requirements of the *NSW Industrial Noise Policy*. Appendix 8 sets out the requirements for evaluating compliance with these criteria.

Note: To interpret the locations referred to Table 4, see the applicable figure in Appendix 4.

Cumulative Noise Criteria

- Except for the land listed as noise impacted in Table 1, the Proponent **must** implement all reasonable and feasible measures to ensure that the noise generated by the Ashton mine complex combined with the noise generated by other mines does not exceed the criteria in Table 5 at any residence on privately-owned land or on more than 25 per cent of any privately-owned land.

Table 5: Cumulative Noise Criteria dB(A) L_{Aeq} (period)

Location	Day	Evening	Night
Camberwell Village	55	45	40
All other privately-owned land	50	45	40

Cumulative noise is to be measured in accordance with the relevant requirements of the *NSW Industrial Noise Policy*. Appendix 8 sets out the requirements for evaluating compliance with these criteria.

For the purposes of this condition, 'reasonable and feasible avoidance and mitigation measures' includes, but is not limited to, the requirements in conditions 9 and 10 to develop and implement a real-time noise management system that ensures effective operational responses to the risks of exceedance of the criteria

Note: To interpret the locations referred to Table 5, see the applicable figure in Appendix 4.

Cumulative Noise Acquisition Criteria

7. If the cumulative noise generated by the Ashton mine complex combined with the noise generated by other mines exceeds the criteria in Table 6 at any residence on privately-owned land or on more than 25 per cent of any privately-owned land, then upon receiving a written request from the landowner, the Proponent **must**, together with the relevant mines, acquire the land on as equitable basis as possible in accordance with the procedures in **conditions 8 - 9** of schedule 4.

Table 6: Cumulative noise Acquisition Criteria dB(A) L_{Aeq} (period)

Location	Day	Evening	Night
Camberwell Village	60	50	45
All other privately-owned land	55	50	45

Cumulative noise is to be measured in accordance with the relevant requirements of the *NSW Industrial Noise Policy*. Appendix 8 sets out the requirements for evaluating compliance with these criteria.

Note: To interpret the locations referred to Table 6, see the applicable figure in Appendix 4.

Rail Noise

8. The Proponent shall seek to ensure that its rail spur is only accessed by locomotives that are approved to operate on the NSW rail network in accordance with noise limits L6.1 to L6.4 in RailCorp's EPL (No. 12208) and ARTC's EPL (No. 3142) or a Pollution Control Approval issued under the former *Pollution Control Act 1970*.

Operating Conditions

9. The Proponent **must**:
- implement best practice noise management, including all reasonable and feasible noise mitigation measures required to minimise the operational, low frequency and rail noise generated by the Ashton mine complex, at all times, including during temperature inversions;
 - operate a comprehensive noise management system that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day-to-day planning of mining operations and the implementation of both proactive and reactive mitigation measures to ensure compliance with the relevant conditions of this approval;
 - minimise the noise impacts of the project during meteorological conditions under which data is to be excluded for the purposes of assessing compliance with these conditions (see Appendix 8); and
 - co-ordinate the noise management on site with the noise management at nearby mines to minimise the cumulative noise impacts of the mines, to the satisfaction of the **Secretary**.

Noise Management Plan

10. The Proponent **must** prepare and implement a Noise Management Plan for the Ashton mine complex to the satisfaction of the **Secretary** to manage potential impacts of the project. This plan must
- be prepared in consultation with the EPA, and be submitted to the **Secretary** for approval prior to carrying out any development on site;
 - describe the noise mitigation measures that would be implemented to ensure:
 - best practice noise management is;
 - being employed;
 - regularly benchmarked against contemporary industry standards; and
 - regularly reviewed to ensure continual improvement;
 - compliance with the relevant conditions of this approval; and
 - the noise impacts of the project are minimised during meteorological conditions under which the noise limits in this approval do not apply (see Appendix 8);
 - describe the noise management system in detail;
 - include a noise monitoring program that:
 - uses a combination of real-time and supplementary attended monitoring measures to evaluate the performance of the Ashton mine complex; and
 - includes a protocol for determining exceedances of the relevant conditions of this approval;
 - evaluates and reports on the effectiveness of the noise management system and the best practice noise management measures;

- includes sufficient random audit of operational responses to the real-time noise management system to determine the ongoing effectiveness of these responses in maintaining the project within the relevant criteria in this Schedule and the requirements of condition 9 above;
 - includes a mechanism for publication of the results of these audits and for an independent annual review of these results, including any recommendations for improvement in performance and
- (e) include a protocol that has been prepared in consultation with the owners of nearby mines to minimise the cumulative noise impacts of the mines.

BLASTING

Blasting Criteria

11. The Proponent **must** ensure that blasts on site do not cause exceedances of the criteria in Table 7

Table 7: Blasting criteria

Location	Airblast overpressure (dB (Lin Peak))	Ground vibration (mm/s)	Allowable exceedance
Any residence ^a on privately-owned land and the former St Clements Church	120	10	0%
	115	5	5% of the total number of blasts over a period of 12 months
Main Northern Railway culverts and bridges	-	^b 25	0%
All public infrastructure	-	^b 50	0%
Ravensworth underground mine	-	^b 6	0%

^a Unless otherwise agreed with the relevant owner/s of the residence, and the Proponent has advised the Department in writing of the terms of this agreement.

^b Unless otherwise agreed with the relevant infrastructure provider or owner, and the Proponent has advised the Department in writing of the terms of this agreement.

Blasting Hours

12. The Proponent **must** only carry out blasting on site between 9 am and 5 pm Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays, or at any other time except in the event of blasts required to ensure the safety of the mine or its workers with the prior written approval of the Secretary or **DRG**.

Blasting Frequency

13. The Proponent may carry out a maximum of:
- 1 blast a day; and
 - 5 blasts a week, averaged over a calendar year, for the project.

This condition does not apply to blasts that generate ground vibration of 0.5 mm/s or less at any residence on privately-owned land, or to blasts required to ensure the safety of the mine or its workers.

For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine.

Property Inspections

14. If the Proponent receives a written request for a property inspection, or to have a previous property inspection updated, from the owner of any privately-owned land within 2 kilometres of any approved blasting operations, the Proponent **must**:
- within 2 months of receiving this request commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to:
 - establish the baseline condition of any buildings and other structures on the land, or update the previous property inspection report; and
 - identify measures that should be implemented to minimise the potential blasting impacts of the project on these buildings or structures; and
 - give the landowner a copy of the new or updated property inspection report.

If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Proponent or the landowner disagrees with the findings or implementation of the property inspection report, then either party may refer the matter to the Secretary for resolution.

Property Investigations

15. If the landowner of privately-owned land within 2 kilometres of blasting operations, the owner of public assets, or any other landowner nominated by the Secretary, claims that buildings and/or structures on his/her land have been damaged as a result of blasting at the project, then within 2 months of receiving this request the Proponent **must**:

- (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties, to investigate the claim; and
- (b) give the landowner a copy of the property investigation report.

If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent **must** repair the damages to the satisfaction of the Secretary.

If there is a dispute over the selection of the suitably -qualified, experienced and independent person, or the Proponent or the landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.

This condition applies to damage of public assets from blasting by the project regardless of whether or not the blasting was within the approved limits.

Operating Conditions

16. The Proponent **must**:

- (a) implement best blast management practice to:
 - protect the safety of people and livestock in the surrounding area;
 - protect public or private infrastructure/property in the surrounding area;
 - minimise the dust and fume emissions from blasting;
- (b) ensure blasting does not compromise the integrity of the Low Permeability Barrier and the associated bedrock and flood levee;
- (c) minimise blasting during meteorological conditions when winds blow from the southerly direction (160-220 degrees), particularly when PM10 levels are elevated, or likely to be elevated;
- (d) co-ordinate the blasting on site with the blasting at nearby mines to minimise the cumulative blasting impacts of the mines; and
- (e) operate a system to enable the public to get up-to-date information on the proposed blasting schedule on site,

to the satisfaction of the Secretary.

17. The Proponent **must** not undertake blasting on-site within 500 metres of:

- (a) Glennies Street or Perry Street (whilst they remain publicly accessible) without the approval of Council; and
- (b) the New England Highway without the approval of the RMS.

18. The Proponent **must** not carry out blasting in the mining area that is within 500 metres of residence or land not owned by the Proponent unless:

- (a) the Proponent has a written agreement with the relevant landowner, and any tenants on the land, to allow blasting to be carried out closer to the land, and the Proponent has advised the Department in writing of the terms of this agreement; or
- (b) the Proponent has:
 - (i) demonstrated to the satisfaction of the Secretary that the blasting can be carried out without compromising the safety of people or livestock on the land, or damaging the buildings and/or structures on the land; and
 - (ii) updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the land.

Blast Management Plan

19. The Proponent **must** prepare and implement a Blast Management Plan for the Ashton mine complex to the satisfaction of the Secretary to manage potential impacts of the project. This plan must:

- (a) be prepared in consultation with the EPA and **Dol Water**, and be submitted to the Secretary for approval prior to carrying out any blasting on site;
- (b) describe the blast mitigation measures that would be implemented to ensure:
 - best management practice is being employed;
 - compliance with the relevant conditions of this approval;
- (c) describe the measures that would be implemented to ensure that the public can get up-to-date information on the blasting schedule;

- (d) include a road closure management plan for blasting within 500 metres of a public road, prepared in consultation with Council and the RMS;
- (e) include a blast monitoring program for evaluating blast-related impacts (including blast-induced seismic activity) on, and demonstrating compliance with any relevant blasting criteria in this approval for:
 - privately-owned residences and structures;
 - items of Aboriginal and non-indigenous cultural heritage significance;
 - private and publicly-owned infrastructure;
 - the Low Permeability Barrier including the integrity of the barrier in preventing movement of water between the pit and the Glennies Creek alluvium;
 - the Ashton underground mine and Ravensworth underground mine; and
- (f) include a protocol that has been prepared in consultation with the owners of nearby mines for minimising and managing cumulative blasting impacts of the mines.

AIR QUALITY & GREENHOUSE GAS

Odour

20. The Proponent **must** ensure that no offensive odours are emitted from the site, as defined under the POEO Act, unless otherwise authorised by an EPL.

Greenhouse Gas Emissions

21. The Proponent **must** implement all reasonable and feasible measures to minimise the release of Scope 1 and Scope 2 greenhouse gas emissions from the site to the satisfaction of the Secretary.

Note: This condition does not extend to Scope 3 emissions, as defined in the National Greenhouse Energy Reporting Guidelines.

Air Quality Criteria

22. Except for the land listed as air quality impacted in Table 1, the Proponent **must** ensure that all reasonable and feasible avoidance and mitigation measures are employed so that the Ashton mine complex does not cause or contribute to exceedance of the criteria listed in Tables 8, 9 or 10 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

Table 8: Long-term criteria for particulate matter

Pollutant	Averaging period	^d Criterion
Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³

Table 9: Short term criteria for particulate matter

Pollutant	Averaging period	^d Criterion
Particulate matter < 10 µm (PM ₁₀)	24 hour	^b 50 µg/m ³

Table 10: Long term criteria for deposited dust

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month

References to Table 8, Table 9 and Table 10.

^a Total impact (i.e. incremental increase in concentrations due to the Ashton mine complex plus background concentrations due to all other sources);

^b Incremental impact (i.e. incremental increase in concentrations due to the Ashton mine complex on its own);

^c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter- Gravimetric Method.

^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents or any other activity which has been endorsed by OEH and then agreed to by the Secretary.

For the purpose of this condition, 'reasonable and feasible avoidance and mitigation measures' include, but are not limited to, the requirements in conditions 26 and 27 to develop and implement a real-time air quality management system that ensures effective operational responses to the risks of exceedance of the criteria.

Mine-Specific Air Quality Criteria

23. Except for the land listed as air quality impacted in Table 1, the Proponent **must** ensure that particulate matter emissions generated by the Ashton Mine Complex do not exceed the criteria listed in Table 11 at any residence on privately owned land or on more than 25 percent of privately owned land.

Table 11: Short-term criteria for particulate matter

Pollutant	Averaging period	^d Criterion
Particulate matter < 10 µm (PM ₁₀)	24 hour	^b 50 µg/m ³

Exceedances at Occupied Residences on Mine-owned Land

24. The Proponent **must** ensure that particulate matter emissions generated by the Ashton mine complex do not exceed the criteria listed in Table 8, Table 9 and Table 10, at any occupied residence on any mine owned land (including land owned by adjacent mines) unless:
- (a) the tenant, and landowner (where owned by a mine other than the Proponent), has been notified of health risks in accordance with the notification requirements under Schedule 4 of this approval;
 - (b) the tenant of land owned by the Proponent can terminate their tenancy agreement without penalty, subject to giving reasonable notice, and the Proponent uses its best endeavours to provide assistance with relocation and sourcing of alternative accommodation;
 - (c) air mitigation measures such as air filters, a first flush roof water drainage system and/or air conditioning) are installed at the residence, if requested by the tenant and landowner (where owned by a mine other than the Proponent);
 - (d) particulate matter air quality monitoring is undertaken to inform the tenant and landowner (where owned by a mine other than the Proponent) of potential health risks; and
 - (e) the monitoring data is provided to the tenant in an appropriate format, for a medical practitioner to assist the tenant in making an informed decision on the health risks associated with occupying the property,
- to the satisfaction of the Secretary.

Air Quality Acquisition Criteria

25. If particulate matter emissions generated by the Ashton mine complex cause or contribute to exceedance of the cumulative criteria, in Table 12, Table 13 and Table 14 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land, then upon receiving a written request for acquisition from the landowner, the Proponent **must** acquire the land in accordance with the procedures in **conditions 8-9** of schedule 4.

Table 12: Long term land acquisition criteria for particulate matter

Pollutant	Averaging period	^d Criterion
Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³

Table 13: Short term land acquisition criteria for particulate matter

Pollutant	Averaging period	^d Criterion
Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 150 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	24 hour	^b 50 µg/m ³

Table 14: Long term land acquisition criteria for deposited dust

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month

References to Table 12, Table 13 and Table 14:

^a Total impact (i.e. incremental increase in concentrations due to the project plus background concentrations due to all other sources);

^b Incremental impact (i.e. incremental increase in concentrations due to the project on its own);

^c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method;

^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, or any other activity agreed by the Secretary.

Operating Conditions

26. The Proponent **must**:
- (a) implement best practice air quality management, including all reasonable and feasible measures to minimise off-site odour, fume and dust emissions generated by the Ashton mine complex, including those generated by any spontaneous combustion;
 - (b) minimise the surface disturbance of the site;
 - (c) minimise any off-site air pollution generated by the Ashton mine complex;
 - (d) ensure that:
 - the conveyor is enclosed on at least 3 sides including the side facing Camberwell village, and on all 4 sides where the conveyor crosses Glennies Creek and the New England Highway, prior to the commencement of conveyor operations;
 - the ROM hopper operates water sprays during all dumping of coal; and
 - the bund along the northern boundary is constructed and revegetated as quickly as is practicable;
 - (e) operate a comprehensive air quality management system that uses a combination of predictive meteorological forecasting, predictive and real-time air dispersion modelling and real-time air quality monitoring data to guide the day-to-day planning of mining operations and the implementation of both proactive and reactive mitigation measures to ensure compliance with the relevant conditions of this approval;
 - (f) manage PM_{2.5} levels in accordance with any requirements of an EPL.
 - (g) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see note d under Table 10);
 - (h) minimise the air quality impacts of the project during meteorological conditions when winds blow from the southerly direction (160-220 degrees), particularly when PM₁₀ levels are elevated, or likely to be elevated;
 - (i) co-ordinate the air quality management on site with the air quality management at nearby mines to minimise the cumulative air quality impacts of the mines,
- to the satisfaction of the Secretary.

Air Quality and Greenhouse Gas Management Plan

27. The Proponent **must** prepare and implement an Air Quality and Greenhouse Gas Management Plan for the Ashton mine complex to the satisfaction of the Secretary to manage potential impacts of the project. This plan must:
- (a) be prepared in consultation with the EPA, and be submitted to the Secretary for approval prior to carrying out any development on site;
 - (b) describe the measures that would be implemented to ensure:
 - best practice air quality management is:
 - being employed;
 - regularly benchmarked against contemporary industry standards; and
 - regularly reviewed to ensure continual improvement;
 - compliance with the relevant conditions of this approval; and
 - the air quality impacts of the project are minimised during adverse meteorological conditions and extraordinary events;
 - (c) describe the air quality management system in detail;
 - (d) include an air quality monitoring program that:
 - uses a combination of real-time monitors and supplementary monitors to evaluate the performance of the Ashton mine complex;
 - includes a protocol for determining any exceedances of the relevant conditions in this approval;
 - evaluates and reports on the effectiveness of the air quality management system and the best practice air quality management measures;
 - includes sufficient random audit of operational responses to the real-time air quality management system to determine the ongoing effectiveness of these responses in maintaining the Ashton mine complex within the relevant criteria in this Schedule and the requirements of conditions 22 and 23 above;
 - includes a mechanism for publication of the results of these audits and for an independent annual review of these results, including any recommendations for improvement in performance; and

- (e) include a protocol that has been prepared in consultation with the owners of nearby mines to minimise the cumulative air quality impacts of all mines.

METEOROLOGICAL MONITORING

28. For the life of the project, the Proponent **must** ensure that there is a meteorological station in the vicinity of the site that:
- (a) complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline; and
 - (b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the NSW Industrial Noise Policy, or as otherwise approved by the EPA.

