## **Minutes of Meeting**

Ashton Coal

Subject: Aquaclude Meeting
Venue: Ashton Site Office

Date: 21 May 2008

Time: 11:00am File/ref number: 60043883

Participants: Brian Wesley, Shane Pegg, Lisa Richards, Paul Gresham, Peter Dundon,

Winton Gale, Colin Phillips, Fergus Hancock, Greg Summerhayes, Ray

Ramage, Peter Horn, Amanda Kerr

Distribution: As above

No Item

## 1 Participants

### **Ashton Coal**

BW - Brian Wesley Underground Mine Manager

SP - Shane Pegg, Underground Technical Services Manager

LR - Lisa Richards, Environment and Community Relations Manager

PG - Paul Gresham, Senior Geologist

## **Department of Primary Industries**

GS - Greg Summerhayes

RR - Ray Ramage

## Department of Water & Energy

FH - Fergus Hancock

### **Department of Planning**

CP - Colin Phillips

### **Consultants**

WG - Winton Gale, Managing Director, SCT Operations

PD - Peter Dundon, Senior Hydrogeologist, Aquaterra

PH - Peter Horn, Principal Environmental Scientist, Maunsell

AK - Amanda Kerr, Senior Environmental Engineer, Maunsell

## 2 Extract from ACOL Development Consent (DA No. 309-11-2001-i)

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

	Item			
	SP: Welcome and introduction Update on current mining position and investigations completed to date. (Presentation attached)			
	WG: Caving and Hydraulic Connection (Presentation attached)  Methods of investigation			
	<ul> <li>Local and overseas empirical data – relationships between strain, subsidence, and overburden depth</li> </ul>			
	<ul> <li>Impact of factors on mine inflows (geology, panel width, subsidence and depth)</li> </ul>			
	Development of modelling techniques to predict caving and fracture networks			
	<ul> <li>ACOL modelling to date has used Longwall 1 as a validation site for predictions of impacts to Bowmans Creek</li> </ul>			
	<ul> <li>Overburden strength / UCS profile – ACOL is consistent with regional experience</li> </ul>			
	<ul> <li>Predicted flows will be related to fracture of pre-existing joints and bedding plane related</li> </ul>			
	FH: In Bowmans Creek, are there any known intrusions or faults not included in the model to determine overall impacts?			
	WG: Not at this stage - Investigation was to identify the mode of fracturing for various pane widths and resultant hydraulic properties of the overburden. It is possible that the effect of structural zones could be included in the groundwater modelling by Aquaterra.			
	<ul> <li>Modelling indicate various overburden fracture response for varying panel widths</li> <li>Panel design width is a viable method for controlling subsidence impacts</li> </ul>			
	CP: Are the panels modelled as isolated panels? WG: Yes			
	<ul> <li>Observed subsidence consistent with regional experience – Longwall 1 start line subsidence was slightly anomalous, but Longwall 2 more consistent.</li> </ul>			
	<ul> <li>Model reproduces observed behaviour well and therefore provides a reasonable basis for future prediction</li> </ul>			
	<ul> <li>Through simulation of flow networks through fracture overburden, can see where increase flows are likely to occur: direct connection in the caving zone, tortuous flow ir zone above that, but little connected flow.</li> </ul>			
	<ul> <li>Determination of average conductivities tends to overpredict flow rates in the tortuous flow networks</li> </ul>			
•	<ul> <li>Predicted conductivity values provided to Aquaterra for input into the groundwater model</li> </ul>			
	<ul> <li>Panel width as a method of control. Width/Depth of 0.6-0.7, maintains zone of 40-30r substantially intact overburden following subsidence</li> </ul>			
	<ul> <li>Risk averse / management approach adopted and conservative W/D of 0.6 recommended to maintain a barrier of substantially unimpacted constrained zone between the caving zone and surface</li> </ul>			
	Subsequent impact of Liddell seam also considered in the model.			
	CP: The unimpacted zone – does the model include the alluvial zone?			
	WG: The model includes an alluvium layer at a depth of 8 metres thickness. The			

unimpacted barrier thickness includes the alluvium but it must be noted that is in excess of



No	Item
	the alluvium thickness so a barrier to the base of the alluvium and weathered strata remains.
	May be scope to revise design to W/D of 0.7 depending on geology and depth in some areas
5	WG: Back Analysis of Longwall 1 – Validation Exercise
	<ul> <li>(Presentation attached)</li> <li>Validation comparison using modelled and observed hydrostatic pressure and subsidence</li> </ul>
	Good correlation overall     Topography is influencing changed change of subsidence in penals are helpeving.
	<ul> <li>Topography is influencing observed shape of subsidence – panels are behaving predominantly independently.</li> </ul>
	<ul> <li>Helium trials as part of ACARP project – Helium injection from goaf and via borehole</li> <li>No return to surface from goaf injection</li> </ul>
	<ul> <li>No return to surface from goal injection</li> <li>Return to surface via borehole injection indicative of tortuous flow network not direct connection</li> </ul>
	<ul> <li>Lack of connection confirmed by no observable rain inflows into mine to date (major rain events included June 2007 and April 2008)</li> </ul>
	<ul> <li>Concluded that W/D =0.6 is a risk averse approach and is a robust design parameter to maintain a substantially unimpacted rock barrier below the alluvium, including an assessment of multiseam (2 seam) extraction. The W/D = 0.7 may also be an option – subject to further assessment.</li> </ul>
	CP: Comment that the alluvial shouldn't be included in the depth measurement of the sound barrier. Also, 1m grid doesn't allow for geological structures and could have localised increases in subsidence occur.
	SP: Design approach and detailed geological investigations has attempted to account for this, also currently mining through a dyke in Longwall 2 and data gathered can assist to predict future behaviour of similar structures
	WG: Geological structure needs to be assessed on a case by case basis. The consideration of the worst case regional subsidence data in reaching the $W/D = 0.6$
	parameter will include some geological structure in the data base.  CP: Not sure there is much data on mining beneath alluvials in the Hunter Valley  WG: The presence of alluvials in the model is not critical to the overburden data – only the relative amount. A grid of 1m is pretty detailed.
	CP: Problem is usually the geology that is unpredicted/unknown
	FH: You modelled the Upper Liddell Seam – have you done all 4 seams? WG: Not at this stage – Upper Liddell was used to see how robust the predictions were and to ensure that what was proposed in the Pikes Gully Seam wouldn't impact on future extraction within the Liddell seam
	BW: This SMP is for extraction from Pikes Gully Seam only. The modelling of the Upper Liddell Seam was conducted for completeness.
	GS: The Helium trial – how useful are helium tests in being representative of water flow permeability?
	WG: The ACARP project was to assess the use of Helium to measure hydraulic connectivity following subsidence and trials were carried out at ACOL and another Hunter
	Valley mine site at various depths, as well as laboratory tests. Helium flow occurs via its buoyancy in both air and water and can be injected either into the goaf or via borehole. It's a good method but not without its problems. Helium occurs in small amounts in coal and therefore some site work needs to be carried out prior to injection. The trials have shown it has promise as a valuable technique.

BW-CP: Discussion of issues that occurred at United with respect to geology structure and



has promise as a valuable technique.

## No Item

possible connections to the base of the alluvium. A geological structure there turned out to be a potential major risk to the alluvials, however this was a particularly significant geological structure.

RR: Have you done any pre and post-mining permeability testing?

WG: Yes for post-mining via the helium tests in the vertical borehole. Pre-mining permeability is not tested specifically at Ashton although we have good representative premining permeability information from neighbouring mines sites

PD: Some data has been collected in the coal seam and overburden

RR: But you've no true measure of change in the overburden conductivity?

PD: We have data we've relied on from the local area, but not ACOL data

RR: Could you do a pre & post mining permeability test over the proposed mining area?

PD: Could be looked into.

GS: Will you be doing more validation modelling for longwall 2?

WG: Will be looking at subsidence values to check that it fits within the predicted/regional behaviour.

GS: Didn't the graphs show Longwall 1 hanging up?

WG: Only at the start of the panel, the rest behaved more as predicted. For prediction of subsidence beneath Bowmans Creek – the current data is not equivalent, only indicative. Current mining is at a W/D ratio of 1.0 to 2.0 so have had to extrapolate. Due to different behaviour of Longwall 1 start, have discounted this data for design purposes.

RR: What is your feel regarding panel interaction?

WG: At this depth and pillar geometry, would expect them to be reasonably isolated and the pillars may actually aid isolation. Unlikely to see any pillar failures.

PD: The monitoring data indicates some degree of pillar compression for Longwalls 1 and 2 and this appears to in fact reduce horizontal permeability over the pillars.

### 6 PD: Groundwater Investigations

(Presentation Attached)

- History of investigations into the Bowmans Creek alluvium
- 2007 carried out extensive investigation/drilling program
- Identified that there is a difference between the extent of alluvium and extent of saturated alluvium
- Unsaturated alluvium may be older or colluvium
- Saturated alluvium generally follows Bowmans Creek and is not connected to the Hunter River alluvium
- Alluvium groundwater quality is actually quite saline, with some limited areas of better quality water (still more saline than Bowmans Creek surface flows)
- Limited baseflow from alluvium to Bowmans Creek.
- Wide range of permeabilities within the alluvium.

FH: Differentiation between the Bowmans Creek and Hunter River alluviums – how did you determine that?

PD: Through the drilling data and water quality data – different depths, water quality, alluvium characteristics etc.

- Longwall 1 &2 data used for calibration / validation of model
- Good calibration observed with some sites comparing well initially then showing divergence (recovery). Recovery in water levels following initial drawdown can only be explained as a result of self-sealing of cracking above goaf areas.
- Some bores (to the north west) are showing impacts that are not related to ACOL activities and are likely to be influenced by adjacent mining.



No Item

- Inflows being observed/modelled are below the SMP& EIS predictions
- Some impacts will occur to Bowmans Creek as a result of Longwalls 1 to 4 and these impacts had been previously predicted in the SMP(LW1-4) and EIS
- Site observations during heavy rain also support some level of self-sealing of cracks is occurring

FH: The lateral extent of the model – does it include Ravensworth and Newpac underground?

PD: All neighbouring mines are included in a simplistic sense (statically, not dynamically). Mine to the west (down dip, also in Pikes Gully Seam) almost certainly impacting ACOL Permian measures and theoretically Bowmans Creek alluvium as well, but monitoring indicates no impact on Bowmans Creek alluvium. In future may need to hypothetically mine the u/g to the west, but not done that this stage. Newpac u/g mine likely to be operating adjacent to ACOL at the same time in the Pikes Gully Seam.

GS: Lack of impact from Ravensworth open cut of Bayswater seam on Bowmans Creek?

PD: Yes and lack of observable impact suggests lack of a hydraulic connection between alluvium and coal measures.

BW: Aim of the Ashton Aquaclude meetings is to identify no direct hydraulic connection between ACOL Pikes Gully and Bowmans Creek, with other mines subject to their own approval requirements.

PD: Requirement to look at cumulative impacts

CP: Extent of the mine plan and your current approval – difference in longwall extent, Mining Lease Boundary, project approval?

LR: ACOL have met with DoP to discuss their understanding of the current approval and any requirements for variations. It was identified that LW8 (now LW9)is outside of the extent of underground mining defined in the Option 4 Plan. A consent variation is currently being drafted to cover this. There is also a variation to the Mining lease currently submitted to pick up the top corner of the NW Mains.

CP: if area are outside of the extent of the development approval it may result in issues with your Mining Lease variation being approved, the DoP would likely object to the granting of the mining lease if it is outside of this area. DoP are generally understanding about changes in layout within the approved extent of mining, but not outside.

Note - later clarified with CP that only the workings associated with LW9 are outside the current Development Consent mine plan area and that the application for this is currently being prepared and will be lodged in the near future.

### SP: Mine Plan Proposal 7

(Presentation attached)

FH: Will you consider using Miniwalls in the Upper Liddell Seam as well?

SP: Modelling indicates that similar panel widths in lower seams will be required.

BW: Confirmed that the above is understood / accepted for the mine plan

CP: Are there any other development consent conditions to be satisfied?

LR: Currently have agreement to submit concurrent SEMP/SMP documents for approval. Also looking to consolidate the overall number of management plans as part of the SMP and modification to the development consent.

CP: DoP is prepared to take consents and streamline the overall number of requirements

LR: What is the current turnaround time of management plans?

CP: Currently quite long due to the number of, and priority given to, Project Applications.

LR: We're hoping to combine management plans as part of the SMP submission. Aim of



Item No the consent modification is to address the longwall extent issues and reduce the overlapping requirements for management plans and make it more workable FH: Is the upcoming presentation to the SMP Interagency Committee in June going to be the same as today? BW: We are limited by number of participants and time (45min allowance). Ashton have been asked to give an overview of the next SMP including the more significant issues (not just groundwater) and timing. Extracts from today's presentation will be used. PH: the Aquaclude meeting process is a separate ongoing process (to the SMP process) as a result of a need to satisfy the development consent. CP: Is it correct to include alluvials in the overburden calculations? WG: The model is used to estimate the changes in conductivity and formation of flow networks. The hydrogeology model then reflects the predicted conductivities of all layers. CP: I've a problem with the alluvium being considered as rock. PD: With SCT's calculations, had the alluvium been excluded, the resulting recommendations for the W/D ratio would have been higher e.g 0.65. Either way, the same miniwall panel widths result. WG: The approach ensures the properties of the alluvium have been considered. It's a wording issue in the presentation. We need to reconsider the wording but the model and recommendations are still sound. FH: Where are you up to with the submission of your consent variation? LR: Being prepared by Corporate (Brisbane) at the moment. CP: Which approval path will you be seeking - Part 3A? SP: I think so, but I would need to confirm that. CP: Consideration will be required of the full geological structure. RR: The SMP contingency plan should allow for unexpected geology. What flexibility will there be to change widths in the miniwall layout? BW: Restricted - at the start of the panel only. Structure will need to be assessed on a case by case basis. RR: In that case you'll need to incorporate contingency plans in the event that a major geological structure is encountered RR: It would also be appropriate to conduct ongoing model validation as current mining is undertaken. Eg. Compare/validate models against LW2 subsidence and groundwater results LR: We are currently restricted by timing of the SMP document submission and approval timeframes to allow validation against LW2 prior to submitting the SMP RR: If you can then include the intended investigation process in the SMP. Contingency plans GS: Any other exploration plans? PG: We've an ongoing process of drilling which will continue GS: There is scope within the SMP process to include this information ie. Density of drilling and results of other mapping and investigation. The level of geological data and exploration program can form the basis of showing one potential risk mitigation measure. GS: Maybe do a sensitivity analysis of a geological structure on the model? FH: Given the effort required for each model run and the limitations of MODFLOW, how well could the model mimic unknowns or geological structures? PD: Can be assessed or simulated by putting in a hypothetical structure in a potential location.



FH: Where is the report for the end of longwall panel 1?

