ASHTON COAL OPERATIONS PTY LIMITED

ABN 22 078 556 500

GLENNIES CREEK ROAD
CAMBERWELL NSW 2330
PO BOX 699
SINGLETON NSW 2330

TEL: 02 6576 1111
FAX: 02 6576 1122

ENVIRONMENTAL CONTACT LINE: TEL: 02 6576 1830
TOLL FREE NUMBER: 1800 657 639
WEB ADDRESS: WWW.ASHTONCOAL.COM.AU

Our Ref: J 162U
Your Ref: DA 309-11-2001 MOD 4

24 December 2009

The Executive Director
Major Project Assessment
Department of Planning
G.P.O BOX 39
SYDNEY NSW 2001

Attention: Ms D Burns

Dear Ms Burns

Re: Second Response to Submissions – Ashton Coal Operations Ltd.(ACOL) – Longwall/Miniwall Panel No.9 DA - No. 309 11-2001 MOD 4 Section 75W of the Environmental Planning and Assessment Act, 1979.

Thank you for providing copies of submissions in relation to the application by Ashton Coal Operations Limited (ACOL) to modify Development Application No. 309–11–2001 (MOD 4) in regard to Longwall/Miniwall 9 (LW/MW9), pursuant to Section 75W of the Environmental Planning and Assessment Act, 1979.

As you would be aware submissions were initially received via Department of Planning (DoP) from;

- Department of Industry and Investment, DII (15/8/2009)
- Macquarie Generation, (3/9/2009)
- Department Environment Climate Change and Water, DECCW (4/9/2009)
- Yarrawalk, (7/9/2009)
- NSW Office of Water, NOW (8/9/2009)
- Roads and Traffic Authority, RTA (14/9/2009)
- Ravensworth Operations, (16/9/2009), and
- Dam Safety Committee, DSC (2/9/2009).

Copies of these are included as attachment 3.

A response to these submissions was submitted to the DoP on the 2 November 2009. Subsequent to this response ACOL received additional submissions back from NOW and DoP relating to the original response. These are included at attachment 4.

Our responses to all submissions are included as attachment 1. For clarity in this second response Columns 1 and 2 address the original submission received and ACOL's responses from the 2 November, while Columns 3 and 4 address the submissions received in relation to the 2 November response.

Should the need arise I would be please to discuss any of the matters associated with the project with you at a mutually convenient time.

Yours faithfully

Peter Barton
General Manager
Ashton Coal Operations Limited

Attach:

- Attachment 1 – Response Table from ACOL for DoP
- Attachment 2 – ACOL Groundwater Monitoring
- Attachment 2 – Initial responses received from agencies and stakeholders
- Attachment 3 – Additional responses received from agencies and stakeholders

ATTACHMENT 1:

ACOL RESPONSE TABLE

TABLE OF RESPONSES BY ACOL TO SUBMISSIONS TO LW/MW 9 APPLICATION

Agency/Stakeholder Submissions and Issues	ACOL Initial Response	Agency/DoP Feedback and Issues	ACOL 2nd Response
1. Department of Environment, Climate Change and Water (DECCW) submission dated 4 September, 2009 The DECCW does not object to the project proceeding subject to the imposition of conditions relating to Aboriginal heritage and protection of the endangered population of River Red Gum (eucalyptus camaldulensis).	• The Aboriginal archaeological assessment report prepared by Insite Heritage was revised (see attached) having regard to community responses submitted by Wanaruah LALC, Gidawaa Walang, Wonn 1 Consulting, Mrs B Foot and Yarrawalk. The project archaeologists revised management recommendations are consistent with those contained in Appendix A of the DECCW correspondence dated 4 September, 2009. • The comments and submission by the DECCW are noted. ACOL does not object to the imposition of the recommended conditions contained in the DECCW correspondence of 4 September, 2009 regarding Aboriginal Heritage and the River Red Gums. •	**DoP Request for Clarification 5/11/09** Provide specific reference to section of Arch report that has been updated in response to DECCW submission Has PAD been recorded with DECCW?	Sections which have been updated within Appendix 6 Aboriginal and Archaeology are: • Exec summary • Section 1.4 Community Consultation • Section 5.2 Significance Assessment • Section 6.0 Legislation • Section 7.0 Management Recommendations • Appendix B Community Consultation Log • Appendix D Community Reports. Yes, PAD has been recorded. This area has been recorded by Dan Witter in 2002 as the Brunkers Lane Site, Site No.37-3-0496. Amended site card submitted to DECCW December 2009 by Insite Heitage.
Intentionally left blank	Intentionally left blank	ACOL has added the following information	An inconsistency has been identified within the EA in relation to management of archaeological sites. The commitment within Table 7.1 ACOL Statement of Commitments should be amended to read; "Where identified Aboriginal archaeological sites LWA2/1, LWA4/1, LWA4/2, LWA4/3, LWA4/4, LWA5/1 and LWA5/2 are at risk of being impacted by the operations they will be subject to surface collection and keeping in consultation with stakeholder groups and requirements of the National Parks and Wildlife act 1974. Where sites are not at risk they will be monitored and left instu."

Agency/Stakeholder Submissions and Issues	ACOL Initial Response	Agency/DoP Feedback and Issues	ACOL 2nd Response
2. NSW Office of Water (NOW) submission dated 8 September, 2009.			
• NOW in its submission correctly states that "Longwall/Miniwall panel proposed for the Ashton Coal mine is designed to avoid creating a connective pathway by means of upward propagating features from the longwall goaf to the alluvial basal lens".	• Comments noted and concurred with.	Further responses to NOW in section under title "Letter from NOW to DoP Dated 9th November"	Further responses to NOW in section under title "Letter from NOW to DoP Dated 9th November"
• NOW seeks retention of Condition No 3.9 of the development consent issued by the Minister for Planning on 11 October, 2002.	• This modification application does not seek to delete Condition No. 3.9 of the development consent.	No further response required	No further response required
• The change from MW9 to LW9 is situated 55 metres from Bowmans Creek and 0 metres from the (presumed) edge of connected alluvium. Unless no further longwall extraction occurs to lower seams than the Pikes Gully seam, NOW recommends that the change out point be relocated 100m north, to reduce the risk of strain-induced fracture of the basal layers of the alluvium.	• ACOL is applying for the Pikes Gully seam only in this application. If ACOL applies for the lower seams of this western most longwall block, then the start lines of the corresponding lower seam panels would be evaluated at that time. • LW9 is not a full width panel, and has a planned width of just 141m, while the cover depth at the southern end is 170 metres (SCT, 2009, per DC Modification Appendix 2A - Subsidence Assessment). Thus the W/D ratio at the southern end will be 0.82. Accordingly, the maximum predicted subsidence at the southern end of LW9 will be small in magnitude, at less than 0.4 metres for the first 50	Further responses to NOW in section under title "Letter from NOW to DoP Dated 9th November"	Further responses to NOW in section under title "Letter from NOW to DoP Dated 9th November"

Agency/Stakeholder Submissions and Issues	ACOL Initial Response	Agency/DoP Feedback and Issues	ACOL 2nd Response
	metres from the change line (SCT, 2009, Figure 15 – Appendix 2A). The maximum subsidence is not predicted to be reached until possibly 70 metres from the goaf edge (SCT, 2009, Appendix 2A). There is thus likely to be no adverse impact on Bowmans Creek. The edge of saturated alluvium is almost coincident with the change line between MW9 and LW9. Again, because the magnitude of subsidence at this location will be small, the alluvium is not expected to be impacted.		
• NOW has then proceeded to list several new reporting requirements that were not required for the LW/MW 5-9 SMP, as follows: – NOW requires verification of subsidence and impact predictions made in the EA for each miniwall extraction that occurs. – Prior to extraction of miniwall 8, review of subsidence predictions against actual subsidence, monitored upward fracturing and tensile/compressive strains and resultant surficial fractures must be undertaken. – The review of subsidence and groundwater response to extraction from full extraction (longwalls 3-5) must be reported prior to commencement of extraction from Longwall/Miniwall 6.	• The first, second and third requirements are already satisfied by means of the 'End of Panel Reports' required to be prepared and submitted within 4 months of the completion of each panel as a condition on the SMP approval for "LW 5-6 and MW 7-8 only". • The fourth requirement could probably not be met in a timely fashion. Mining of MW9 would need to commence immediately after completion of MW8, leaving insufficient time for "... verification of predicted subsidence and groundwater response from ... subsequent miniwalls to miniwall 8" prior to commencement of miniwall 9. It should be noted that the MW7 end of panel report would be completed prior to commencement of MW9 and would provide additional confirmation/ verification of predicted subsidence and groundwater responses due to miniwall mining.	Further responses to NOW in section under title "Letter from NOW to DoP Dated 9th November"	Further responses to NOW in section under title "Letter from NOW to DoP Dated 9th November"

Agency/Stakeholder Submissions and Issues	ACOL Initial Response	Agency/DoP Feedback and Issues	ACOL 2nd Response
– Subsequently, verification of predicted subsidence and groundwater response from Longwall/Miniwall 6 and subsequent miniwalls to miniwall 8 must be reported to NOW prior to commencement of miniwall 9.			
• NOW requires verification of depressurisation of the Hunter River and Bowmans Creek alluvium, and accounting to be carried out in relation to displacement of alluvial groundwater, and demonstration that no reversal of groundwater gradient to the mining operation is occurring.	• The monitoring network in place is adequate to be able to determine the extent of dewatering/depressurisation of the alluvium, and also any impacts on direction of groundwater gradients.	**DoP Request for Clarification 5/11/09** The reference to the monitoring network being adequate to determine extent of dewatering/depressurisation of the alluvium – Should also refer to a figure showing monitoring network and include details of location, frequency of monitoring, data collected, reporting timeframe	Attachment 2 to this submission response outlines the existing ACOL groundwater monitoring network which is considered adequate to determine the extent of dewatering/depressurisation of the alluvium.
• Any reduction in flows to Bowmans Creek must be accounted for in accordance with the rules of the HURAWSP.	• ACOL will report baseflow reductions against the EIS. The modelling for impact assessment has predicted that for the LW/MW5-9 Pikes Gully mining proposal, baseflow reductions will in all cases be lower than those predicted in the Ashton project EIS and incorporated in the approved development consent.	**DoP Request for Clarification 5/11/09** NOW comment re: loss of baseflow in Bowmans to be replaced by Ashton has not been addressed.	Please see below in section titled "Second Submission from NOW to DoP Dated 9th November"