SOIL AND WATER

Water Licences

29. The Proponent **must** obtain all necessary water licences for the project under the *Water Act 1912* or the *Water Management Act 2000*.

Loss of water from Glennies Creek and its associated alluvium and colluvium

30. The Proponent **must** ensure that:
- (a) there is no more than negligible inflow of water into the pit from Glennies Creek or its associated alluvium and colluvium; and
 - (b) there is no more than negligible outflow of water from the pit to Glennies Creek or its associated alluvium and colluvium.

Water Supply

31. The Proponent **must** ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of mining operations on site, to match its available water supply to the satisfaction of the Secretary.

Compensatory Water Supply

32. The Proponent **must** provide a compensatory water supply to any landowner of privately-owned land whose water supply is adversely and directly impacted (other than an impact that is negligible) as a result of the project, in consultation with **Dol Water**, and to the satisfaction of the Secretary.

The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent to the loss attributed to the project. Equivalent water supply should be provided (at least on an interim basis) within 24 hours of the loss being identified.

If the Proponent and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.

If the Proponent is unable to provide an alternative long-term supply of water, then the Proponent **must** provide alternative compensation to the satisfaction of the Secretary.

Surface Water Discharges

33. The Proponent **must** ensure that all surface water discharges from the site comply with the:
- (a) discharge limits (both volume and quality) set for the project in any EPL; or
 - (b) relevant provisions of the POEO Act or Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002.

Groundwater and Aquifer Verification and Monitoring Program

34. The Proponent must prepare and implement a groundwater verification and monitoring program to the satisfaction of **Dol Water** and the Secretary. The groundwater verification and monitoring program must:
- (a) be endorsed by **Dol Water**, and then approved by the Secretary, prior to carrying out any development on site;
 - (b) establish baseline conditions, including, but not limited to:
 - (i) characterisation of the groundwater and aquifers on and around the site, including, but not limited to:
 - quality, levels and flow directions and changes associated with climatic conditions;
 - identification of the boundaries and permeability of the alluvium associated with Glennies Creek and other potentially permeable geology such as the Permian coal measures;
 - (ii) identification and characterisation of any Groundwater Dependent Ecosystems;
 - (c) establish the detailed ongoing monitoring program including mechanisms for review of the program and incorporation of monitoring results into the Groundwater Management Plan required under

- condition 38(d) of Schedule 3 and the Surface and Groundwater Response Plan required under condition 38(e) of Schedule 3.;
- (d) provide for validation and updating of the modelling predictions on a regular basis and incorporation of the results into the relevant plans in condition 38 of Schedule 3 and in any operational responses required to comply with condition 30 of Schedule 3. Where updated modelling predictions change the expected project outcomes, the Proponent is required to ensure the impacts of the Project do not exceed those predicted in the EA or the "Amended plans submitted to the Commission"; and
 - (e) provide for independent review of the adequacy of the groundwater verification, monitoring program and modelling as part of the independent environmental audits required under condition 8 of Schedule 5 including provision for a copy of the results and any recommendations to be provided to **Dol Water**.

The monitoring program required under sub-condition (c) is required to cover all pre, during and post- mining operations. With regard to post-mining, unless otherwise agreed by the Secretary in consultation with **Dol Water**, the program should include a series of piezometers established in the backfill in a line within the central part of the site orientated in a north-south direction. The piezometers should be spaced equally apart and extend from the northern extent of the fill and then in a southerly direction to the edge of the final void. The purpose will be to monitor the rise over time of the recovering water table within the backfill to ensure that groundwater levels remain below the creek alluvium water table elevation and also to establish the overall gradient towards the final void to allow model validation 5 years after completion of the final landform and dewatering of the project.

With regard to sub-condition (d), unless otherwise agreed by the Secretary in consultation with **Dol Water**, the validation and updating of the modelling predictions should be conducted 2 years after mining commences and then again after an additional 5 years (i.e. a total of 7 years after mining commences) and 5 years after completion of the final landform and dewatering of the project. Monitoring should continue at least 10 years after completion of the final landform and dewatering of the project by the Proponent.

Low Permeability Barrier Detailed Design

35. The Proponent **must** design the Low Permeability Barrier (LPB) to the satisfaction of **Dol Water** and the Secretary. The LPB detailed design must:
 - (a) be designed by a suitably qualified and experienced expert familiar with like structures;
 - (b) be endorsed by **Dol Water**, and then approved by the Secretary, prior to carrying out any development on site;
 - (c) be in accordance with the design specified in the correspondence to the Commission dated 31 July 2012, the applicable Australian Standards (including AS 3798-2007), and the measures in Appendix 7 regarding management of threats to the LPB;
 - (d) respond to the baseline conditions established in the Groundwater and Aquifer Verification and Monitoring Program in condition 34 above,
 - (e) include detailed design, construction and engineering specifications, including, but not limited to:
 - (iii) materials, construction methods, detailed plans, any staging, contextual mapping, including spatially and in relation to the surrounding geology and groundwater aquifers;
 - (iv) detailed design of the surrounding works and infrastructure, including the flood levee, ROM facility and out of pit emplacement,
 - (v) detailed justification for the location, specifications and positioning of the LPB, particularly in relation to the length and positioning of the northern extension;
 - (vi) the performance parameters of the design (including justification of the lifespan), demonstrating they maintain or improve on the parameters set out in the "Amended plans submitted to the Commission", the measures in Appendix 7 regarding management of threats to the LPB, and the conditions in this approval;
 - (vii) quality assurance and testing procedures relating to both the design and construction phases;
 - (f) demonstrate the LPB would remain effective over its lifespan and would withstand mining operations, geological and weather events, decay and corrosive attack - including biological attack;
 - (g) demonstrate that there would be no more than negligible seepage through or around the LPB in either direction, over the life of the LPB;
 - (h) provide appropriate infrastructure and access arrangements for the ongoing monitoring, maintenance and if necessary, repair of the LPB, throughout the mine life and post closure;
 - (i) be updated and resubmitted for approval in response to any issues arising from earlier stages of the construction.
 - (j) set out the final landform and demonstrate that the LPB would be adequately protected and maintained, throughout the site regrading process and post closure.

Low Permeability Barrier Construction

36. The Proponent **must**:
- (a) install the low permeability barrier prior to undertaking any mining operations within 40 metres of the Glennies Creek alluvium and colluvium;
 - (b) include quality assurance and testing in accordance with the design specifications in condition 35, approved by a suitably qualified and experienced expert familiar with such structures and testing procedures;
 - (c) submit an as-executed report to the **Secretary** and **Dol Water**, certified by a suitably qualified and experienced practising engineer familiar with like structures, confirming that the low permeability barrier has been constructed:
 - (i) in accordance with the approved design in condition 35 above;
 - (ii) to achieve a permeability of less than 10^{-8} metres/second; and
 - (iii) in a manner that is hydraulically, geomorphologically, and seismologically stable, within 2 months of construction of the barrier.

The low permeability barrier may be constructed on a staged basis. In this case, the reports required under condition 36(c) **must** be submitted for each stage.

Low Permeability Barrier Monitoring and Management

37. The proponent must prepare and implement a Low Permeability Barrier Monitoring and Management Plan to the satisfaction of **Dol Water** and the Secretary. The plan must:
- (a) be reviewed by a suitably qualified and experienced expert familiar with like structures;
 - (b) be endorsed by **Dol Water** and then approved to the Secretary, prior to the commencement of mining;
 - (c) identify the potential short and long term risks to the LPB (and to achievement of its intended purpose, namely the protection of Glennies Creek and the associated alluvium), such as internal erosion and piping, cation exchange and chemically induced cracking, poor construction, faulting, flooding, blasting, tree roots and seismological events;
 - (d) describe and justify the monitoring and management schedule, including post-closure and including detailed justification of the criteria and timeframe in which monitoring and management would cease;
 - (e) describe both the routine, and event specific, monitoring and maintenance procedures to be implemented, as well as the scheduling of these procedures;
 - (f) demonstrate the monitoring system would be capable of timely detection of any failure or deficiency in the LPB and any impacts on Glennies Creek and its associated alluvium, including unpredicted and/or unexpected failure, or deficiency;
 - (g) describe the contingency measures that would be implemented in the event of a failure or deficiency in the LPB, or other impact on Glennies Creek and its associated alluvium, and how these measures would be selected and implemented; and
 - (h) describe the reporting and notification protocol to be implemented covering both routine monitoring and maintenance and in the event of a failure or deficiency in the LPB, or other impact on Glennies Creek and its associated alluvium.

The monitoring program should be generally consistent with the measures in Appendix 7 regarding management of threats to the LPB.

For the purposes of this condition, 'failure or deficiency in the LPB' is defined as an activity or monitoring results that indicate that the LPB is not performing as specified or predicted in the commitments made in the EA and amended plans submitted to the Commission.

Water Management Plan

38. The Proponent **must** prepare and implement a Water Management Plan for the Ashton mine complex to the satisfaction of the Secretary to manage potential impacts of the project. This plan must be prepared in consultation with OEH, EPA, **DRG** and Council, and be endorsed by **Dol Water** and then submitted to the Secretary for approval prior to carrying out any development on site. The plan must include:
- (a) a Site Water Balance, which must:
 - incorporate the findings and results of the Groundwater and Aquifer Verification and Monitoring Program;
 - include details of:
 - sources and security of water supply;
 - water use on site;
 - water management on site;
 - any off-site water transfers; and
 - investigate and implement all reasonable and feasible measures to minimise water use by the Ashton mine complex;

- (b) an Erosion and Sediment Control Plan, which must:
 - identify activities on site that could cause soil erosion, generate sediment or affect flooding;
 - describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters, and manage flood risk;
 - describe the location, function and capacity of erosion and sediment control structures and flood management structures;
 - describe what measures would be implemented to maintain the structures over time;
- (c) a Surface Water Management Plan, which must include:
 - detailed baseline data on surface water flows (including flooding) and quality in creeks and other waterbodies that could potentially be affected by the project;
 - surface water and stream health impact assessment criteria including trigger levels for investigating any potentially adverse surface water impacts, including flooding, (for existing creeks and reinstated/rehabilitated creeks);
 - a program to monitor and assess:
 - surface water flows and quality;
 - impacts on water users;
 - stream health; and
 - channel stability;
- (d) a Groundwater Management Plan, which must
 - incorporate the relevant aspects of the Groundwater and Aquifer Verification and Monitoring Program (condition 34) and be updated to include the relevant aspects of the Low Permeability Barrier Monitoring and Management Plan (condition 37);
 - include detailed baseline data of groundwater levels, yield and quality in the region, and privately-owned groundwater bores, that could be affected by the project;
 - include groundwater impact assessment criteria including trigger levels for investigating any potentially adverse groundwater impacts, with groundwater level triggers based on a divergence of measured vs. model predicted time-based groundwater levels of no more than 20%;
 - include a program to monitor and assess:
 - groundwater inflows to the mining operations;
 - impacts on regional aquifers;
 - impacts on the groundwater supply of potentially affected landowners;
 - impacts on the Glennies Creek and Hunter River alluvial aquifers, including performance of the low permeability barrier; and
 - impacts on groundwater dependent ecosystems and riparian vegetation;
- (e) a Surface and Ground Water Response Plan, which must:
 - incorporate the relevant aspects of the Groundwater and Aquifer Verification and Monitoring Program (condition 34) and be updated to include the relevant aspects of the Low Permeability Barrier Monitoring and Management Plan (condition 37);
 - include a response protocol for any exceedances of the surface water and groundwater impact assessment criteria, including provisions for independent investigation by a suitably qualified hydrogeologist whose appointment has been approved by the Secretary;
 - include a response protocol for any non-compliance with condition 30;
 - include measures to offset the loss of any baseflow to watercourses caused by the project;
 - include measures to compensate landowners of privately-owned land whose water supply is adversely affected by the project; and
 - include measures to mitigate and/or offset any adverse impacts on groundwater dependent ecosystems or riparian vegetation.

BIODIVERSITY

Biodiversity Offsets

39. Within 12 months of carrying out any development work, the Proponent must implement the Biodiversity Offset Strategy as outlined in Table 15 and as described in the EA (and shown conceptually in Appendix 5), to the satisfaction of the Secretary.

Table 15: Biodiversity offset strategy

Area	Offset Type	Minimum Size (hectares)
Northern Offset Area	Existing vegetation and vegetation to be established	10.7
Eastern Offset Area	Existing vegetation and additional vegetation to be established	16.8

Area	Offset Type	Minimum Size (hectares)
Additional Offset Area ¹	Existing vegetation and additional vegetation to be established	44
Glennies Creek Riparian Area	Woodland vegetation to be established	35
Rehabilitation Area	Woodland vegetation to be established	200
Total		306.5

¹ See condition 40.

40. Prior to carrying out any development on the site, unless otherwise agreed by the Secretary, the Proponent shall revise the offset strategy as described in the EA to include the Additional Off-site Offset Area presented in Table 15 above. The revised strategy **must** be prepared in consultation with OEH, and to the satisfaction of the Secretary.

The 44 hectare size for the Additional Off-site Offset Area identified in Table 15 above is to be taken as a minimum. The actual size of the offset **must** be determined in consultation with OEH and, together with the other offset areas listed in Table 15, **must** fully offset the biodiversity impacts of the project, particularly the impacts on threatened species including Central Hunter Ironbark - Spotted Gum - Grey Box Forest EEC.

41. The Proponent **must** ensure that the offset strategy and rehabilitation strategy are focused on the re-establishment of:
- significant and/or threatened plant communities, including:
 - Central Hunter Ironbark- Spotted Gum - Grey Box Forest;
 - River-flat Eucalypt Forest;
 - Hunter Floodplain Red Gum Woodland Complex;
 - significant and/or threatened plant species, including:
 - River Red Gum (*Eucalyptus camaldulensis*); and
 - habitat for significant and/or threatened animal species.

Long Term Security of Offsets

42. The Proponent **must** demonstrate that it has made suitable arrangements to provide appropriate long term security for the:
- Northern Offset Area and Eastern Offset Area, within 12 months of carrying out any development on the site;
 - Additional Offset Area, within 12 months of carrying out any development on the site; and
 - woodland vegetation to be established in the Rehabilitation Area, at least 2 years prior to the completion of mining activities associated with the project, or other such timing as agreed by the Secretary,

to the satisfaction of the Secretary. This security must include provision for long term management costs associated with maintaining the offsets

Hunter Ironbark Research Program

43. The Proponent **must** contribute to the preparation and implementation of a regional Hunter Ironbark Research Program, to the satisfaction of the Secretary. This contribution **must** comprise funding and/or expertise, and must:
- be prepared in consultation with the owner of the Ravensworth mine complex and OEH, and be submitted to the Secretary approval prior to the commencement of any mining operations on site;
 - be directed at encouraging research into the mapping and recovery of EECs affected by the project and in the area, particularly:
 - Central Hunter Ironbark - Spotted Gum - Grey Box Forest EEC; and
 - Central Hunter Grey Box - Ironbark Woodland EEC.

Note: The approval for the Ravensworth mine complex includes a similar (and primary) condition regarding the preparation of a Hunter Ironbark Research Program.

44. Within 12 months after the commencement of mining operations, the Proponent **must** allocate at least \$25,000 towards the preparation and implementation of the Hunter Ironbark Research Program identified above, and obtain the Secretary's approval for allocation of funding under the program.

Biodiversity Management Plan

45. The Proponent **must** prepare and implement a Biodiversity Management Plan for the Ashton mine complex to the satisfaction of the Secretary to manage potential impacts of the project. This plan must:
- (a) be prepared in consultation with OEH and Council, and be submitted to the Secretary for approval prior to the carrying out of any development on site;
 - (b) describe how the implementation of the offset strategy would be integrated with the overall rehabilitation of the site (see below);
 - (c) include:
 - (i) a description of the short, medium, and long term measures that would be implemented to
 - implement the offset strategy;
 - manage the remnant vegetation and habitat on the site and in the offset areas;
 - (ii) detailed performance and completion criteria for implementation of the offset strategy, and triggering remedial action (if necessary);
 - (iii) a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:
 - implementing revegetation and regeneration within the disturbance areas and offset areas, including establishment of canopy, sub-canopy (if relevant), understorey and ground strata;
 - maximising salvage and beneficial use of resources in areas that are to be impacted, including vegetative, soil and cultural heritage resources;
 - protecting vegetation and soil outside the disturbance areas;
 - rehabilitating creeks and drainage lines on the site (both inside and outside the disturbance areas), to minimise net loss of stream length and aquatic habitat;
 - managing salinity;
 - conserving and reusing topsoil;
 - undertaking pre-clearance surveys;
 - managing impacts on fauna;
 - landscaping the site and along public roads to minimise visual and lighting impacts, particularly along the New England Highway;
 - collecting and propagating seed;
 - salvaging and reusing material from the site for habitat enhancement;
 - salvaging, transplanting and/or propagating threatened flora and native grassland;
 - controlling weeds and feral pests;
 - managing grazing and agriculture on site and in the offset areas;
 - controlling access; and
 - bushfire management;
 - (iv) a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria;
 - (v) a description of the potential risks to the successful revegetation, and a description of the contingency measures that would be implemented to mitigate these risks; and
 - (vi) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

Conservation Bond

46. Within 6 months of approval of the Biodiversity Management Plan (see above), the Proponent **must** lodge a conservation bond with the Department to ensure that the offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan.

The sum of the bond **must** be determined by:

- (a) calculating the full cost of implementing the offset strategy (other than land acquisition costs); and
- (b) employing a suitably qualified person to verify the calculated costs.

If the offset strategy is completed in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Secretary, the Secretary will release the bond.