PD: It just requires me to find the time to finish it off. Been delayed because of effort

No	Item
	required in modelling Bowmans Creek impacts, but the results were presented in the AEMR.
	FH: Piezometers – are you looking to transect lines?
	PD: Preparing displays of those at the moment.
	GS: What did the development consent condition regarding aquaclude say?
	LR: Aquaclude group not a consent requirement but convened to work through the process and ensure appropriate technical approach and authority engagement.
	PH: This meeting will also form part of the consultation process for the SMP, and minutes will be distributed to all participants.
	GS: Can you attach a draft layout of the mine plan?
	SP: Will attach the presentations and they include the proposed mine plan
	CP: Does the consent say maintain 150m?
	BW: Copy of Condition 3.9 of development consent table for review. It does not specifically state a 150m depth.
	GS: Can we put the consent condition in the minutes? ( <i>Note: Relevant condition placed at start of minutes</i> )
	PH: The aquaclude committee was set up to help clarify what was required by the consent condition and to define what is a "direct connection"?
	WG: We've eliminated the need to clarify that definition with the mini-wall design.
	FH: ACOL's approach presented today to the measures for protection of Bowmans Creek including the attainment of an aquaclude is consistent with the terms of DWE Policy. The provision of a sound barrier of rock as opposed to a direct crack or even tortuous flow path is consistent with DWE requirements. DWE position is to avoid / prevent impacts.
	LR: We took the views of that policy into consideration
	BW: Wish to reinforce, as shown by PD's presentation, that even with a barrier intact, there will still be seepage impacts even from first workings due to depressurisation. ACOL wish to be open on this matter so if any concerns, we need to discuss them now.
	FH: Next year the Bowmans Creek and alluvium will be covered by a water sharing plan. ACOL's Groundwater Extraction Licence for the underground doesn't include water from the alluvium. Impacts – compensation considerations. The residual flows or indirect losses must be accounted for via licensing.
	GS: The model currently shows your predictions are less than the EIS values and approval
	CP: Commented on Development Consent Condition 1.2 item (v) which is the currently approved layout – Option 4 plan
	LR: Clarified the amendments that occurred during the development application process. History of approval, Bowmans Creek diversion, and therefore issues with clarifying the approved extent of mining. The mine is fully within the EIS project definition but mining extent not shown the Option 4 plan.
	GS: Noted due to these changes, the approved mining area is slightly open to interpretation
	PD: What is the basis for considering the Bowmans Creek alluvium as being connected to Bowmans Creek, while the Permian is not? I have looked at the draft water sharing plan and haven't found a clear definition of "connected aquifer system"
	FH: Definitions for the terms used in the policy have been prepared and are now ready for public exhibition.
	PD: From a hydrogeology standpoint there is no such thing in nature as an aquaclude – and the profession has generally dropped the term in favour of aquitard. Can you please supply a copy of the definitions?
	FH: Agreed.
	BW: FH mentioned our approach to the provision of an aquaclude is consistent with the



No	Item
- 10	requirements of DWE policy
	PD: Predictions of minor drainage will occur up to and including longwall 4, unrelated to aquaclude provision due to lateral depressurisation.
	LR: What impact will that have on ACOL's current licence for water extraction, Bowmans Creek?
	FH: ACOL have a current entitlement on Bowmans Creek. Mechanisms in the water sharing plan exist for compensation for extraction from Bowmans Creek if occurring in measurable quantities. Nuisance or minor flows would not likely be captured
	LR: But even during drought, alluvium was providing minimal base flows to Bowmans Creek.
	PD: Bowmans Creek alluvium is not connected to the creek in the same sense the Hunter River alluviums are?
	FH: Alluviums are a function of the creek – all alluvium provides a value and in the case of Bowmans Creek the alluvium is a buffer to saline water. PD/WG should meet with DWE Senior Hydrogeologists (John Williams, Mike Williams and George Gates).
	LR: What is happening to ACOL's application to vary the type of use on the Bowmans Creek licence lodged approx 6 months ago? Is it being held up by the implementation of the Water Sharing Plan?
	FH: Not currently involved in licensing. You will need to contact Hemantha deSilva.
	BW: Given that the Ashton approach to providing an aquaclude is consistent with DWE requirements, the main issue is the accounting of residual water losses due to the depressurisation impacts and how that relates to the water sharing plan.
	FH: The water account must be made to balance. If measurable losses occur, they must be compensated/replaced.
	GS: What about nuisance water? How is this addressed in the water sharing plan?
	FH: There is a requirement for unregulated areas for the process to be completed in less than 10 years.
	GS: To understand what is incidental water?
	FH: DWE is still defining it.
9	<u>Actions</u>
	Minutes to be prepared in draft form by Maunsell for circulation and to include copies of the presentations
	<ul> <li>Presentation to Interagency committee in June – same, condensed information will be presented along</li> </ul>
	<ul> <li>Meeting by ACOL and PD/WG with DWE Senior Hydrogeologists (John Williams, Mike Williams and George Gates) and Gang Li</li> </ul>
	FH to provide a copy of the definitions relating to the Water Sharing Plan to PD.



Meeting Closed approx 2:30pm

PO Box 7710 Melbourne VIC 8004 Phone: 1100 Fax: 1300 652 077

# DIAL BEFORE YOU DIG Caller Confirmation



www.dialbeforeyoudig.com.au

 To:
 Ms Amanda Kerr
 Job No:
 2908931

 Enquiry Date:
 30/05/2008 11:07:32 AM
 Start Date:
 04/01/2009

Priority Type: Normal - Web

Dig Safely - ensure all information has been received prior to excavating and hand expose pipes and cables before using heavy machinery.

The asset owners listed below have been advised of your enquiry. We have requested that they contact you with information of their asset locations, within 2 working days. Additional time should be allowed for information issued by post.

\*\* Asset owners highlighted by asterisks \*\* require that you visit their offices to collect plans.

# Asset owners highlighted with a hash require that you call them to discuss your enquiry or to obtain plans.

It is your responsibility to check that the location of the dig site on the map below is correct and to contact any other asset owners not listed herein.

IMPORTANT:	For further information regarding your enquiry.	please contact the asset owner I	isted below and quote your Sea No

Seq No.	Asset Owner	Contact No	Notification Status	
13873874	AAPT / PowerTel, NSW	0282643932	Notified	
13873872	Energyaustralia Hunter	0249510899	Notified	
13873873	Telstra, Maitland (n)	1800653935	Notified	

### **Caller Details:**

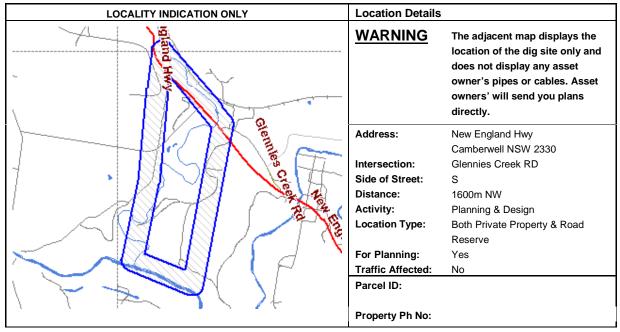
 Customer Id:
 736801
 Phone:
 0249394600

 Contact:
 Ms Amanda Kerr
 Mobile:
 Not Supplied

 Company:
 Maunsell
 Fax No:
 0249343055

Address: 1/27 Bulwer St Email: amanda.kerr@maunsell.com

Maitland Nsw 2320



Map Ref: Penguin 126B9;126B10 Additional work site information:

DBYD Message: Visit our new Web site - www.dialbeforeyoudig.com.au ((NSW))





**ASHTON COAL OPERATIONS PTY LIMITED** 

# Subsidence Management Plan Longwall and Miniwall Panels 5 to 9

Presentation to the Subsidence Interagency committee

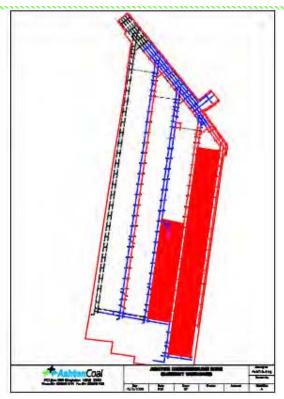
**4<sup>TH</sup> JUNE 2008** 





## **ASHTON COAL**







- Longwall 2 has been 50% extracted
- Longwall 3 face road is being completed
- Preparation for development mining of Main Headings to Maingate 4











## **Key Features**

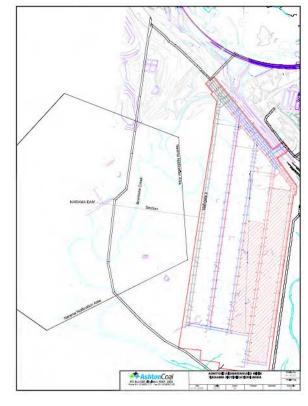
- Bowmans Creek and alluvium
- Hunter River
- · Glennies Creek
- New England Highway
- Farmland and buildings
- Access road to private property
- Infrastructure including power lines, telstra, fibre optic
- · Archaeology sites
- · Narama Dam







# **Narama Dam Notification Area**



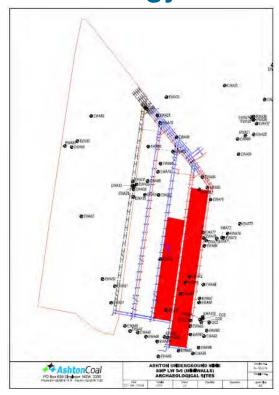








# **Archaeology Sites**



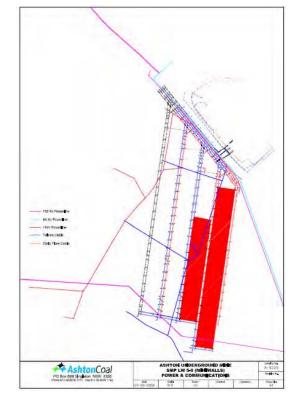




# **ASHTON COAL**



# **Power & Communication Infrastructure**



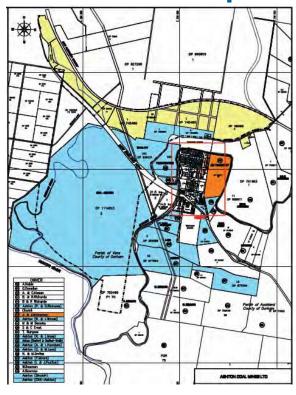








# **Land Ownership**







## **ASHTON COAL**



# **Development Consent Requirements**

In the finalisation of the development consent it was accepted that there would be impacts on Bowmans Creek alluvium. The basis for extraction under Bowmans Creek alluvium are predominantly defined within clause 3.9

Clause 3.9: Design U/G operations to ensure no direct hydraulic connection between the Bowmans Creek alluvium and U/G workings. Provide adequate contingency in mine design to ensure sufficient sound rock is maintained to provide an aquaclude between Bowmans Creek alluvium and the U/G goaf.

Other significant site specific requirements are as follows

- Clause 3.12: Maintain an access road to Property No.130.
- Clause 3.15: Monitor water courses above LW panels during and after mining to identify any impacts on aquatic habitats and fish passage and implement appropriate actions if adverse impacts occur.
- Clause 3.17: Angle of draw to be kept outside of the New England Highway Reserve.

Other clauses are more generic in nature and apply to public safety, monitoring and reporting.







## **Bowmans Creek Alluvium**

The most significant factor influencing the mining design in the application area is the attainment of an aquaclude of sound rock to Bowmans Creek and its alluvium.

Consequently, the primary focus of investigations, assessments and consultation to date has been on this issue.

An aquaclude study group including government agency participation was initiated in 2005.

Over the past 3 years, extensive hydrogeological and geotechnical studies, including review of current longwall subsidence measurements have been undertaken.

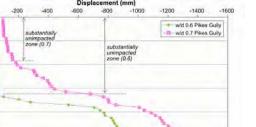
Studies have defined key design parameters for coal extraction methods in the application area. The resultant mine plan is based on use of miniwall extraction with widths dependant on depth of cover, with due consideration to the extent and quality of the alluvium

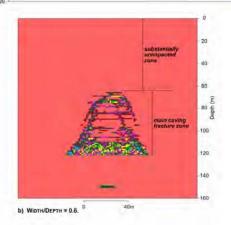


# **ASHTON COAL**

Aquaclude Assessment







Investigation of subsidence impacts at different w/d ratios:

- At w/d = 0.7 sufficient rock head to prevent direct hydraulic connection
- Ashton has conservatively selected w/d = 0.6
- Consideration has been given to effect of multiseam
- Further monitoring may confirm 0.7 is achievable







# **Alluvium Investigation**



- Drilling to define nature and extent of alluvium
- Determine the quality of alluvium
- Groundwater monitoring and assessment adjacent and over longwall mining operations
- Development of Groundwater Model





# **ASHTON COAL**





## **Key Features**

- Full width longwall blocks at the Southern end of LW5 and LW6
- Miniwalls beneath Bowmans Creek and the saturated alluvium (MW5, 6, 7, 8, and 9)
- Mid width longwall block at the northern end of LW9







# **Contingency Within Mine Design**

Clause 3.9 of the Development Consent requires provision of adequate contingency in design

- A conservative approach has been to apply the w/d ratio at the most shallow end – true w/d ranges from 0.5 to 0.6 along the block length
- Relatively thin seam extraction maximum mining height 2.5m
- Negligible rainfall penetration has been observed in LW1 and 2 following rain events
- Helium testing from LW1 resulted in nil connectivity
- Alluvium nature, extent, permeability and quality is well understood and is accommodated in the miniwall mine design.
- Creek flow governed by upstream rainfall with minimal contribution from surrounding saline alluvium
- Monitoring bores show evidence of self sealing and bore recovery that have not been reflected in the model





## **ASHTON COAL**



Distances of major features from edge of longwall/miniwall extraction:

Hunter River

230 metres minimum

•New England Highway Pavement 116 metres minimum

Depth of cover for first workings within the highway reserve ranges from 85m to 140m

Depth of cover for longwall/miniwall ranges from 100 to 185 metres

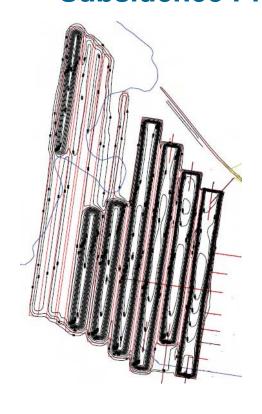
Seam height varies from 2.4 to 2.5 metres thick







## **Subsidence Predictions**



Maximum subsidence is up to 1600mm in longwall areas and 300mm in miniwall areas.

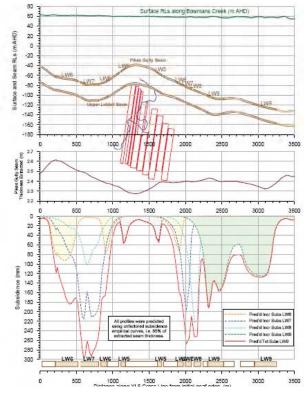




# **ASHTON COAL**



# **Subsidence Prediction**



- Section view along Bowmans Creek
- Very Low vertical subsidence predicted
- Maximum Subsidence predicted at 200 to 300mm.
- Current subsidence monitoring shows Ashton below the regional average









Relevant stakeholders have been identified and the different groups will be addressed individually.

Government Agencies (DPI, DWE, DoP, Fisheries, DECC)

Aquaclude study group meetings

Broader consultation to be undertaken now that the mine plan is finalised Flora, fauna, ecology and archaeology assessments and consultation

### **Land owners**

Meetings have commenced with affected landowners.

**Utilities and service owners** (RTA, PowerTel, Energy Australia)

Consultation to confirm location of services and discuss management plan requirements

## **General Community**

Advertising in local and state newspapers

**CCC** meetings

Community Open Day including access to relevant technical experts Exhibition of SMP

The finalised SMP application will incorporate stakeholder concerns and relevant management strategies.





## **ASHTON COAL**



Specific Subsidence Management Plans to be submitted include:

- Site Water Management Plan
- Land Subsidence Management Plan
- Groundwater Management Plan
- Flora and Fauna Subsidence Management Plan
- Roads Subsidence Management Plan
- Pothole Management Plan
- Electricity Transmission Line Subsidence Management Plan
- Property No. 130 Subsidence Management Plan
- Farm Fences Subsidence Management Plan
- Farm Dams Subsidence Management Plan
- Archaeology and Cultural Heritage Subsidence Management Plan
- Public Safety Subsidence Management Plan
- Telstra Assets Subsidence Management

Other matters to be assessed and documented include:

- Geological structure mapping and evaluation of impacts on aquaclude
- · Narama Dam impact assessment







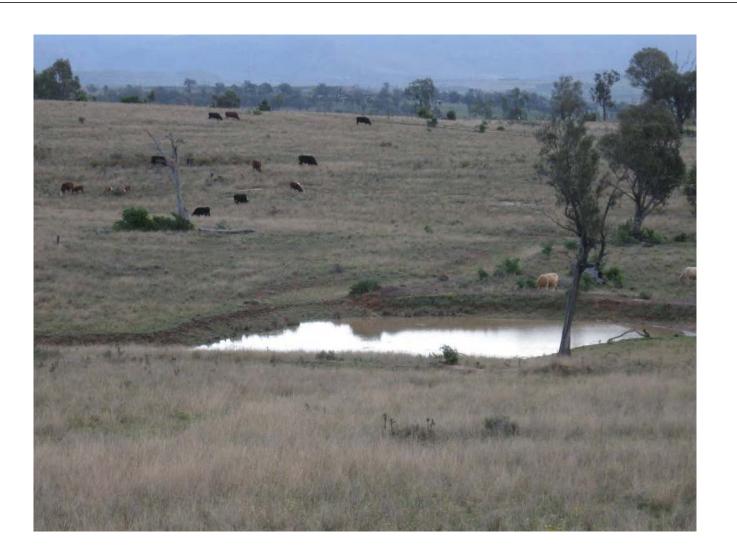




## **Time line**

- The mining plan and subsidence impacts will be presented to the CCC on 17<sup>th</sup> June 2008.
- •Risk Assessment is to be undertaken in late June 2008.
- •An advertisement will be placed in local and state newspapers advising of the process and announcing an Open Day in early July 2008 for wider community consultation.
- Stakeholder consultation continuing through June/July 2008
- •The final SMP document will tie all the subsidence management strategies together.
- Ashton Coal is targeting to have the final SMP document ready for submission by 31 July 2008, with first workings development in the approved area set to commence in early 2009, and longwall extraction planned to commence in October 2009.
- •Stakeholders and members of the community will be advised of the submission in local and state newspapers. Stakeholders will have the opportunity to make submissions to the Department of Primary Industries Mineral Resources within 30 days of the SMP submission.