Agency/Stakeholder Submissions and Issues	ACOL Initial Response	Agency/DoP Feedback and Issues	ACOL 2nd Response
• Loss of minimum baseflow to Bowmans Creek is not an acceptable proposal, as preservation of minimum baseflows is a mandatory requirement of the HURAWSP and the water sharing framework which is enshrined in the WMA	• The modelling carried out indicates that any reduction in baseflow in Bowmans Creek will be much less than that predicted in the EIS, and hence embodied in the 2001 Consent. Minimum baseflow for this reach of Bowmans Creek is essentially zero, as was observed during the later stage of the 2002-2007 drought.	Further responses to NOW in section under title "Letter from NOW to DoP Dated 9th November"	Further responses to NOW in section under title "Letter from NOW to DoP Dated 9th November"
• Any loss of saturated thickness in Bowmans Creek connected alluvium must be measured and reported to NOW at the end of each water year. Any loss of saturated thickness must be accounted for in accordance with the operating rules of the HURAWSP, and losses greater than trigger levels remediated to NOW's satisfaction.	• The alluvium monitoring bore network should allow changes in groundwater level in the alluvium to be monitored, so that saturated thickness of the alluvium can be calculated at any time. It is expected (based on the modelling predictions, as outlined in the LW/MW5-9 Groundwater Impact Assessment Report) that some lowering of groundwater levels will occur in the Bowmans Creek alluvium, and therefore there will be some reduction in the saturated thickness. It has been predicted that the loss of groundwater storage in the connected alluvium will be less than 12% of the total pre-mining volumes. The loss of storage will be a one-off event, but will be reflected in a reduced rate of baseflow seepage to Bowmans Creek for as long as the groundwater storage is reduced. Hence, the reduction in storage would be accounted for through accounting for the reduction in baseflow.	Further responses to NOW in section under title "Letter from NOW to DoP Dated 9th November"	Further responses to NOW in section under title "Letter from NOW to DoP Dated 9th November"

Agency/Stakeholder Submissions and Issues	ACOL Initial Response	Agency/DoP Feedback and Issues	ACOL 2nd Response
• NOW is concerned that the proximity of the full width extraction in Longwall 9 may have consequent impacts upon groundwater inflow to the main headings of the Xstrata Ravensworth underground mine. ….. Therefore, a verification process for potential interaction through the coal barrier and potential reduction of vertical anisotropy (leading to vertical drainage into the Ravensworth main headings) must be adopted for the approved longwall/miniwall.	• There is a nominal 40m barrier proposed between the Ashton and Ravensworth headings. Together with the chain pillars, the minimum distance between the LW9 goaf edge and the closest Ravensworth heading will therefore be at least 70m. Further, as the Ravensworth main headings are located on the eastern side of the mine closest to Ashton, the closest distance between the LW9 goaf and the Ravensworth longwall panels will be at least 190m, which will not allow the intersection of subsidence zones between the two mines. Hence the risk of vertical interconnection is considered low. • Recent monitoring of groundwater levels in the paired piezometer bores T1-A and T1-P screened in the alluvium (T1-A) and the upper part of the underlying coal measures (T1-P) within the Bowmans Creek floodplain immediately west of LW4 showed that the Permian coal measures become depressurised by lateral connection with the subsidence zone above LW4, but there has been no depressurisation or dewatering of the alluvium. This confirms that the vertical permeability increase above LW4 has not had an effect on vertical permeability beneath the alluvium in the adjacent area outside the panel footprint. It is expected that a similar effect will occur with the mining of LW9. As the LW9 panel is extracted, the coal measures overburden above the Ravensworth mains is expected to become partly depressurised by lateral	No further response required	No further response required

Agency/Stakeholder Submissions and Issues	ACOL Initial Response	Agency/DoP Feedback and Issues	ACOL 2nd Response
	connection to the subsided zone above Ashton's LW9, but no vertical enhancement of permeability above the Ravensworth mains is expected to occur. The calculations of seepage rates through the barrier pillar were based on conservative permeability values and minimum barrier widths, and are considered to be very conservative. However, in advance of the mining of LW9, there will be an opportunity to monitor the impacts through a slightly wider barrier, during the extraction of the full width panel LW6 (viz the MW7 miniwall, which at 81m in width is slightly wider than the 40-70m proposed barrier between LW9 and Ravensworth). The MW7 maingate headings are scheduled to be completed before completion of extraction of the adjacent LW6 panel. As part of the normal operational monitoring conducted by ACOL, any effects through the unmined MW7 panel while LW6 is being mined will be able to be observed, which will provide information that will be relevant to the situation between LW9 and Ravensworth. This monitoring will include visual inspection, seepage monitoring and groundwater level/pressure monitoring in the extensive network of Bowmans Creek monitoring bores above the LW6, MW7 and MW8 area.		

Agency/Stakeholder Submissions and Issues	ACOL Initial Response	Agency/DoP Feedback and Issues	ACOL 2nd Response
		Second Submission from NOW to DoP Dated 9th November.	
This section addresses second submission only - no text required here	This section addresses second submission only - no text required here	In Paragraph 2 *"NOW notes ACOL's reply attempts to avoid consideration of future approved extraction of coal in the alignment of LW/MW 9 in the three lower seams underlying the Pikes Gully workings. NOW remains concerned the change out point nominated to the 1480m point on the LW/MW 9 may result in sterilisation of deeper coal, and recommends retraction of the LW9 to between 50 and 100 metres north of the currently nominated point."*	This application is specifically in relation to extraction of the Pikes Gully seam only and for that reason has addressed these impacts only. As presented in the EA it has been determined that for the planned mining layout of the Pikes Gully seam there is not expected to be any impact on the Bowmans Creek Alluvium. The future potential for mining the lower seams and the related impacts will be the subject of a future application. The potential mining layouts and impact will be thoroughly assessed at that time. We do not believe that the potential sterilisation of deeper coal is a concern for this application. ACOL is willing to retract the change out point on the LW/MW 9, 50 metres north of the currently nominated point.
This section addresses second submission only - no text required here	This section addresses second submission only - no text required here	In Paragraph 3 *"NOW disputes the claim that impacts on minimal base flows in Bowmans Creek is authorised under the current development consent"*	The ACOL 2001 EIS and subsequent Development Consent Approval predicted impacts to Bowmans Creek base flow to be 4.3L/s (Ashton Coal Project Groundwater Hydrology ACOL EIS, HLA, 2001, Fig 13) which is in excess of impact now predicated for the current approved project including the additional LW/MW9 area.

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		Second Submission from NOW to DoP Dated 9th November.	
This section addresses second submission only - no text required here	This section addresses second submission only - no text required here	Following on from the question of accounting for loss of water from the Bowmans Creek system, in paragraph 5 NOW has questioned the mechanism or ability for licencing of these impacts. These questions have been raised taking into consideration the HURAWSP and the minimum flow protection requirements.	ACOL notes that the HURAWSP specifically excludes any water contained in fractured rock aquifers and basement rocks from the water sources covered by the HURAWSP. ACOL maintains that incidental loss of water to the underground operations is not taking of water as defined within the Water Management Act 2000 and hence licencing does not fully fit within the guidelines of the act and the applicable cease to flow requirements. ACOL will however offset, under existing surface Water Access Licences held by ACOL, 15.8ML per annum to the minister administrating the Water Management Act 2000 for the loss of base flows in Bowmans Creek for the duration of underground mining. The offset has been established on the following basis; • The impacts on the Bowmans Creek base flows associated with the previously approved development do not arise for consideration as part of the LW/MW9 application. • The current refined Groundwater Model predicted impacts on Bowmans Creek base flow for extraction up to the approved MW8 are (0.7 – 1.1 L/s). The modelling for the LW/MW9 application has identified slightly higher base flow reductions (1.1-1.2 L/s). As such consideration for licencing has been given to the maximum potential difference in the newly modelled impact from the approved project up to MW8 and LW/MW9 which is 0.5 L/s (15.8ML/yr).

Agency/Stakeholder Submissions and Issues	ACOL Initial Response	Agency/DoP Feedback and Issues	ACOL 2nd Response
This section addresses second submission only - no text required here	This section addresses second submission only - no text required here	Paragraph 7 makes reference to; "*NOW requires determination of changes to cease to flow limits in Bowmans Creek against long term stream flow monitoring, and a commitment from ACOL to maintain base flow requirements to the Hunter River confluence*"	The HURAWSP does not rely on minimum flows over the flow gauge weir at station 210130. ACOL's understanding is that Bowmans Creek falls within the Jerrys Plain Management Zone of the Jerrys Plain water source, there are no 'flow classes' set up within the HURAWSP, but from year 6 of the plan, at which point LW/MW 9 is complete, the taking of water from pools will only be permitted when there is a visible inflow and outflow ((clause (3c)). It is also noted that there are no water users below the Project area within the Jerrys Plain Management Zone that will be impacted by the projects impacts on base flows within Bowmans Creek. In relation to NOW's reference to the use of the long term trend data from the gauging station 210130. If there is a concern about not being able to use this station into the future for the HURAWSP due to impacts on base flows in the area, ACOL would be willing to relocate the gauging station to an acceptable location upstream of the project area. ACOL does not make a commitment to maintain base flow requirements in this small stretch of Bowmans Creek to the Hunter River confluence. The EA has identified that these will be impacted, by the development. The level of impact associated with the LW/MW9 extraction is considered to be low (0.5L/s). Analysis of stream flows in Bowmans Creek has identified a median flow (Q50) of approximately 2.5ML/day (28L/s) and low flow of (95th percentile Q95) 0.32ML/day (3.7L/s). The percentage loss of low flow (environmental flows) from LW/MW9 are 13.5%

Agency/Stakeholder Submissions and Issues	ACOL Initial Response	Agency/DoP Feedback and Issues	ACOL 2nd Response
This section addresses second submission only - no text required here	This section addresses second submission only - no text required here	In paragraph 7 "*NOW requires mandatory reporting periods for groundwater interception and extraction associated with Hunter basement porous rock, Bowmans Creek alluvium or interruption of flows in Bowmans Creek. As outlined in NOW's previous correspondence, this must conform to reporting requirements set out under the Hunter Regulated River Water Sharing Plan (HRRWSP) and or the HURAWSP.*"	ACOL have in place a number of reporting requirements which provide the information requested by NOW. These may not however strictly conform to the reporting requirements set out under the HRRWSP or the HURAWSP as the timing for these reports are dependant on the completion of each panel and also ACOL's statutory reporting period (2 Sept– 1 Sept). Where as the water reporting year runs July to June. ACOL also maintains whilst we are willing to licence incidental losses of water this loss does not fully fit within the HRRWSP or HURAWSP framework.
End of Response to Second Submission from NOW to DoP Dated 9th November.			