If the offset strategy is not completed in accordance with the completion criteria in the Biodiversity Management Plan, the Secretary will call in all or part of the conservation bond, and arrange for the satisfactory completion of the relevant works.

With the agreement of the Secretary, this bond may be combined with rehabilitation security deposit administered by the Minister for Mineral Resources.

HERITAGE

Aboriginal Heritage Conservation Strategy

47. The Proponent **must** prepare and implement an Aboriginal Heritage Conservation Strategy for the Ashton mine complex and its associated biodiversity offset areas to the satisfaction of the Secretary. This strategy must enhance and conserve the Aboriginal cultural heritage values (both cultural and archaeological) of this area, and provide for the long-term protection and management of certain areas within the broader areas covered by the strategy. It must also:
- be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;
 - be prepared in consultation with OEH and the local Aboriginal community, and submitted to the Secretary for approval prior to the carrying out of any development on the site;
 - review the status of the implementation of the existing Southern Conservation Area and recommendations in the Witter report (2002);
 - identify the Aboriginal cultural heritage values of the associated biodiversity offset areas;
 - identify a range of options for enhancing and conserving Aboriginal cultural heritage values of the land covered by the strategy, with specific consideration of the potential for the long-term protection and management of significant sites within the mine complex and associated offset areas;
 - evaluate these options;
 - propose and justify the final strategy; and
 - include an action plan for the implementation of the strategy.

The detailed measures to implement the strategy **must** be outlined in the Heritage Management Plan (see condition 51 below).

Notes:

- Known Aboriginal sites are shown on the plans in Appendix 6.
- The Department acknowledges that impact to Aboriginal sites within the mine complex has been approved as part of the Ashton Coal Project (subject to the Proponent obtaining relevant permits under the National Parks and Wildlife Act 1974 where necessary). For the avoidance of doubt, this condition does not preclude impacts already approved under that consent. However, these impacts should not preclude these sites from being included in the conservation area.
- The Department acknowledges that the long term planning and management of such sites may only be possible once approved mining operations have been completed, and any associated impacts remediated.

Southern Conservation Area

48. This approval does not allow the Proponent to harm any Aboriginal objects contained within the Southern Conservation Area (see Appendix 6).

Note: The Department acknowledges that certain impacts to Aboriginal sites within the Southern Conservation Area have been approved as part of the Ashton Coal Project (subject to the Proponent obtaining relevant permits under the National Parks and Wildlife Act 1974 where necessary). For the avoidance of doubt, this condition does not preclude impacts already approved under that consent.

Survey of Revised Corridor for the Transmission Line

49. Prior to carrying out any development in the transmission line realignment corridor to the west of Glennies Creek (see Appendix 2), the Proponent **must**:
- carry out an archaeological survey of the corridor in consultation with the Aboriginal community;
 - ensure that the final design of the transmission line includes all reasonable and feasible measures to avoid and/minimise any impacts on Aboriginal objects within the corridor; and
 - submit detailed plans of the proposed transmission line to the Secretary for approval.

Following approval, the Proponent **must** implement the detailed plans to the satisfaction of the Secretary.

History of Camberwell Village

50. Within 12 months of the carrying out of any development on the site, the Proponent **must** prepare a detailed history of the Camberwell Village to the satisfaction of the Secretary. This history must
- be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;
 - be prepared in consultation with the OEH, the local history society, Camberwell community (including former residents as far as is practicable), and the Aboriginal community; and in accordance with the relevant OEH guidelines; and
 - include detailed historical research as well as an oral history.

Heritage Management Plan

51. The Proponent **must** prepare and implement a Heritage Management Plan for the Ashton mine complex to the satisfaction of the Secretary to manage the potential impacts of the project. This plan must:
- (a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;
 - (b) be prepared in consultation with the OEH, Council, the Aboriginal Community, local historical organisations and relevant landowners;
 - (c) be submitted to the Secretary for approval prior to carrying out any development on site;
 - (d) include the following for the management of Aboriginal Cultural heritage on the site:
 - an archaeological salvage program for the project disturbance area, which includes additional sub-surface testing of the more significant sites and landform units;
 - a description of the measures that would be implemented for:
 - the protection, monitoring and management of Aboriginal sites outside the project disturbance area, including 2 identified scarred trees on the site;
 - monitoring, notifying and managing the effects of blasting on the potentially affected Aboriginal sites;
 - maintaining and managing access for Aboriginal sites by the Aboriginal community;
 - managing the discovery of any human remains or previously unidentified Aboriginal objects that have conservation significance during the project;
 - ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage; and
 - heritage inductions for construction personnel (including procedures for keeping records of inductions); and
 - a detailed plan for the implementation of the Aboriginal Heritage Conservation Strategy (see above) once it has been approved by the Secretary;
 - (e) include the following for the management of historic heritage:
 - photographic and archival recording of the 6 identified heritage items identified in the EA in accordance with the applicable guidelines of the Heritage Council of NSW;
 - a description of the measures that would be implemented for:
 - monitoring, notifying and managing the effects of project related blasting on potentially affected heritage items, including the former St Clements Church;
 - managing the discovery of human remains or previously unidentified heritage items during the project; and
 - heritage inductions for construction personnel (including procedures for keeping records of inductions).

The effectiveness of the Heritage Management Plan is to be reviewed and audited in accordance with the requirements in schedule 5. Following this review and audit, the plan is to be revised to ensure it remains up to date (see condition 4 in schedule 5).

Notes:

- *The Department acknowledges that the initial Heritage Management Plan may not include a detailed plan for the implementation of the Aboriginal Heritage Conservation Strategy. If this occurs, the Proponent will be required to update the plan as soon as practicable following the Secretary's approval of the Aboriginal Heritage Conservation Strategy.*
- *See also condition 12 of schedule 2.*

TRANSPORT

Monitoring of Coal Transport

52. The Proponent **must**:
- (a) keep accurate records of the:
 - amount of coal transported from the site (on a monthly basis);
 - date and time of each train movement generated by the Ashton mine complex; and
 - (b) make these records available on its website at the end of each calendar year..

Road and Intersection Construction

53. The Proponent **must**:
- (a) prepare a construction traffic management plan for the project, **in consultation with the RMS and to the satisfaction of the Secretary**, prior to the commencement of construction on site, including specific measures to manage site access prior to completion of the new mine access road;

- (b) construct the new mine access road / New England Highway intersection to the satisfaction of the RMS, prior to the commencement of mining operations on site (excluding overburden removal required for construction of the environmental bund and site infrastructure);
- (c) design and construct the conveyor bridge over the New England Highway to the satisfaction of the RMS, prior to the commencement of mining operations (excluding overburden removal required for construction of the environmental bund and site infrastructure);
- (d) unless otherwise agreed by the Secretary, close Glennies Street south of Perry Street, and Perry Street between Glennies Street and Lethbridge Street, to the satisfaction of Council (or the applicable authority if Council is not the relevant roads authority) prior to the commencement of mining operations on site, or other such liming as may be agreed by the Secretary;
- (e) following the commencement of mining operations restrict all vehicular access to the site to the new mine access road / New England Highway intersection (apart from any necessary access to facilities not accessible from the new mine access road).

The Proponent must not close any public roads if it would adversely affect the legal access to any privately-owned land, until an alternative legal access is provided.

VISUAL

Visual Amenity and Lighting

54. The Proponent **must**:
- (a) complete construction and revegetation of the northern/eastern face of the out-of-pit emplacement, and tree screening to Camberwell and the New England Highway, within 18 months of the commencement of mining operations, unless otherwise agreed by the Secretary;
 - (b) implement all reasonable and feasible measures to mitigate visual and off-site lighting impacts of the project;
 - (c) ensure no unshielded outdoor lights shine above the horizontal;
 - (d) ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1997 - Control of Obtrusive Effects of Outdoor Lighting or its latest version;

to the satisfaction of the Secretary.

Additional Visual Mitigation Measures

55. Upon receiving a written request from the owner of any residence on privately-owned land which has significant direct views of the mining operations on site, the Proponent **must** implement additional visual mitigation measures (such as landscaping treatments or vegetation screens) on the land in consultation with the landowner. These measures must be reasonable and feasible, and directed towards minimising the visibility of the mining operations from the residence.

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

Except in exceptional circumstances, the Secretary will not require additional visual impact mitigation to be undertaken for residences outside the visually affected properties area as outlined in the EA.

WASTE

56. The Proponent **must**:
- (a) minimise and monitor the waste generated by the project;
 - (b) ensure that the waste generated by the project is appropriately stored, handled and disposed of;
 - (c) manage on-site sewage treatment and disposal in accordance with the Council requirements; and
 - (d) report on waste management and minimisation in the Annual Review,
- to the satisfaction of the Secretary.

BUSHFIRE MANAGEMENT

57. The Proponent **must**:
- (a) ensure that the Ashton mine complex is suitably equipped to respond to any fires on site; and
 - (b) assist the Rural Fire Service and emergency services as much as possible if there is a fire in the vicinity of the site.

REHABILITATION

Rehabilitation Objectives

58. The Proponent **must** rehabilitate the site to the satisfaction of the Executive Director Mineral Resources in **DRG**. This rehabilitation must be consistent with the proposed Rehabilitation Objectives described in the EA and the "Amended plans submitted to the Commission" and comply with the objectives in Table 16.

Table 16: Rehabilitation Objectives

Feature	Objective
Mine Site (as a whole), including the final void	Safe, stable and non-polluting Landform (excluding the final void) consistent with the surrounding environment
Final void	The size and depth of the final void should be designed having regard to its function as a long-term groundwater sink, to ensure that groundwater flows across the back filled pit area towards the final void. Minimise the size and depth of the final void as far as is reasonable and feasible subject to meeting the above objective regarding the function of the void as a long-term groundwater sink. Minimise the drainage catchment of the final void as far as is reasonable and feasible, subject to meeting the above objective regarding the function of the void as a long-term groundwater sink. Negligible high wall instability risk Minimise risk of flood interaction for all flood events up to and including the Probable Maximum Flood level
Surface Infrastructure	To be decommissioned and removed, unless the Executive Director, Mineral Resources in DRG agrees otherwise.
Glennies Creek and its alluvial aquifer	No more than negligible environmental consequences to Glennies Creek and its alluvial aquifer, including: <ul style="list-style-type: none"> • negligible leakage through the low permeability barrier • negligible adverse impact on surface water and groundwater quality; and • negligible impact to other surface water and groundwater users.
Agriculture	Establish a minimum of 50 hectares of Class 3 agricultural suitability land
Woodland areas (see Table 15), and other vegetated land including in the final void	Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of local native plant species.
Community	Ensure public safety Minimise the adverse socio-economic effects associated with mine closure

59. The Proponent **must** carry out rehabilitation progressively, that is, as soon as reasonably practicable following disturbance (particularly on the face of emplacements that are visible off-site), to the satisfaction of the Executive Director Mineral Resources in **DRG**.

Rehabilitation Management Plan

60. The Proponent **must** prepare and implement a Rehabilitation Management Plan for the Ashton mine complex to the satisfaction of the Executive Director Mineral Resources in **DRG** to manage potential Impacts of the project. This plan must:
- be prepared in consultation with the Department, OEH, EPA, **DoI Water**, Council and the CCC, and be submitted to the Executive Director, Mineral Resources in **DRG** for approval prior to carrying out any development on site, unless otherwise agreed by the Secretary;
 - be prepared in accordance with any relevant **DRG** guideline, and be consistent with the rehabilitation objectives in Table 16 and in the EA, and the statement of commitments included in Appendix 3;

- (c) build, to the maximum extent practicable, on the other management plans required under this approval; and
- (d) address all aspects of rehabilitation and mine closure, including final land use assessment, rehabilitation objectives, domain objectives, completion criteria and rehabilitation monitoring, and include:
 - an evaluation of end land use options for final void/s; and
 - a life of mine tailings management strategy, including an environmental risk assessment demonstrating that the emplacements can be designed, managed and rehabilitated appropriately.

Note: The plan should build on the conceptual final land use and offset strategy depicted in Appendix 5.

AGRICULTURE

61. The Proponent **must** ensure that the agricultural productivity and production of non-operational project-related land is maintained or enhanced.

This includes properties primarily used for agriculture that are acquired by the Proponent due to noise and/or air quality impacts. However, it does not include land where disturbance is permitted under the conditions of this approval or land that forms part of the biodiversity offset area.

SCHEDULE 4 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS/TENANTS

1. Prior to the carrying out of development, the Proponent **must**:
 - (a) notify in writing the owner(s) of:
 - the land listed in Table 1 of schedule 3 that they have the right to require the Proponent to acquire their land at any stage during the project;
 - any residence on the land listed in Table 1 and Table 2 of schedule 3 that they have the right to request the Proponent to pay for the provision of alternative accommodation during mining operations (involving overburden removal and coal extraction), and to also ask for additional noise and/or air quality mitigation measures to be installed at their residence at any stage during the project; and
 - any privately-owned land within 2 kilometres of the proposed footprint of the open cut mining pit that they are entitled to ask for an inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated;
 - (b) notify the tenants of any land owned by the Proponent of their rights under this approval (including the Statement of Commitments); and
 - (c) send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the owners and/or existing tenants of any land (including mine-owned land) where the predictions in the EA identify that dust emissions generated by the project are likely to be greater than the relevant air quality criteria in schedule 3 at any time during the life of the project.
2. Prior to entering into any tenancy agreement for any land owned by the Proponent that is predicted to experience exceedances of the dust criteria in condition 22 of Schedule 3 or the noise criteria in condition 4 of schedule 3, the Proponent **must**:
 - (a) advise the prospective tenants of the potential health and amenity impacts associated with living on the land and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time); and
 - (b) advise the prospective tenants of the rights they would have under this approval (including the statement of commitments),
to the satisfaction of the Secretary.
3. Within 2 weeks of obtaining monitoring results showing:
 - (a) an exceedance of the relevant criteria in schedule 3, the Proponent **must** notify the affected landowner and/or tenants in writing of the exceedance, and provide regular monitoring results to each of these parties until the project is complying with the relevant criteria again; and
 - (b) an exceedance of the relevant criteria in conditions 22 or of schedule 3, the Proponent **must** send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants of mine- owned land).

INDEPENDENT REVIEW

4. If an owner of privately-owned land considers the project to be exceeding any relevant criteria in schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the project on his/her land.
5. If the Secretary is not satisfied that an independent review is warranted the Secretary will notify the person who asked for the independent review of that decision, and the reasons for that decision, in writing within 60 days of the request for a review.

If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision, the Proponent **must**:

- (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:
 - (i) consult with the landowner to determine his/her concerns;
 - (ii) conduct monitoring to determine whether the project is complying with the relevant criteria; and
 - (iii) if the project is not complying with these criteria then:
 - determine if the more than one mine is responsible for the exceedance, and if so the relative share of each mine towards the impact on the land;
 - identify the measures that could be implemented to ensure compliance with the relevant criteria; and
- (b) give the Secretary and landowner a copy of the independent review.

6. If the independent review determines that the project is complying with the relevant criteria, then the Proponent may discontinue the independent review with the approval of the Secretary.

If the independent review determines that the project is not complying with the relevant criteria, and that the project is primarily responsible for this non-compliance, then the Proponent **must**:

- (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent person, and conduct further monitoring until the project complies with the relevant criteria; or
- (b) secure a written agreement with the landowner to allow exceedances of the relevant criteria, to the satisfaction of the Secretary.

If the independent review determines that the project is not complying with the relevant acquisition criteria, and that the project is primarily responsible for this non-compliance, then upon receiving a written request from the landowner, the Proponent **must** acquire all or part of the landowner's land in accordance with the procedures in **conditions 8 - 9** below.

7. If the independent review determines that the relevant criteria are being exceeded, but that more than one mine is responsible for this exceedance, then together with the relevant mine/s the Proponent **must**:

- (c) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent person, and conduct further monitoring until there is compliance with the relevant criteria; or
- (d) secure a written agreement with the landowner and other relevant mine/s to allow exceedances of the relevant criteria,

to the satisfaction of the Secretary.

If the independent review determines that the project is not complying with the relevant acquisition criteria, but that more than one mine is responsible for this non-compliance, then upon receiving a written request from the landowner, the Proponent **must** acquire all or part of the landowner's land on as equitable a basis as possible with the relevant mine/s, in accordance with the procedures in **conditions 8 - 9** below.

LAND ACQUISITION

8. Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent **must** make a binding written offer to the landowner based on:

- (a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the project, or the current market value of properties that are of an equivalent standard to the landowner's existing dwelling (including associated facilities such as a pool) in the Singleton or Muswellbrook local government areas (whichever is greater), having regard to the:
 - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
 - presence of improvements on the land and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the additional mitigation measures required under condition 3 of schedule 3, and excluding alternative accommodation costs provided in accordance with condition 2 of schedule 3;
- (b) the reasonable costs associated with:
 - relocating within the Singleton or Muswellbrook local government area, or to any other local government area determined by the Secretary; and
 - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and
- (c) reasonable compensation for any loss attributable to disturbance and severance, if any, caused by the land acquisition process, if any;
- (d) reasonable compensation for any special value of the land to the person on the date of acquisition, if any; and
- (e) solatium, if any.

For the purposes of this approval, the terms 'market value', 'disturbance', 'severance', 'special value' and 'solatium' are to be construed in the same way as those terms are defined in the *Land Acquisition (Just Terms Compensation) Act 1991*, and as interpreted by the judiciary with the same limitations applied.

For the purposes of this approval the term 'landowner' is to be construed in the same way as the term 'owner' as defined in the *Land Acquisition (Just Terms Compensation) Act 1991*, and as interpreted by the judiciary.