## **Minutes of Meeting**

Ashton SMP

Subject: SMP Interagency Meeting

Venue: DPI Offices - Sydney

Date: 04 June 2008

Time: 11:30am
File/ref number: 60043883
Participants: As below

Apologies:

Distribution: Shane Pegg, Lisa Richards, Brian Wesley, Amanda Kerr

No	Item		Action	Date
1	SMP Interagency Representatives:			
	MSB DPI (Minerals)  DPI (Fisheries) DWE  DECC DoP	Greg Cole-Clarke (Chair) Gang Li John Smith Elise Newberry Scott Hunter Fergus Hancock Mark Mignanelli Howard Reed		
2	ACOL Presentation –	Brian Wesley		
3	<ul> <li>ACOL Presentation – Brian Wesley</li> <li>Discussion:         <ul> <li>General questions and clarification regarding mine plan – ie areas of coal in-situ (GL)</li> </ul> </li> <li>Clarification of which depth was used to calculate the panel width – shallowest for each panel.</li> <li>GL comments – concept is good but will come down to the technical details. Need to consider not only the depth of the wall, chain pillars are an integral part. May want to consider "noncaving system" and whilst this is a big ask, it may be useful to consider it. Worth looking at pillars and the walls together, and multiseam.</li> <li>BW response was that pillars and multiseam has been considered and that there is minimum caving through use of the minwalls.</li> <li>JS requested that a copy of the presentation be provided to the group</li> </ul>		SP to email pdf file to JS.	5/6/08

No	Iten	า	Action	Date
	•	HR commented on the varying pillar widths and queried the design rationale		
	•	BW/LR explained that the wider pillars are a function of depth of cover, environmental considerations and economics of driving additional roads		
	•	GL: when you reduce panel widths to reduce subsidence there are numerous cases that demonstrate the interpanel pillars are the key elements that that once you mine underneath that the chain pillars are at risk.		
	•	BW: ACOL have considered multiseam extraction	ACOL to meet with Subsidence	
	•	ACOL-DPI need to further discuss miniwall design and demonstrate the technical detail has been considered.	Engineers to discuss in further details	
	•	DECC questioned cultural heritage sites impacted, LR gave brief summary of sites – mostly isolated finds.		
	•	Question? What is the level of certainty on the predictions / managing the impacts to the alluvium?		
	•	BW: ACOL used modelling and empirical data to verify assessment. Panel subsidence is occurring independently.		
	•	FH – Queried HR on implications / need for development consent modification		
	•	HR – couldn't comment on that at this stage		
	•	LR – responded that the modification has been lodged to DoP for LW9.		







## **ASHTON COAL OPERATIONS PTY LIMITED**

# Subsidence Management Plan Longwall and Miniwall Panels 5 to 9

**Community Consultation Committee Presentation** 

17TH JUNE 2008





## **ASHTON COAL**



# **Mining Update**



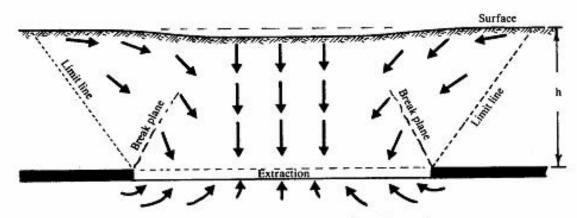
- Longwall 2 has been 80% extracted
- Longwall 3 face road is complete
- Development mining is underway in the Main Headings to Maingate 4







## What is subsidence?



Ground movement directions across longwall extraction





# **ASHTON COAL**



## What is subsidence?

## Potential movements are:

Vertical subsidence - lowering of the land's surface which can occur above shallow underground mines.

Horizontal displacement – horizontal movement of the land's surface

Horizontal strains (tensile or compressive) – caused by differential movements at the surface which change the length of the surface between two points.

*Curvature* – results when vertical subsidence is greater at one point than another, creating a surface curve between these points.









# What are potential impacts of subsidence?

- •Buildings can be damaged
- •Roads can crack
- •Fences can tilt/fall over (gates may not close)
- Dams may empty
- •Utilities can be broken or damaged
- Flora and Fauna habitat can be changed (nest trees)
- Archaeology can be destroyed (erosion, cracking)
- Surface drainage patterns can be altered
- Erosion can be initiated

Not all subsidence causes damage - the SMP will provide management strategies to address these potential impacts.







# What is a Subsidence Management Plan (SMP)?

- •Identifies area affected by subsidence
- •Identifies features within subsidence area
- Predicts level of subsidence
- •Predicts likely impacts to surface and subsurface features
- •Details management options to be implemented during life of the mine
- Outlines the monitoring requirements
- •Outlines contingency plans should an unanticipated event occur

Mining can only commence once the SMP is approved by the Director-General of the Department of Mineral Resources

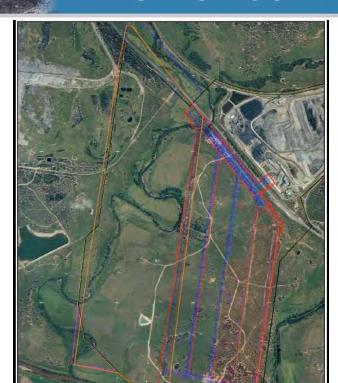






The Application Area





### **Key Features**

- Bowmans Creek and alluvium
- Hunter River
- Glennies Creek
- New England Highway
- Farmland and buildings
- Access road to private property
- Infrastructure including power lines, telstra, fibre optic
- Archaeology sites
- Narama Dam



## **ASHTON COAL**



## **Development Consent Requirements**

In the finalisation of the development consent it was accepted that there would be impacts on Bowmans Creek alluvium. The basis for extraction under Bowmans Creek alluvium are predominantly defined within clause 3.9

Clause 3.9: Design U/G operations to ensure no direct hydraulic connection between the Bowmans Creek alluvium and U/G workings. Provide adequate contingency in mine design to ensure sufficient sound rock is maintained to provide an aquaclude between Bowmans Creek alluvium and the U/G goaf.

Other significant site specific requirements are as follows

- Clause 3.12: Maintain an access road to Property No.130.
- Clause 3.15: Monitor water courses above LW panels during and after mining to identify any impacts on aquatic habitats and fish passage and implement appropriate actions if adverse impacts occur.
- Clause 3.17: Angle of draw to be kept outside of the New England Highway Reserve.

Other clauses are more generic in nature and apply to public safety, monitoring and reporting.







## **Bowmans Creek Alluvium**

The most significant factor influencing the mining design in the application area is the attainment of an aquaclude of sound rock to Bowmans Creek and its alluvium.

Consequently, the primary focus of investigations, assessments and consultation to date has been on this issue.

An aquaclude study group including government agency participation was initiated in 2005.

Over the past 3 years, extensive hydrogeological and geotechnical studies, including review of current longwall subsidence measurements have been undertaken.

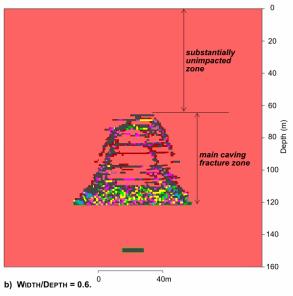
Studies have defined key design parameters for coal extraction methods in the application area. The resultant mine plan is based on use of miniwall extraction with widths dependant on depth of cover, with due consideration to the extent and quality of the alluvium



## **ASHTON COAL**



# **Aquaclude Assessment**



Investigation of subsidence impacts at different w/d ratios:

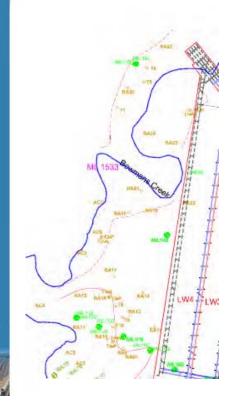
- At w/d = 0.7 sufficient rock head to prevent direct hydraulic connection
- Ashton has conservatively selected w/d = 0.6
- Consideration has been given to effect of multiseam
- Further monitoring may confirm 0.7 is achievable







# **Alluvium Investigation**



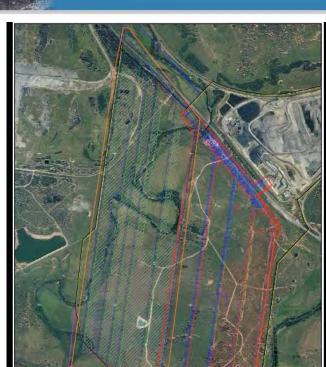
- Drilling to define nature and extent of alluvium
- Determine the quality of alluvium
- Groundwater monitoring and assessment adjacent and over longwall mining operations
- Development of Groundwater Model





# **ASHTON COAL**





## **Key Features**

- Full width longwall blocks at the Southern end of LW5 and LW6
- Miniwalls beneath Bowmans Creek and the saturated alluvium (MW5, 6, 7, 8, and 9)
- Mid width longwall block at the northern end of LW9







# **Contingency Within Mine Design**

Clause 3.9 of the Development Consent requires provision of adequate contingency in design

- A conservative approach has been to apply the w/d ratio at the most shallow end – true w/d ranges from 0.5 to 0.6 along the block length
- Relatively thin seam extraction maximum mining height 2.5m
- Negligible rainfall penetration has been observed in LW1 and 2 following rain events
- Helium testing from LW1 resulted in nil connectivity
- Alluvium nature, extent, permeability and quality is well understood and is accommodated in the minimal mine design.
- Creek flow governed by upstream rainfall with minimal contribution from surrounding saline alluvium
- Monitoring bores show evidence of self sealing and bore recovery that have not been reflected in the model

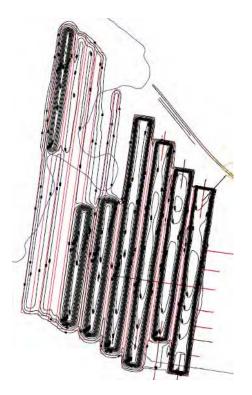




## **ASHTON COAL**



## **Subsidence Predictions**



Maximum subsidence is up to 1600mm in longwall areas

Very Low vertical subsidence of maximum 200 to 300mm is predicted in areas of miniwall





# Stakeholder and Community Consultation

Relevant stakeholders have been identified and the different groups will be addressed individually.

**Government Agencies** (DPI, DWE, DoP, Fisheries, DECC)

Aquaclude study group meetings

Broader consultation to be undertaken now that the mine plan is finalised Flora, fauna, ecology and archaeology assessments and consultation

### Land owners

Meetings have commenced with affected landowners.

**Utilities and service owners** (RTA, PowerTel, Energy Australia) Consultation to confirm location of services and discuss management plan requirements

## **General Community**

**CCC** meeting

Advertising in local and state newspapers

Community Open Day including access to relevant technical experts Exhibition of SMP

The finalised SMP application will incorporate stakeholder concerns and relevant management strategies.



## **ASHTON COAL**



- The mining plan and subsidence impacts are being presented to the CCC and a Risk Assessment was undertaken on 17th June 2008.
- •An advertisement will be placed in local and state newspapers advising of the process and announcing an Open Day in early July 2008 for wider community consultation.
- Stakeholder consultation continuing through June/July 2008
- •The final SMP document will tie all the subsidence management strategies together.
- Ashton Coal is targeting to have the final SMP document ready for submission by early August 2008, with first workings development in the approved area set to commence in early 2009, and longwall/miniwall extraction planned to commence in October 2009.

The consultation process is the ideal forum for stakeholder input into the preparation of the SMP.

Anyone who wishes to comment on the proposal is urged to contact Lisa on ph. 65761111.







## MINUTES OF THE ASHTON COAL PROJECT COMMUNITY CONSULTATIVE COMMITTEE TUESDAY 17 JUNE 2008

11:00PM - ASHTON COAL PROJECT SITE OFFICE

### ATTENDEES:

Brian Thomas	(BT)	Singleton Council (Chairman)
Fred Harvison	(FH)	Singleton Council
Paul Ashford	(PA)	Community Representative
John McInerney	(JM)	Community Representative
Tracey Clarke	(TC)	Community Representative
Peter Barton	(PB)	Company Rep (General Manager)
Lisa Richards	(LR)	Company Rep (Environment & Community Relations Mgr)
Brian Wesley	(BW)	Company Rep (Underground Mine Manager)
Shane Pegg	(SP)	Company Rep (Underground Tech Services Manager)
Peter Dundon	(PD)	Hydrogeologist and Groundwater Specialist
Peter Horn	(PH)	Maunsell (SMP Project Manager)
Amanda Kerr	(AK)	Maunsell (SMP Project Manager)
Adam Spargo	(AS)	Minute Taker (Environmental Coordinator)

### 1. OPENING OF THE MEETING BY THE CHAIRPERSON

The Chairman opened the meeting at 11.10pm.

### 2. APOLOGIES

Apologies were received from Greg Summerhayes (Department of Primary Industries), Thelma DeJong (Community Representative), Deidre Olofsson (Community Representative) and Cr Fred Harvison (Singleton Council). FH arrived later during the meeting.

Tracey Clarke attended on behalf of Thelma DeJong

### 3. DECLARATION OF PECUNIARY INTEREST BY COMMUNITY REPRESENTATIVES

Nil declared.

## 4. MINUTES FROM PREVIOUS MEETING

Minutes from the meeting held on 11 March 2008 were accepted as a true and accurate record:

Moved: John McInerney Seconded: Paul Ashford

### 5. BUSINESS ARISING FROM PREVIOUS MINUTES

Nil



### 6. REPORTS AND OVERVIEW OF ACTIVITES

### 6.1 OPERATIONS OVERVIEW

PB provided an overview of the operations to date, covering the Open Cut and Underground Operations and the CHPP. PB also described the consolidation of the Mine Lease.

PB indicated that Ashton is still looking at the feasability of the SEOC. Indicated that this is behind schedule.

JM discussed the success of the OGM and the evident benefit to the rehabilitation. BT asked about using the OGM as a top dressing, PB indicated that due to the plastics content the material needs to be raked into the surface.

PB indicated that DoP had proposed to conduct a cumulative impact study on noise and dust in Camberwell Village.

### 6.2 ENVIRONMENTAL

There was discussion by the Community Representative that last Thursday's blast was very big causing a lot of Overpressure. LR indicated the blast results. Two shots were fired on Thursday 12 June 2008. The blasts results at the village blast monitor were 2mm/s vibration and 115dBL overpressure for the first shot fired at 10:41am and 3mm/s vibration and 108dBL overpressure for the second shot fired at 10:45am. BT asked if the blast commented on by CCC members last Thursday was included in the blast statistics. LR indicated that this was the case. JM indicated that it was the loudest blast he had heard in a number of years. It was shown that all criteria for the blast were within criteria for Ashton Coal.

Ashton has now separated complaints received through Ashton Coal's complaints line and complaints received through the DECC. FH asked how Ashton Coal determines the difference between a complaint and an enquiry. LR indicated that enquiries are complaints that are received from residents with agreements with Ashton Coal formed under the development consent.

PA presented a bag of dust and that he had collected from the roof of his house. He asked why there was a lot of dust on his roof when the dust gauge was showing low levels of deposited dust. It was indicated that the month of May, may have had high levels of deposited dust and that Ashton would supply PA with the May dust results when they were available.

### 6.3 SUBSIDENCE MANAGEMENT PLAN PRESENTATION

BW, SP, PD, PH, AK joined the meeting at this point. SP gave a presentation on the SMP process and underground mine plan.

BT asked how the long wall would be reduced to the mini walls. SP indicated that the longwall would be reduced in width once the miniwall section was reached. A second gate road would be driven to provide the desired width of the miniwall.



BT asked if the modeling had been based upon the results of 1 seam or 4 seams. SP indicated that the model had been calibrated on 2 panels in the Pikes Gully Seam and would be further validated using monitoring from longwall panels 3 and 4.

BT asked how the helium testing worked and is this reliable. SP indicated that the helium testing forms a part of an ACARP study and involves injecting helium gas into the goaf and testing at the surface to see if it rises through. The information provided from the test indicates that there is some form of impermeable barrier between the surface and the UG. PD indicated that the helium test, groundwater monitoring and subsidence modeling combine together to suggest that there is some form of barrier between the mine and the surface and self-healing of cracking. The width of the miniwalls is then based on a conservative figure that does not assume self healing will continue to occur and therefore any subsidence may be lower than indicated in the predictions.