Agency/Stakeholder Submissions and Issues	ACOL Initial Response	Agency/DoP Feedback and Issues	ACOL 2nd Response
3. Road and Traffic Authority (RTA) of NSW submission dated 14 September, 2009. The RTA advise in their submission that no objections are raised for ACOL to mine another longwall panel.	• The comments and submission by the RTA is noted.	No further feedback required	No further feedback required
4. NSW Department of Industry Investment (DII) submission dated 15 August, 2009. The DII requires ACOL to hold valid mining title over the area of Longwall/Miniwall Panel No. 9 prior to mining occurring.	• Comment by DII is noted and concurred with.	Mining title – include further information on when relevant title will be sought.	All Mining is within ML1533 and ML1623 and no further title will need to be sought.
DII raise an issue that some of the plans in the EA report and Appendices show that some of the Longwall/Miniwall Panel No. 9 is outside the company's existing mining titles.	• The study and investigation area for specialist studies extended past the area proposed for mining so as ensure a thorough assessment of the existing environment, interactions and impacts associated with the project. However, the specific mining area of Longwall/Miniwall No. 9 will be within the mining tenement area.	Include a plan that clearly shows the boundaries of the mining tenement and the project area, i.e. Figs 2 and 3 combined with a clear key.	The issue was resolved per Email by DoP 10th August and accepted by DoP 12th August . ACOL can provide additional plan if required.
DII require that rehabilitation and environmental management reporting will be required to their satisfaction.	• The comments made by DII are noted and concurred with. ACOL will undertake reporting in accordance with Condition 9.3 of the Development consent dated 11 October, 2002.	No further feedback required	No further feedback required

Agency/Stakeholder Submissions and Issues	ACOL Initial Response	Agency/DoP Feedback and Issues	ACOL 2nd Response
5. Macquarie Generation Submission dated 3 September 2009. The following issues have been raised by Macquarie Generation in their submission.		No further feedback required	No further feedback required
i) The proposed Longwall/Miniwall Panel No. 9 project is to be brought to the attention of the Dam Safety Committee with regard to proposed Void 5 Water Storage Dam Embankment.	• We are aware that the Dam Safety Committee sent correspondence to the Department of Planning on 2 October, 2009 regarding this matter. ACOL does not object to a condition requiring the monitoring of mining associated with Longwall/Miniwall Panel No. 9 to the satisfaction of the Dam Safety Committee.	No further feedback required	No further feedback required
ii) Ground subsidence estimates provided in the EA report is at odds with ACOL's advice that they intend to mine up to four individual seams.	• This application is for the mining by longwall methodology for the Pikes Gully Seam only. ACOL have discussed mining of the three (3) remaining seams with officers of Macquarie Generation which pertains to a separate application.	No further feedback required	No further feedback required
iii) Lack of clarification and responsibility within the EA report for the repair of damage to Macquarie Generation infrastructure that may result from mining.	• Damage to Macquarie Generation infrastructure resulting from subsidence associated with the mining of Longwall/Miniwall Panel No. 9 by ACOL will be the responsibility of the proponent to assess, mitigate, manage and repair subsidence impacts to Macquarie Generation Infrastructure.	Damage to Macquarie Generation infrastructure – response is unclear whether Ashton accepts responsibility, as reference is made to 'the proponent'. Please clarify.	ACOL is the Proponent. Damage to Macquarie Generation infrastructure resulting from subsidence associated with the mining of LW/MW 9 will be the responsibility of ACOL and the Mines Subsidence Board (MSB). ACOL and the MSB will assess, mitigate, manage and repair subsidence impacts to Macquarie Generation Infrastructure.

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iv) Relocation of Lemington Road to Brunkers Lane.	• The relocation of Lemington Road to Brunkers Lane will require some considerable time to resolve and be approved by all relevant parties. It is anticipated that the mining of Longwall/Miniwall Panel No. 9 in the current modification proposal will have been completed by the time this issue is resolved.	Relocation of Lemington Road to Brunkers Lane – response doesn't answer submission re: responsibility for repair of damage due to subsidence impacts. ACOL are aware of proposals by Xstrata Coal regarding the proposed Ravensworth North Open Cut Coal Mine to relocate the existing Lemington Road to the Brunkers Lane orientation.	ACOL commit to the maintenance of Brunkers Lane in its current form and status as a private access (not a public road) under the ownership of Macquarie Generation. There has been reference made in the Ravensworth submission that the relocation of Lemington Rd is a requirement of the existing development consent. However the existing alignment of what is referred to as "Brunkers Lane" does not coincide with the original alignment of Lemington Rd as it was in 1991. The relocation to the 1991 location of Lemington Rd is not possible because the location of Lemington Rd as it was in 1991 is now occupied by mining operations which inhibits its construction in that position. We are of the understanding this relocation is to allow mining by Xstrata of the existing Lemington Rd. It is noted that another Xstrata owned operation has lodged a Preliminary Environmental Assessment for a large project known as "Ravensworth Operations Project" (PEA), which is for continuation and expansion of Ravensworth Operations adjoining ACOL's existing operation. In reality Xstrata's application (described in the PEA) is first and foremost an application to close and mine through the existing Lemington Rd. It is that closure which gives rise to the need to dedicate and construct a new road on the alignment shown in the PEA (in order to replace the transport corridor lost as a result of Xstrata's application to mine through the existing road alignment). Very little of the new location proposed for Lemington Rd put forward by Xstrata in their PEA coincides with the 1991 location of Lemington Rd. To the best of our knowledge at the time of this submission the proposal for new

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			Ravensworth Operations Project and the relocation of Lemington Rd had not been finalised and planning approval for the relocation does not currently exist. ACOL should not be required to accept any responsibility for rectification of the sealed surface of a public road which may come into existence and which may be approved for construction at some time in the future at the suggested location because the need for that road to be approved and constructed arises not due to ACOL's application. As such ACOL will not commit to being responsible for managing subsidence impacts on a potentially relocated Lemington Rd.
v) Area reserved by Macquarie Generation for services such as gas and water pipelines.	• Damage to Macquarie Generation infrastructure resulting from subsidence associated with the mining of Longwall/Miniwall Panel No. 9 by ACOL will be the responsibility of the proponent to assess, mitigate, manage and repair subsidence impacts to Macquarie Generation Infrastructure.	No further feedback required	No further feedback required

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6. Mr Scott Franks on behalf of Yarrawalk Aboriginal Corporation dated 7 September, 2009		No further feedback required	No further feedback required
i) Yarrawalk Aboriginal Corporation object to the project and development of the area as the area has significance and importance to the Smith/Franks families of the Wonnarua people	• Please refer to Sections 1.4, 5.2, 7.0 and Appendix D of Insite Heritage Pty Ltd Aboriginal Archaeological Assessment – Ashton Coal Project – Proposed Longwall Extension report dated October, 2009. A copy of the above report is attached. • The significance of the area to the Aboriginal community is acknowledged and to address this issue ongoing consultation and involvement in the management strategies is considered appropriate.	No further feedback required	No further feedback required
ii) Yarrawalk Aboriginal Corporation seek the DECCW and Deparment of Planning to conduct a full audit of the Wonnarua land left before any more "consents to destroy" and Part 3A's are granted.	• This is a matter for both the DECCW and Department of Planning.	Reference to sections of Heritage report is insufficient. Include a summary clarifying Ashton's response (see below). Yarrawalk Aboriginal Corporation object to the project and development of the area as the area has significance and importance to the Smith/Franks families of the Wonnarua people	It is important for the DoP to be aware of the processes that have been adopted within the existing project for which this application is a variation. These processes were developed in 2001 at the commencement of the Project. Development Consent for the Project was received from the Minister of Planning on the 11th of October 2002. Issuing of this consent was premised on the Environmental Impact Assessment process which included two Archaeological surveys that were reviewed and subsequently approved by NPWS, with notes from Ms Margrit Koettig (Officer of the NPWS) that the community consultation process was adequate. These two assessments along with an additional assessment undertaken in 2008-2009 were used as the basis for this variation. It is relevant to note that the impact foot print of

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			this variation does not extend beyond the original application area. In reality the surface impacts are less as this area was originally assessed for the construction of a Creek diversion. In addition to this process, and as required by the current Development Consent, Ashton Coal prepared an Archaeological and Cultural Heritage Management Plan in consultation with the Local Aboriginal Community and NPWS which was also subsequently approved by the Director General of the Department of Planning. This Management Plan defines the local aboriginal groups with which ongoing consultation has occurred and the basis for the ongoing management of the identified sites. A copy of the approved management plan has also been forwarded to the DECC in accordance with the Development Consent. Ashton Coal has had ongoing consultation with the Aboriginal Community the framework of the consultation process adopted in the Management Plan and subsequently for the Project is based on the following Deeds. 1. A Deed between Thomas Oliver Miller on behalf of the Wonnarua People, the Hon Edward Obeid on behalf of the State of NSW, and the proponents of the Ashton Project which establishes the rights and obligations of each party and defines the purpose of the Ancillary Deed. 2. An Ancillary Deed (prepared by the NSW Native Title Services) between Thomas Oliver Miller on behalf of the Wonnarua People, the Wonnarua Nation Aboriginal Corporation and the proponents of the Ashton Coal Project. This Deed defines the

Agency/Stakeholder Submissions and Issues	ACOL Initial Response	Agency/DoP Feedback and Issues	ACOL 2nd Response
			Aboriginal Heritage Protection Protocol, access for traditional purposes, the environmental parameters under which the mine will be operated, the employment opportunities and the business opportunities that will be provided for the Wonnarua People. Arising out of these Deeds, Ashton has: • Provided numerous employment opportunities for Aboriginal people; • Helped to establish Yunaga Mining Services as a viable mining services company; • Established the Wonnarua Liasion Committee as a vehicle for routine consultation with the Wonnarua People. We have provided this summary to demonstrate the extensive (and formal) processes of communication that have been established with the local Aboriginal community. Our archaeological surveys were conducted at the earliest possible time in the project, and involved a broad range of community consultation. The NPWS wrote to Ashton on 19 December 2001 stating that "The Aboriginal Cultural Heritage Assessment for the proposed Ashton Mine ……..has been **assessed as adequate** in demonstrating Aboriginal community consultation and an awareness of the issues relating to the development".

Agency/Stakeholder Submissions and Issues	ACOL Initial Response	Agency/DoP Feedback and Issues	ACOL 2nd Response
			Flowing on from this and specific to this project the cultural significance of the area has been fully assessed within the assessment report and noted with a statement of community significance included in the significance assessment of the Archaeology report in the Environmental Assessment. "The significance of the area around Glennies Creek and Bowmans Creek to the Aboriginal community is acknowledged. The significance of the area has been raised by community members during field work including Margaret Mathews (pers comm. during field work), Mrs Barbara Foot, Yarrawalk (see Appendix D) and the Wonnarua LALC (Suzie Worth pers comm). The cultural significance of the area is determined by the Aboriginal community and to address this issue ongoing consultation and more importantly implicit involvement in the management strategies is considered the appropriate response to address the issue." As identified above within the report extract Yarrawalk (Scott Franks) reviewed the report and made comment during the assessment process, it is noted that Scott Franks felt that the cultural significance of the area to the families the group represent is not represented in the findings. ACOL as stated above believe that the cultural significance of the area has been fully considered within the EA report. ACOL also note the ongoing confusion in representation. Our records indicate that Barry Mc Taggart is the representative for Yarrawalk. Scott Franks is now listed under Tocomwall Pty Ltd.