However, if at the end of this period, the Proponent and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Secretary for resolution.

Upon receiving such a request, the Secretary shall request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:

- (a) consider submissions from both parties;
- (b) determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above;
- (c) prepare a detailed report setting out the reasons for any determination; and
- (d) provide a copy of the report to both parties.

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

However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to an independent arbiter agreed to by the parties. If the parties cannot agree on an independent arbiter, the matter must be referred to the Secretary to appoint an independent arbiter from the NSW Bar Association approved list or arbitrators.

The independent arbitrator's costs must be borne by the Proponent, and the proponent must compensate the landowner for any reasonable costs incurred by the landowner as a result of the matter being referred to arbitration, including any reasonable costs incurred by the landowner in obtaining legal and expert advice or representation for the purposes of arbitration.

Within 14 days of receiving the independent arbiter's determination, the proponent **must** make a binding written offer to the landowner to purchase the land at a price not less than the independent arbiter's determination..

If the landowner refuses to accept the Proponent's binding written offer under this condition within 6 months of the offer being made, then the Proponent's obligations to acquire the land shall cease, unless the Secretary determines otherwise.

9. The Proponent **must** pay all reasonable costs associated with the land acquisition process described in condition 8 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.
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SCHEDULE 5
ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

1. The Proponent **must** prepare and implement an Environmental Management Strategy for the Ashton mine complex to the satisfaction of the Secretary. The strategy must:
 - (a) be prepared in consultation with Community Consultative Committee (CCC);
 - (b) be submitted to the Secretary for approval prior to carrying out any development on site;
 - (c) provide the strategic framework for environmental management of the project;
 - (d) identify the statutory approvals that apply to the project;
 - (e) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;
 - (f) describe the procedures that would be implemented to:
 - keep the local community and relevant agencies informed about the operation and environmental performance of the project;
 - receive, handle, respond to, and record complaints;
 - resolve any disputes that may arise during the course of the project;
 - respond to any non-compliance;
 - respond to emergencies; and
 - (g) include:
 - copies of any strategies, plans and programs approved under the conditions of this consent; and
 - a clear plan depicting all the monitoring to be carried out in relation to the project.

Management Plan Requirements

2. The Proponent **must** ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:
 - (a) detailed baseline data;
 - (b) a description of:
 - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
 - any relevant limits or performance measures/criteria;
 - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;
 - (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria
 - (d) a program to monitor and report on the:
 - impacts and environmental performance of the project;
 - effectiveness of any management measures (see c above);
 - (e) a contingency plan to manage any unpredicted impacts and their consequences;
 - (f) a program to investigate and implement ways to improve the environmental performance of the project over time;
 - (g) a protocol for managing and reporting any:
 - incidents;
 - complaints;
 - non-compliances with the conditions of this approval and statutory requirements; and
 - exceedances of the impact assessment criteria and/or performance criteria; and
 - (h) a protocol for periodic review of the plan (which **must** occur at least every two years) and clear requirements for changes to management plans and project operations where environmental and social impacts predicted by the EA have been exceeded. Periodic reviews must be published on the proponent's website within 30 days of completion.

Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.

Annual Review

3. By the end of July each year (or other such timing as agreed by the Secretary), the Proponent **must** review the environmental performance of the project to the satisfaction of the Secretary. This review must:
 - (a) describe the works (including any rehabilitation) that were carried out during the previous calendar year, and the works that are proposed to be carried out over the current calendar year;

- (b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against the:
 - relevant statutory requirements, limits or performance measures/criteria;
 - monitoring results of previous years; and
 - relevant predictions in the EA;
- (c) identify any non-compliance over the previous calendar year, and describe what actions were (or are being) taken to ensure compliance;
- (d) identify any trends in the monitoring data over the life of the project;
- (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and
- (f) describe what measures will be implemented over the current calendar year to improve the environmental performance of the project.

Revision of Strategies, Plans and Programs

4. Within 3 months of:
- (a) the submission of an annual review under condition 3 above;
 - (b) the submission of an incident report under condition 6 below;
 - (c) the submission of an audit under condition 8 below; or
 - (d) any modification to the conditions of this approval,

the Proponent **must** review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary.

The Proponent **must** publish on its website any review listed within Condition 4, any modification arising as a result of these reviews and the Secretary's report on these reviews, within 30 days of completion of the relevant documents.

Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of/the project.

Community Consultative Committee

5. The Proponent **must** establish a new CCC for the Ashton mine complex to the satisfaction of the Secretary. This CCC must:
- (a) be established and operating prior to carrying out any development on site, and
 - (b) must be operated in general accordance with the Guidelines for Establishing and operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version), and
 - (c) include the following provisions in its terms of reference:
 - (i) the CCC must be provided with all strategies, plans, reviews and incident reports generated during the life of the project.
 - (ii) the CCC may not be bound by confidentiality provisions in relation to these documents.
 - (iii) the CCC can, from time to time, make recommendations to the relevant Secretary, Minister and all relative agencies.
 - (iv) the CCC can, from time to time, request representatives from government agencies to attend meetings as required.

The members of the CCC must be paid if they so request by the proponent at the rate for sitting fees set out in the NSW Premier and Cabinet document, *Guidelines for NSW Board and Committee Members: Appointments and Remuneration*.

Notes:

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.*
- *In accordance with the guideline, the Committee should comprise an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community.*
- *In establishing the CCC, the Department will accept the continued representation from existing CCC members. The CCC is to be integrated with the CCC for the Ashton Coal Project.*

REPORTING

Incident Reporting

6. The Proponent **must** notify, at the earliest opportunity, the Secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the Ashton mine complex, the Proponent **must** notify the Secretary and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the

date of the incident, the Proponent **must** provide the Secretary and any relevant agencies with a detailed report on the incident, and any such further reports as may be requested.

Regular Reporting

7. The Proponent **must** provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any approved plans of the conditions of this approval.

INDEPENDENT ENVIRONMENTAL AUDIT

8. Within 12 months of the carrying out of development on site and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent **must** commission and pay the full cost of an Independent Environmental Audit of the project. This audit must
 - (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
 - (b) include consultation with the relevant agencies;
 - (c) assess the environmental performance of the project and whether it is complying with the requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);
 - (d) review the adequacy of any approved strategies, plans or programs required under these approvals; and, if appropriate
 - (e) recommend measures or actions to improve the environmental performance of the project, and/or any strategy, plan or program required under these approvals.

Notes:

- *This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Secretary.*
- *The audits should be coordinated with similar auditing requirements for the Ashton Coal Project,*

9. Within 6 weeks of completion of this audit, or as otherwise agreed by the Secretary, the Proponent **must** submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.

ACCESS TO INFORMATION

10. From the commencement of construction of the project, for the life of the Project and its impacts, the Proponent **must**:
 - (a) Make copies of the following publicly available on its website (or the website of a related entity):
 - the EA;
 - all current statutory approvals for the project;
 - approved strategies, plans and programs required under the conditions of this approval;
 - a comprehensive summary of the monitoring results of the project, including model performance results which have been reported in accordance with the various plans and programs approved under the conditions of this approval;
 - a complaints register, which is to be updated on a monthly basis;
 - minutes of CCC meetings;
 - the annual reviews over the life of the Project;
 - any independent environmental audit, and the Proponent's response to the recommendations in any audit;
 - blasting schedule, 24 hours before blasting is scheduled to take place;
 - any other matter required by the Secretary; and

keep this information up to date by ensuring that all management plans, monitoring results and reports are available on the Proponent's website within 30 days of their completion.

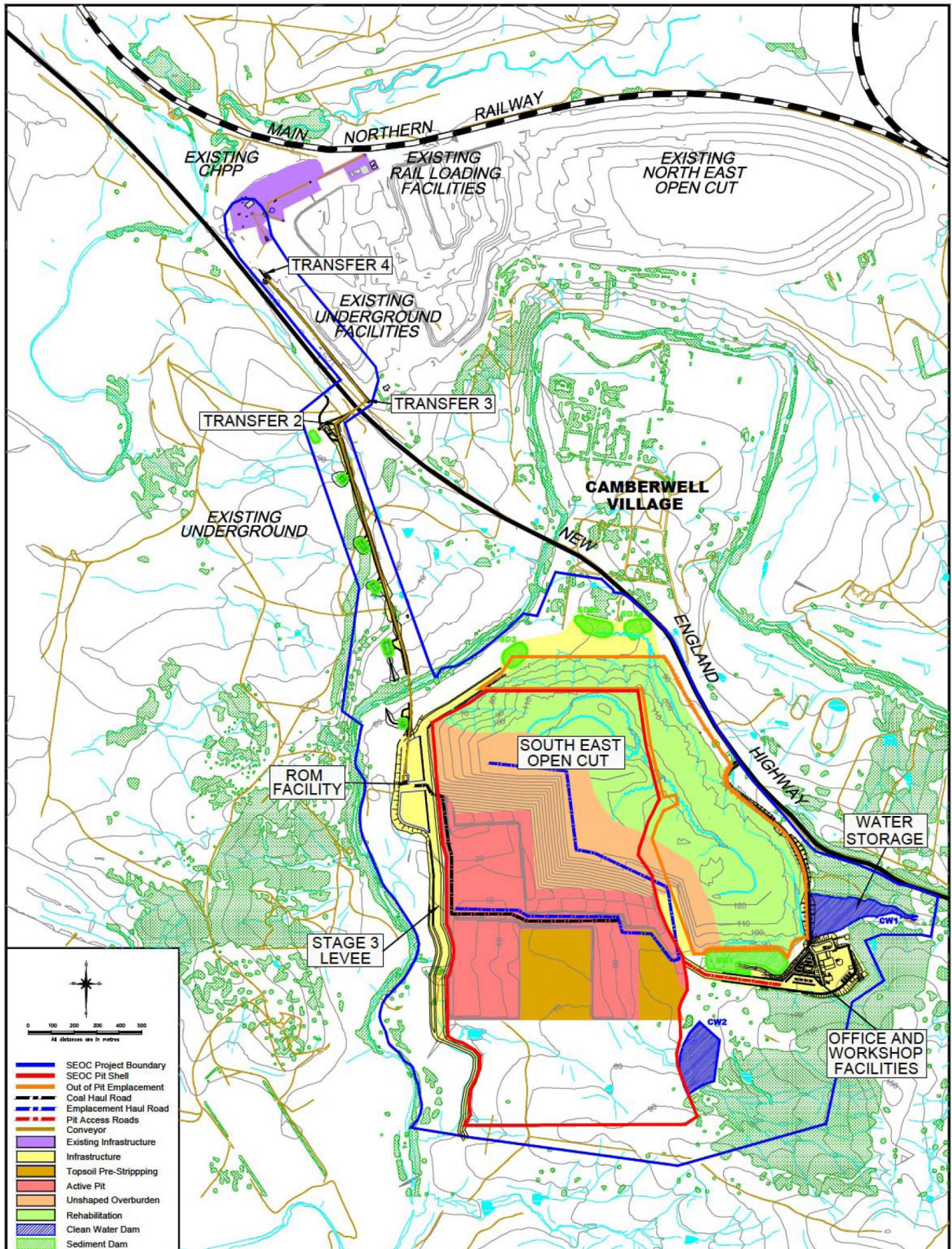
**APPENDIX 1
SCHEDULE OF LAND**

Lot	Section	DP	Parish	County
5		217095	Auckland	Durham
1	13	758214	Auckland	Durham
2	13	758214	Auckland	Durham
96		752442	Auckland	Durham
1		120193	Auckland	Durham
2		120193	Auckland	Durham
3		120193	Auckland	Durham
4		120193	Auckland	Durham
1		244624	Auckland	Durham
1		797883	Auckland	Durham
31		1018512	Auckland	Durham
4		264089	Auckland	Durham
11		877004	Auckland	Durham
3		1111313	Auckland	Durham
2		1111313	Auckland	Durham
1		841225	Auckland	Durham
1		121623	Auckland	Durham
86		752442	Auckland	Durham
2		71823	Auckland	Durham
1		162412	Auckland	Durham
70		1107703	Auckland	Durham
1		745486	Vane	Durham
2		1114623	Vane	Durham
7004		93630	Auckland	Durham
176		1002770	Auckland	Durham
6		217095	Auckland	Durham
4		217095	Auckland	Durham
175		1002770	Auckland	Durham
3		1114623	Vane	Durham
101		635131	Vane	Durham
2		747327	Auckland	Durham
8	13	758214	Auckland	Durham
9	13	758214	Auckland	Durham
10	13	758214	Auckland	Durham
11	13	758214	Auckland	Durham
3		747327	Auckland	Durham
1		264089	Auckland	Durham
2		264089	Auckland	Durham
3		264089	Auckland	Durham
12		877004	Auckland	Durham
10		877004	Auckland	Durham

APPENDIX 2 PROJECT LAYOUT PLANS



Figure 1: SEOC project general layout



AshtonCoal

South East Open Cut Project
Proposed mining progression plan for Year 3

Figure 6
Revised EA Plan 10

Note: this figure predates the proponent's most recent commitments and is also subject to amendments including the Low Permeability Barrier, flood levee and 200 m setback to Glennies Creek