BT enquired if it is identified that the lower seams could cause cracking through to the surface would there be a reassessment and the mine stopped. SP indicated that we would assess each seam following the SMP processes which is required by the Development Consent.

BT asked if DPI have their experts involved in the process. BW indicated that Gang Lee has been involved throughout the process along with DWE's Fergus Hancock.

JM indicated that he thought that staggering the longwalls, as discussed in a previous meeting, seems like it would greatly help to prevent cracking.

PA asked if we would be looking at the impacts that Glendell's creek diversion would have on the project. LR indicated that it would not impact greatly on our system however DWE have been looking into monitoring and investigating the Glendell project.

JM asked what the open day would include. PD indicated that the open day would aim to show people what the process involves and answer anyone's questions regarding the process.

### 6.4 ACTION ITEMS FROM PREVIOUS MEETING

### **SECTION 94 – LIST OF PRIORITISED WORKS**

PB indicated that LR and BT should speak with the relevant people at council following the meeting and identify the plan to begin the project. The committee would then discuss the outcome at the following meeting.

### **INVERSION STATISTICS**

LR indicated that 52% of nights have an inversion greater than 3<sup>O</sup>/100m of varying lengths in time.



### 7. GENERAL BUISNESS

### Noise from Ashton Coal CHPP

JM had indicated that he has been able to hear a lot more noise from the CHPP, particularly the loader. PB indicated that we were looking into replacing the 994 loader due to noise levels. LR indicated that 3<sup>rd</sup> gear reverse had been removed from all dozers. LR indicated that the southern bund wall had been completed and was designed to reduce noise from dumping operations on Camberwell Village.

## 8. DATE FOR NEXT MEETING

30 September 2008

### 9. SITE INSPECTION OF THE OPERATIONS

A site inspection was undertaken at 10:00am. PA, JM, LR and AS were present. The inspection was focused on the rehabilitation works to date and the OGM trial.

### **MEETING CLOSED AT 1:30PM**

### **ACTION ITEMS**

ITEM	RESPONSIBILITY
Supply Paul Ashford with the deposited dust results for May at Site 2.	AS
Meet with Singleton Council regarding section 94 works.	LR, BT

The road will be closed between 14m south of the mine entrance and a further 3km south along the mines between 770am and 600pm depending on Environmental conditions. Roadside signs will display the date and approximate ime of the closure. Ravensworth Operations wish to advise that Lenington Road will be closed on Monday 30th June and Tuesday 1st July 2008 for the purpose of blasting.

tal conditions. the date and

an 1km south of 3km south along be closed for 15 and 6,00pm

logise for any ther information

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CHINESE

Wanted to Buy

Ravensworth Operations apologise for any inconvenience caused. For further information contact Environmental & Community Coordinator at the mine on 6570 0700.

Reporting directly to the Laboratory Mryou will be involved in the process of test analysis of oil and grease samples, dat assembly, of stock consumables and cleaning duties.

Ideally, you will currently be em motivated and possess basic compute using Microsoft Office/Windows and a work ethic.

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EARLY VALVE RADIOS
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Phr. 4930 9140

This position is for a minimum of two days per week (Thursday & Friday) additional relief work to cover holiday le full time team members - approximal

Positions Vacant

If you believe you have what it takes to jeam, call (02) 6571 1444.

CONCRETE MIXER Light-burn Special Electric 1.75 cubic foot. Ph 6545 1784.

a Subsidence Management Piran to accompany an application to the Department of Primary Industries for longwalls and

Application
Ashton Coal Operations Limited is preparing

Subsidence Management Plan 

To Let

of Primary Industries for longwalls and minimals 50 9 and associated first workings in the Pikes Gully Seam in the area shown. The proposal features narrow longwalls (minimals) in environmentally sensitive areas with full-with longwall blocks elsewhere.

Wanted

0700.

24 THE SINGLETON ARGUS # Friday, June 27, 2008

Ph (02) 6576 1111 Fax (02) 6576 1122 For further information, please contact:

info@ashtoncoal.com.au OR

Total

Mount Thorley Warkworth wishes to advise that the Puthy Road will be closed on Friday 4th July between the Jerrys Plains Road intersection and the Wallaby Scrub Road intersection at a proximately 1.00pm for the purposes of the July 1.00pm for the purposes of the Jesting. Closure is likely to be for 20 minutes. The An alternate route is available via the Jerrys Plains Road and the Wallaby Scrub Road. For updated blast times please phone free call 1800 089 669.

\*\* AshtonCoal PUBLIC NOTICE Temporary Road Closure

AST CONCOR

ations of interes

yor groups to be of a conservation

with full-width longwall blocks elsewhere. With full-width longwall blocks elsewhere. Extensive investigation has been undertaken and the purpose of adopting minimals is to minimise subsidence impacts to the The proposal features narrow longwalls (miniwalls) in environmentally sensitive areas accompany an application to the Department of Primary Industries for longwalls and Ashton Coal Operations Limited is preparing a Subsidence Management Plan to n the Pikes Gully Seam in the area shown niniwalls 5 to 9 and associated first workings Application

imited SW 2073 8484 8989

environment Ashton Coal Surface Operations

Aprove

exhibition period during which the documents may be viewed by the public. Submissions A Public Information Day will be held at Singleton Library on the 7th July 2008 from Application, there will be an advertised -8pm. Following submission of the SMP

egarding the SMP may be made to: Environment & Community Relations

to advise that on Wednesday and Friday 4th

ERATIONS

Director Environment

For further information, please contact:

ical Service is cultural assess-various lands at iginal Groups or

Reporting to the General Manager, the requires a book keeper who has fund knowledge and experience in accounting infance. This position assumes the responsibility of the day to day book keel the company. Soope of the responsibility of the days to day book keel the company. Soope of the responsibility of the days day be accounts recipied accounts recipied and the property of the p

Customer Service experience preferably within the tourism and hospitality field.

Central Muswellbrook 3 B/r air con. house, combustion fire, secure yard, dble, ga-rage, no dogs, ref. required, \$280p/w. Ph 0409 550 488.

Essential Requirements:

Payroll experience would be an advan Understanding of statutory compliance FBT, Superannuation etc

Strong computer user skills (MS Attache would be desirable)
 Supervisory experience would be desirable

skills (MS

Sound working knowledge of bookkeel

of 30wpm specific of 30wpm with Microsoft products. WYOB and an on-line reservation system of accommodation, tours and merchandise, tours and merchandise.

accounts processing

Strong knowledge and work experie

Specific Skills & Competencies:

rent Drivers Licence imum typing speed

CENTRE OF SCONE New 1 bed aparlment, furn / unfurn, security parking, \$320 / \$370 furn p/wk. Ph; 0413 732 822.

Appeared by Levignoston

We are seeking an individual with 3-experience in an accounting department qualified by demonstrable experience.

Experience

Please send your resume marked Conflicential to our Citient Services Suppervisor, Max. Kaffene Cross - Hunter Valley Wine Country Tourism, 455 Wine Country Drive POKOLBIN 2825.

Homeless Women?

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\$165 pw includes utilities. Ph: 0417 674 263

A Public Information Day will be held at Singleton Library on the 7th July 2008 from

a at Wambo Coal /alley. Interested er their interest in contact details, by

1-8pm. Following submission of the SMP Application, there will be an advertised exhibition period during which the documents may be viewed by the public. Submissions regarding the SMP may be made to:

Candidates will also be assessed o Analytical, Organisational, Communicati interpersonal skills and their ability to writest paced environment and quickly a fast paced environment and quickly a

karlene@winecountry.com.au or by telephoning Karlene Cross on 02 49 900 900.

Contact: MURRANE WOMEN'S HOUSING

1,1

HVAC Building 180-182 Bridge Street Muswellbrook Ph: 6542 5051

Environment & Community Relations

Manager O.B.

Ashton Coal Operations Limited PO Box 699, Singleton NSW 2330

By appointment at Singleton Neighbourhood Centre, 88 George Street, Singleton Ph. 6571 4538

osition descriptions can be obtained from

Trish Sellars Calaning & Support Services in Singleton currently have a vacancy part-time book kreeper at vacancy within our Administration department. We quality endorsed company conformerdal defaming and servicing a wid

An opportunity exists for a motivated & enthusiastic person to join the Hunter Valley Wine Country Tourism Team within our busy Visitors Centre on a

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subsidence impacts to

Extensive investigation has been undertaken

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Choice of 3 brm villas + DLUG & 4brm, 2 bathrm houses + DLUG, All with air-con, d/wash & b/ins.

Elders Maitland

Ph: 4934 6222

Ashton Coal Surface Operations

ternity lea live-month contract.

PART-TIME BOOK KEEP!

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the Register will comment on the undertaken and viduals who wish unicate results to their interest in rience in cultural

nterest: 10th July contact:

al Services

ast.net.au

PO Box 699, Singleton NSW 2330 OR Ashton Coal Operations Limited Manager

Department of Primary Industries PO Box 344, Hunter Region MC NSW 2310

info@ashtoncoal.com.au OR Ph (02) 6576 1111 Fax (02) 6576 1122

Subsidence Management Plan

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the total number of lines. A minimum number of lines may be required. The full Terms and Conditions of Advertising of The Singleton Argus are available from our office or by phoning (02) 6572 2611

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HR TRUCK
DRIVER
Required in Singleton
area. Must have
experience and be able to
work alone and within a

By Appointment at Scone Neighbourhood Centre, 214 Kelly Street, Scone (behind the Library) Ph. 6545 2562

PO Box 344, Hunter Region MC NSW 2310

Department of Primary Industries

Director Environment

Closing Date - Monday 7th July 20

Please call Shearer Contracting on 6572 1988.

SCONE Bdrm fully furn, \$100 p/w + expenses, females only, Ph 0407 065 266.

admin@mwh.ngo.org.au

Caravans

VAN 4 berth, stove, Best Offer. Ph 0432

Mount Thorley Warkworth apologises for any inconvenience caused. For further information contact the crill and blast engineer at the mine on 6570 1485.

Ashton Coal activess that the New England Highway and Glemfee Creek Road on Monday - Saturday at approximately 2 from for the page of the Creek Road (Brunders and Feel Coreek Road, Brunders Land and Rall corosing Cotent is likely to be less than 10 minutes. For which the monday of the company of the compa

MACHINIST

Positions Vacant

Day shift only, Mon-Fri. Applicants must have appropriate trade qualifications and experience. We have the opportunity for a permanent experienced machinist, (CNC preferred but not Morgan Engineering is a small to medium engineering company located at Singleton.

Initial enquiries to: Phone 02 6572 2032. FITER

Experienced person required for fitting and testing of light industrial equipment. Experience in fitting of pulleys, shafts, bearings, electric motors and fabrication of sheet metal would be beneficial. peneticial

This is a non smoking workplace Apply in writing to: PO Box 3150, Singleton DC, NSW 2330

Fax: (02) 6578 8688

Positions Vacant



Long-term coal drivage contract — Singleton area

Walter Mining is a leading provider of underground coal and metalliferous mining services, utilising highly skilled labour and specialist mining equipment to 
provide a diverse range of services.

We are currently looking for experienced Underground Miners, Deputies, 
Fitters & Electricians for a long-term coal drivage project in the Singleton area.

Deputies, Fitters & Electricians MUST be qualified and have at least 1

ground coal mining

Believe that work can be done safely

ability to 'pitch in'
Physical fitness Ability to work in a team environment and co-operate with team mates - the

Current NSW Underground Generic
 Current Coalboard Medical

Safe work ervironment
 If you are keen to join a progressive and growing company and you have the attributes for this role, please send your application with a current resume to

D.waite@welter.net.au. Initial enquires can be made to Phil Waite, NSW Northern District Coordinator

THE SINGLETON ARGUS In Tuesday, July 1, 2008 19

**PUBLIC NOTICE** 

I he general terms and conditions that apply to publication of advertisements in our publications apply also to publication of material on our website."

Hunter Valley Operations apollogies for any inconvenience caused. For further information contact Paul Neely at the mine on 02 65700 300.

Experienced Backhoe
Operator / HC Truck Driver
Min. 4 years experience.
Only very experienced operators need apply,
Above award vages.
Phone 0418 197 993

between Comleroi Road and Lemington Road. If weather conditions are poor, blasting will be delayed until the first day of line weather.

PO Box 279
Singleton NSW 2330
Email: ijimcleaning@live.com.au
Applications close
8 July 2008

submission is also available. A submission can be made directly from the website.

2. In person at the following centres:
One Stop Shop
Level 2, Town Hall House
456 Kent Street. Sydney
8am-6pm Mon-Fri
If you would like to speak directly to a Council planning officer about this development application, you can contact Slivia Correla on ph. 9246 7598, or by email at scorrela@

cityofsydney.nsw.gov.au

GRAHAM JAMES of 3 Macarthur Street, Moree, makes application for the grant of an on-licence (motel) for premises at corner of Albert and Morton Streets, Moree, to be known as 'Albert Hotel'. This application is listed for hearing on 4 August, 2008 at 9.15am at the Licensing Court. Level 6, 323 Castlereagh Street, Sydney, Back Schwartz Vaughan. Ref. BT:20769. Phone: 9223 3355.

## **Greater Building** Society Ltd

ABN 88 087 651 956 NOTICE TO INVESTORS

As from 1 July 2008 Loan Link Exemption arrangements (that is, your entitlement to apply for a transaction fee free savings account) will be limited to qualifying home loans. This change does not affect existing qualifying loans.

As from 1 August 2008 a Record Search Fee of \$15.00 will apply when you ask us to provide information in relation to an account and we have to search our records to provide that information.

For enquiries please call our Customer Service Centre on 1300 651 400

## INTEGRATED DEVELOPMENT PROPOSAL

DEVELOPMENT PROPOSAL

SITE: 115-119 BATHURST
STREET, SYDNEY NSW 2000
APPLICANT: MULTIPLEX
BATHURST STREET PTY LTD
REF NO: D/2008/979
PROPOSAL
DEMOLITION ALTERATION
AND REFURBISHMENT OF
EXISTING HERITAGE LISTED
SYDNEY WATER BUILDING
FOR FUTURE RETAIL AND.
COMMERCIAL USE THE SITE
ADJOINS WILMOT STREET
AND IS ALSO KNOWN AS
339 PITT STREET.
THE APPLICATION IS
INTEGRATED
DEVELOPMENT UNDER THE
NSW HERITAGE ACT 1977.
The City of Sydney has

DEVELOPMENT UNDER THE NSW HERITAGE ACT 1977.

The City of Sydney has received the above integrated development application. As part of our assessment process, we are notifying surrounding neighbours and property owners to seek their views on the proposal. The proposal is integrated development as the building is listed on the State Heritage Register and an approval is required from the Heritage Register and an approval is required from the Heritage Council of Now building the state of the state

1. On-line at the City's website www.cityofsydney.nsw.gov.au under 'Development'. The website contains all relevant details of the proposal, including plans, which can be downloaded if required, information on how to make a submission is also available. A submission can be made directly from the website.

 2. In person at the following centres:

2. In person at the following centres:
CBD Level 2. Town Hall House,
456 Kent St, Sydney. Mon to Fri
Bam - Bpm.
If you would like to speak
directly to a Council planning
officer about this development
application, you can contact
Louise Evans on ph. 9246 7727,
or by email at levans@
cityofsydney.nsw.gov.au

JOHN FRANCIS McCOY shall make application to the Licensing Court of New South Wales, Castlereagh Street Sydney on 21 July 2008 to

submission lodged may be made available to the applicant or other persons for comment.

SECTION 62E(3), Liquor Act 1982) LIQUOR SOCIAL IMPACT ASSESSMENT TAKE NOTICE THAT I ANTHONY SERVICE SOCIAL IMPACT ASSESSMENT TAKE NOTICE CHARLES LEYBOURNE SMITH of Woolworths Limited, 1 Woolworths Way, Bella Vista NSW 2153 Felephone 8885 1792 Facsimile 8888 1792 will apply/have applied to the Licensing Court of New South Wales for the removal of its off-licence (retail) from corner William and Short Streets, Port Macquarie, to cnr. Gordon and Horton Streets (159-165 Horton Street). Port Macquarie and to be known as DAN MURPHYS A copy of the Social Impact Assessment relating to this application is available for public inspection at no cost at Food for Less Supermarket, corner William and Short Streets. Port Macquarie, between the hours of 9 am and 5 pm. Monday to Friday. Any written submission on the Social Impact Assessment must be lodged with the Liquor Administration Board Level 6, 323 Castiereagh Street, Sydney, by close of business on 28 July 2008. Lodged by Tony Schwartz, Tel' 9223 3355. Any submission lodged may be made available to the applicant or other persons for comment.