Agency/Stakeholder Submissions and Issues	ACOL Initial Response	Agency/DoP Feedback and Issues	ACOL 2nd Response
No further feedback required	No further feedback required	Yarrawalk Aboriginal Corporation seek the DECCW and Department of Planning to conduct a full audit of the Wonnarua land left before any more "consents to destroy" and Part 3A's are granted.	It is ACOL's opinion that this is a matter for both the DECCW and Department of Planning. ACOL do not believe this to be a requirement for this modification.
7. NSW Dams Safety Committee submission dated 2 October ,2009		No further feedback required	No further feedback required
The Dam Safety Committee is aware of ACOLs Longwall/Miniwall No. 9 project to extract coal from the Pikes gully seam by longwall methodology. The Dam Safety Committee have formed the view that the additional risk posed by the project is 'low' with respect to the Ravensworth Inpit Storage Dam (also known as Narama Dam) and Macquarie Generations proposed Ravensworth Void 5 Ash Dam.	• Comments by the Dam Safety Committee are noted and concurred with.	No further feedback required	No further feedback required
The Dam Safety Committee have recommended to the DoP that a condition be imposed upon any approval for the project that ACOL undertake monitoring of mining activities associated with the project to their satisfaction.	• ACOL does not object to the imposition of a condition requiring the monitoring of mining activities associated with the Ravensworth Inpit Storage Dam and Macquarie Generations proposed Void Ash 5 Dam.	No further feedback required	No further feedback required

Agency/Stakeholder Submissions and Issues	ACOL Initial Response	Agency/DoP Feedback and Issues	ACOL 2nd Response
8. Ravensworth Opencut and Underground Mine (RUM) submission dated 16 September, 2009. <u>Ravensworth Underground Mine</u> Rum advised that mine development will occur in this proximity in 2012 with mining to occur in 2014 and that their operations will not be concurrent with Longwall/Miniwall No. 9. Any impact upon alluvium and base flows in Bowmans Creek will be attributed to ACOL	• Rum's comments noted. The groundwater assessment undertaken by Aquaterra for the project assessed mining for ACOL and RUM operations to be occurring at the same time to determine potentially worst case impacts upon the groundwater regime. • The assessment of impacts upon alluvium and base flows will be in accordance of conditions of approval by regulatory authorities.	Clarify whether Ashton is or is not making a commitment to accepting responsibility for any impacts upon alluvium and baseflows in Bowmans Creek?	ACOL commits to accepting responsibility for impacts upon alluvium and base flows in Bowmans Creek demonstrated to be caused by the ACOL operations. ACOL has an extensive monitoring network in place to monitor and assess these. ACOL does not commit to accepting the responsibility for any impacts upon the Bowmans Creek Alluvium and base flows that may be caused by the Ravensworth Underground Mine.
<u>Ravensworth Operations</u> Ravensworth Operations is required to reinstate Lemington Road to the south-east of its current alignment. It is proposed to utilise Brunkers lane – New England Highway Intersection and part of the initial section of Brunkers Lane.	• The relocation of Lemington Road to Brunkers lane will require some considerable amount of time to resolve and be approved by all relevant stakeholders. The mining of Longwall/Miniwall Panel No. 9 by ACOL will have been completed by the time this issue is resolved. See also responses to issued 5(iii) and 5(iv) raised by Macquarie Generations.	Clarify if Ashton accepts, or does not accept responsibility for remediating any subsidence impacts to Brunkers Lane.	See above for Macquarie Generation

ATTACHMENT 2:

ACOL GROUNDWATER MONITORING

MOD 4 – Longwall/Miniwall No.9 Response to Submissions

APPENDIX 2

ACOL Groundwater Monitoring

1.1 Underground Mine

Development Consent Condition 3.19 requires ACOL to undertake and maintain a monitoring program from commencement of construction throughout the life of the mine and for at least 5 years after completion of mining. In addition to the standard underground monitoring program, a specialised monitoring program has been implemented to monitor seepage flows from the Longwall 1 Eastern Rib Wall.

1.1.1 Standard Underground Water Monitoring

This monitoring program includes:

- Total volumes of water inflow to the underground workings will be recorded weekly.
- Detailed visual inspections of the underground workings will be carried out quarterly, noting any changes in roof or floor conditions, and the location and flow-rates of individual water inflows. General inspections will be carried out daily by mining supervisors.
- Water samples will be collected quarterly for on-site screening analysis (pH, EC, TDS and temperature) and bi-annually for comprehensive laboratory analysis.
- A water sample will also be collected at any time there is a significant change in flow rate, or discolouration of the water, and subjected to screening analysis (pH, EC, TDS and temperature), as per condition 3.19 of the DA.

1.1.2 Piezometers

In addition to monitoring for local and regional impacts of the underground mine on groundwater levels and quality, a detailed assessment is being made of the effects of subsidence on hydraulic conductivity (permeability) of the strata between the goaf and the base of the Bowmans Creek alluvium. The regional piezometer network has been established to monitor potential impacts on the alluvium associated with Glennies Creek, Bowmans Creek and the Hunter River. The monitoring bore network for the underground mine, including location, monitoring frequency and parameters for monitoring is detailed in the Borehole Monitoring Network Table Below.

Monitoring of existing groundwater supply wells or bores within 3km of the DA boundary will be included in the monitoring program with the agreement of the landowners.

The monitoring will continue through mining and on a reduced basis for at least 5 years post mining.

The on-site screening analysis will include pH, total dissolved solids (TDS), electrical conductivity (EC) and temperature. Comprehensive laboratory analysis will include:

- Physical parameters – pH, TDS, EC, turbidity, total suspended solids (TSS)
- Major ions – Ca, Mg, Na, K, Cl, SO_4, HCO_3, CO_3

- Dissolved metals – Al, As, Cd, Cr, Cu, Fe, Pb, Mn, Hg, Ni, Se, Zn.
- Nutrients/other – Ammonia, nitrate, phosphorus, cyanide, fluoride.

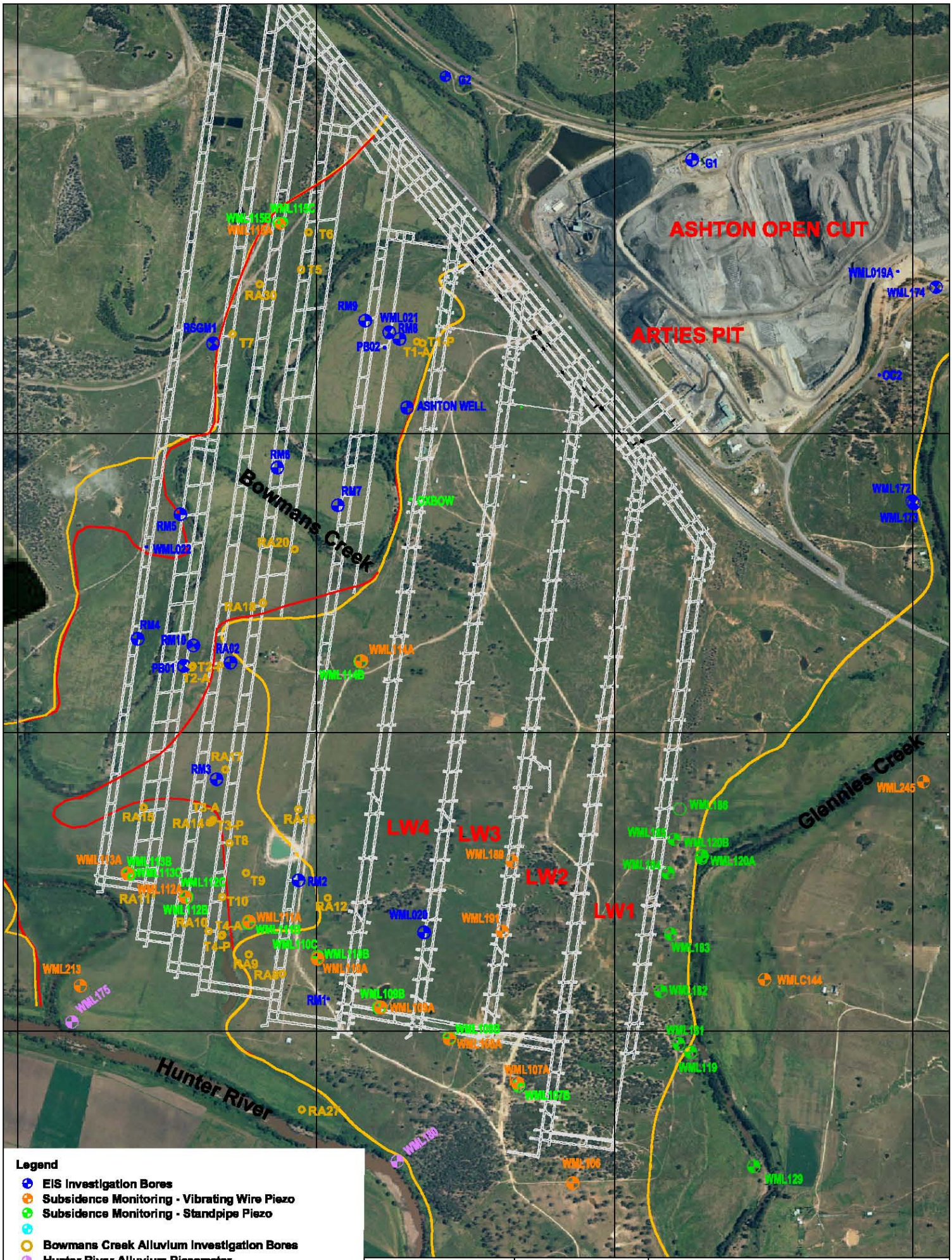
1.1.3 Subsidence Monitoring – Bowmans Creek

Condition 3.20 requires ACOL to conduct a stream monitoring program on Bowmans Creek developed in consultation with DWE and DPI-Fisheries.

ACOL will undertake a detailed pre-project inspection of Bowmans Creek, and a water quality study to assess exchange/discharge rates of local groundwaters to Bowmans Creek. This assessment will be repeated bi-annually until at least 5 years after completion of longwall mining.

1.1.4 Underground Flow Monitoring

Metering of water flows into and out of the mine will be used to determine the amount of groundwater entering the workings. Total flow imported into the mine will be recorded on a flow meter on the firewater line at the surface of the underground mine. Return water total flow will be measured using flow meters at the exit from the mine at the portal as well as the borehole pump. Meters are to be read weekly as a minimum.