Figure 2: SEOC project Year 3 general layout

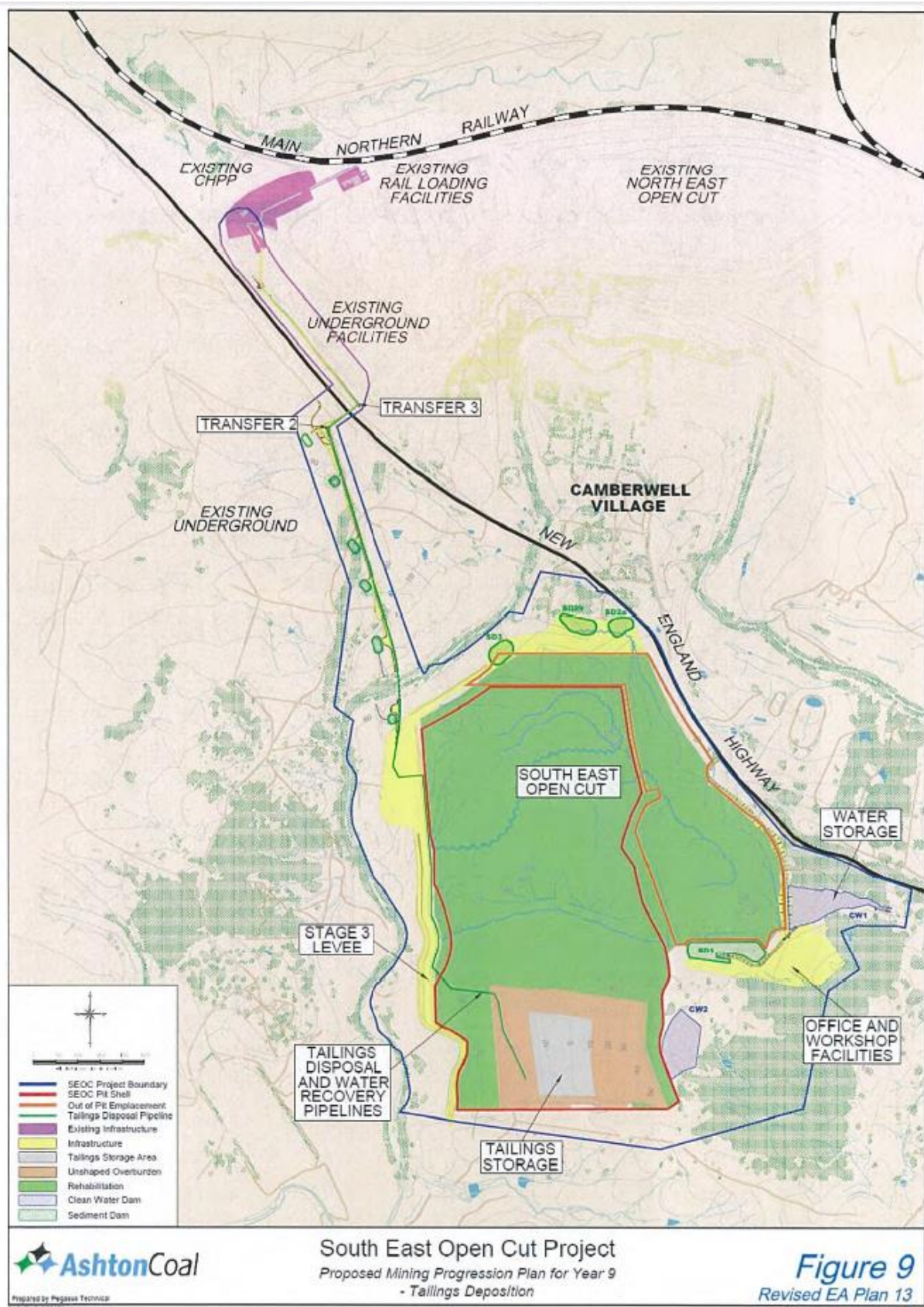


Figure 3: SEOC project Year 9 general layout

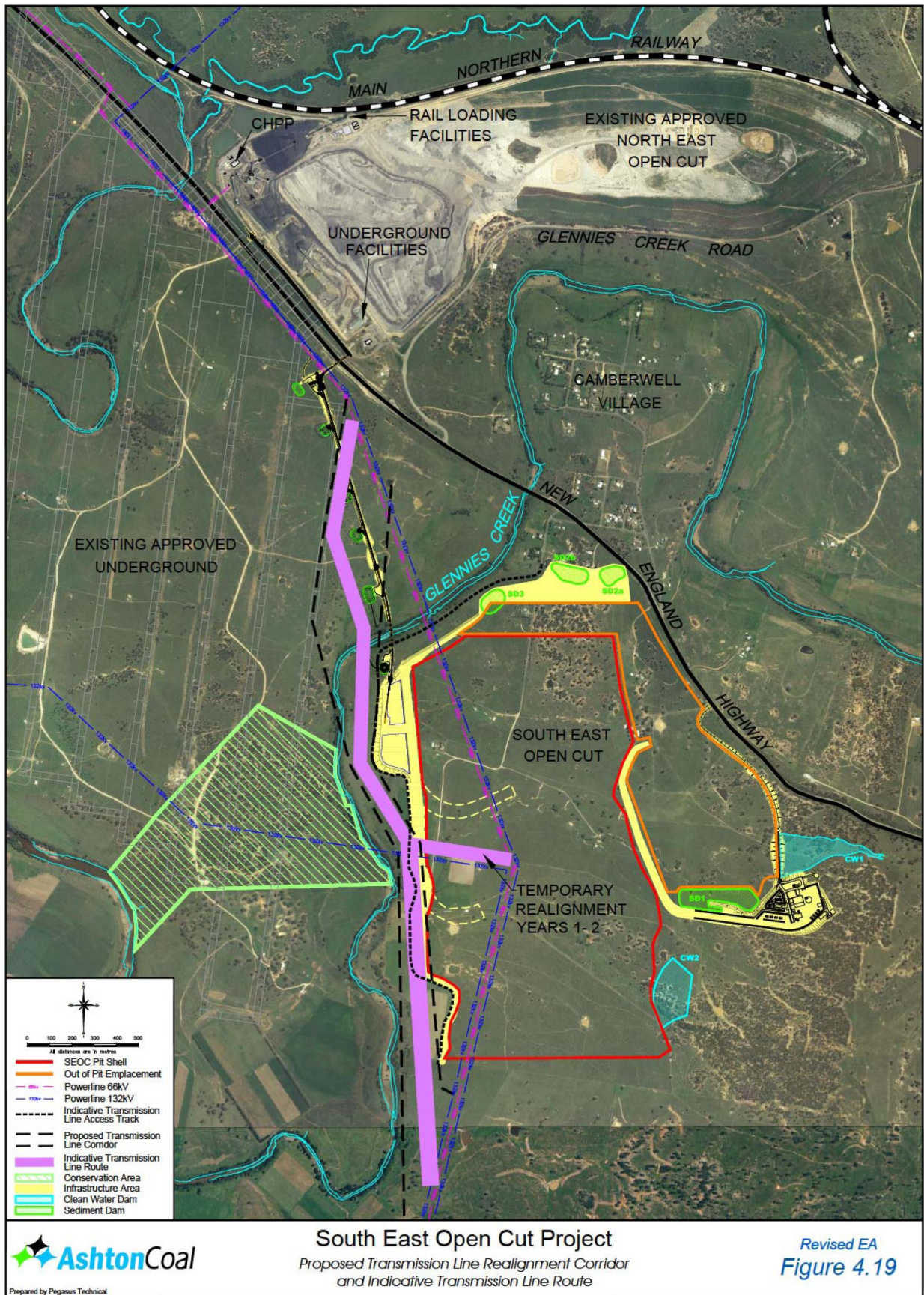


Figure 4: SEOC project transmission line realignment corridor and transmission line route

APPENDIX 3 STATEMENT OF COMMITMENTS

[Note: References to tables, sections, figures and appendices are references to the EA]

Item	Aspect of project	Description	Timing
General Commitments			
A1	Implementation of best practice environmental management procedures	Ashton will construct and operate the SEOC Project in an environmentally responsible manner and use its best endeavours to implement best practice environmental management procedures, wherever reasonable and feasible.	For the life of the project.
A2	Comprehensive Environmental Management Strategy	Ashton will prepare and implement a comprehensive Environmental Management Strategy for the SEOC, including environmental management and monitoring plans.	For the life of the project.
A3	Integration of SEOC as part of the Ashton Coal Project	Ashton commits to construct, operate and manage the ACP and SEOC as one coal mine complex generally in accordance with the Environmental Assessment and in accordance with the ACP Development Consent (as amended), the SEOC Project Approval and all other applicable approvals.	For the life of the project.
A4	Further approval will be obtained as required	Ashton commits, to the extent practicable and as may be required by the Secretary , to apply for and obtain further approvals (single or integrated), licences and/or authorities as are required for the operation of the ACP and SEOC.	For the life of the project.
Operating Hours			
B1	Hours of operation for construction, mining, coal handling and maintenance	<p>Construction and mining operations (Yr1&2):</p> <ul style="list-style-type: none"> 7:00am to 10:00pm Monday to Saturday. 8:00am to 10:00pm Sunday and Public Holidays. <p>Mining operations (Yr3 to end of project):</p> <ul style="list-style-type: none"> 24-hours a day, 7 days a week (see commitment G4). <p>ROM coal handling and conveyor transfer to the ACP CHPP (life of project):</p> <ul style="list-style-type: none"> 24-hours a day, 7 days a week. <p>Maintenance (life of project):</p> <ul style="list-style-type: none"> 24-hours a day, 7 days a week. 	<p>1. Years 1 and 2.</p> <p>2. Years 3 to end of mine life.</p> <p>3. For the life of the project.</p> <p>4. For the life of the project.</p>
Land Acquisition			
C1	Additional property acquisition of affected Camberwell village residents	In addition to property acquisition requirements within the Project Approval where requested by any affected property owner within Camberwell village, Ashton will enter into purchase negotiations in accordance with the property acquisition conditions of the Project Approval.	Upon commencement of development of the Project where requested by the landowner.
Management of Ashton owned properties within Camberwell village			
D1	Tenancy of Ashton owned properties	As a priority, properties owned by Ashton will be tenanted under residential tenancy agreements. Where properties are unable to be tenanted they will be maintained in a neat and tidy condition or if considered appropriate properties may be relocated or demolished.	For the life of the project.
D2	Measures to minimise dust impacts on residents of Ashton owned properties	Ashton will implement measures to minimise exposure of Ashton tenanted residences to adverse short-term dust impacts from the project and will ensure tenants are made aware of the potential dust impacts of the project. Consequently, Ashton will:	For the life of the project.

Item	Aspect of project	Description	Timing
		<ul style="list-style-type: none">Provide its tenants with information relating to the potential impacts of mine dust, such as the recently updated “Mine dust and you” fact sheet – NSW Health, 2010: www.health.nsw.gov.au/factsheets/environmental/mine_dust.html	Within 12 months of mining, or at time of entering into tenancy agreement.
		<ul style="list-style-type: none">Make air quality monitoring data available to tenants.	Upon commencement of development of the Project where requested by the tenant.
		<ul style="list-style-type: none">Temporarily vacate tenanted residences, where monitoring trends indicate short-term dust levels may exceed project approval acquisition criterion for 24-hour PM₁₀ levels.Assist with relocation costs within the Singleton LGA where tenants vacate the Ashton property due to project impacts, where such impacts are above project approval short-term dust and/or cumulative noise acquisition criteria.Enable tenants to break their lease agreement without penalty, at their request, based on the dust and noise impacts of the project.	As required.
Air Quality			
E1	Implementation of air quality monitoring network	<p>Implement an air quality monitoring network to ensure compliance with Project Approval.</p> <p>The network configuration will:</p> <ul style="list-style-type: none">Where possible utilise Ashton's existing integrated real-time network of tapered element oscillating microbalances (TEOM's) and Metrological Stations. Where an existing monitor is not positioned in a suitable location for the SEOC it may be relocated to a more strategic position.Be developed to ensure Ashton's ability to reactively manage dust emissions by implementing operational controls.Have the ability to demonstrate compliance with Approval Conditions.	In accordance with management plan.
E2	Controls to reduce dust generating activities	Implement operational controls to reduce dust generating activities when the wind direction is within the 150° to 235° arc and conditions (e.g., no precipitation within the last 24 hours) and real-time monitoring show increased potential for short-term dust level exceedances in Camberwell village.	For the life of the project.
E3	Conveyor enclosed to reduce dust	Enclose conveyors on at least one side in profiled coloured steel cladding.	During construction.
E4	Minimise mine disturbance area	Disturb only the minimum area necessary for mining.	At all times.
E5	Procedures to minimise dust generation from overburden and stockpile	<p>Implement overburden and stockpile management to minimise dust generation:</p> <ul style="list-style-type: none">Construct the environmental bund (and out of pit emplacement) with undulating ridges, faces, gullies and spurs to minimise wind entrained dust.Reshape, topsoil and rehabilitate completed overburden emplacement areas as soon as practicable.Utilise temporary rehabilitation or crusting agents on exposed areas within 3 months of them not being actively used and if they are not scheduled for final rehabilitation in the following rehabilitation season.Maintain coal handling areas / stockpiles in a moist condition using water carts.Long term topsoil stockpiles will be re-vegetated.	At all times.
E6	Minimise dust generation from roads	<p>Implement road management measures to minimise dust generation:</p> <ul style="list-style-type: none">All roads and trafficked areas will be watered as required using water trucks to minimise the generation of dust.	At all times.

Item	Aspect of project	Description	Timing
		<ul style="list-style-type: none"> All haul roads will have edges clearly defined with marker posts or equivalent to control their locations, especially when crossing large overburden emplacement areas. Obsolete roads will be ripped and re-vegetated. 	
E7	Procedures to minimise dust generation when drilling	<p>When drilling:</p> <ul style="list-style-type: none"> Dust aprons will be lowered. Drills will be equipped with dust extraction cyclones, or water injection systems. Water injection or dust suppression sprays will be used when high levels of dust are being generated. 	At all times.
E8	Procedures to minimise dust generation when blasting	<p>When blasting:</p> <ul style="list-style-type: none"> Meteorological conditions will be assessed prior to blasting. Blasting will not be undertaken when the wind direction is consistently within the 150° to 235° arc and is within 800 m of the closest Camberwell village residence (see commitment H2). Adequate stemming will be used at all times. 	At all times.
E9	Implementation of other air quality technologies & initiatives	Ashton will investigate and where appropriate utilise other such technologies and initiatives as required to ensure that the air quality outcomes described in the EA are achieved.	As required/ where emissions are problematic.
Greenhouse Gas Emissions			
F1	Regular reviews of greenhouse gas emissions and energy efficiency initiatives	Ashton will undertake regular reviews and monitoring of greenhouse gas emissions and energy efficiency initiatives to ensure that greenhouse gas emissions per tonne of product coal are kept to the minimum practicable level.	During operations.
F2	Use of energy efficient equipment	Specifying the use of energy efficient equipment for all new and upgraded mobile and fixed plant.	When purchasing new equipment or upgrading existing equipment.
Noise			
G1	Monitoring noise at privately-owned dwellings	Undertake quarterly attended monitoring at the nearest privately-owned dwellings to determine compliance with project noise impact criteria.	In accordance with NMP.
G2	Review of location of noise logger	Review the location of Ashton's existing real-time operational noise logger, to ensure its ability to be effectively used for the SEOC.	Prior to mining.
G3	Annual review of SEOC noise logger	Annually review the SEOC noise model taking into consideration the monitoring results of the previous 12 months.	Annually.
G4	Demonstrate ability to comply with night noise criteria	Prior to commencing 24 x 7 mining operations in Year 3, undertake noise monitoring and modelling to demonstrate an ability to comply with night time project impact noise criteria.	Prior to commencing night time mining operations.
G5	Maintenance of equipment	Maintain equipment and machinery in good working order.	As required / specified by manufacturer.
G6	Maintenance of haulage roads	Maintain haulage roads in good condition free of pot-holes or unnecessarily rough areas to reduce haulage related noise.	At all times.
G7	Inductions on noise issues for staff and contractors	Provide awareness and understanding of noise issues through site inductions for all staff and contractors to the SEOC.	When people are entering site for first time.
G8	Procedures to minimise noise impacts	<p>Use and operation of equipment to:</p> <ul style="list-style-type: none"> Implement mine planning procedures that will minimise the potential for adverse noise impacts. Where possible equipment will be located at lower elevations in the pit during times when noise 	As required.

Item	Aspect of project	Description	Timing
		<p>levels at receivers are likely to be exacerbated by weather conditions.</p> <ul style="list-style-type: none"> • Dozers in exposed locations will be limited to first gear in reverse. • Reduce throttle settings and turn off equipment when not being used. • Use of broadband reverse alarms on all machinery that regularly reverses (e.g. bull dozers and front-end loaders). • Avoid metal to metal contact on equipment. • Where possible use quieter equipment (e.g. rubber wheeled tractors instead of steel tracked tractors), in situations where either piece of equipment will suit the purpose. 	
G9	Purchase of new equipment	<p>During purchase of new equipment:</p> <ul style="list-style-type: none"> • Specify noise attenuation in mobile plant supply contracts (e.g., grid box silencers and modified mufflers to dump trucks and modified mufflers to excavators). • Install broadband reverse alarms to machinery that regularly reverses (e.g. bull dozers and front-end loaders). 	During purchase.
G10	Measure sound levels of plant & equipment	Measurement of sound-power levels of major mobile plant and equipment.	Within 1 week of machinery being used on site.
G11	Implementation of noise suppression methods	<p>Ensure design and construction of infrastructure employs appropriate noise suppression methods.</p> <p>As a minimum all conveyors and transfer stations will be enclosed on sides exposed to Camberwell village.</p>	During design and construction.
Blasting			
H1	Hours of blasting	Blasting to be undertaken between the hours of 9am – 5pm Monday to Saturday. There will be no blasting on Sundays or public holidays.	For the life of the project.
H2	Assessment of meteorological conditions before blasting	<p>Meteorological conditions will be assessed prior to blasting.</p> <p>Blasting will not be undertaken when the wind direction is consistently within the 150° to 235° arc and is within 800 m of the closest occupied Camberwell village residence. To satisfy this commitment, a series of 10 minute averaged wind direction readings will be made at least 30 minutes prior to blasting.</p> <p>Adequate stemming will be used at all times.</p>	For the life of the project.
H3	Blast exclusion zone	Implement a 500 m or risk based blast exclusion zone.	Prior to blasting.
H4	Notification of residents on blast notification list	Provide notifications to private residences who requested to be on the blast notification list.	Prior to blasting.
Groundwater			
I1	Groundwater Management Plan	Prepare and implement a Groundwater Management Plan (GWMP) for the SEOC.	Within 12 months of commencement.
I2	Monitoring of groundwater	<p>The GWMP will incorporate:</p> <ul style="list-style-type: none"> • A Groundwater Response Plan comprising “trigger levels” for selected sites to assess monitoring results based on groundwater levels, inflows and water quality. • Monthly monitoring of groundwater mine inflows from all open cut sumps. • Monthly monitoring of extracted groundwater quality including EC and pH of water pumped from the mine and/or from dewatering, or open-cut sumps. • Quarterly sampling of water transferred from the mine, or open-cut sumps for hydrochemical analysis. • Monthly monitoring of water levels in the network of monitoring bores. • An alluvial groundwater monitoring program that provides sufficient east-west monitoring sections across the Glennies 	As specified.

Item	Aspect of project	Description	Timing
		<p>Creek flood plain with an appropriate number of piezometers per section in consultation with Dol Water (an indicative monitoring network is shown in Figure 1b in Attachment 3 in the submission to the Commission dated 31 July).</p> <ul style="list-style-type: none"> An enhanced gauging station network with environment tracers and appropriate groundwater sampling to ensure actual groundwater flows from affected water sources and the associated salt fluxes are fully identified and quantified. ACOL will use the monitoring results to validate the groundwater model and associated salt fluxes. 	
I3	Audits and data review	<p>Implement audits and data reviews:</p> <ul style="list-style-type: none"> Annual review of monitoring data by an approved experienced hydrogeologist to assess the impacts of the project on the groundwater resources, and compare impacts with the groundwater model predictions. Two years after the commencement of coal production undertake a modelling post-audit, in accordance with industry best-practice (MDBC, 2001), and if necessary the model be recalibrated and confirmatory forward predictions made at that time. Undertake further post-audits during the fourth or fifth year of mining, as this represents the most vulnerable time in relation to potential inflows from Glennies Creek. 	<ol style="list-style-type: none"> 1. Annual review 2. 2 years after coal production 3. 4 or 5 year audit.
I5	Hold appropriate water entitlements	<p>Hold adequate and appropriate water entitlements to account for the annual predicted inflow of groundwater into the mine and Glennies Creek baseflow reduction.</p> <p>Review these water entitlements annually and make adjustments through trading on the water market where required.</p>	Prior to the baseflow loss being realised.
I6	Implement Groundwater Response Plan if required	Implement measures of the Groundwater Response Plan in the event of unforeseen adverse impacts to groundwater levels, inflows or quality.	As required.
I7	Minimum set back of 200m from the top of the Glennies Creek high bank	The SEOC pit will be located to maintain a setback of at least 200m from the top of the Glennies Creek high bank (see Figures 1 and 2 in the submission to the Commission dated 31 July 2012) in accordance with the requirements of s41(3)(iv) of the <i>Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources 2009</i> .	For the life of the project.
Low Permeability Barrier			
J1	Construction of low permeability barrier	<p>A low permeability barrier will be constructed along the western boundary of the SEOC pit (and extending east along the northern pit boundary) to minimise potential:</p> <ul style="list-style-type: none"> Inflow of alluvial groundwater to the pit during operations. Outflow of groundwater within the backfilled spoil to the Glennies Creek alluvial aquifer post mine closure. <p>ACOL will ensure that the low permeability barrier is:</p> <ul style="list-style-type: none"> Designed and constructed generally in accordance with: <ul style="list-style-type: none"> The objectives of ACOL's <i>Conceptual Alluvial Groundwater Management Strategy</i>. The preliminary construction design drawings attached to the Submission to the Planning Assessment Commission dated 31 July 2012. Relevant Australian Standards, including AS 3798-2007. Constructed prior to mining within 40m of the saturated limit of colluvial material. 	Prior to mining in unconsolidated material.