SECTION. 62E(3), Liquor Act 1982) LIQUOR SOCIAL IMPACT ASSESSMENT TAKE NOTICE THAT I ANTHONY TAKE NOTICE CHARLES LEYBOURNE SMITH OF WOOIWORTHS LIMITED, 153 Telephone 8885 1792 or Facsimile 8888 1792 or Facsimile 8888 1792 will apply have applied to the Licensing Court of New South Wales for the removal of its hotelier's licence from Room 19, 59 Macquarie Street, Dubbo, to the proposed Wooiworth's Supermarket, cnr. Minore Road and Baird Drive, West Dubbo, and to be known as WOOLWORTHS LIQUOR. A copy of the Social Impact Assessment relating to this application is available for public inspection at no cost at Woolworth's Supermarket, Riverdale Shopping Centre, 49-65 Macquarie Street, Dubbo, between the hours of 9 am and 5 pm. Monday to Friday. Any written submission on the Social Impact Assessment must be lodged with the Liquor Administration Board, Level 6, 323 Castlereagh Street, Sydney, by close of business on 28 July 2008. Lodged by 7 nny Schwartz Tel's 223 3355. Any submission lodged may be made available to the applicant or other persons for comment.

TAKE NOTICE that in the Licensing Court of New South Wales, Peter Connaughton has made application for a variation of trading hours pursuant to Section 25 (7) of the Liduor Act, 1982 (as amended) for premises situated at 36-38 Vulcan Street, Moruya and known as "Adelaide Hotel". The abovementioned application is listed before the Licensing Court of New South Wales, Level 6, 223 Castlereagh Street, Sydney at 9-15 am on Monday the 21st day of July 2008. Enquiries to Kim Stapleton of JDK Legal (Tel: 9236 8588).

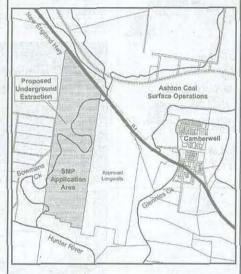
PU DOX EU, LAND DUVO, INDER TO Fmail: Iccouncil@lanecove.nsw.gov.au

www.lanecove.nsw.gov.au

# AshtonCoal

## Subsidence Management Plan **Application**

Ashton Coal Operations Limited is preparing a Subsidence Management Plan to accompany an application to the Department of Primary Industries for longwalls and miniwalls 5 to 9 and associated first workings in the Pikes Gully Seam in the area shown.
The proposal features narrow longwalls (miniwalls) in environmentally sensitive areas with full-width longwall blocks elsewhere. Extensive investigation has been undertaken and the purpose of adopting miniwalls is to minimise subsidence impacts to the environment.



A Public Information Day will be held at Singleton Library on the 7th July 2008 from 1-8pm. Following submission of the SMP Application, there will be an advertised exhibition period during which the documents may be viewed by the public. Submissions regarding the SMP may be made to:

Environment & Community Relations Manager Ashton Coal Operations Limited PO Box 699, Singleton NSW 2330

Director Environment
Department of Primary Industries
PO Box 344, Hunter Region MC NSW 2310

For further information, please contact: info@ashtoncoal.com.au OR Ph (02) 6576 1111 Fax (02) 6576 1122

## **Notice Of Electricity Distribution Network Prices 2008/09**

EnergyAustralia's electricity distribution network prices will change from 1 July 2008.

The new prices apply to distribution network services for customers connected to EnergyAustralia's distribution system. The prices have been determined under the June 2004 IPART Determination on NSW Electricity Distribution Pricing 2004/5 to 2008/9 for prescribed distribution services made under National Electricity Code.

The new Network Price List (showing prices on both a GST inclusive and exclusive basis) was published on our website on 30 May 2008.

www.energy.com.au/network\_prices

The price list is also available on request by contacting us on:

13 15 35 (residential customers)

13 13 67 (business customers)

0000000000000

of their claims upon nine exerce OWEN HODGE LAWYERS, Solicitors, Level 2, 12-14 Ormonde Parade, Hurstville NSW 2220 DX 11344 Hurstville. Telephone: (02) 9570 7844. Reference: 229026 SAT.

AFTER 14 days from publication of this notice an application for Propate of the Will dated 6 October 2006 of ANNALIESE MARIE BOLZA late of Kensington decorated ANMALIESE MARIE BOLZA late of Kensington decased married, registered nurse will be made by Denes Bryan Charles Isvan Maria Bolza. Creditors are required to send particulars of their claims upon this Estate to MESSRS PRYOR TZANNES & WALLIS, Solicitors, 1005 Botany road, Mascot NSW 2020, Telephone 9669 6333.

AFTER 14 days from publication of this notice an application will be made that the Probate of the Will dated 29 November 2002 of DELMO FLORINDO GHELFI. late of Gordonvale in the state of Gueensland granted by Supreme Court of Queensland to Silvia Ghelfi be sealed with the seal of this court. Creditors are required to send particulars of their claims upon his Estate to STRATON GATES. Solicitors, Level 3. 107 Walker St. North Sydney NSW 2060. Telephone 02 9923 1888. Reference: SMG

AFTER 14 days from publication of this notice an application for Probate of the Will dated 2 June 1999 of ALICE BETTY PAUL, late of Blakehurst in the State of New South Wales, Retired Clerk, will be made by Wendy Elizabeth O'Connor and Margaret Ann Thompson the Executors of the Will. Creditors are required to send particulars of their claims upon her Estate to STOCKMAN & EVANS. Solicitors, Pays Box 3486 Bankstown Square NSW 2200, Ref: AWS:HK:17844

AFTER 14 days from publication of this notice an application for Probate of the Will dated 24 February 1971 of SYBIL EUNICE ROSIER late of Killiara Gardens Nursing Home, Killiara Gardens Nursing Home, Killiara and the State of New South Wales, Widow, Will be made by George Anthony Rosier and Wynne Penelope Rosier the substitute Executors, the institute Executor William Henry Rosier having predeceased the deceased. Creditors are required to send particulars of their claims upon the Estate to DOUGLAS R PAISLEY, Solicitor.

46 Langston Place, Epping, NSW 2121 DX 4404 Epping. Ph. 9876 2273. Ref: DRP.

AFTER 14 days from publication of this Notice an Application for Administration of the estate of JANINE MAREE CRAMERI, late of 63/107 Pactric Highway, Hornsby NSW, Aged Care Worker, will be made by Raymond Anthony Vella the defacto husband of the deceased, Creditors are required to send particulars of their claims upon the Estate C/- T & A LEGAL, Sulte 37, 48 George Street, Parramatta, NSW 2150.

AFTER 14 days from publication of this notice an application for probate of the will dated 28th day of June 2002 of EDITH ANNIE ELAINE SYMONS late of VAUCLUSE deceased will be made by BERNARD KEITH SYMONS the Executor named in the said Will. Creditors are required to send particulars of their claims upon her estate to Peter R. Murphy & Co., 36-38 Spring Street. Bondi Junction NSW 2022. DX 12007 Bondi Junction. Tel: 9389 8566, Ref: PRM:NOD:80186.

AFTER 14 days from publication of this notice an application for Probate of the Will date 15 November 1995 of ENID PURCELL TAYLOR late of Padstow Heights, Widow will be made by Kenneth Norman Taylor the Executor named in the Will. Creditors are required to send particulars of their claims upon the Estate to KEN DAYENPORT Solicitor, PO Box 298 Chatswood NSW. DX 727 Sydney Tel: (02) 9412 2566

AFTER days from publication of this notice an application for Probate of the Will dated 6 March 2007 of LEATHEA JEAN YATES, late of Harbord, Widow, will be made by Rita Margaret Geddes and Robert Griffith

application for probate of the Will dated 13 May 2003 of BARRY CLIFFORD DANSWAN, late of Maroubra in the State of New South Wales, deceased, will be made by Stewart Christopher Danswan

Wales, deceased, will be made by Stewart Christopher Danswan. Creditors are required to send particulars of their claims upon his estate to Gells Lawyers, 5th Floor. 99 Elizabeth Street, Sydney NSW 2000. Tel: 9223 2233. Fax: 9223 2230. Ref MC/20080139

AFTER 14 days from publication of this notice an application for Probate of the Will dated 18 January 2008 of EDNA IRENE OSBORNE late of Waverley, Widow, deceased, will be made by John William Osborne, the Executor of the Will. Creditors are required to send particulars of their claims upon her Estate to. BROPHY BRIDGE & MIROW, Solicitors, Level 1, 3 Spring Street, Sydney NSW 2000.

AFTER 14 days from publication of this notice an application for Grant of Letters of Administration of the estate of BRIAN GILSENAN late of Avoca Beach in the State of New South Wales, Project Manager, will be made by Peter George Bobbin as solicitor of the beneficiaries of the estate. Creditors are required to send particulars of their claims upon his estate to: Peter George Bobbin C. THE ARGYLE PARTNERSHIP. Level 22. In Market Street. Sydney. NSW 2000. DX 876 SYDNEY. Tel: (02) 8253 6603 Fax: (02) 8263 6633 Ref: PGB:KHG:32841-3.

AFTER 14 days from publication of this notice an Application for Probate of the Will dated 20 May 2005 of ASPASIA CHRISTODOULOU late of Cherrybrook in the State of New South Wales. Retired will be made by Mir Paul Christodoulou the Executor of the Will. Creditors are required to send particulars of their claims upon her Estate to DIAMOND CONNAY.
Solicitors, Level 7.
9 Hunter Street. Sydney NSW 2022228000 Ref: SA:LK:CHRO83460

AFTER 14 days from publication of this notice an application for Administration of the Estate of GLENN THOMAS RICKERSEY late of Castle Hill, IT Manager, will be made by Arthur George Rickersey and Beverley Grace Rickersey, the Father and Mother of the Deceased, Creditors are required to send particulars of their claims upon his Estate to DAVID BROWN &

PARTNERS, P.O. Box 7680 Baulkham Hills NSW 2153, DX 8451 Castle Hill.

AFTER 14 days from publication of this notice an application for administration of the estate of LOUIS ROBERT ST. FLOUR late of 2/47 Chelmsford Road South Wentworthville 2145 will be made by Robert Jean Marc ST. FLOUR the son of the deceased. Creditors are required to send particulars of their claims upon his estate to Norris Somers Solicitors, Sulte 4, LG 55 Phillip Street, Parramatta NSW 2150.

AFTER 14 days from the publication of this notice an application for administration of the estate of SHARON MARIE CHERRY late of Kings Cross New South Wales deceased will be made by Andrew Peter Johnstone as attorney for Craig Gavin Cherry and Janet Claire Robson the parents of the deceased. Creditors are required to send particulars of their claims upon the estate to W.P. McElhone & Co. Solicitors of 275 George Street Sydney. Dx 10202 Sydney Stock Exchange, Telephone 9299 4901.

AFTER 14 days from publication of this notice an application for Probate of the Will dated 31 August, 1979 of ABRAHAM HAAK, late of Singleton, Retired will be made by Gerardus Haak and Abraham Haak.
Creditors are required to send particulars of their claims upon his Estate to Burston Cole & Mülock Pty Limited, Solicitors, 352 High Street, Penrith NSW 2750, DX 8003 Penrith, Ph (02) 4732 2944. Ref: MJM:DH:80578

AFTER 14 days from publication of this Notice an Application for Probate of the Will dated 23 December 1997 of ARNOLD IVOR RUPELL, late of the Rose Bay in the State of New South Wales, 2 May 2008, deceased will be made by Lewis Rupell the executor(s) named in the Will.

IN TI OF N SYDN EQUI After of this proba Nover PEAR Gerrie Arthu the named Horac execu testati Credit partici this e. Hunt Level Eastwo DX 2

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IN the South \ After 14 of this n probate 22/12/1

**Example Notification Letters.**Refer to Section 7.0 for full list of stakeholders notified by formal correspondence.



#### Ashton Coal Operations Pty Limited abn 22 078 556 500

GLENNIES CREEK ROAD CAMBERWELL NSW 2330 TEL: FAX: 02 6576 1111 02 6576 1122

PO Box 699 SINGLETON NSW 2330

ENVIRONMENTAL CONTACT LINE: TOLL FREE NUMBER:

TEL: 02 6576 1830 1800 657 639

TOLL FREE NUMBER: 1800 657 639
WEB ADDRESS: WWW.ASHTONCOAL.COM.AU

Mr David Young
Manager, Land Use Development
Operations and Services
Roads and Traffic Authority
Locked Bag 30
Newcastle NSW 2300

19 June, 2008

Dear David,

#### RE: Preparation of a Subsidence Management Plan - Ashton Coal

Ashton Coal Operations Pty Limited (ACOL) is preparing a Subsidence Management Plan (SMP) for submission to the Department of Primary Industry, Minerals (DPI). The location of the site and proposed area for longwall extraction to be addressed by the SMP is shown on the attached plan. The SMP will address subsidence impacts related only to longwall and miniwall panels 5 to 9 within the Pikes Gully Seam.

The objective of the SMP process is to ensure appropriate subsidence management strategies are in place prior to the commencement of underground mining in this application area. ACOL are expecting to lodge the application by early August 2008.

Prior to lodgement of the application, ACOL would like to provide an opportunity for all stakeholders to comment on the proposal, particularly land holders or organisations with infrastructure within the application area. In addition to a letter to all directly affected stakeholders, the intention to prepare a SMP will be advertised in the Singleton Argus and the Sydney Morning Herald outlining the opportunity for comment.

First workings associated with the proposed longwalls and miniwalls will be aligned generally beneath the New England Highway. A Works Authorisation Deed between ACOL currently exists for first workings associated with longwalls 1 to 4, and ACOL are seeking for similar arrangements to be put in place prior to the development of first workings for the next series of



longwall panels. Current management of this area is undertaken via regular survey/inspections and through the implementation of the ACOL Pothole Management Plan.

A subsidence assessment to identity affected infrastructure and predict the degree of subsidence is currently underway. The results of this assessment will be forwarded to the RTA in the near future.

We would appreciate the opportunity to meet with you to discuss the RTA's requirements. Alternatively, could you please respond in writing outlining your requirements prior to the 11th of July, 2008 so that they may be adequately addressed by the SMP prior to submission to the DPI.

Should you have any questions about this process, please contact the undersigned.

Yours faithfully,

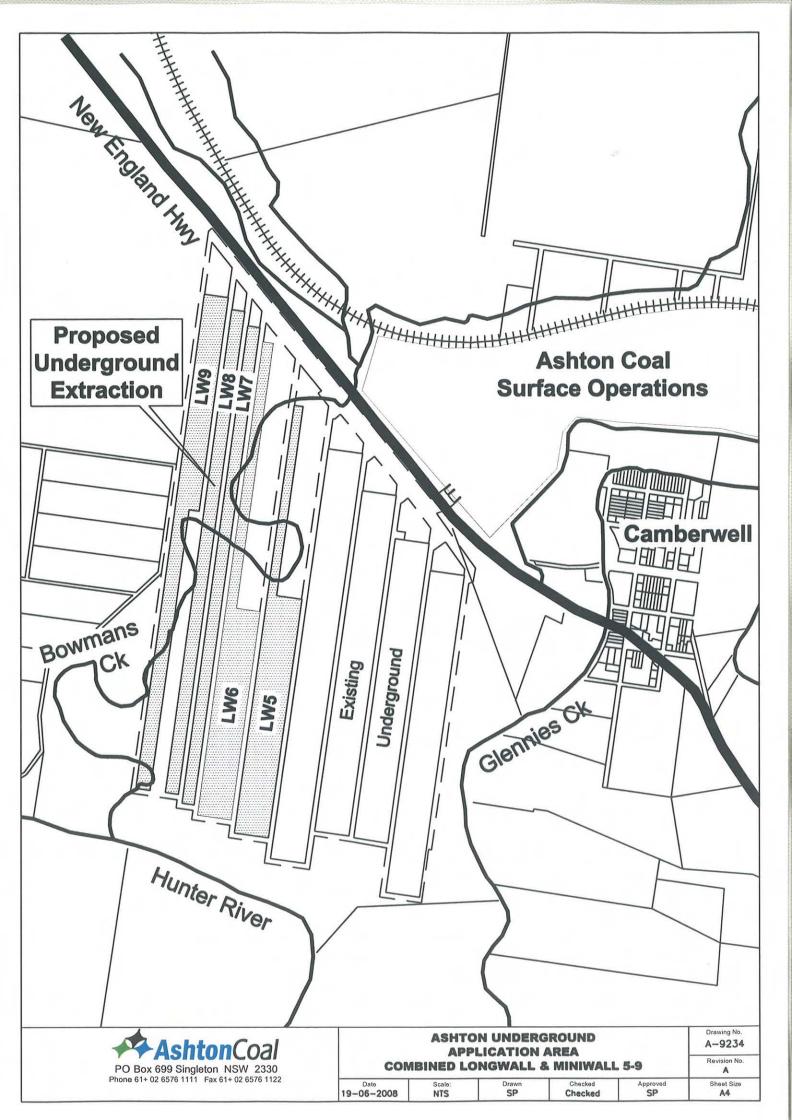
Shane Pegg

Technical Services Manager

Ashton Underground Mine

Direct Dial: +61 2 6570 9124 Direct Fax: +61 2 6576 1122

Encl: Mine Plan





## ASHTON COAL OPERATIONS PTY LIMITED ABN 22 078 556 500

GLENNIES CREEK ROAD CAMBERWELL NSW 2330 TEL: 02 6576 1111 FAX: 02 6576 1122

PO Box 699 SINGLETON NSW 2330

ENVIRONMENTAL CONTACT LINE: TOLL FREE NUMBER: WEB ADDRESS:

TEL: 02 6576 1830 1800 657 639

WWW.ASHTONCOAL.COM.AU

23 June 2008

Wonnarua Local Aboriginal Land Council PO Box 127 MUSWELLBROOK NSW 2333

Dear Sir/Madam,

#### RE: PREPARATION OF A SUBSIDENCE MANAGEMENT PLAN - ASHTON COAL

Ashton Coal Operations Limited is currently preparing a Subsidence Management Plan for Submission to the Department of Primary Industries for the next section of the underground mine within the Pikes Gully Seam (longwall and miniwalls 5 to 9). The SMP area is within the current Development Consent DA 309-11-2001-I and Mining Lease 1533. An Environmental Impact Statement and archaeological survey, consultation and impact assessment for these panels was completed as part of the DA process.