Date: 12 June 2009		Scale: as shown	Ashton Coal Operations Ltd
Initials: PZ		Job No: S03	
Drawing No: S03 -232b		Revision: B	ASHTON COAL MINE PIEZOMETER LOCATION PLAN
			Figure 4

BOREHOLE MONITORING NETWORK

Abbreviations:

Q Quarterly
M Monthly
BA Biannual

Bore Hole Monitoring Network							
			Monitoring Frequency				
BOREHOLE	**DEPTH**	**Function**	**Onsite Analysis (pH, EC)**	**Depth**	**Comprehensive Lab Analysis**	**Hydro-geological Unit Monitored**	**Purpose for Monitoring**
ASHTON WELL	30.0	Well					
GM1	33.7	Stand Pipe Piezometer	Q	Q	BA	Upper Liddell	Open cut impacts on Bowmans Ck
GM3	15.0	Stand Pipe Piezometer	Q	Q	BA	Upper Barrett	Impacts on Glennies Ck alluvium, Camberwell village
GM3A	7.5	Stand Pipe Piezometer	Q	Q	BA	Glennies Ck Alluvium	Impacts on Glennies Ck alluvium, Camberwell village
WML172	14.0	Stand Pipe Piezometer	Q	Q			Impacts on Glennies Ck alluvium, Camberwell village
WML173	14.0	Stand Pipe Piezometer	Q	Q			Impacts on Glennies Ck alluvium, Camberwell village
WML174	14.0	Stand Pipe Piezometer	Q	Q			Impacts on Glennies Ck alluvium, Camberwell village
PB1	7.6	Stand Pipe Piezometer	Q	Q		Bowmans Ck alluvium +cm	Impacts of OC and UG on Bowmans Ck Alluvium
RA02	11.3	Stand Pipe Piezometer	Q	Q		Bowmans Ck alluvium + CM	Impacts of OC and UG on Bowmans Ck Alluvium
RM01	10.8	Stand Pipe Piezometer	Q	Q		Bowmans Ck alluvium	Impacts of OC and UG on Bowmans Ck Alluvium
RM02	12.4	Stand Pipe Piezometer	Q	Q		Bowmans Ck alluvium + CM	Impacts of OC and UG on Bowmans Ck Alluvium
RM03	11.0	Stand Pipe Piezometer	Q	Q		Bowmans Ck alluvium	Impacts of OC and UG on Bowmans Ck Alluvium
RM04	9.6	Stand Pipe Piezometer	Q	Q		Bowmans Ck alluvium	Impacts of OC and UG on Bowmans Ck Alluvium
RM05	13.5	Stand Pipe Piezometer	Q	Q		Permian CM	Impacts of OC and UG on Bowmans Ck Alluvium
RM06	10.2	Stand Pipe Piezometer	Q	Q		Bowmans Ck alluvium + CM	Impacts of OC and UG on Bowmans Ck Alluvium
RM07	9.8	Stand Pipe Piezometer	Q	Q	BA	Bowmans Ck alluvium + CM	Impacts of OC and UG on Bowmans Ck Alluvium
RM08	8.2	Stand Pipe Piezometer	Q	Q	BA	Bowmans Ck	Impacts of OC and UG on Bowmans Ck

Bore Hole Monitoring Network							
			Monitoring Frequency				
BOREHOLE	**DEPTH**	**Function**	**Onsite Analysis (pH, EC)**	**Depth**	**Comprehensive Lab Analysis**	**Hydro-geological Unit Monitored**	**Purpose for Monitoring**
						alluvium + CM	Alluvium
RM09	8.8	Stand Pipe Piezometer	Q	Q	BA	Bowmans Ck alluvium	Impacts of OC and UG on Bowmans Ck Alluvium
RM10	10.8	Stand Pipe Piezometer	Q	Q	BA	Bowmans Ck alluvium + CM	Impacts of OC and UG on Bowmans Ck Alluvium
RSGM1		Stand Pipe Piezometer	Q	Q	BA	Permian CM	Impacts of OC and UG on Bowmans Ck Alluvium
WML21	117.0	Stand Pipe Piezometer	Q	M	BA	Pikes Gully	UG impacts on Pikes Gully seam
WML106	88.0	Vibrating Wire Piezometer		M		CM	Subsidence impacts of UG
WML107A	120.4	Vibrating Wire Piezometer		M		CM	Subsidence impacts of UG
WML107B	48.0	Stand Pipe Piezometer	Q	M	BA	Weathered CM	Subsidence impacts of UG
WML108A	80.0	Vibrating Wire Piezometer		M		CM	Subsidence impacts of UG
WML108B	30.0	Stand Pipe Piezometer	Q	M	BA	Weathered CM	Subsidence impacts of UG
WML109A	84.0	Vibrating Wire Piezometer		M		CM	Subsidence impacts of UG
WML109B	32.0	Stand Pipe Piezometer	Q	M	BA	Weathered CM	Subsidence impacts of UG
WML110A	110.0	Vibrating Wire Piezometer Under construction		M		CM	Subsidence impacts of UG
WML110B	24.0	Stand Pipe Piezometer	Q	M	BA	Weathered CM	Subsidence impacts of UG
WML110C	14.0	Stand Pipe Piezometer	Q	M	BA	BC alluvium	Subsidence impacts of UG
WML111A	150.0	Vibrating Wire Piezometer Under construction		M		CM	Subsidence impacts of UG
WML111B	50.0	Stand Pipe Piezometer	Q	M	BA	Weathered CM	Subsidence impacts of UG
WML112A	285.5	Vibrating Wire Piezometer Under construction		M		CM	Subsidence impacts of UG
WML112B	36.0	Stand Pipe Piezometer	Q	M	BA	Weathered CM	Subsidence impacts of UG
WML112C	12.0	proposed	Q	M	BA	BC alluvium	Subsidence impacts of UG
WML113A	150.0	Vibrating Wire Piezometer		M		CM	Subsidence impacts of UG
WML113B	50.0	Stand Pipe Piezometer	Q	M	BA	Weathered CM	Subsidence impacts of UG
WML113C	12.0	Proposed	Q	M	BA	BC alluvium	Subsidence impacts of UG

Bore Hole Monitoring Network							
			Monitoring Frequency				
BOREHOLE	**DEPTH**	**Function**	**Onsite Analysis (pH, EC)**	**Depth**	**Comprehensive Lab Analysis**	**Hydro-geological Unit Monitored**	**Purpose for Monitoring**
WML114A	150.0	Vibrating Wire Piezometer		M		CM	Subsidence impacts of UG
WML114B	50.0	Stand Pipe Piezometer	Q	M		Weathered CM	Subsidence impacts of UG
WML115A	178.4	Vibrating Wire Piezometer		M		CM	Subsidence impacts of UG
WML115B	40.0	Stand Pipe Piezometer	Q	M		Weathered CM	Subsidence impacts of UG
WML115C	6.0	Proposed	Q	M		BC alluvium	Subsidence impacts of UG
WML119	35.0	Stand Pipe Piezometer with Data Logger	Q	M	BA	Pikes Gully	Impacts of UG on Glennies Ck alluvium
WML120A	9.0	Stand Pipe Piezometer with Data Logger	Q	M	BA	Pikes Gully	Impacts of UG on Glennies Ck alluvium
WML120B	20.0	Stand Pipe Piezometer with Data Logger	Q	M	BA	GC alluvium	Impacts of UG on Glennies Ck alluvium
WML129		Stand Pipe Piezometer with Data Logger	Q	M		GC alluvium	Impacts of UG on Glennies Ck alluvium
WML144	131.6	Vibrating Wire Piezometer		M		CM	Long-term monitoring of all proposed LW seams
WML175	13.7	Stand Pipe Piezometer	Q	M		HR alluvium	UG impacts on Hunter River
WML180	12.0	Stand Pipe Piezometer	Q	M		HR alluvium	UG impacts on Hunter River
WML181	32.0	Standpipe Piezometer	Q	M		Pikes Gully	UG impacts on Glennies Creek; horizontal subsidence impacts
WML182	44.0	Standpipe Piezometer	Q	M		Pikes Gully	UG impacts on Glennies Creek; horizontal subsidence impacts
WML183	46.0	Standpipe Piezometer	Q	M		Pikes Gully	UG impacts on Glennies Creek; horizontal subsidence impacts
WML184	72.6	Standpipe Piezometer	Q	M		Pikes Gully	UG impacts on Glennies Creek; horizontal subsidence impacts
WML185	72.0	Standpipe Piezometer	Q	M		Pikes Gully	UG impacts on Glennies Creek; horizontal subsidence impacts
WML186	80.0	Standpipe Piezometer	Q	M		Pikes Gully	UG impacts on Glennies Creek; horizontal subsidence impacts
WML189	150	Vibrating Wire Piezometer		M		CM	Subsidence impacts of UG
WML191	200	Vibrating Wire Piezometer		M		CM	Subsidence impacts of UG

Bore Hole Monitoring Network							
			Monitoring Frequency				
BOREHOLE	**DEPTH**	**Function**	**Onsite Analysis (pH, EC)**	**Depth**	**Comprehensive Lab Analysis**	**Hydro-geological Unit Monitored**	**Purpose for Monitoring**
WML213	309	Vibrating Wire Piezometer		M		CM	UG impacts
RA8	15	Standpipe Piezometer	Q	M		Colluvium	UG impacts
RA10	13	Standpipe Piezometer	Q	M		BC Alluvium	UG impacts
RA12	13	Standpipe Piezometer	Q	M		Colluvium	UG impacts
RA14	11	Standpipe Piezometer	Q	M		BC Alluvium	UG impacts
RA15	10.5	Standpipe Piezometer	Q	M		BC Alluvium	UG impacts
RA16	6	Standpipe Piezometer	Q	M		Colluvium	UG impacts
RA17	10.5	Standpipe Piezometer	Q	M		BC Alluvium	UG impacts
RA18	8.5	Standpipe Piezometer	Q	M		BC Alluvium	UG impacts
RA20	8	Standpipe Piezometer	Q	M		BC Alluvium	UG impacts
RA27	15.5	Standpipe Piezometer	Q	M		HR Alluvium	UG impacts
RA30	9	Standpipe Piezometer	Q	M		BC Alluvium	UG impacts
T1-A	7.9	Standpipe Piezometer	Q	M		BC Alluvium	UG impacts
T1-P	12.6	Standpipe Piezometer	Q	M		CM OB	UG impacts
T2-A	8.9	Standpipe Piezometer	Q	M		BC Alluvium	UG impacts
T2-P	14.9	Standpipe Piezometer	Q	M		CM OB	UG impacts
T3-A	9.9	Standpipe Piezometer	Q	M		BC Alluvium	UG impacts
T3-P	30.5	Standpipe Piezometer	Q	M		CM OB	UG impacts
T4-A	10.0	Standpipe Piezometer	Q	M		BC Alluvium	UG impacts
T4-P	31.0	Standpipe Piezometer	Q	M		CM OB	UG impacts
T5	8.0	Standpipe Piezometer	Q	M		BC Alluvium	UG impacts
T6	7.0	Standpipe Piezometer	Q	M		BC Alluvium	UG impacts
T7	7.0	Standpipe Piezometer	Q	M		BC Alluvium	UG impacts
T8	8.9	Standpipe Piezometer	Q	M		BC Alluvium	UG impacts
T9	10.0	Standpipe Piezometer	Q	M		BC Alluvium	UG impacts
T10	10.0	Standpipe Piezometer	Q	M		BC Alluvium	UG impacts
WML245	101.0	Vibrating Wire Piezometer		M		CM	Long-term monitoring of all proposed SEOC seams

2.0 REPORTING AND REVIEW

2.1 Reviews of Subsidence Impacts on Groundwater System

An end of panel review report will be submitted to DPI following completion of mining of each longwall panel which presents the results of all groundwater monitoring of subsidence-related impacts, an interpretation of the monitoring results, statement of compliance with the monitoring plan, and a comparison with and validation of the EIS groundwater modelling predictions and any subsequent modelled predictions. This report will be subjected to independent review by a DWE -approved hydrogeological expert. Approval will be sought from DWE for the proposed expert reviewer prior to appointment.

Pre- and post- longwall panel subsidence monitoring reports will be submitted, that aim to demonstrate that subsidence and induced fracturing has not caused long-term degradation of groundwater storage and quality in the alluvial aquifer system associated with Bowmans Creek, Glennies Creek or Hunter River.