Item	Aspect of project	Description	Timing
		<ul style="list-style-type: none"> Keyed into bedrock to a minimum of 500mm. Constructed of locally available clay material. Constructed to a permeability of 10^{-8} m/s or lower. Constructed to be long-term stable. 	
J2	Location of low permeability barrier	The low permeability barrier will be located along the western boundary of the SEOC pit and will extend east of Glennies Creek along the northern SEOC pit boundary beyond the limit of alluvial/colluvial deposited material (see Figures 1 and 2 in the Submission to the Commission dated 31 July 2012). The extent of the low permeability barrier along the northern pit boundary will be finalised in consultation with Dol Water .	Prior to mining in unconsolidated material.
J3	Certification of low permeability barrier	<p>The integrity of construction of the low permeability barrier will be certified by a qualified and experienced practising geotechnical engineer.</p> <p>The certification will be submitted to the Secretary as an as-executed report.</p> <p><i>Note:</i></p> <p><i>The low permeability barrier may be constructed on a staged basis. In this case, the certified engineer reports shall be submitted for each stage.</i></p>	After completion of construction of each stage of the low permeability barrier
J4	Management of low permeability barrier during life of project	<p>A Low Permeability Barrier Management Plan (LPBMP) will be prepared in consultation with Dol Water and to the satisfaction of DP&I.</p> <p>The LPBMP will describe the:</p> <ul style="list-style-type: none"> Intent and purpose of the LPB. Construction and completion requirements for the LPB, including staging. The location and frequency of monitoring to assess the integrity and performance of the LPB, including periodic timeframes for further assessments to validate/re-model seepage predictions during and post mining. Contingency mitigation options if the LPB does not perform to specifications. 	During construction of Stage 1 of the low permeability barrier and prior to mining.
J5	Measures to minimise risk of additional bedrock cracking	<p>Best mining and blast management practices will be implemented to minimise the risk of additional bedrock cracking within the highwall beneath the low permeability barrier, including:</p> <ul style="list-style-type: none"> Use of pre-split blasting along the northern and western final highwall. Pre-splitting of the first bedrock highwall bench will be conducted prior to construction of the low permeability barrier. Designing mine blasts to minimise the potential for additional bedrock cracking and development of groundwater flow transmission pathways within the final highwall including a minimum distance of 20m between any blasting and the LPB. Mining east to west and north to south (except for the most southernmost strip) to enable monitoring and adaptive management of blast practices to ensure the risk of additional bedrock cracking in the final highwall is minimised as far as practically possible. (Note the southern strip will be mined from west to east to enable the final void to be constructed as far to the east as practicable). Survey monitoring of the final highwall. Visual monitoring of the final highwall for groundwater seepage paths. Remediating seepage cracks to minimise groundwater transmission by appropriate sealing techniques. Use of geotechnical controls (as may be deemed necessary through monitoring) to ensure the long-term stability of the final highwall. Progressively backfilling the mine void with spoil to provide final highwall buttress support. 	Prior to mining.

Item	Aspect of project	Description	Timing
J6	Monitoring and remediation measures for the low permeability barrier to identify and address evidence of additional bedrock cracking	<p>A highwall monitoring and management program will be designed and implemented to enable detection and remediation of bedrock cracking that could lead to enhanced saline water outflow from the pit beneath the low permeability barrier, post mine closure.</p> <p>This program will include:</p> <ul style="list-style-type: none"> • Mining east to west and north to south (except for the most southernmost strip) to enable monitoring and adaptive management of blast practices to ensure the risk of additional bedrock cracking in the final highwall is minimised as far as practically possible. (Note the southern strip will be mined from west to east to enable the final void to be constructed as far to the east as practicable). • Survey monitoring of the final highwall. • Visual monitoring of the final highwall for groundwater seepage paths. <p>If there is evidence of additional bedrock cracking then ACOL will:</p> <ul style="list-style-type: none"> • Increase monitoring frequency and sampling points to identify and confirm the source of any failure in the low permeability barrier or evidence of additional bedrock cracking. • Remediate seepage cracks to minimise groundwater transmission by appropriate sealing techniques. • Use of geotechnical controls (as may be deemed necessary through monitoring) to ensure the long-term stability of the final highwall. • Progressively backfilling the mine void with spoil to provide final highwall buttress support. • Arrange for the re-certification of the low permeability barrier by a qualified geotechnical engineer. <p>In the event that the LPB fails or is operating at a sub-optimal level during the life of the mine, ACOL agrees to immediately undertake remedial works in accordance with the LPBMP and to the satisfaction of the Secretary.</p>	As required.
J7	Security deposit to cover any remediation works for low permeability barrier	<p>Consult with the Department of Trade & Investment – Resources and Energy at the time of preparing the <i>rehabilitation cost estimate</i> in accordance with the <i>Mining Act 1992</i> to ensure that the <i>rehabilitation cost estimate</i> takes into account an appropriate amount for any foreseeable remediation works that may be required in respect of the low permeability barrier.</p> <p>The security deposit will be maintained until such time that ACOL has demonstrated that all relevant completion criteria have been satisfied, including the demonstration that the low permeability barrier will continue to be effective following mine closure.</p> <p>In the event that the LPB is not fully functioning and stable at the time of mine closure, ACOL is prepared to provide an additional financial assurance at this time, in the form of a bank guarantee or a bond, which can be used to secure funding for the carrying out of any remediation works that may be required to the LPB post mine closure.</p> <p>The requirement for any additional financial assurances over and above the rehabilitation security deposit, and the appropriate statutory mechanism for providing this security, where required, will be determined at the time of mine closure in consultation with Dol Water and DP&I.</p>	At point of time of preparing rehabilitation cost estimate under Mining Act.
J8	Post mine closure management for low permeability barrier	<p>Develop a mine closure plan for the SEOC in consultation with OEH, Dol Water and DRG and to the satisfaction of DP&I which includes:</p> <ul style="list-style-type: none"> • Maintenance of the LPB post mine closure. • Monitoring of the LPB for a period of 5 years after completion of SEOC site rehabilitation. • An environmental assessment demonstrating that the performance of the LPB as designed and constructed will be effective. 	2 years prior to completion of mining.

Item	Aspect of project	Description	Timing
Surface Water			
K1	Site Water Management Plan	Prepare and implement a Site Water Management Plan (SWMP) for the SEOC.	Within 12 months of commencement.
K2	Monitoring of surface water	Implement a monitoring program comprising: <ul style="list-style-type: none"> Monthly sampling of the on-site dams (sediment dams and select clean water dams). Continued monitoring of Ashton's existing Glennies Creek monitoring sites. Add additional monitoring site on Glennies Creek immediately downstream of the SEOC Project area. Comprehensive sampling of both onsite dams and monitoring sites on a quarterly and annual basis. Upstream and downstream monitoring stations to identify any deviations between predicted and actual salinity impacts in Glennies Creek. 	For the life of the project.
K3	Monitor key water movements on site	Monitor all key water movements around the mine site. Monitoring will be recorded on a minimum monthly basis or following significant rainfall events.	Monthly and following significant rainfall.
K4	Monitor dam storage levels	Monitor dam storage levels. Dam levels will be assessed on a monthly basis and following significant rainfall events.	Monthly and following significant rainfall.
K5	Weather stations	Maintain and operate the Ashton weather stations.	At all times.
K6	Inspections of dams, drains and culverts	Inspection of all dams, drains and culverts on a monthly basis and following significant rain.	Monthly and following significant rainfall.
K7	Inspection of rehabilitation areas	Inspection of rehabilitation areas on a monthly basis and following significant rain.	Monthly and following significant rainfall.
K8	Routine maintenance procedures	Undertake routine maintenance of: <ul style="list-style-type: none"> Accumulated sediment from dams and drains as required. Underperforming rehabilitation areas as required. Erosion control measures as required. Wastewater management system. Sediment chamber and oil and grease trap treating runoff from the hardstand area. 	As required.
K9	On-site water management	Use the water balance to monitor the performance of on-site water management and to upgrade or change water storages and other water management provisions that may be required at the site.	Annually.
K10	Reconstruction of post mining landscape	Reconstruct drainages and Tributary 4 through the post mining landscape.	During construction of Tributary 4.
K11	Procedure during operational water shortages	In the event of operational water shortages, Ashton will implement the following measures: <ul style="list-style-type: none"> Obtain additional water extraction licenses. Reduce the throughput through the CPP, which accounts for approximately 70% of the water usage. Or reduce production levels, as a last resort. 	As required.

Item	Aspect of project	Description	Timing
K12	Procedure in the event of unforeseen adverse impacts	<p>In the event of unforeseen adverse impacts Ashton will:</p> <ul style="list-style-type: none"> • Increase monitoring frequency and sampling points to identify and confirm the source of any suspected degradation to water quality. • Review the SWMP in order to identify opportunities to improve or rectify any identified problem. The data collected as part of the monitoring programme will enable fully informed decisions to be made. • Provision of flocculation equipment on sedimentation ponds to improve the rate of sedimentation. • Augment the sediment dams to create greater retention volume and residence time to increase the capacity for suspended sediment to settle out. • Increase pumping capacity at each of the sedimentation ponds to minimise the potential for sediment laden discharges from the ponds. • If any component of the surface water management framework is identified as creating an unacceptable environmental impact, remedial actions will be established in close liaison with the relevant authority. 	As required.
Flooding			
L1	Develop Flood Evacuation Plan	Develop a Flood Evacuation Plan (FEP) for the SEOC.	Prior to mining in an area below the 1 in 100 ARI.
L2	Procedure when rivers exceed safe water level due to flooding	Temporarily cease mining operations if flood levels in either the Hunter River or Glennies Creek are expected to meet or exceed a safe water level. The safe water level will be determined as part of the detailed design of the levee system and specified in the Flood Evacuation Plan.	As required.
L3	Procedure in an extreme flood	In the event of an extreme flood, all personnel will evacuate to the office and workshop facilities area, located above the estimated Glennies Creek Dam break flood extent.	As required.
L4	Inspection of levee system after 1 in 20 flood	The levee system is to be inspected and certified as adequate by a qualified engineer after a 1 in 20 ARI flood event.	As required following flood.
L5	Design of flood protection levee	The flood protection levee will be designed to resist scour due to flood flows based on the peak overbank flow velocities for the 500 year recurrence flood. The levee should consist of at least a grass covered embankment with localised rock armour sections where required.	During construction.
Soils			
M1	Topsoil management practices	<p>General topsoil management practices will include:</p> <ul style="list-style-type: none"> • Where possible do not strip topsoil in overly wet or dry conditions. • Strip topsoils to depths generally specified within EA Table 5.37. • Limit rehandling of topsoil resources by using recovered topsoil immediately, where practicable. • Limit rehandling of topsoil resources by using recovered topsoil immediately, where practicable. • If the soil is to be stockpiled for an extended period of time, the stockpile height will generally not exceed 3 m and the stockpile will be revegetated. 	During construction and operations.
M2	Topsoil inventory	Maintain a topsoil inventory.	During construction and operations.
M3	Application of soil ameliorants	Apply appropriate soil ameliorants such as superfine lime, gypsum fertiliser and/ or use of imported organic materials such as recycled wastes or biosolids.	As required.

Item	Aspect of project	Description	Timing
Acid Rock Drainage			
N1	Monitoring for ARD and salinity	Monitor key seepage, pit water and drainage from overburden materials and washery waste materials for indicators of ARD and salinity. Monitoring to include analysis of pH, EC, Sulphate (SO ₄) and acidity/alkalinity, with follow up multi element testing if any low pH conditions (<5.0) are detected.	As required.
Flora and Fauna			
O1	Fencing of riparian corridor	Fence the riparian corridor to exclude cattle and define the extent of clearance.	Before commencement.
O2	Fencing of River Red Gum	Locate and fence the River Red Gum to the drip line to ensure no direct or indirect impacts during construction and ongoing maintenance.	Before commencement.
O3	Rehabilitation of disturbed areas	Rehabilitate disturbed areas to minimise erosion and weed invasion.	As required.
O4	Revegetation of disturbed areas	Revegetate disturbed areas using species from an acceptable level of local provenance except where this is not practicable.	As required.
O5	Weed and pest management	Undertake weed and pest management over those lands controlled by Ashton.	As required.
O6	Surveying rehabilitated and revegetated areas	Conduct annual surveys within rehabilitated and revegetated areas.	As required.
O7	Procedure before clearing vegetation	Vegetation Clearance: <ul style="list-style-type: none"> Undertake targeted surveys for nest sites within the woodland prior to vegetation clearance, with any nests belonging to threatened species identified to be protected or relocated if possible. Undertake pre-clearance inspections to locate and mark potential habitat trees and verify number and type of hollows to be removed. Avoid vegetation clearing where possible in spring when the threatened birds and arboreal mammals assessed are likely to have young in the nests. To allow for or encourage dispersal of fauna, vegetation should be selectively cleared around habitat trees or nest trees. Habitat trees should be felled a minimum of 24-hours later. Employ a suitably qualified animal handler or ecologist when clearing identified habitat trees, in order to safely capture and relocate disturbed resident fauna. Where possible relocate any fallen timber and dead wood to the riparian corridor, rehabilitation area or offset area. 	Before clearing.
O8	Vegetation corridor	Enhance and manage a corridor of vegetation approximately 100 metres wide (i.e. ~20m both sides of creek) along the length of Glennies Creek adjacent to the SEOC Project area, equating to an area of approximately 35 ha.	Within 12 months of commencing mining operations, subject to land ownership authority.
Aquatic Ecology			
P1	Integration of tributary and riparian rehabilitation	Integrate tributary rehabilitation with Glennies Creek riparian corridor.	During tributary rehabilitation.
P2	Bank erosion stabilisation	Undertake bank erosion stabilisation (where caused by land use, predominantly in the tributaries).	During operations.

Item	Aspect of project	Description	Timing
Flora and Fauna Offsets			
Q1	Offset strategy for SEOC	<p>Prepare and implement an offset strategy for the SEOC, including:</p> <ul style="list-style-type: none"> Offsetting the clearing of EEC with like vegetation at a ratio of 2.5:1. Securing the offset areas in perpetuity. Offsetting the loss of hollows with the replacement of 3 nest boxes/hollows for each hollow removed. Enhancing and managing approximately 35ha of the Glennies Creek riparian corridor. Revegetating the open cut operations with suitable species to comprise a mix of grasslands and woodlands. 	To be prepared prior to commencing mining operations. To be implemented within 12 months of commencing mining operations, subject to land ownership authority.
Q2	Management of offset areas	<p>The management of offset areas will include:</p> <ul style="list-style-type: none"> Fencing to exclude cattle as required to remove grazing pressure. Control of feral animals where practical. Weed management program to reduce competition and encourage growth of native species in the understorey. Fallen timber and branches within the disturbance area will be relocated to the offset areas to provide additional nesting and foraging habitat, or beneficially used within the Ashton Project area. As a priority species to be used in any revegetation will include locally occurring species such as Narrow-leaved Ironbark (<i>Eucalyptus crebra</i>), Grey Box (<i>E. moluccana</i>), Forest Red Gum (<i>E. tereticornis</i>), Grey Gum (<i>E. punctata</i>), Gorse Bitter Pea (<i>Daviesia ulicifolia</i>), Western Golden Wattle (<i>Acacia decora</i>), Fan Wattle (<i>A. amblygona</i>) and Silver-stemmed Wattle (<i>Acacia parvipinnula</i>). Fallen hollow logs and branches will be retained and relocated for habitat. Searches for Speckled Warbler nests to determine habitat range of this population and to establish an appropriate monitoring strategy to ensure its long term viability in the area. Baseline assessment of the community and habitat values of the offset area. Identification of environmental weeds to be targeted in the weed management plan. An ongoing monitoring program. 	Within 12 months of commencing mining operations, subject to land ownership authority.
Visual Impacts			
R1	Soften visual impact of the out of pit	Soften the engineered faces of the out of pit emplacement with undulating ridges, faces, gullies and saddles.	During construction.
R2	Removal of redundant infrastructure	Remove redundant infrastructure elements and conveyors on completion.	On completion.
R3	Retaining existing vegetation where possible	Retain existing vegetation around the new infrastructure areas and on the road fringes to the highway wherever possible.	During construction.
R4	Colour of conveyor and transfer station	Select colours for the conveyor and transfer station to reduce bulk and scale.	During construction.
R5	Installation of lights and shielding of lights	<p>Lighting:</p> <ul style="list-style-type: none"> Minimise stray light from infrastructure areas. Provide shields on all floodlights in the open cut area, and where practicable direct the light away from public areas or privately owned residences. Install shielded lights on the conveyor system and reduce brightness. 	During construction and at all times.