The objective of the SMP process is to ensure subsidence management strategies are in place for potential subsidence impacts prior to the commencement of underground mining in each application area. Ashton Coal is expecting to lodge the application by early August 2008.

Impacts to areas of archaeological and cultural heritage on Ashton's land will continue to be managed in accordance with Ashton Coal's Archaeology and Cultural Heritage Management Plan. Where necessary, the existing Aboriginal Heritage Impact Permit (AHIP #2783) will be amended to include Aboriginal objects at risk as a result of subsidence impacts such as surface cracks or an identified need for soil remediation. If subsidence predictions indicate that it will be necessary to include additional Aboriginal objects within AHIP #2783, opportunity will be provided to all suitably experienced representatives of the local Aboriginal groups (as listed in AHIP #2783) to be involved in monitoring activities related to the development consent and subsidence management.

Prior to lodgement of the SMP application, Ashton Coal would like to provide an opportunity for all stakeholders to comment on the proposal. In addition to a letter to stakeholders, the intention to prepare a SMP will be advertised in the Singleton Argus and the Sydney Morning Herald outlining the opportunity for comment. These opportunities will include contacting either Ashton



Coal directly, and/or attending a Public Open Day to be held at the Singleton library on Monday 7th July 2008 from 1pm to 8pm.

Following submission of the SMP to the DPI there will also be an advertised Public Exhibition Period of 30 days in which the proposed SMP can be viewed and commented upon by the public.

Should you have any questions about this process, please contact the undersigned.

Yours faithfully

Lisa Richards

**Environment and Community Relations Manager** 

Ashton Coal Operations

Irichards@ashtoncoal.com.au

Direct Dial: +61 2 6570 9219 Direct Fax: +61 2 6576 1122

encl: Mine Plan



## Ashton Coal Operations Pty Limited ABN 22 078 556 500

Glennies Creek Road Tel: 02 6576 1111 Camberwell NSW 2330 Fax: 02 6576 1122

PO Box 699

Singleton NSW 2330

Environmental Contact Line: Tel: 02 6576 1830 Tol I Free Number: 1800 657 639 Web Address: www.ashtoncoal.com.au

26 September 2008

Aboriginal Native Title Heritage Consultants 16A Mahogany Ave MUSWELLBROOK NSW 2333

Dear Sir/Madam,

#### RE: PREPARATION OF A SUBSIDENCE MANAGEMENT PLAN - ASHTON COAL

We had attempted to notify you on the 23 June 2008 that Ashton Coal Operations Limited is currently preparing a Subsidence Management Plan (SMP) for submission to the Department of Primary Industries for the next section of the underground mine within the Pikes Gully Seam (longwall and miniwalls 5 to 9). However the mail was returned to use with the wrong address, we have now obtained this new address. The SMP area is within the current Development Consent DA 309-11-2001-I and Mining Lease 1533. An Environmental Impact Statement and archaeological survey, consultation and impact assessment for these panels was completed as part of the DA process.

The objective of the SMP process is to ensure subsidence management strategies are in place for potential subsidence impacts prior to the commencement of underground mining in each application area. Ashton Coal has completed an Archaeology Impact Assessment for inclusion in the SMP a draft copy of this has been enclosed for your review. Any feed back in relation to this report should be sent to the undersigned by Monday the 13<sup>th</sup> October 2008.

Should you have any questions about this process, please contact the undersigned.

Yours faithfully

Lisa Richards
Environment and Community Relations Manager
Ashton Coal Operations
Irichards@ashtoncoal.com.au

Direct Dial: +61 2 6570 9219 Direct Fax: +61 2 6576 1122 encl: Archaeology Impact Assessment LW/MW 5-9

Ref: ANTHC\_26 Sept08 Assessment.doc



13 Mansfield Street
 Glebe NSW 2037
 80 Box H2, Glebe NSW 2037
 90 2056 6327
 20 2056 6327

Lisa Richards Environment and Community Relations Manager Ashton Coal Operations PO Box 699 Singleton NSW 2330

Dear Lisa

Re: Request - Search for Registered Aboriginal Owners

I refer to your letter of 20 June 2008 advising of a proposed Subsidence Management Plan application and associated consultation process for longwall mining at Ashton Coal Operations close to Pikes Gully Seam.

I have searched the Register of Aboriginal Owners and the subject land does not have Registered Aboriginal Owners pursuant to Division 3 of the *Aboriginal Land Rights Act* 1983 (NSW).

The Wanaruah Local Aboriginal Land Council will be able to assist you with information on other interested groups, their contact details are;

Wanaruah Local Aboriginal Land Council

PO Box 127

Muswellbrook NSW 2333

P: (02) 6543 1288 F: (02) 65425377

Yours sincerely

per Kylie McLeod Project Officer

Aboriginal Land Rights Act (1983)

3 July 2008



In reply please send to:

Singleton

Our Reference:

FN84-01203S0 GM:SA

Your Reference:

Shane Pegg

Contact:

Garry Moore (02) 6572 4344

ASHTON COAL OPERATIONS PTY LTD PO BOX 699 SINGLETON NSW 2330

30 June 2008

Dear Sir

# ENQUIRY NO. TENQ08-01399S3 ASHTON COAL LONGWALLS 5 TO 9 PREPARATION OF A SUBSIDENCE MANAGEMENT PLAN

Thankyou for your letter of 19<sup>th</sup> June 2008 seeking the Mine Subsidence Board's input to the preparation of Subsidence Management Plan for Longwall and Miniwall Panels 5 to 9.

The Board would request that the SMP address the impact of mine subsidence on existing structures as covered under the Mine Subsidence-Compensation Act. Some of the issues which may need to be addressed are attached. If there is to be no impact from mine subsidence, then this should be clearly outlined in the SMP.

Some of the issues, which you may consider addressing, are:

- 1. Prediction of maximum subsidence, strains, tilts and curvatures.
- 2. Assessment of likely impacts of coal extraction.
- 3. Type of surface structures and likely damage.
- 4. Measures which might be employed to mitigate the effects of mine subsidence.
- 5. Details regarding the angle of draw.
- 6. Vibration monitoring and likelihood of extraction related vibrations.
- 7. Effect of subsidence on farm dams, ground water systems and survey marks.



#### NEWCASTLE

Ground Floor
NSW Government Offices
117 Bull Street
Newcastle West 2302
PO Box 488G Newcastle 2300
Telephone: (02) 4908 4300
Facsimile: (02) 4929 1032
DX 4322 Newcastle West

#### PICTON

100 Argyle Street Picton 2571 PO Box 40 Picton 2571 **Telephone: (02) 4677 1967** Facsimile: (02) 4677 2040 DX 25814 Camden

## SINCLETON The Central Business Centre

Unit 6, 1 Pitt Street Singleton 2330 PO Box 524 Singleton 2330 **Telephone: (02) 6572 4344** Facsimile: (02) 6572 4504

#### WYONG

Suite 3 Feldwin Court 30 Hely Street Wyong 2259 PO Box 157 Wyong 2259 **Telephone: (02) 4352 1646** Facsimile: (02) 4352 1757 DX 7317 Wyong

#### HEAD OFFICE

PO Box 488G Newcastle 2300 **Telephone: (02) 4908 4395** Facsimile: (02) 4929 1032



Email mail@minesub.nsw.gov.au

Web www.minesub.nsw.gov.au

24 Hour Emergency Service Free Call 1800 248 083

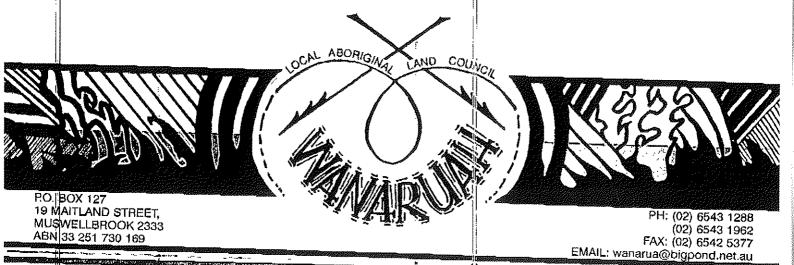
BY: .....

Standard (Auto) Enquiries

- 8. Subsidence monitoring.
- 9. Pre-mining inspections.

Yours faithfully

Garry Moore
District Manager



Lisa Richards

Invironment and Community Relations Manager

Ashton Coal Opperations

P.O. Box 699

Singleton NSW 2330

Re: Preparation of Mine Subsidence Management Plan - Ashton Coal

Dear Lisa,

Thank you for this opportunity to comment on the Preparation of Mine Subsidence Management Plan -

Aboriginal Cultural Ilcritage is not limited to the relics and art that have survived the impact of European settlement. It is a living culture and includes landforms, water holes vegetation zones, habitats, and peoples.

Before considering any consents, Wanaruah Local Aboriginal Land Council has a duty to fully explore and compare all the negative impacts that such action will have against the benefits of the development, to the Land, Aboriginal Culture and the Community.

The area in question has great cultural and social significance to Atoriginal peoples of this area as it is within easy walking distance of several VERY significant sites and ceremonial grounds. It is also situated in economic transit way was in use for thousands of years.

In regards to the current cultural assessment we offer the following comments:

- 1. Wanaruah Local Aboriginal Land Council does not and will NOT agree to the disturbance or destruction of any Aboriginal Cultural Sites contained within the conservation offset area.
- 2. Wanaruah Local Aboriginal Land Council does not and will NOT agree to the disturbance or damage of the conservation offset area by underground mining.

Again thank you for this opportunity for input,

Noel Downs

CEO 8/4/0





Mining & Extractive Industries Major Development Assessment

Phone: (02) 9228 6308 Fax: (02) 9228 6466

Email: <a href="mailto:howard.reed@planning.nsw.gov.au">howard.reed@planning.nsw.gov.au</a>

Level 4 Western Gallery 23-33 Bridge Street GPO Box 39 SYDNEY NSW 2001

Mr Peter Barton
Development Manager
Ashton Coal operations Limited
PO Box 699
SINGLETON NSW 2330



Dear Peter

#### Ashton Coal Mine – Subsidence Environmental Management Plan Longwalls 1- 4

I refer to your email letter of 27 October 2006 enclosing an integrated application for the Subsidence Environmental Management Plan (SEMP) and Subsidence Management Plan (SMP) required under Ashton's development consent and mining lease respectively.

As you are aware, the Department had earlier agreed to your proposal that a single integrated application be prepared, applying both the processes outlined in the Department of Primary Industries' *Guidelines for Applications for SMP Approvals* and all relevant requirements of the mine's development consent. I note that Annex K to your application sets out the means by which the various requirements of the development consent have been addressed in the integrated documentation. The assessment of your application has also run in an integrated fashion, including through the Department's participation in DPI's Subsidence Management Plan Interagency Review Committee.

The Department has assessed the SEMP for Longwalls 1-4, together with the accompanying written report and plans, and finds them generally satisfactory. It is noted that DPI granted its SMP approval, subject to conditions, on 8 March 2007. The Department supports those conditions, and finds them generally adequate to manage the anticipated subsidence impacts.

In particular, the Department notes condition 16 of that approval, which requires ACOL to implement measures to prevent the seepage inflow of water from the Glennies Creek alluvial aquifer system to the mine. I note also discussions between us on 5 March 2007 on this same subject. The Department views the existing level of water inflow to the mine from the Glennies Creek alluvial aquifer system (approx 61 MLpa) as unacceptable, and fully supports the position adopted by both the Department of Natural Resources and DPI in their discussions with ACOL directed towards restoring and then protecting the integrity of the alluvial aquifer system.

You are reminded of conditions 4.13 - 4.17 of the Ashton development consent, which *inter alia* require that:

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

- The Applicant shall undertake regular assessments of the accuracy of the groundwater model against the predictions outlined in the EIS, to the satisfaction of [DNR]. The scope of the assessment shall be determined in consultation with [DNR] and shall include the consideration of the establishment of trigger levels via sensitivity testing, drawdown, pit seepage and river leakage. Should an assessment identify significant differences between the model and EIS predictions, the Applicant shall revise the assessment of the potential impacts on groundwater systems to the satisfaction of [DNR] and implement any further mitigation measures to the satisfaction of [DNR]. The trigger levels for re-assessment of groundwater impacts shall be included in the Groundwater Management Plan.
- The Applicant shall develop contingency measures to manage any impacts identified by monitoring that the management strategies have failed to predict or control, particularly relating to groundwaters associated with the alluvial aquifers of Bowmans Creek, Glennies Creek and the Hunter River, to the satisfaction of [DNR]. The implementation of contingency measures shall be linked to performance and cut-off criteria as determined in consultation with [DNR] and specified in the Site Water Management Plan, and shall include both water quality and aquifer pressure levels, should agreed standards or performance indicator levels not be achieved.
- In the event that the development adversely affects groundwater users the Applicant shall, to the satisfaction of [DNR], liaise with the users to provide a replacement water supply of similar quality and quantity to that affected, until such time as the development ceases to impact on the users' water supply. The cut-off levels for depressurization of the alluvial aquifer and water quality parameters shall be determined in consultation with [DNR]. (emphasis added)

Based on the conditions of the mine's development consent, the Department advises ACOL that it should implement the measures required under condition 16 of the SMP approval as soon as practicable in order to reduce the inflow volume to a level considered to be satisfactory to DNR. Further, the Department now requires, under condition 1.12 of the mine's consent, that until further notice ACOL report regularly (at the end of each calendar month) to DNR, DPI and the Department regarding:

- volume and sources of groundwater inflows to Longwall 1; and
- identification and implementation of management measures to reduce such inflows.

The Department looks forward to an early resolution of this matter, which is of very significant concern to all agencies involved.

Notwithstanding this issue, the Department is satisfied that the SEMP adequately addresses the requirements set out in conditions 3.18 and 3.19 of the mine's consent. Consequently, I would like to advise you that the Director-General has approved the SEMP for Longwalls 1 – 4. While it is not the Department's general practice to issue conditions on the approval of management plans, the Department endorses the conditions attached to DPI's SMP approval.

If you have any enquiries about this matter, please contact me on 9228 6308.