2.2 Annual Environmental Management Report (AEMR)

The AEMR will incorporate a Groundwater Management Report (GMR) prepared by an independent expert to the satisfaction of DWE, which will contain the following;

(i) A basic statistical analysis (mean, range, variance, standard deviation) of the results for the parameters measured in individual bores / wells and as a subset of the aquifer;

(ii) an interpretation of the water quality results and changes in time for water quality and water levels (supported with graphs and contour plots showing changes in aquifer pressure levels);

(iii) Reporting on the differentiation between shallow and deep aquifers, with interpretation of results;

(iv) an interpretation and review of the results in relation to cut-off criteria and predictions made in the EIS;

(v) an interpretation of the water balance identifying the volume and make up of mine pit inflows as compared to Part V licence (required under Part V of the Water Act 1912), and predictions made in the EIS or previous AEMR; and

(vi) provide an electronic copy of the data forwarded to DWE

2.3 Subsidence Monitoring and Impact Assessment Report (SMIAR)

In accordance with the requirements of ACOL's Development Consent SMIARs will incorporate a Groundwater Management Report (GMR) prepared by an independent expert to the satisfaction of DoP, which will contain the flowing:

(i) The results of groundwater monitoring above and within the area of influence of the longwall panels, presented in graphical format to demonstrate trends in both water levels and water quality;

(ii) Measurements of groundwater inflow to the underground workings;

(iii) Assessments of any changes to aquifer hydraulic properties due to mine-induced fracturing;

(iv) Assessment of any changes in groundwater quality due to mine-induced fracturing or cross aquifer interconnection;

(v) Results of stream monitoring program in Bowmans Creek above the goaf area;

(vi) If necessary, a revised assessment of potential subsidence impacts on groundwater.

2.4 Review

The monitoring data will be reviewed annually and it is recommended that a more thorough review be carried out at important milestones in the project.

Recommended milestones for comprehensive review, including a review of the groundwater modelling predictions, and if necessary a re-calibration of the groundwater model, are:

- End of Year 5: Peak Production with open cut and underground mine operating.
- End of Year 10: Open cut completed, waste dumps rehabilitated, and mining of longwall panels (2^{nd} seam) under Bowmans Creek alluvium completed.
- End of Year 15: Mining of longwall panels (3^{rd} seam) under Bowmans Creek alluvium completed.
- End of Year 20: Mining completed and rehabilitation of surface facilities largely completed.
- End of Year 25: Review of water level recovery and quality in underground mine and final void and rehabilitation of surface features.

The accuracy of the groundwater model would be reviewed at each of the above milestone review dates, including the establishment of trigger levels based on sensitivity modelling, drawdown, pit seepage and river leakage. If the predicted impacts using the recalibrated model differ significantly from the EIS predictions, the assessment of potential groundwater impacts would be revised and if necessary additional or revised mitigation measures implemented, in consultation with DWE.

The trigger level for requiring a revision of the impact assessment would be an assessed leakage rate from the Bowmans Creek or Hunter River alluvium into the coal measures that is 1.5 times higher than the rate predicted by the EIS modelling or any subsequent revised prediction.

ATTACHMENT 3:

INITIAL RESPONSES RECEIVED FROM AGENCIES AND STAKEHOLDERS

NSW GOVERNMENT | Industry & Investment

Our Reference: 06/5711
OUT09/12177
15 August 2009

Mr Howard Reed
A/Manager Major Projects Assessment
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Dear Mr Reed

Ashton Coal Mine
Longwall/Miniwall 9
Proposed Modification (DA309-11-2001 MOD 4)

I refer to your letter dated 18 August 2009 regarding the Ashton Coal Operations Pty Ltd application to modify the existing development consent to include mining of longwall/mininwall 9. Department of Industry & Investment (DII) technical officers have reviewed the *Ashton Coal Development Consent Modification (DA309-11-2001 MOD 4) Environmental Assessment* dated July 2009 and DII has no objections to the proposal. The modification provides for the extension of mining and optimising coal resource recovery.

Ashton Coal Operations has submitted a Subsidence Management Plan (SMP) for this proposal to DII.

DII requires Ashton Coal Operations to hold a valid mining title over areas approved for mining before mining commences. A number of diagrams in the EA suggest that some of longwall/miniwall 9 is outside the company's existing mining titles (eg Figure 3, 9, 10 and some figures presented in the appendices).

Integrated rehabilitation and environmental management reporting should be captured in the Mining, Rehabilitation and Environmental Management Report documents to the satisfaction of DII.

Should you have any enquires regarding this matter please contact Julie Moloney, Principal Adviser, Development Coordination on (02) 4931 6549.

Yours sincerely

for Brad Mullard
Executive Director
Mineral Resources

MINERALS AND ENERGY DIVISION
PO BOX 344 Hunter Regional Mail Centre NSW 2310
516 High St, Maitland NSW 2323

ABN 51 734 124 190
www.industry.nsw.gov.au
Tel: 02 4931 6666

Macquarie Generation

Bayswater Power Station

New England Highway
MUSWELLBROOK NSW 2333

Private Mail Bag 2
MUSWELLBROOK NSW 2333
AUSTRALIA

Telephone 61 2 6542 0711
Facsimile 61 2 6542 0618
Website www.macgen.com.au
ABN 18 402 904 344

A/Manager Mining
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Dear Mr Reed,

ASHTON COAL MINE LONGWALL / MINI WALL 9 (DA 309-11-2001 MOD 4)

Thank you for advising Macquaire Generation of an application by Ashton Coal Operations Pty Ltd to modify its development consent under section 75W of the Environmental Planning and Assessment Act 1979 (EP&A Act), and for your invitation to comment on the application.

Macquarie Generation's comments are as outlined below:

1. The location of the proposed Longwall 9 is inside the Notification Area nominated by the Dam Safety Committee for Macquarie Generation's proposed Void 5 Water Storage Dam Embankment on the eastern end of void 5. Any encroachment within this area should be brought to the attention of the Dam Safety Committee.

2. Section 7 of the Development Consent Modification documentation (Conclusions) states that the maximum ground subsidence above the centre of Longwall 9 is expected to be in a range up to 1.2 metres. This estimate is at odds with Ashton Coal's advice to Macquarie Generation that they intend to mine up to four individual seams resulting in an estimated total subsidence of five metres.

3. The Development Consent Modification documentation does not clarify responsibility for the repair of damage to Macquarie Generation infrastructure that may result from the mining process. This damage could require repairs to Bunkers' Lane roadworks, sedimentation ponds, unsealed roads and general ground cracking and spontaneous combustion outbreaks.

4. In discussions with Xstrata Coal regarding the new Ravensworth North Open Cut coal mine development, Macquarie Generation has been advised that Xstrata intend to relocate the existing Lemington Road to the Brunkers Lane. It is considered that the increased traffic and the potential for mine subsidence of this public access road should be considered as part of the Development Consent Modification proposal.

5. Macquarie Generation has reserved an area on its property adjacent to Bunkers' Lane as a corridor for services such as gas and water pipelines. This service corridor runs along the inside of the boundary fence on the western edge of the New England Highway and would intersect with the northern end of Longwall 9. Depending on the timing for installation of these future services the main concern will be the extent of ground subsidence and potential damage to these services.

I trust that these comments assist you in your consideration of the Ashton Coal Development Consent Modification. Should you require any further information please contact Mr Bob Cullen on 65 420683.

Yours sincerely

3/9/09

J NEELY
MANAGER/BAYSWATER

Your reference: S03/00074-27
Our reference: DOC09/40185 & DOC09/40451 FILE LIC06/533-05
Contact: Rebecca Akhurst (02) 4908 6807

A/Manager
Major Projects Assessment – Mining
Department of Planning
GPO Box 39
SYDNEY NSW 2001

- 4 SEP 2009

Attention: Howard Reed

Dear Mr Reed

ASHTON COAL MINE LONGWALL/ MINIWALL 9 (DA 309-11-2001 MOD 4) SECTION 75W MODIFICATION – ENVIRONMENTAL ASSESSMENT

I refer to your letter dated 18 August 2009, seeking written submission from DECCW for the above proposed modification. The Department of Environment Climate Change and Water (DECCW) has reviewed the *Ashton Coal Development Consent Modification DA 309-11-2001-I (MOD 4) July 2009* Environmental Assessment (EA) report prepared by Wells Environmental Services and provided to DECCW.

DECCW understands that the proposal is for a modification to the existing Ashton Coal development consent to allow for:

- the development and mining of an additional underground Longwall/ Miniwall panel (number 9) immediately west of the approved mining area and below sections of Bowmans Creek, and
- an increase in overall underground coal production by an additional 250,000 tonnes per annum of run of mine (ROM) coal.

DECCW notes changes to the method of mining, processing and coal handling facilities and reject disposal are not proposed.

The DECCW has conducted a review of documentation provided. Whilst DECCW has no objection to the proposal proceeding if the Department of Planning determines the project modification application by granting consent, DECCW recommends the conditions of approval provided at attachment A be incorporated into the consent.

The following comments are also provided in relation to information provided within the EA:

PO Box 488G Newcastle NSW 2300
117 Bull Street, Newcastle West NSW 2302
Tel: (02) 4908 6800 Fax: (02) 4908 6810
ABN 30 841 387 271
www.environment.nsw.gov.au

Aboriginal Cultural Heritage

DECCW notes that the proponent has committed to the salvage and surface collection of the Aboriginal sites identified during the field survey within the project area. However, this proposed action has not been recommended as an Aboriginal Cultural Heritage management strategy within the archaeological report and no evidence has been provided from the registered Aboriginal stakeholders in support of this proposal.

Section 7, Part (iii) of the Archaeological report discusses the need for an approval under the NPW Act prior to undertaking remediation works along the terrace flanking Bowmans Creek. An approval under the NPW Act will not be required if an approval under Part 3A of the *Environmental Planning and Assessment Act* (1979) is granted. DECCW note this landform unit has been identified as an area that may contain substantial sub-surface archaeological/Aboriginal deposits. In accordance with section 91 of the *National Parks and Wildlife Act 1974*, this Potential Archaeological Deposit must be recorded by the proponent and submitted to DECCW for registration.

Threatened Species

The Endangered Population (EP), River Red Gum (*Eucalyptus camaldulensis*) in the Hunter Valley, occurs in two locations on the lower reaches of Bowmans Creek downstream of the footprint of the proposed longwall operations. It is important for the maintenance of this EP that alluvial groundwater levels in Bowmans Creek are maintained. DECCW notes the current development consent permits underground mining beneath Bowmans Creek and its associated alluvium provided no connective cracking or direct hydraulic connection to the mine working occurs. It is important that this condition be retained.

If you require any further information regarding this matter please contact Rebecca Akhurst on (02) 4908 6807.

Yours sincerely

MITCHELL BENNETT
Head Regional Operations Unit – Hunter Region
Environment Protection and Regulation

ATTACHMENT A – RECOMMENDED CONDITIONS OF APPROVAL – ASHTON COAL MINE MODIFICATION (DA 309-11-2004 MOD 4)

ABORIGINAL CULTURAL HERITAGE

H1 A strategy for the salvage and surface collection of artefacts at the identified Aboriginal sites within the project area, an appropriate storage location and long term management of recovered artefacts must be developed and implemented with the support of the registered Aboriginal stakeholders.