Item	Aspect of project	Description	Timing
		<ul style="list-style-type: none"> Task and general lighting should be screened from viewers were possible but lighting levels must always be selected to meet safe working practices. 	
R6	Operational controls during construction and initial operation	<p>Operational Control:</p> <ul style="list-style-type: none"> Where possible, after initial stripping and bund formation, program works on the north faces of the out of pit emplacement during daylight hours and work behind the emplacement during the evenings and night. Where safe to do so, trucks on access roads should make use of portable visual edge markers to increase drivers' visibility of road edges when driving with dipped headlamps. 	During bund construction and initial operations.
Aboriginal Heritage			
S1	Implement an Aboriginal Cultural Heritage Management Plan (ACHMP) for SEOC	Prepare and implement an Aboriginal Cultural Heritage Management Plan (ACHMP) for the SEOC in consultation with a qualified archaeologist and the local Aboriginal community.	Prior to disturbance of sites.
S2	Salvage of artefacts	Salvage all artefacts from impacted areas in collaboration with a qualified archaeologist and the local Aboriginal community.	Prior to disturbance of sites.
S3	Management of Aboriginal sites	Undertake site specific recommendations as per EA Table 5.49.	Prior to disturbance of sites.
S4	Avoid impacts to Aboriginal sites	Avoid impacts to Aboriginal sites outside mine disturbance areas.	At all times.
S5	Procedure if Aboriginal objects are uncovered during project	If Aboriginal objects are uncovered during the project the site is to be managed in accordance with the ACHMP and the site registered in the Aboriginal Heritage Information Management System (AHIMS).	At all times.
S6	Inclusion of a cultural awareness document in ACHMP	The ACHMP will include a cultural awareness document clearly highlighting and explaining the materials likely to be exposed by earth moving activities and will be supplied to workers and kept on site at all times.	At all times.
S7	Procedure if human remains are located during project	If human remains are located during project activity all works must cease in the immediate area to prevent any further impacts to the find(s). The local police, are to be called, if the police consider the site not an investigation site for criminal activities, the Aboriginal community and the Department of Environment and Climate Change (DECCW) are to be notified. Works shall not resume in the designated area until approval from the police and DECCW is obtained.	At all times.
S8	ACHMP to include management measures for the scar tree	<p>The ACHMP is to include management measures for the scar tree SA5/9 that include:</p> <ul style="list-style-type: none"> The accurate recording of the tree's drip line and elevation. The tree will be fenced within a 10m radial exclusion zone. Six monthly photographic and notated recording of tree health (i.e. new leaves or buds, leaf size, twig growth, crown dieback and bark abnormalities against dam water levels. Where monitoring shows adverse tree stress, dam water levels will be reviewed and lowered where feasible. In the event that the tree has an adverse reaction, the registered Aboriginal Stakeholders will be consulted regarding the preferred mitigation strategy for the tree (e.g. insitu conservation of stag or lopping for removal to keeping place). 	Prior to and during use of clean water dam CW1.
European Heritage			
T1	Management measures	Undertake management measures as specified in Table 5.50.	Prior to site disturbance.

Item	Aspect of project	Description	Timing
Traffic and Transport			
U1	Road Closure Plan (RCP)	Prepare and implement a Road Closure Plan (RCP) to manage the temporary closure of the New England Highway and other public roads that may be required during construction, delivery of large loads and for blasting.	Prior to commencement.
U2	Warning signs on New England Highway	Warning signage will be placed on the New England Highway for the duration of the construction works at each construction intersection.	During construction.
Bushfire			
V1	Maintenance of roads	Maintain perimeter roads, management tracks and management zones.	At all times.
V2	Fire suppression assets	Incorporate fire suppression assets such as water carts, dozers and static water storages into the mine and facility design.	During construction.
V3	Access for emergency vehicles	Design and maintain appropriate access for emergency vehicles.	At all times.
Waste			
W1	Effluent disposal areas	Maintain effluent disposal areas in accordance with DECCW guidelines.	At all times.
W2	Waste management measures	Undertake waste management measures as specified in EA Table 5.58.	At all times.
Rehabilitation and Connectivity			
X1	Stabilising vegetation	Establish stabilising vegetation on the northern face of the environmental bund and out of pit emplacement within twelve months of emplacement.	Within 12 months of emplacement.
X2	Rehabilitation of mine site	Undertake progressive rehabilitation of the mine site.	At all times.
X3	Enhancement of vegetation connectivity	Enhance vegetation connectivity in an east to west direction and north to south along Glennies Creek.	Within 12 months of commencing mining operations, subject to land ownership authority.
X4	Rehabilitation of SEOC	Rehabilitation of the SEOC to consist of a mixture of open woodland and pastures.	Progressively.
X5	Design of the final void/evaporative sink Final void to be effective for a range of climatic conditions	<p>The final void in the rehabilitated landscape will be designed to be effective for a range of climatic conditions.</p> <p>This design will include:</p> <ul style="list-style-type: none"> Preparing and implementing a final void management plan. Shaping, rehabilitating and revegetating backfilled pit areas to: <ul style="list-style-type: none"> Minimise rainfall infiltration into backfilled pit areas. Minimise the amount of surface drainage reporting to the rehabilitated final void. Shaping and landscaping the final void depression to a RL of approximately 33 m (AHD) to ensure the void continues to perform as a groundwater sink for rainfall conditions expected under a climate change scenario. Planting a variety of deep rooted salt tolerant tree and plant species to augment the function of the final void in suppressing groundwater levels in the rehabilitated post-mine landscape in the 	Progressively.

Item	Aspect of project	Description	Timing
		<p>long-term (see Figure 11 in the submission to the Commission dated 31 July 2012).</p> <p>Shaping the final landform west of the final void to a final RL of 80 m (AHD) to ensure the rehabilitated final void will not be inundated by Hunter River or Glennies Creek flood waters under all flood recurrence events up to and including the modelled PMF (see Figures 8 and 9 in the submission to the Commission dated 31 July 2012).</p>	
X6	Tree-planting to minimise groundwater levels within the rehabilitated site	<p>A tree planting and revegetation program will be designed and implemented for the site to ensure groundwater levels within the rehabilitated final landform are maintained as low as possible. This will include:</p> <ul style="list-style-type: none"> • Use of deep rooted salt tolerant native tree and plant species. • Monitoring and replanting schedules. <p>Appropriate completion criteria and security measures to ensure long-term viability of the tree plantings.</p>	Progressively.
Mine Closure			
Y1	Mine closure plan	Develop a mine closure plan for the SEOC, taking into consideration the principles and objectives for mine closure specified within the ANZEC MCA document Strategic Framework for Mine Closure, 2000 (or prevailing document).	At least 2 years prior to completion of mining in SEOC (e.g. before 2015 at scheduled rates).
Y2	SEOC site to be left in a safe condition upon closure	Relinquish the SEOC site in a condition that does not endanger public health and safety and allows the use of land for low intensity grazing and enhancement of local biodiversity.	At closure.
Y3	SEOC site to be closed in a manner that does not require ongoing maintenance	Aim for the closure of the SEOC site in a condition that does not require ongoing maintenance above that would be otherwise expected as part of responsible land management.	At closure.
Sustaining Camberwell village			
Z1	Prepare a Camberwell village Enhancement Plan	Prepare a Camberwell village Enhancement Plan in consultation with the residents of the village, Singleton Council and the DP&I, including a description of how the plan will be implemented and funded.	Within 12 months of commencing mining operations.