Yours sincerely

Howard Reed

3-3-07

A/Manager Mining & Extractive Industries

As delegate to the Director-General



20 October 2008

Ms L Richards
Environment and Community Relations Manager
Ashton Coal Operations
PO Box 699
SINGLETON NSW 2330
(Sent by email to Irichards@astoncoal.com.au)

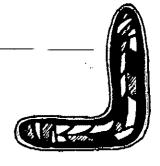
Dear Lisa

## RE: RESPONSE TO PREPARATION OF A SUBSIDENCE MANAGEMENT PLAN – ASHTON COAL

In response to your letter and draft SMP Archaeological Impact Assessment, Longwalls Miniwalls 5 to 9 prepared by Insite Heritage Pty Ltd, in which you request our comments. We apologise for not responding to your proposed management plan aim last week,

Generally, the Wanaruah LALC is in agreement with the conservation methods of sites that will or maybe impacted by underground longwall and minimal mining activities at Bowmans and Glennies Creeks.

The Land Council undertook a salvage of artefacts (EWA 28) at recorded site '37-3-0006' in September 2008 under DECC AHIP Permit No. 1090556 as recommended by Insite Heritage Pty Ltd as part of a Telstra optic cable replacement project. The DECC site card also included the grinding groove sites (GG1, GG3 and GG4). These grinding groove sites were inspected and photographed as requested in the salvage brief, however no investigation for artefacts associated with the grinding grooves was undertaken. The report is currently being written and it was noted in the proposed subsidence management plan that these sites will not be impacted, in fact Ashton Coal Operations Pty Ltd have agreed to stop the longwall pass more than 100m short of the meander of Bowmans Creek and that there will be no longwall mining within 200m of the Bowmans Creek grinding grooves. The mini panels designed to minimize cracking and hydrological



impacts to the waterway and waterhole appear to be appropriate precautionary measures for the sites' protection provided that no future changes to mine plans are proposed.

The 'Oxbow site' (EWA 29, 31, 32, 34-36, 87 and 90) is to be 'partially impacted by Longwall 4'. This site should be salvaged under an AIIIP Section 90 permit prior to any work taking place in this area below the surface.

#### RECOMMENDATIONS

It should be recommended that:

- that regular monitoring of the Bowmans Creek sites be maintained throughout the life of the mine and should mine plans in the future threaten to disturb the sites, then an archaeologist will need to be consulted as will the Aboriginal community and action strategies put in place.
- that where surface remediation works are identified, further fieldwork will be required.
- any known sites that may be impacted by the longwall/miniwall mining activities are either to be avoided altogether or an AHIP Seption 90 permit for salvage is to be obtained.

We look forward to continuing the consultation process and should you wish to discuss any matter in this letter further, please do not hesitate to contact me on 6543 1288.

Yours sincerely

Suzie Worth

Cultural Heritage Officer

Wanaruah Local Aboriginal Land Council



Biami Pty Ltd ABN 47 128 926 947 Ground floor 53 Walker St North Sydney NSW 2060 PO Box 1502 North Sydney NSW 2059

> info@biami.com.au www.biami.com.au

24 October 2008

Lisa Richards **Environment and Community Relations Manager** Ashton Coal Operations Pty Ltd.

Phone: 0265709219 Mobile: 0427462650

Ashton SMP Archaeology Report

Dear Lisa.

I will need to confirm with DECC that this is in fact a variation of a section 90 that Yarrawalk in fact objected to, this being the case my understanding of the original section 90 was for Ashton to actually sit down and discuss the section 90 with Yarrawalk to date this still has not accrued.

This being the case one again we are objecting to the variation as it will impact on an area that is culturally significant to our people, at this at this stage we are more than happy to meet with yourself and Ashton Staff at our office to discuss this. I will advise DECC with regard to our decision at this stage and I am looking forward to achieving a outcome with regard to this.

Could you please e-mail all relevant information regarding this project to the e-mail address provided below.

Look forward to your reply.

Regards,

Scott Franks Director

Email: scott@biami.com.au

Phone: 0401195490



## Ashton Coal Operations Pty Limited

Glennies Creek Road CAMBERWELL NSW



Lisa Richards
Environment and
Community
Relations
Manager

Adam Spargo Environmental Co-ordinator





#### **Postal Address**

PO Box 699 Singleton NSW 2330



#### **General Enquiries**

Toll Free: 1800 657 639 Phone: (02) 6576 1111 Fax: (02) 6576 1122

Complaints Line 1800 657 639



#### **Office Hours**

8.00am - 5.00pm

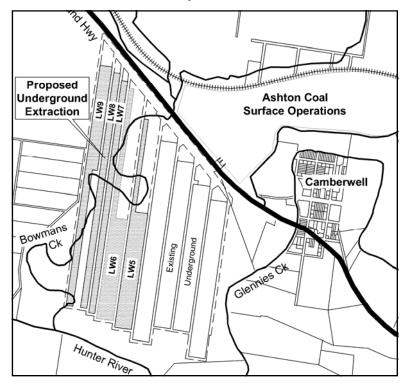
Monday - Thursday

8.00am - 4.00pm

Friday

## Ashton Underground Mine Subsidence Management Plan

Ashton Coal is currently preparing a Subsidence Management Plan (SMP) for Submission to the Department of Primary Industries for the next section of the underground mine within the Pikes Gully Seam (longwall and miniwalls 5 to 9). The SMP area is within the current Development Consent DA 309-11-2001-I. The proposal features narrower longwalls (miniwalls) in environmentally sensitive areas with full-width longwall blocks elsewhere. Extensive investigations have been undertaken and the purpose of adopting miniwalls is to minimise subsidence impacts to the environment. Following approval, longwall 5 is expected to commence in January 2010.



Site plan showing existing and proposed longwall and miniwall layout

# Preparation of the Subsidence Management Plan

#### What is an SMP?

An SMP is a legal requirement for underground mining that is likely to cause subsidence and is managed and enforced under the Mining Act 1992. An SMP is prepared in accordance with guidelines published by the Department of Primary Industries (DPI) and includes a land use description and impact assessment, addressing the physical landforms and environment, including watercourses, aquifers, utilities and other infrastructure and areas of heritage or archaeological significance. An SMP is developed through a process of risk assessment and stakeholder consultation to identify potential risks. This information is used to devise management strategies for the potential subsidence impacts.

Subsidence management strategies involve a combination of:

- Ongoing consultation to identify and manage stakeholder and community concerns;
- Monitoring and reporting of subsidence development and impacts;
- Specific management plans and processes to address potential impacts, incorporating prevention, mitigation and/or remediation of subsidence impacts as appropriate; and
- Contingency plans should an unanticipated impact occur.

#### **SMP Approval Process**

The SMP application will be submitted for to the DPI in early August 2008. Lodgement of the SMP will be advertised in both the Singleton Argus and Sydney Morning Herald. Following submission, a public exhibition period will be held during which the documents may be viewed and commented upon by the public.

An interagency committee reviews the SMP and advise the Director-General of the DPI on approval conditions. The SMP application is determined by the Director-General who, as part of the approval, may set approval conditions which must be adhered to by Ashton Coal. Mining of Longwalls and miniwalls 5 to 9 may only commence once the SMP is approved.

#### SMP Consultation

#### How Can You Be Involved?

The first step in the consultation process is notifying the stakeholders of intent to prepare a SMP application. This is being achieved through this newsletter, advertisements in the Singleton Argus and Sydney Morning Herald and direct contact with utility owners, government agencies, land owners, Ashton Community Consultative Committee (CCC), and a Public Information Day.

The SMP Consultation process is the ideal way to comment on the proposal and have your views considered in preparation of the SMP. To obtain further information or comment on the proposal, the following options are available:

#### **Public Information Day**

1-8pm July 7 2008, Singleton Library Meeting Rooms

#### Contact

Environment & Community Relations Manager Ashton Coal, PO Box 699 Singleton NSW 2330

> Phone: (02) 6576 1111 Fax: (02) 6576 1122 Email: info@ashtoncoal.com.au

> > Or

Director Environment, Department of Primary Industries, PO Box 344 HRMC 2310

Opportunities to comment on the SMP will also be available once the submission is lodged with the DPI during the Public Exhibition period.

### Open Cut Update

The Open Cut Mine has continued to the west over the past 4 months. During the summer and autumn months dumping and reshaping has been focused on the construction of the southern slopes of the Eastern Emplacement Area. The outer face of this bund has been shaped and rehabilitation has been completed to approximately RL 130. Rehabilitation of the final lift is expected to be undertaken in August 2008. Extraction of the Middle Liddell and Upper Lower Liddell coal seams is in progress.

The second Caterpillar D10T noise attenuated bulldozer arrived and will be operational in the next week. This dozer will operate predominantly on the product coal stockpile. This is the result of the exposed nature of the stockpile and the need to load trains 24 hours a day. Noise attenuation works have focused on reducing track clatter and engine noise.



Foreground overburden pasture OGM Background overburden trees OGM Both areas seeded May 2007



Stag trees and fallen timber for habitat Seeded May 2008

## Rehabilitation Progress

34 hectares of mined land has been rehabilitated over the past 4 months. This included 22 hectares of native woodland and 12 hectares of pasture. The top of the Eastern Emplacement Area was redesigned in such as way as to capture water on top of the dump rather than shedding water over the side slopes. As a result works have included the construction of a runoff storage dam. Stag trees were also erected to provide roosting sites for larger birds of prey such as the Wedge-tailed Eagle.

Following good results from the OGM trial conducted last year, OGM was utilised across the site on all rehabilitation areas. A biosolids trial was also included in this session of rehabilitation. The aims of the trial include:

- ✦Assessing the odour impacts associated with stabilised biosolids,
- ✦Assessing the benefits to growth and vegetation cover of biosolids,
- ✦Assessing the combined benefits of biosolids and OGM to growth and vegetation cover.

The trial will be monitored over the coming years. Spreading was conducted over three days in late May. No odour impacts were identified. The biosolids used in the trial were stabilised in a lagoon for 6-8 months. As a result the odour associated with normal biosolids had disappeared.

### **OGM Trial**

Monitoring of the OGM trial area indicates that pasture species seeded into both overburden or topsoil with OGM applied have produced a higher grass cover, a greater diversity of species, a reduced presence of weeds and a more stable soil structure.

The OGM has also shown a benefit to native woodland establishment. Trees seeded into overburden with OGM applied have shown higher abundance of trees, higher number of different species and higher growth rates. There has also been a greater establishment of volunteer grasses into overburden with OGM. Initial results for trees seeded into topsoil with OGM have suggested that without a cover crop such as rye corn present, weed species tend to dominate. This is due to the weed seed bank present in the topsoil. To overcome this issue this year, a cover crop has been seeded.

### Weed Removal Works

During the past 6 months Ashton Coal has undertaken a number of weed removal works. This has involved the clearing of a number of noxious weeds. Green Cestrum has been cleared from within the Glennies Creek riparian zone bordering Ashton Coal property. The Green Cestrum clearing involved removal of the plant and painting stumps with Roundup Bioactive. Roundup Bioactive was used due to the sensitivity of the creek riparian zone and potential for water contamination. Roundup Bioactive is biodegradable and will not harm water ecosystems if used correctly.

Within Ashton Coals conservation area Prickly Pear, Creeping Pear and Tiger Pear were removed. This was completed by physical removal. Spraying of Galinea was also undertaken in some of the heavily infested areas of the rehabilitation. The herbicide Grazon was used and has shown great success in killing the weed.



#### Weed Informatior

#### **Prickly Pear**

There are many types of Prickly Pear that have been introduced to Australia however the three main types commonly found in the area are Common Pear, Creeping Pear and Tiger Pear. The introduction of biological controls such as the cactoblastis moth has brought infestation to a manageable level. New plants sprout from "segments" which have broken off from another plant. The "segments" can lay dormant for extended periods of time. As a result any cleared Pear must be either buried, burnt or chemically treated. Garlon is an effective chemical treatment for Prickly Pear.



Clockwise from top left: Common Pear, cactoblastis moth larvae, Tiger Pear, Creeping Pear

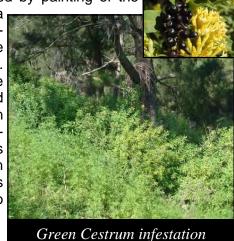
#### **Green Cestrum**

Green Cestrum was first introduced into Australia as a garden plant. Birds and rivers spread cestrum seed well and as a result the weed is often found along creek banks. Green Cestrum grows to approximately 3m high. It is easily identifiable by its trumpet-shaped yellow flowers and black berries.

Green Cestrum can be toxic to a range of livestock but most significantly cattle. Cattle that have ingested Green Cestrum will become feverish and loose their appetite, become excited before developing paralysis. Death usually occurs within hours after the first signs of symptoms.

Eradication of Green Cestrum can be achieved through physical removal and herbicide treatment. The above ground section is cut and

removed, followed by painting of the stump with registered herbicide to kill off the root system. Once cleared the branches should not be left in an area where cattle can access as this is when the material is most attractive to cattle.



# Ashton SMP Public Information Day - 7 July 2008 - Consultation Record

Name	Time	Suburb
Borry FRENCH	1:10	12 HAYDEN ST. MUSWELLBROOK

Topics Raised	Response
* Location of artefacts?  * Scattered artefacts  * Depth of longual!?  * Been talking to  Scott Franks (SF)  * Barry was involved in  eviginal survey and  was requested by  Scott Franks (SF) to  attend an behalf  Biami / Yarrawalk.	Response  Subsidence impacts  limited - will take  same approach w/  blanket 5.90 to ensure  envergency repairs can  be carried out. Will  be managed as per  current management plan  which has been approved.  Deptus indicated  SF. been sent letter as per  smp requirements.
	· S.F. has copy of excisting MP. · Comments welcome. · No issues with current management or proposed impact to scattered sites

Further Information Requested?	If yes, preferred contact details
+WOULD BE INTERESTED IN REVIEWING ARCHAEOLOGY M.P.	6541 2765

Ashton SMP

Subject: Consultation with DPI on pillar stability

Venue: Maitland
Date: 15 July 2008

Time:

File/ref number:

Participants: Gang Li, Shane Pegg, Winton Gale

Apologies:

Distribution: As above

No	Item	Action	Date
1	The meeting was held in relation to questions on pillar stability raised by Gang Li at the interagency committee meeting where Ashton presented the SMP LW and MW 5-9 proposal.		
2	Gang Li has previously made reference to Gretly and the potential for history of mining at Gretley to be relevant for Ashton, however on reflection Gretly was a different design and is now considered not to be relevant.		
3	The main issue for Ashton is No. Direct Hydraulic Connection and pillars are a critical component in maintaining stability of the structure and control of inflows.		
4	Winton presented empirical data in a graph of overburden vs subsidence with strain plots dividing the graph into the 3 areas of normal mining induced inflow; environmental impact flow; and Operational impact flow. The logic is that W/D ratio -> subsidence -> strain -> cracking -> inflow of water.		
5	We are designing for a Factor of Safety of >2.5. The design criteria is to prevent the goaves interacting with each other so that each panel continues to behave independently. Gang Li observed that surface strains do not necessarily relate to initiation strains and it is important to understand the lithology and potential for different strata to propagate fractures.		
	Winton will compare a lithology core from Ashton with Beltana/Wambo to demonstrate that Ashton lithology is consistent with that experienced in other areas of the hunter Valley.		

No	Item	Action	Date
	Whilst not entering into any discussion on selection of 0.6 in preference to any other number, Gang agreed with the principle being adopted.		
	Ray Ramage will be asked to check DPI Data for Tmax vs w/h to compare with the data set developed by SCT		
	Gang Li commented on the need for contingency panning in the event of unexpected water inflows. This should be submitted as a Management Plan, with the SMP, to demonstrate preparedness. In the Southern coalfields this is done as a matter of course, and Gang has since spoken with BHP and they are prepared to show us their TARP which includes actions for levels of deputy/undermanager.		