H2 If subsidence occurs within the Potential Archaeological Deposit site along Bowmans Creek, management strategies supported by the registered Aboriginal stakeholders must be identified prior to any remediation works commencing.

H3 If Aboriginal cultural objects are uncovered due to the development activities, all works must halt in the immediate area to prevent any further impacts to the find or finds. A suitably qualified archaeologist and Aboriginal community representatives must be contacted to determine the significance of the find(s). The site is to be registered in the AHIMS (managed by DECCW) and the management outcome for the site included in the information provided to the AHIMS. Local Aboriginal community representatives must be consulted in developing and implementing management strategies for all sites, with all information required for informed consent being given to the representatives for this purpose.

H4 If human remains are located during the project, all works must cease in the immediate area. The local police, Local Aboriginal community representatives and the DECCW are to be notified.

H5 All effort must be taken to avoid impacts to Aboriginal Cultural Heritage values at all stages of the development works. If impacts are unavoidable, mitigation measures are to be negotiated with the local Aboriginal stakeholders and DECCW.

H6 The applicant must continue to consult with and involve local Aboriginal representatives for the project, in the ongoing management of the Aboriginal Cultural Heritage values.

THREATENED SPECIES

T1 To help protect alluvial groundwater reaching endangered population of River Red Gum (*Eucalyptus camaldulensis*), mining activities must not result in connective cracking or direct hydraulic connection between Bowmans Creek and its associated alluvium, and the mine workings.

YARRAWALK

ABN 48 530 921 447
PO Box 76
CARINGBAH NSW 1495
yarrawalk@dodo.com.au

7 September 2009

Insite Heritage Pty Ltd
Po Box 98
WANGI WANGI NSW 2267

RE: ASHTON COAL MINE OPERATIONS - PROPOSED LONGWALL PANEL 9 DRAFT

Dear Angela,

As stated in the past to your firm and to representatives of Ashton Mine, this particular area is of significance and importance to the Smith/Franks families of the Wonnarua people, of the Hunter Valley. Our people not only lived there, but the area in question is extremely important to our people. Not only did our people live, hunt and conduct ceremonies on that area but have also made reference to burial sites in and around the area.

After reading the draft report, I can see that the area has been determined to be of low significance and I can assure you that this is not the case.

Yarrawalk has always objected to development of this area but it seems that consent to for destruction of the area continues, without consideration for our family line. This has come about because of an agreement with other Aboriginal people who reside in the area without considering our position.

The agreement that is in place does not consider the rights of the Smith/Franks families, as Wonnarua who are not only traditional owners but are in fact the apex line, which has been proven by genealogy. It appears to me that the opinion has been formed; the only people who are required to be consulted are those who assert themselves as Wonnarua, coming down a family name of Madoo.

We have had several discussions with the management from Ashton Mine and to date there has been no acknowledgement or agreement with the Smith/Franks families. As stated previously, the proposed area is extremely important to our families and we strongly object to any further development which will impact on the area. We believe that this will impact greatly on the area and diminish the remaining Wonnarua country in the Hunter Valley basin. Both the DECCW & Department of Planning should conduct a full audit of the Wonnarua land left, before approving any more "Consents to destroy" and Part 3A's.

Yarrawalk is willing to work with DECCW, the Department of Planning and other relevant parties to resolve this issue for the best outcome for our people, with consideration to the mining operations.

I look forward to hearing from you at your earliest convenience to discuss this further.

Any correspondence should be mailed to the above postal address.

Yours faithfully

Scott Franks
Director
Aboriginal Heritage Manager
Yarrawalk Aboriginal Corporation

cc. Peter Garrett, Minister for Environment, Heritage & the Arts
Joel Fitzgibbon, Member for Hunter, NSW
DECCW
Department of Planning

NSW GOVERNMENT | Office of Water

Director – Major Projects Assessments
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Contact: Fergus Hancock
Phone: 02 4904 2532
Fax: 02 4904 2503
Email: Fegus.Hancock@dnr.nsw.gov.au

Attention Belinda Parker

Our ref: ER20751
Your ref: DA 309-11-2001 MOD 4

8 September 2009

Dear Belinda

Ashton Coal Longwall/Miniwall 9 modification of consent;

Your ref. DA 309-11-2001 MOD 4

The NSW Office of Water (NOW) has reviewed the Environmental Assessment (EA) for the above modification of consent. I apologise for the delay in responding to you.

Ashton Coal operates under a development consent issued in October 2002, in which condition 3.9 requires;

> *The Applicant shall design underground mining operations to ensure no direct hydraulic connection between the Bowmans Creek alluvium and the underground workings can occur through subsidence cracking. In order to achieve this criterion the Applicant shall assess levels of uncertainty in all subsidence predictions, and provide adequate contingency in underground mine design to ensure sufficient sound rock is maintained to provide an aquaclude between the Bowmans Creek.*

This condition was imposed to provide protection to Bowmans Creek and its connected alluvium, consistent with the objects of the *Water Management Act 2000* (WMA), and the rules of the Hunter Unregulated Rivers and Alluvial Water Sharing Plan (HURAWSP). NOW has held to its position to avoidance of cracking of Bowmans Creek and its connected alluvium, in order to implement the objects of the WMA, and to provide a consistent framework of regulation to the coal mining industry in the Hunter Valley. Creating fracture pathways between surface and the mining operation, or activation of conduits between the connected alluvium and the underground mine goaf is unacceptable to NOW, and is regarded as harm as defined under the WMA, and a breach of the HURAWSP operating rules.

Longwall/miniwall 9 proposed for the Ashton coal mine is designed to avoid creating a connective pathway by means of upward propagating fractures from the longwall goaf to the alluvial basal lens. NOW requires condition 3.9 of the current development consent to be maintained as a statutory outcome, in accordance with the WMA and HURAWSP. The following specific comments are directed to achieve the above requirement.

The change out from Miniwall to Longwall 9 is located at 1480 metres from the installation road, which provides a rock head barrier of 55 metres between the full width change out line and Bowmans Creek and 0 metres to its connected alluvium. The location of the change out point

appears too close to the creek system to avoid unacceptable impacts to the river and its connected alluvium. Unless no further longwall extraction occurs to lower seams than the Pikes Gully Seam. NOW queries the location of the change out point, and the relationship indicated by SCT to tensile strains which will occur in the bed of Bowmans Creek and connected alluvium to the north of the river. NOW recommends that change out point be relocated 100 metres north, to reduce the risk of strain-induced fracture of the basal layers of the alluvium.

NOW requires verification of subsidence and groundwater impact predictions made in the EA for each miniwall extraction that occurs. Prior to extraction of miniwall 8, review of subsidence predictions against actual subsidence, monitored upward fracturing and tensile/compressive strains and resultant surficial fractures must be undertaken. The review of subsidence and groundwater response to extraction from full extraction (longwalls 3-5) must be reported prior to commencement of extraction from Longwall/Miniwall 6. Subsequently, verification of predicted subsidence and groundwater response from Longwall/Miniwall 6 and subsequent miniwalls to miniwall 8 must be reported to NOW prior to commencement of miniwall 9. NOW requires verification of depressurisation of the Hunter River and Bowmans Creek alluvium, and accounting to be carried out in relation to displacement of alluvial groundwater, and demonstration that no reversal of groundwater gradient to the mining operation is occurring.

Any reduction in flows to Bowmans Creek must be accounted for in accordance with the rules of the HURAWSP. Loss of minimum baseflow in Bowmans Creek is not an acceptable proposal, as preservation of minimum baseflows is a mandatory requirement of the HURAWSP and the water sharing framework which is enshrined in the WMA. Any inadvertent loss of baseflow must be replaced by Ashton Coal, and trigger limits to reduction in baseflow remedial action be defined under the approved water management plan for the underground mining operation.

Any loss of saturated thickness in Bowmans Creek connected alluvium must be measured and reported to NOW at the end of each water year. Any loss of saturated thickness must be accounted for in accordance with the operating rules of the HURAWSP, and losses greater than approved trigger levels remediated to NOW's satisfaction.

NOW is concerned that the proximity of the full width extraction in Longwall 9 may have consequential impacts upon groundwater inflow rates to the main headings of the Xstrata Ravensworth underground mine. Aquaterra has made several assumptions in its modelling of groundwater response to mining in the Ashton and Ravensworth underground mine; there is no means to verify the stated outcomes of modelling groundwater migration through the coal barrier between the neighbouring mines. Therefore, a verification process for potential interaction through the coal barrier and potential reduction of vertical anisotropy (leading to vertical drainage into the Ravensworth main headings) must be adopted for the approved longwall/miniwall.

Should you wish to discuss any of the above, please contact Fergus Hancock on the above phone number.

Yours sincerely

Mark Mignanelli
Manager, Major Projects Assessment

402.5395/01/04; 5
09/1617
AM

Director, Major Projects Assessments Mining
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Attention: Rohan Tayler

ASHTON COAL MINE LONGWALL/MINIWALL 9 (DA 309-11-2001 MOD 4)

Dear Mr Taylor,

I refer to your letter dated 18 August 2009 (Your reference: S03/00074-27) requesting comment from the Roads and Traffic Authority (RTA) regarding the Environmental Assessment for the subject application.

The RTA has reviewed the information provided and has no objections to the mining of another longwall panel. It should be noted that the current Subsidence Management Plan for the New England Highway dated 10 February 2009 remains applicable and valid.

On the Department's determination of this matter, it would be appreciated if a copy of the development consent were forwarded to the RTA for record purposes.

If further advice is required, please contact me on (02) 4924 0240.

Yours faithfully

Natasha Waeger
A/Manager, Land Use Development
Hunter Operations & Engineering Services

14 September 2009

Roads and Traffic Authority
59 Darby Street
Newcastle NSW 2300
Locked Bag 30 Newcastle NSW 2300
DX 7813 Newcastle
T 02 4924 0240
www.rta.nsw.gov.au

16 September 2009

Our Ref: RUM-DOP-0003
Your Ref: S03/00074-27

Department of Planning
Major Projects Assessment - Mining
GPO Box 39
SYDNEY NSW 2001

Attention: Belinda Parker

Dear Belinda

Re: Ashton Coal Mine – Longwall / Miniwall 9 (DA 309-11-2001 MOD 4)

I refer to your correspondence, received 27 August 2009, inviting comments on the above proposal. This letter is a joint response from Ravensworth Underground Mine and Ravensworth Operations.

Ravensworth Underground Mine
It is noted that Aquaterra has investigated the potential groundwater impacts of mining longwall / miniwall 9 upon Ravensworth Underground Mine (RUM). We have reviewed this assessment (Appendix 3B of the Environmental Assessment) and offer the following comments.

As the RUM mining schedule has not been referred to in the groundwater assessment, an incorrect assumption is drawn that Ashton and RUM will be working in proximity to longwall / miniwall 9 at the same time (2011 – 2012).