APPENDIX 4 RECEIVER LOCATION PLANS

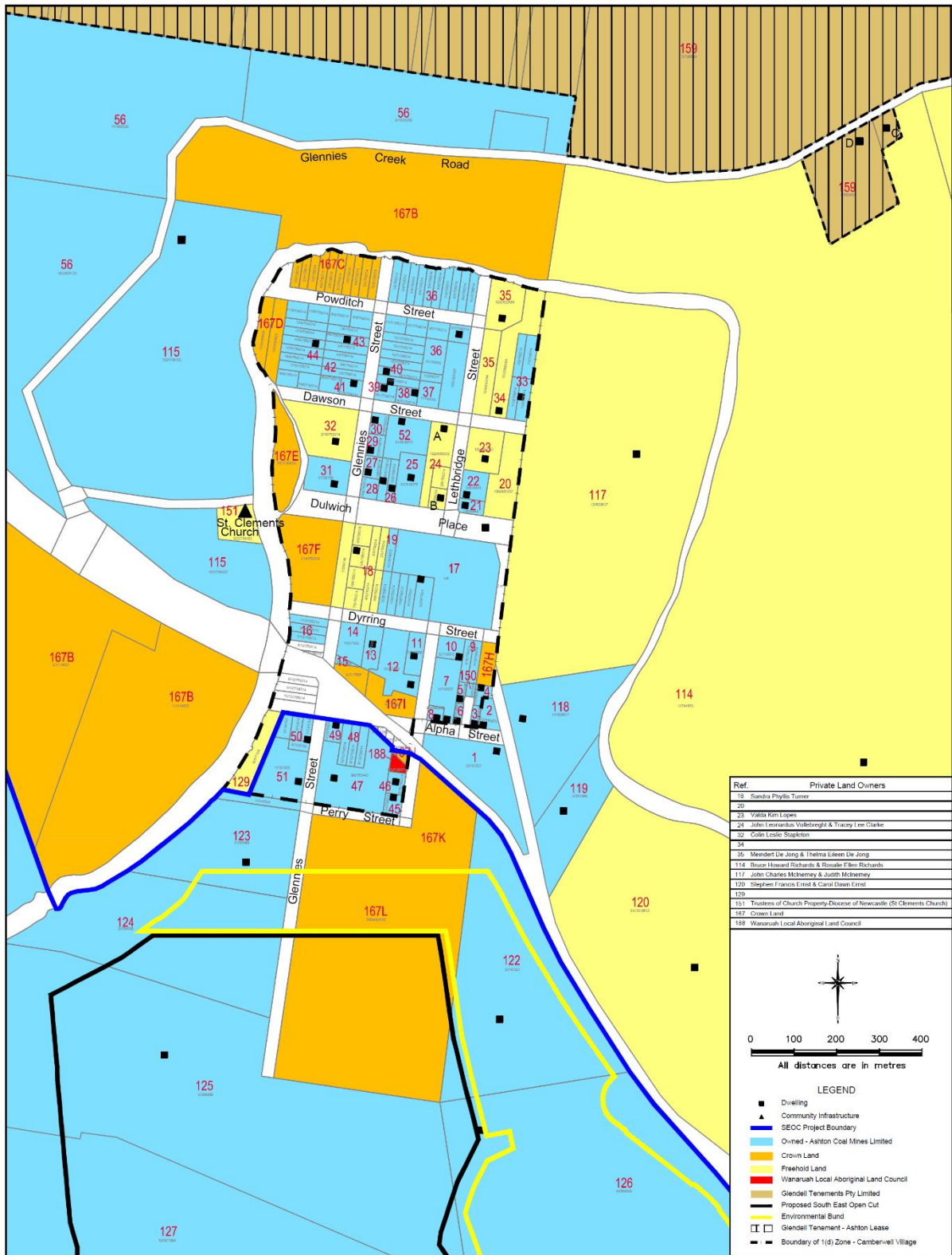


Figure 5: Land ownership Camberwell, 31 July 2012

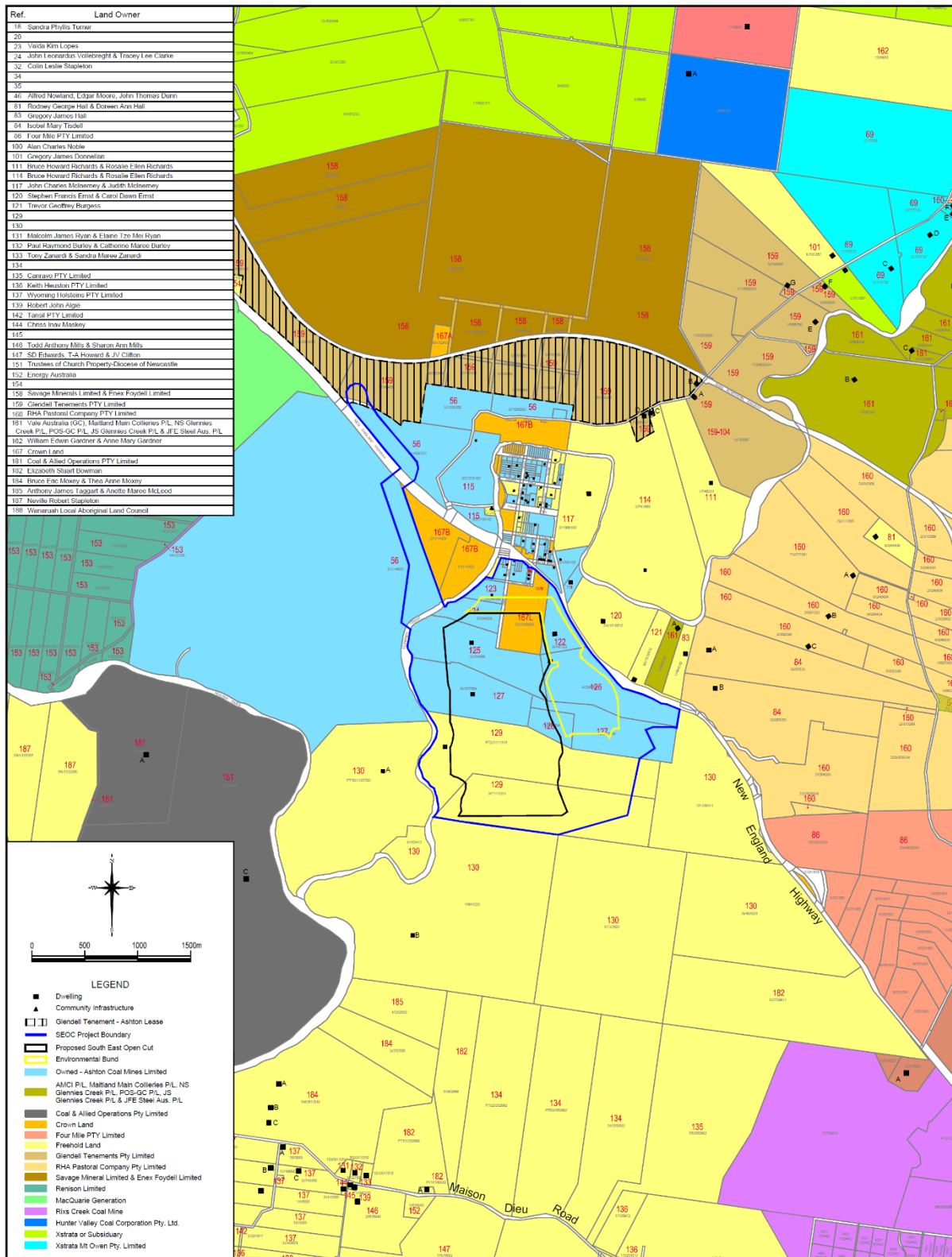


Figure 6: Land ownership of Camberwell and surrounding area, 31 July 2012

APPENDIX 5 REHABILITATION PLAN AND OFFSET STRATEGY

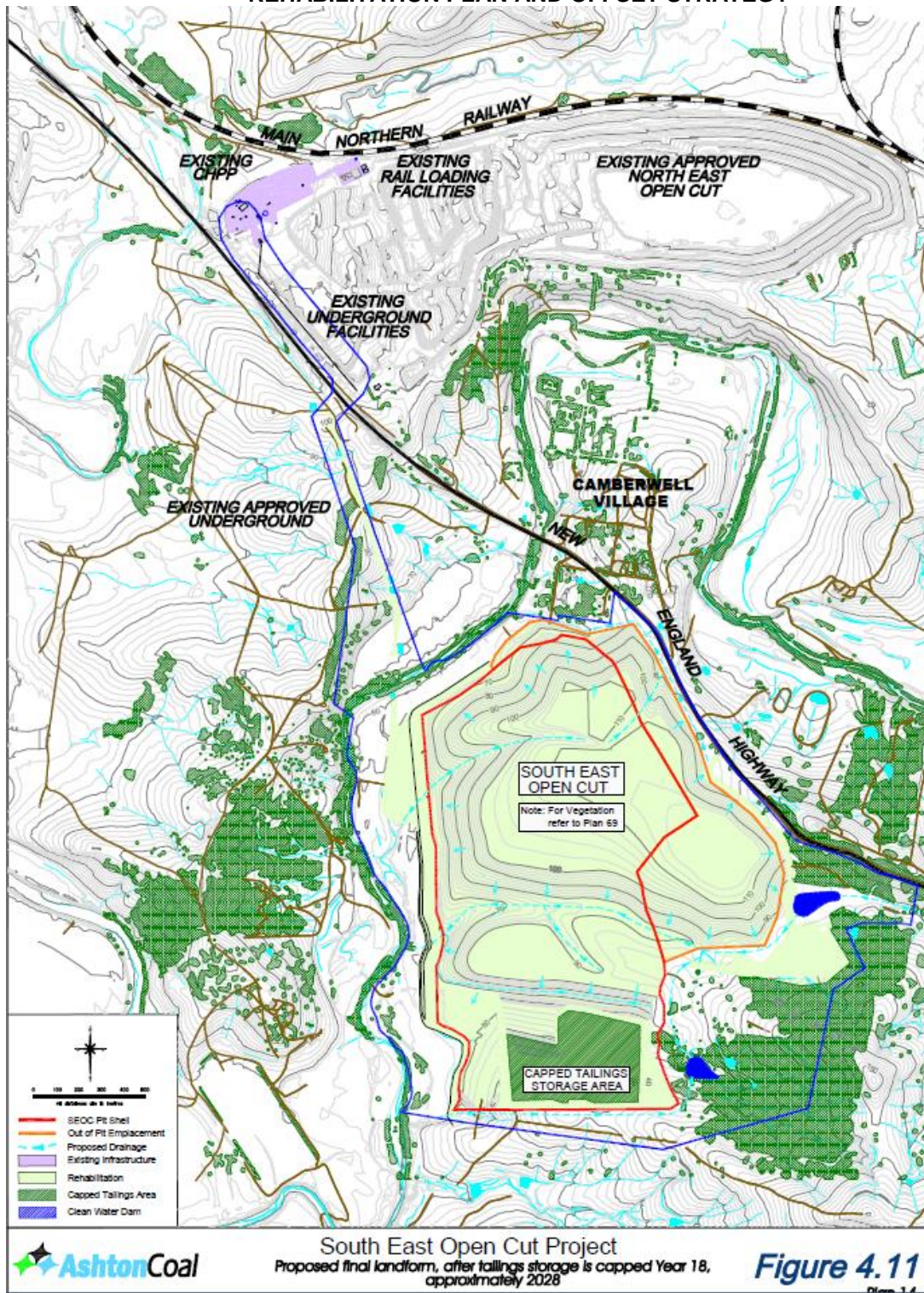


Figure 7: SEOC rehabilitation plan Year 18

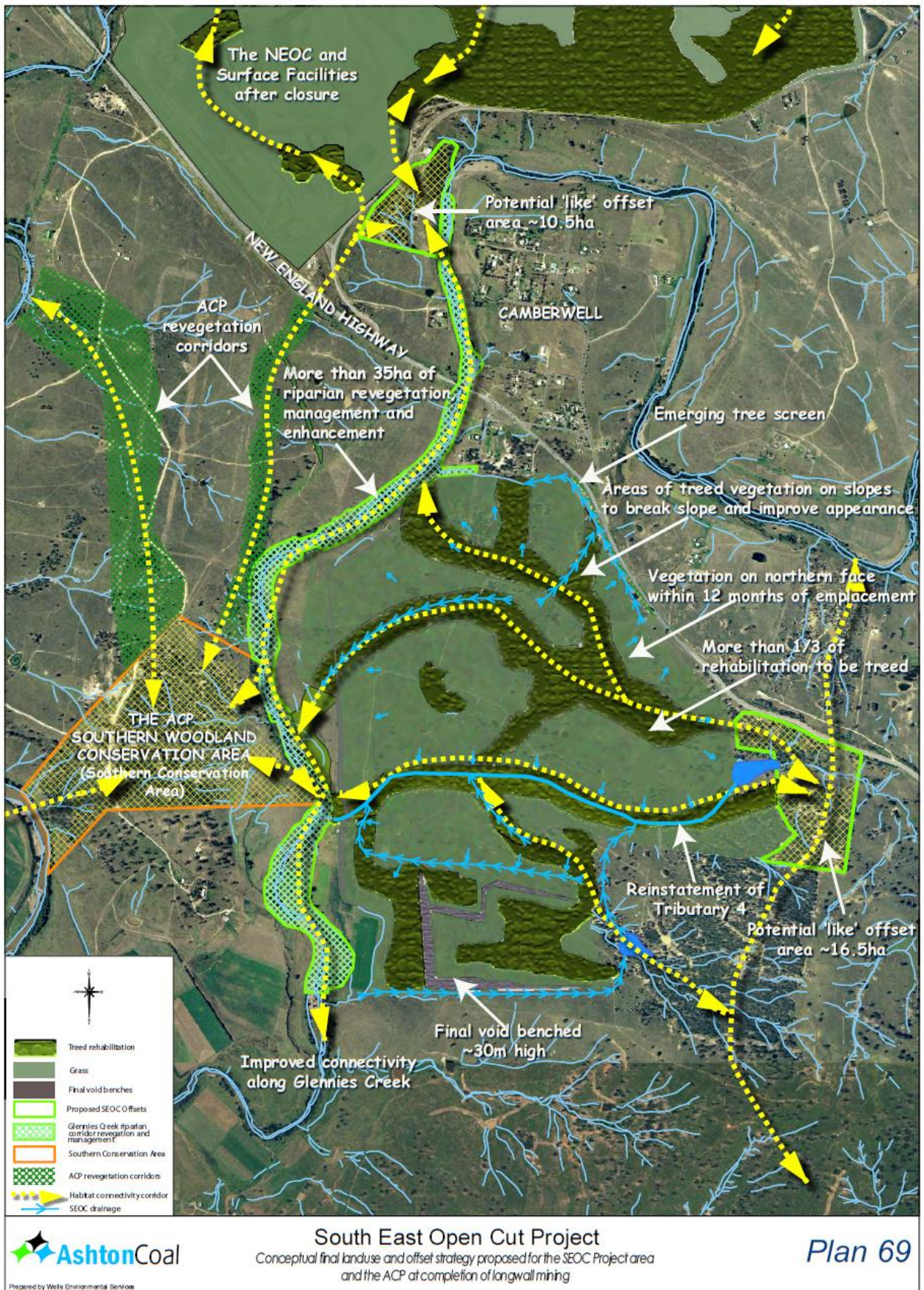


Figure 8: SEOC project Biodiversity Offset Strategy

APPENDIX 6
ABORIGINAL SITES
 (and offset and rehabilitation strategy for the Ashton Coal Project)

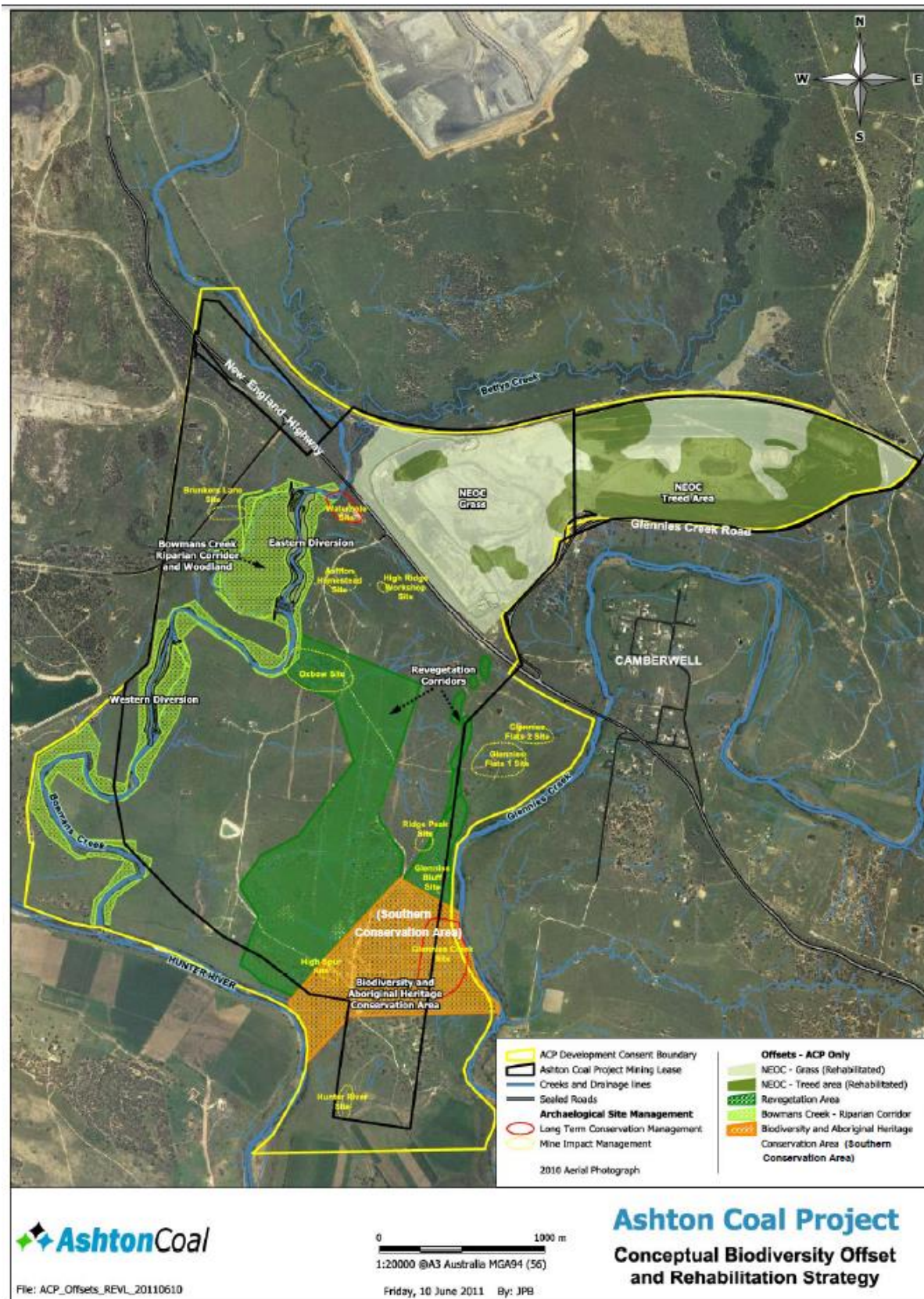


Figure 9: Ashton Coal Project's Biodiversity Offset and Rehabilitation Strategies (including the Southern Conservation Area) showing Aboriginal sites

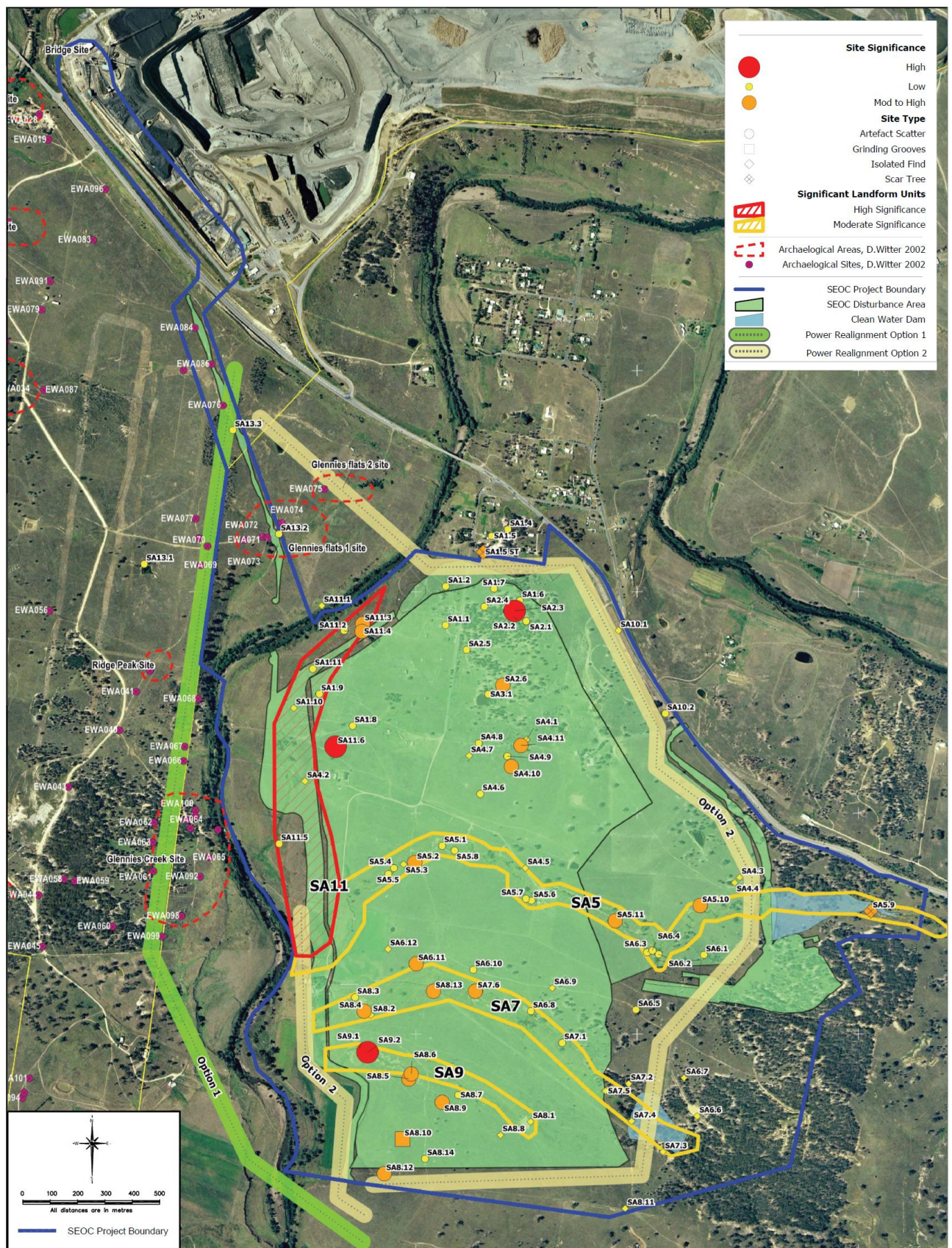


Figure 10: SEOC Aboriginal sites

APPENDIX 7

LOW PERMEABILITY BARRIER DESIGN

Note: The following measures are intended to address key threats associated with the Low Permeability Barrier (LPB). The measures reflect the recommendations of the geotechnical experts to LEG No. 11154 of 2012.

Issue 1- Internal Erosion and Piping

- Internal erosion and piping must be addressed in the design and construction of the LPB.
- The LPB designer must consider one of two approaches:
 - *Approach 1* - Lime or gypsum stabilise the material; or
 - *Approach 2* - Demonstrate that when compacted to 98% Dry or Hilf Density Ratio (Standard Compaction) and wet of standard optimum that the soil will not pipe. This can be achieved by a program of pinhole dispersion tests.
- Notwithstanding the approach, the permeability of the final material (ie. with lime or gypsum if appropriate) should be demonstrated by laboratory testing to be less than 1×10^{-8} m/s.

Issue 2 -Cation Exchange and Chemically Induced Cracking

- The designer must consider the potential for cation exchange to induce cracking.
- If required, the LPB designer must consider one of two approaches:
 - *Approach 1* - Lime or gypsum stabilise the material. The permeability of the final material (ie. with lime or gypsum if appropriate) should be demonstrated by laboratory testing to be less than 1×10^{-8} m/s and the material should be demonstrated to be sufficiently ductile for use in the LPB; or
 - *Approach 2* - Demonstrate that the material is chemically compatible with the permeants. This can be achieved by flushing compacted samples with Glennies Creek equivalent pore water and then reverse flushing with mine waste equivalent pore water in each case until several pore volumes have permeated the sample. The permeability should be determined before and after the flushing, Chemical compatibility will be demonstrated if the test is completed with the sample in an essentially unconfined state and the final permeability is satisfactory.

Issue 3- Poor Construction

- The LPB should be embedded into highly weathered or better rock.
- Sharp changes in the sub-grade to the LPB should be avoided. Detailed design should specify sub-grade gradient of no steeper than 2H:1V.
- Demonstrate by laboratory testing that the permeability of the material to be used in the LPB and as placed in accordance with the minimum requirements of the specification has a permeability of less than 1×10^{-8} m/s.
- Material used in the LPB should classify as Clay or Silt using the uses as per AS 1726.
- Material used in the LPB should have less than 40% of particles retained on the 37.5 mm sieve.
- A maximum loose layer thickness of 200 mm be specified.
- Adopt a placement specification of a minimum of 98% Dry or Hilf Density Ratio (Standard Compaction) and wet of optimum or wet of the line of optimums (taken as parallel to the zero air voids line).
- Material should be able to be tested in accordance with the Standard Compaction method (AS1289.5.4.1) or Hilf test method (AS 1289.5.7.1). These methods require less than 20% retained on the 37.5 mm sieve. Where between 20% and 40% of particles are retained on the 37.5 mm sieve, the above test methods should still be adopted and test reports annotated appropriately.

Issue 4- Faulting

- The west wall of the SEOC void and the foundation for the LPB to be mapped for permeable east west trending faults.
- Any permeable faults encountered to be grouted.

Issue 5-Monitoring

- The LPB monitoring regime should include:

- Installation prior to the completion of mining of 10 standpipe piezometers, 5 on either side of the LPB and relatively uniformly spaced along the length of the LPB. The piezometers should continue to rock but be screened in the alluvium.
 - The water level in the piezometers should be read annually for 10 years post completion of final landform and dewatering of the project.
- A program of insitu permeability measurements of the LPB should be undertaken during construction. The program should include approximately 50 tests relatively randomly distributed through the LPB. The acceptance criterion for the testing is a geometric mean of less than 1×10^{-8} m/s. If this is not achieved then the LPB will require remediation to achieve this requirement.

APPENDIX 8

NOISE COMPLIANCE ASSESSMENT

Compliance Monitoring

1. Attended monitoring is to be used to evaluate compliance with the relevant conditions of this approval.
2. Data collected for the purposes of determining compliance with the relevant conditions of this approval is to be excluded under the following meteorological conditions:
 - a) during periods of rain or hail;
 - b) average wind speed at microphone height exceeds 5 m/s;
 - c) wind speeds greater than 3 m/s measures at 10 m above ground level; and
 - d) temperature inversion conditions greater than 3°C/100m.
3. Unless otherwise agreed with the Secretary, this monitoring is to be carried out in accordance with the relevant requirements relating for reviewing performance set out in the NSW Industrial Noise Policy (as amended from time to time), in particular the requirements relating to:
 - a) monitoring locations for the collection of representative noise data;
 - b) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and
 - c) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.
4. To the extent that there is any inconsistency between the Industrial Noise Policy and the requirements set out in this Appendix, the Appendix prevails to the extent of the inconsistency.

Determination of Meteorological Conditions

5. Except for wind speed at microphone height, the data to be used for determining meteorological conditions shall be that recorded by the meteorological station located on the site (as required by condition 28 of schedule 3).