Ashton SMP

Subject: Bowmans Creek Groundwater Investigations

Venue: DWE Office, Newcastle

Date: 15 July 2008

Time: 10am File/ref number: 60043883

Participants: M.Williams, J.Williams, F.Hancock (DWE) L.Richards, S.Pegg (ACOL), W.Gale

(SCT), P.Dundon, A.Fulton (Aquaterra), A.Kerr (Maunsell)

Apologies:

#### Distribution:

No	Item	Action	Date
1	Introduction and summary of Aquaclude process to date regarding development consent condition to achieve no interconnection of Bowmans Creek alluvium and underground workings.  Overview of SMP.		
2	Presentation by WG – Caving and Hydraulic Connection.		
3	Questions/Comments on above:  MW – When you refer to "no mine inflows" what do you mean by that?  WG – Water into the mine is purely a result of local flows from surrounding strata – ie not environmental seepage flows (indirect connection to overlying waterbody) or mine inflows (operational issue)  MW – Increase in horizontal conductivities – still transmitting water = potentially regionally important.  FH – Is most of the assessment based on panel width? What about variations in chain pillar width?  WG – Response is largely driven by panel width – chain pillar widths must ensure stability to ensure no collapse/reactiviation of goaf.  FH – Not modelled all 4 seams as yet. Note currently low confidence in data/information on multiseam impacts.  WG/SP – ULS has been modelled to look at reactivation of goaf from lower seams. Very large tasks to model all seams – subject to future independent assessment/approval based on requirements of the development consent.		
4	Presentation by PD – Bowmans Creek Alluvium Investigations		
5	Questions/Comments on above:  MW: How are observed mine inflows monitored?  PD/LR: Series of v notch weirs along longwall 1 tailgate. Access now lost, so is collected via pipeline to souther end of LW2. Still monitored – relatively accurate estimates being obtained. Reporting		

No	Item	Action	Date
	is via the AEMR.  MW – Use of the average K value in the 1mx1m grid overestimating rather than Kmax or 95 <sup>th</sup> percentile. Is this appropriate?  WG – yes as separates Kv and Kh and only averaged over each layer not entire strata.  PD – to calibrate the hydrogeological model, much lower K values were needed than WG's estimates. Suggests fracture model and then use of average already overestimates overall conductivity in fractured overburden.  MW – Why has such a shallow extinction depth been used? (1.5m) Calibration requirement?  PD – would have to go back and confirm that.	PD to check and find Reference	
6	Discussion regarding Observed Glennies Creek alluvium inflows.  FH asked how the Glennies Creek alluvium seepage was going.  PD: indicated that there had recently been a decrease, possibly as a result of fines in surface water clogging joints in seam. Monitoring is ongoing.  FH: Any further mitigation measures being undertaken? And had Ashton come up with a preventative measure.  LR: Ashton at the end of the process with the DWE and DPI were of the understanding that we had to licence the flow and as required have purchased 80ML of high security water licence for this purpose.  FH: Licensing is only a temporary solution – not a prevention step. Not acceptable for seepage to continue for life of mine or until groundwater reestablishes post-mining. What can be done now?  LR – Ashton's process that we believed to be acceptable was that while alluvial seepage flows were within the EIS and SMP predictions Ashton would licence to ensure equity of water users. If seepage started to increase above predictions, Ashton would look to alternative measures. This had been discussed and tried to resolve at meeting convened by DPI with DoP and DWE and Ashton, but DWE did not attend the meeting. DoP seemed to support this TARP style of action plan.  FH: Planning has said that DWE would handle this ongoing prevention and that this would need to be considered in moving forward with this new SMP.  SP: Main purpose of today's meeting is to address Bowmans Creek for the next SMP. Glennies Creek is a separate issue.		
7	Presentation of Mine Plan – SP.		
8	Questions/Comments on above:  MW – How did you define "high quality alluvium"?  PD/SP – Saturated zone, excluding the high salinity & colluvium areas  MW – Modelling of all 4 seams seems warranted sooner rather than later.  SP – Our investigations to date are based around the requirements of the development consent – this is not an SMP for all 4 seams, 1 seam only. Impact of next seam has been looked at. Investigation of all seams is onerous at present given data available and will be subject to ongoing monitoring, evaluation and approvals.  MW– Arbitrary value placed on alluvium – whilst current mining uses, need to consider potential uses.		

No	Item	Action	Date
	JW – can the modelling be used to show any impact on Bowmans Creek pools (ie increase in pool disconnect). Need to look at assessment on changes to environmental flows. DWE pushing to get changes in percentile flow predicted and monitored and would be looking for something along those lines in the assessment.  FH - Ie. Triggers, 95 <sup>th</sup> percentile flows and lower – no impact. 80 <sup>th</sup> percentile flows etc. Avoidable/preventable impacts. Reliability of flows.  PD Contribution of alluvium and Permian to Bowmans Creek is very small. May be a benefit of reduced salinity in Bowmans Creek.  JW – should form part of the overall nett impact assessment to environment and social.		
	LR – Stream gauging station – we've received confirmation that the gauging station is no longer need for the Hunter River Salinity Trading Scheme that but might still be needed. If so, ACOL need guidance on need/ relocation.  Need correspondence from DWE to inform the SMP process that a strategy / negotiations are in place.	FH to send correspon dence.	

Ashton SMP

Subject: Energy Australia

Venue:

Date: 8th July 2008

Time:

File/ref number:

Participants: Shane Pegg (ACOL), Ben Ortner (EnergyAustralia)

Apologies:

Distribution: As above

No	Item	Action	Date
1	Energy Australia owns 2 powerline assets that traverse the proposed longwall layout:  A 132kV line on 2 pole H-Frames runs East - West across the Southern end of longwall blocks 1, 4, 5, 6, 7, 8 and 9; and an 11kV line on single poles runs North-South and passes over Longwall 4, 5, 6, 7 and 8. Powerlines running parallel to the highway are considered to be outside the effected zone.  33kV powerlines on single pole structures on the Mac Gen lease are owned by Ravensworth and will require consultation with Ravensworth.		
	This powerline is one of two parallel feeds for power to the Singleton area. Unplanned loss of one of these lines would result in voltage fluctuations in Singleton.  This powerline has been successfully undermined in Longwall 1.  Sheaved rollers can be positioned on the arms of the towers that will be subject to subsidence allowing for some tilt without damaging the lines. Where the powerline changes direction it becomes a 3 pole structure over longwall 5. This is considered the most vulnerable point in terms of subsidence and will require independent review by a structural specialist based on the projected tilts and strains that will come from the SCT Ken Mills report. In the event that the powerlines will not tolerate the predicted subsidence, the line can be rerouted at a cost of \$500k per kilometre, a preferred option would be to redesign the effected structure. New guidelines require any new poles to be of steel or concrete construction. Concrete poles are cheaper and have a 12 month lead time. Steel poles are more expensive and have a 14 week lead time.		
	11kV line The 11kV line should be retained at strain points with double insulators to lengthen the cables and allow more play. Rollers should then be fitted along the intervening poles. Inspections should be undertaken		

No	Item	Action	Date
	during mining to observe ground clearance, and on completion the length of the structure should be profiled to evaluate long term clearance.		
	Ravensworth Poles It is anticipated that a management strategy similar to that which will be used for the Energy Australia 11kV single pole structure would be employed for the Ravensworth powerlines. There is a single pole in the middle of LW9 that will be subject to subsidence which would be fitted with rollers and the strain points at the Northern and Southern ends would be fitted with double insulators.		
	Overall the original Management Plan process can be replicated with the inclusion of additional controls for 11kV cables including monitoring points for the poles at the base as well as top or middle of each pole and a program of visual inspection for ground clearance.		

Ashton SMP

Subject: Consultation with Macquarie Generation

Venue:

Date: 26th August 2008

Time:

File/ref number:

Participants: Robert Cullen, Shane Pegg and Lisa Richards

Apologies:

Distribution: As above

No	Item	Action	Date
1	Robert was shown a copy of the proposed mine plan. The proposed combined longwall and miniwall mining method and sequence of extraction were also explained.		
2	We indicated to Robert that a development consent variation had been submitted for the purpose of extracting LW9 in the area that was previously set aside for the creek diversion.		
3	History The area of Mac Gen responsibility overlying the Ashton Underground Lease was inherited by them as part of a deal with Pacific Resources. Records and documents relating to mining extents as well as depths of spoil piles and out of pit storage dumps were lost and not passed on as part of the transfer of ownership. The area adjacent the mining void and which will be undermined by Ashton longwall blocks contains an out of pit spoil dump but the depth of spoil is not known by Mac Gen.  Ravensworth Underground (formerly known as Newpac) is currently undermining spoil piles and are achieving the predicted 1.5m of subsidence.		
4	Dams and Water Storage The ponds that will be undermined by Ashton are sedimentation dams. Although built on spoil, these are clay lined and have demonstrated ability to hold water. In the event that subsidence resulted in cracking of these dams, it would be required that these be remediated by Ashton.  The existing Void 4, adjacent to the proposed LW9 block is currently used at its Westerly end by Ravensworth Underground for tailings deposition. Macquarie generation have applied and are currently completing approvals for construction of a spoil dam in the Eastern end of the void adjacent to the proposed LW9. Consultation by Mac		

No	Item	Action	Date
	dam and will require appropriate notification and approval for mining within proximity. The design is not yet finalised, however a proposed design was supplied and the relevant portion has been scanned and attached to this email. The co-ordinates have also been incorporated in the attached drawing file.  The date of construction is not yet formalised and will be discussed as part of ongoing consultation, however it is likely to be built before mining of LW9.		
5	Site access road Resource Pacific traffic now access with most traffic from the other end of the lease so that traffic is primarily Ashton. During construction of the Void 4 dam there will be heavy construction traffic via this access gate. The road was recently upgraded by Resource Pacific after they did a lot of heavy construction work. Ashton has done some minor remediation and has general maintenance responsibility. Notification to Mac Gen and Ravensworth Underground would be required prior to undermining.		
6	Brunkers Lane is not indicated on any plans and is not a public road. It appears to have been constructed to divert the old Lemington road when mining was undertaken in Void but has never been formalised. Mac Gen maintain this roadway as a private roadway, and have recently maintained/upgraded the road as well as the highway intersection and installed signage. They require that is be maintained as far as the Mac Gen Void 4 access gate as an alternate access, because Dyno Nobel sometimes limit their access from the other end. This roadway needs to be returned to service with the ability to sustain heavy vehicle traffic. Ravensworth Opencut make use of this road as a rear access to their site but have no legal right of way arrangements.		
7	Site Access Access to the Mac Gen site through the locked gate requires that all persons be inducted. This induction is conducted by a couple of accredited companies based in Newcastle and on the Central Coast. They will do up to groups of people either in their office or at a specific location. Robert is able to supply details for these accredited companies. Having been inducted, Robert is to be notified when people are accessing the site. A visitors induction for short visits can be completed at the power station on Tuesdays at 9:30am by arrangement with Robert.		
8	Spontaneous Combustion The issue of spontaneous combustion in spoil piles was raised as an issue encountered at NewPac. This is not considered to be a major risk for Ashton due to the dump being initial out of pit spoil and unlikely to contain coal. It was considered appropriate, however, that this be captured in the management plans. Possibly capture the control elements in event of a spontaneous combustion event in the existing site Spontaneous Combustion Management Plan?		
9	Reporting Robert requested that a copy of the weekly report that is currently generated and communicated to DPI, also be forwarded to him whenever Ashton is mining within the Mac Gen area. We are already doing this for the owner of Property 130 when mining under		

No	Item	Action	Date
	their access road and phone cable. NewPac are also doing this for Mac Gen.		

Ashton SMP

Subject: Consultation with RTA regarding Ashton SMP for LW5-9

Venue: RTA Newcastle Office in Derby Street

Date: Thursday 29th August

Time:

File/ref number:

Participants: Shane Pegg, Brian Wesley, Jeff Peck, Peter Bishton, Jim Gillard, Adam

McKenzie

Apologies:

Distribution:

No	Item	Action	Date
1	The proposed mine plan was presented to the RTA as both an overlay on an aerial photo and as a contour plan showing depth of cover. An update was provided on current workings and the area of the proposed NW Mains was identified in relation to the RTA New England Highway asset. A copy of the preliminary subsidence impact assessment was provided identifying the low levels of subsidence and the design of longwalls so that subsidence remains outside the New England Highway road reserve area as stipulated in the Development Consent.		
2	The original SMP process had considered the relatively low depth of cover between the New England Highway and the Ashton underground workings. The issue was driven by Gang Li and resulted in the mine plan being "pivoted" to swing the main headings clear of the New England Highway at the more shallow end. A report on pot hole potential was developed by Strata Engineering in order to manage the first SMP stage of mining		
3	Carry over of the WAD The formal process of approval from RTA requires a report for the asset division in Sydney that will be reviewed by their mining assessor Hank Byass. This will be in the form of the Ken Mills subsidence report as well as electronic copies of the plans detailing the location of the New England Highway and depths of cover relative to the proposed workings and will include the new SMP boundary.  The simplest way to manage the ongoing interaction with the highway will be to carry the WAD forward.  Letters are to be addressed to John Farrell Manager of Land Use Development (Impacts). An electronic copy will be sent to Peter, Jim and Adam.		
4.	Letter of intent Consultation for the RTA management plan will be run in parallel with		

No	Item	Action	Date
	the SMP application. Shane will seek a letter from the RTA to accompany the SMP application stating that we are in consultation and developing a Management Plan.  An email in dot points outlining the requirements for the letter by the RTA is to be composed by Shane and sent to Adam.		
5	Review of survey requirements A proposal for survey requirements will be put forward by Ashton as part of the submission to mine first workings beneath the highway at depth. This will be provided in the form of a plan of the proposed survey monitoring layout and text outlining the monitoring strategy including the survey process and frequency. Jeff will develop this with assistance from Shane as required. The RTA will review the proposal and indicate either acceptance or additional requirements if deemed necessary. The RTA will also organise a baseline survey prior to mining that will be at Ashtons expense and include photographic records.		
	Note: RTA also to conduct post impact survey of previous SMP area at completion of LW4		
	If a Risk Assessment is required, this will be done by the RTA inhouse and later sent to Ashton for review/comment.		

Ashton SMP

Subject: Impacts of ACOL Subsidence to Ravensworth

Venue: Site

Date: 03 July 2008

Time:

File/ref number:

Shane Pegg (ACOL TSM), Ken Mills (SCT), Andrew Wright (Ravensworth EO), Nick Slater (Ravensworth TSM), Mark Turner (Ravensworth PM) Participants:

Apologies:

#### Distribution:

No	Item	Action	Date
1	Copy of mine plan presented and discussed.	7 (011011	
2	Explanation of subsidence expected due to miniwalls and longwalls.		
3	Ravensworth identified that an upgrade of Brunkers Lane was a condition of consent for them and that in 2 years they would be upgrading and sealing the existing unsealed road. It was ventured that they might look to acquire land from Ashton to allow a straightening of the bend from the existing sealed road into Brunkers Lane.		
4	Ken indicated that Brunkers Lane where it travels over the Ashton lease would remain serviceable with minimal impact from miniwalls. There would be slightly more impact including cosmetic damage from Longwall 9 as a result of pressure humps buckling the bitumen and cracks at the steepened entry and exit points through the 200-300m length of road in the LW 9 subsidence zone expected to be subjected to maximum 800-900mm vertical displacement. Ashton would remediate any damage and this would likely involve grading out the roll entry and exit points and resealing. Ideally this would occur around the time of the planned Ravensworth improvements, however the timing appears to lag by up to a year behind the Ravensworth schedule. The impact would be expected over a period of 3-4 weeks.		
5	It was explained that with LW9 running adjacent to the Ravensworth lease boundary that less than 50mm of subsidence would be seen beyond the lease boundary.		
6	Ravensworth are planning a HT power line beside the road to service the rear of the property which is still subdivided into		

No	Item	Action	Date
	small lots, and Ashton suggested that construction of a future power pole line should be offset to the West of Brunkers Lane, further from Ashton/subsidence.		
	The HT power line is proposed to be on 4-legged criss-cross steel towers which are more sensitive to subsidence movements than pole structures. These would be OK if located on the Western side of the road near the dam—but would potentially create an issue if the line runs alongside the road over the Ashton lease in the NW corner.		
7	The Narama storage dam was visited and Ravensworth personnel indicated peizometers and survey monitoring that was in place for them to manage the dam. If it was necessary for any additional monitoring from Ashton as part of the DSC approval for mining within the notification area, this could be done by an Ashton sponsored survey team after they had undergone a Ravensworth site induction. The dam is an earthen dam and the grass on the sides of the dam had been recently cut to allow visual inspection as part of the Ravensworth monitoring program.		
7	Ravensworth manage the storage capacity of the dam so that is never more than 70% full (700ML) to control low flows in the sub-drainage system. Expansion plans for the opencut mine include the possibility of deconstructing the dam altogether.		
	Ravensworth had no issue with KM discussing and obtaining information from DSC to facilitate assessment of likely subsidence impacts. SP to be kept informed of this process.		
8	The presence of any buried cables was discussed. It was thought that there may be Telstra cables in the area but that they were not connected to anything.		
9	A buried pipeline from the Narama storage dam to Mt Owen was found to cross the Ashton lease and run at an angle across the widened LW9 area where it passes under brunkers Lane through a culvert. [Pipe specifications were later noted by S Pegg as being PN10 PE100 315mm dia - Shane to follow up Nick Slater for a plan of the buried pipe route].		
10	Ravensworth asked about the number and extent of peizometer data across the Ashton lease regarding Bowmans Creek and expressed a desire to engage in formal discussion on information sharing and data acquisition.		