RUM will be commencing mine development in this proximity in 2012 and mining in 2014. As the operations are not concurrent, the cited worst case of increased groundwater pressures in and above longwall / miniwall 9 and consequently atmospheric pressure in RUM, has a greater possibility of occurring than reported by Aquaterra. However, we accept that it is improbable and providing the flow is largely in seam, we concur with the determined likely maximum water make to RUM.

Nonetheless, we ask that it is confirmed that any impact upon alluvium and baseflow in Bowmans Creek is attributed to Ashton Coal as the offending party.

Ravensworth Operations
Ravensworth Operations conducted a review of the proposal and has concerns in relation to potential subsidence impacts to Brunkers Lane.

Ravensworth Operations is required by its development consent to re-instate Lemington Road to the south-east of its current alignment. These works are scheduled for the near future and it is proposed to utilise the Brunkers Lane - New England Highway intersection and the initial section of Brunkers Lane for the new alignment.

Ravensworth Underground Mine. ABN 65 106 177 708
Off Old New England Highway, Liddell Station Road, RAVENSWORTH NSW 2330 Australia
PO Box 528, SINGLETON NSW 2330 Australia
Tel +61 2 6576 1500 Fax +61 2 6576 1511 www.xstrata.com

Ravensworth Operations seeks confirmation that any subsidence impacts to Brunkers Lane will be addressed in full prior to construction of the proposed Lemington Road re-alignment. Should the Lemington Road re-alignment be in place prior to Ashton mining Panel No 9, Ravensworth Operations seeks assurance that Ashton Coal will take full responsibility for remediating any subsidence related impacts.

If you wish to discuss any matters raised in this correspondence, please contact Vicki McBride on 6576 0404 or 0438 646 286.

Yours sincerely

Vicki McBride

for

Vicki McBride
Environment and Community Coordinator
Ravensworth Underground Mine

Ben Seaborn
HSEC Manager
Ravensworth Operations

Original Readme

Copy: [redacted] BW, PB, LR

DSC NEW SOUTH WALES

Dams Safety Committee

ABN 55 079 703 705

2 October, 2009

Phil Fletcher
Technical Services Manager
Ashton Underground Mine
PO Box 699
Singleton NSW 2330

Our ref: 10.123.103

Your ref:

Dear Phil,

Ashton Coal Mine LW9

Enclosed is a copy of the Dam Safety Committee's recommendations to the Department of Planning in respect of Ashton's LW9, which will enter the DSC Notification Areas around Narama Mine's Ravensworth Inpit Storage Dam, and Macquarie Generation's Ravensworth Void 5 Ash Dam.

If you have further enquiries regarding this matter please contact David Hilyard on 02-9895 7353.

Yours faithfully,

for Paul Heinrichs
Executive Engineer

encl

Postal: NSW Dams Safety Committee
PO Box 3720
Parramatta NSW 2124
Australia

Address: Level 3
10 Valentine Avenue
Parramatta NSW 2150
Australia

Phone: +61 (02) 9895 7363
Fax: +61 (02) 9895 7354
http: www.damsafety.nsw.gov.au
email: dsc@damsafety.nsw.gov.au

Dams Safety Committee
NEW SOUTH WALES
ABN 55 079 703 705

2 October, 2009

Nicholas Hall
Senior Planning Officer
Department of Planning
GPO Box 39
Sydney NSW 2001

Attention: Deana Burn

COPY

Our ref: 10.123.103

Your ref: S03/00074-27

Dear Ms Burn,

Ashton Coal Mine LW9

Ashton Mine's proposed LW 9 lies within the Dams Safety Committee's Notification Area around the Ravensworth Inpit Storage Dam (also known as Narama Dam). LW9 lies outside the current mining footprint, and approaches closer to the embankment, lying c. 280 m from the dam. Extraction opposite the dam is in the miniwall part of the mining geometry, where predicted subsidence is 200 mm. The company comments that "subsidence movement at Narama Dam is expected to be imperceptible".

The wider section of LW9 lies further north, c. 250 m from the site of Macquarie Generation's proposed Ravensworth Void 5 Ash Dam. Although subsidence over this wider panel is predicted to be 1.2 m, the distance of extraction from the dam site is such that subsidence, strain, and far-field effects are unlikely to have an impact on the structure, should it be built at the time mining takes place.

The Committee is managing dam safety impacts of Ashton's mining activities, using its normal course of regulation under the Mining Act 1992 and the Dams Safety Act 1978. The DSC will require the company to maintain the safety of both dams, and to undertake such monitoring as is necessary to ensure this. I note that the company is aware of the need to conduct monitoring of the Ravensworth Inpit Storage Dam during extraction. It is likely that the DSC will require such monitoring, and so the Department of Planning could consider inclusion of such a requirement in any approval.

Given the distance of mining from the dam and dam site, the additional risk posed by the proposal appears low. As the Committee is actively managing dam safety matters associated with this mining, it has no other comments to make at this stage on the proposal to add LW9 to the mine plan.

Recommendation

That the Department of Planning include a condition requiring the company to maintain the safety of dams, and to undertake monitoring and other activities to the satisfaction of the DSC.

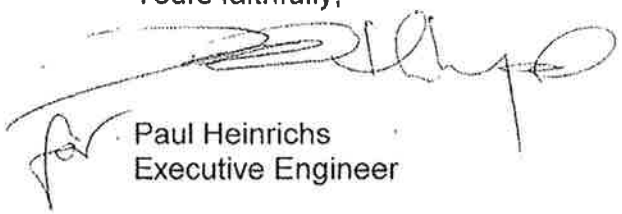
Postal: NSW Dams Safety Committee
PO Box 3720
Parramatta NSW 2124
Australia

Address: Level 3
10 Valentine Avenue
Parramatta NSW 2150
Australia

Phone: +61 (02) 9895 7363
Fax: +61 (02) 9895 7354
http: www.damsafety.nsw.gov.au
email: dsc@damsafety.nsw.gov.au

If you have further enquiries regarding this matter please contact David Hilyard on 02-9895 7353.

Yours faithfully,



Paul Heinrichs
Executive Engineer

ATTACHMENT 4:

ADDITIONAL RESPONSES RECEIVED FROM AGENCIES AND STAKEHOLDERS

Ashton Coal
DA 309-11-2001 MOD 4 – Longwall/Miniwall No. 9

Response to Submissions

Further information required:

Submission	DoP Question/ Clarification
DECCW	Provide specific reference to section of Arch report that has been updated in response to DECCW submission.
	Has PAD been recorded with DECCW?
	DoP to confirm with DECCW if responses are adequate.
NOW	DoP to confirm with NOW if responses are adequate.
	The reference to the monitoring network being adequate to determine extent of dewatering/depressurisation of the alluvium – Should also refer to a figure showing monitoring network and include details of location, frequency of monitoring, data collected, reporting timeframe.
	NOW comment re: loss of baseflow in Bowmans to be replaced by Ashton has not been addressed.
DII	Mining title – include further information on when relevant title will be sought.
	Include a plan that clearly shows the boundaries of the mining tenement and the project area, i.e. Figs 2 and 3 combined with a clear key.
Macquarie Generation	Damage to Macquarie Generation infrastructure – response is unclear whether Ashton accepts responsibility, as reference is made to 'the proponent'. Please clarify.
	Relocation of Lemington Road to Brunkers Lane – response doesn't answer submission re: responsibility for repair of damage due to subsidence impacts.
Yarrawalk	Reference to sections of Heritage report is insufficient. Include a summary clarifying Ashton's response.
	The response to submissions is made public on the Department's website, I suggest removing the Note section regarding Yarrawalks registered business details.
Ravensworth Underground Mine	Clarify whether Ashton is or is not making a commitment to accepting responsibility for any impacts upon alluvium and baseflows in Bowmans Creek?
Ravensworth Operations	Clarify if Ashton accepts, or does not accept responsibility for remediating any subsidence impacts to Brunkers Lane.

NSW GOVERNMENT | Office of Water

Director – Major Projects Assessments
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Contact: Fergus Hancock
Phone: 02 4904 2532
Fax: 02 4904 2503
Email: Fegus.Hancock@dnr.nsw.gov.au

Attention Deana Burn

Date 9 November 2009

Our ref: ER20364
Your ref: DA 309-11-2001 MOD4

Dear Deana

Response to submissions; Ashton Coal Longwall/Miniwall 9

The NSW Office of Water (NOW) has reviewed the response to submissions made by Ashton Coal Operations Ltd (ACOL). NOW provides the following comments with reference to specific points made by ACOL's letter dated 2 November 2009.

NOW notes ACOL's reply attempts to avoid consideration of future approved extraction of coal in the alignment of LW/MW 9 in the three lower seams underlying the Pikes Gully workings. NOW remains concerned the change out point nominated to the 1480m point on LW/MW 9 may result in sterilisation of deeper coal, and recommends retraction of the LW 9 to between 50 and 100 metres north of the currently nominated point.

NOW disputes the claim that impacts on minimal baseflows in Bowmans Creek is authorised under the current development consent. Protection of connected surface/ground waters has been NOW's position since the Ashton longwall proposal was first presented, and State policy (NSW Water Reforms) and NSW agreements with the Federal government under the National Water Initiative require both protection of, and accounting for inadvertent impacts upon, riverine baseflows. This also contradicts ACOL's commitments to NOW, to account for any induced loss of riverine flows by means of licence purchase and relinquishment.

Therefore, NOW does not accept the assertion that riverine baseflows should not be accounted for by ACOL in accordance with the Hunter Unregulated Rivers and Alluvial Water Sharing Plan (HURAWSP). NOW's stream gauging records on Foy Brook below the Bowmans Creek bridge indicate that Bowmans Creek experiences extended minimum flow over the flow gauge weir at station 210130, which is regarded as being groundwater-dependent flow. Interruption to this minimum flow is not consistent with the minimum low flow protection requirements of the HURAWSP; accounting for the loss of this baseflow is a mandatory requirement of the water sharing plan.

This requirement is maintained irrespective of any perceived or assertion of authorisation to unlicensed interception or interruption of minimum baseflows in Bowmans Creek, or any other river, governed under a water sharing plan.

NOW requires mandatory reporting periods for groundwater interception and extraction associated with Hunter basement porous rock, Bowmans Creek alluvium or interruption of flows in Bowmans Creek. As outlined in NOW's previous correspondence, this must conform to reporting requirements set out under the Hunter Regulated River Water Sharing Plan (HRRWSP) and/or HURAWSP.

The decision to permit surrender of surface water entitlement to account for reduction of minimum baseflows in systems such as Bowmans Creek does not address maintenance of surface flows below set cease to pump limits, which are conditioned on surface water licences in the Bowmans Creek water source, and are mandatory within the rules of the HURAWSP. NOW requires determination of changes to cease to flow limits in Bowmans Creek against long term stream flow monitoring, and a commitment from ACOL to maintain baseflow requirements to the Hunter River confluence. This requires ongoing verification of predicted against actual groundwater drawdown, and assessment of likely groundwater behaviour in response to extraction of LW/MW 9 at the end of extraction from LW 7.

If you require any clarification on technical matters raised in this letter please contact Fergus Hancock on (02) 4904 2532. For any matters of statutory consistency, please contact me on (02) 4904 2549.

Yours sincerely

Mark Mignanelli

Manager, Major Projects Assessments