



Section 3

South East Open Cut Project
&
Modification to the
Existing ACP Consent

SECTION 3 - STAKEHOLDER AND COMMUNITY CONSULTATION

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3 STAKEHOLDER AND COMMUNITY CONSULTATION

3.1 Introduction

ACOL, since the grant of EL 4918 and EL 5860 has placed a high level of importance on ongoing community consultation with landowners and residents, particularly within the adjacent village of Camberwell, and with relevant government agencies and community groups.

Early and ongoing consultation allowed ACOL to appreciate that the proposed SEOC had the potential to be of concern to residents of the village of Camberwell. A proactive approach to community consultation continues to be implemented throughout the operations of the existing ACP and in the planning and environmental assessment of the proposed SEOC project.

The potential for the development of coal mining activities in the area of the proposed SEOC project dates back to November 2005, with newsletters providing information. The proposed SEOC project has continued onwards since 2005.

Consultation with the local community has occurred via newsletters, community information days, meetings with individual landowners and residents, briefings to local and state government and state and federal Members of Parliament and to the ACP Community Consultative Committee.

3.2 Independent Review of Cumulative Impacts on Camberwell Village

The Department of Planning has commissioned an independent review of the cumulative impacts of coal mining on the village of Camberwell in the Upper Hunter Valley. Independent experts were engaged by the DoP to undertake the review.

Under its terms of reference, the review is to:

- Consider and advise on the following impacts of mining on Camberwell Village and surrounds:
 - Noise.
 - Dust.
 - Potential for contamination of drinking water supplies.
- Consider and recommend appropriate measures to minimise and mitigate any identified impacts from existing mining operations.
- Consider and advise on any particular issues which should be considered during the assessment of future mining proposals.
- Consult with the local community and other stakeholders.
- Identify and comment on any other significant issues raised during the course of the review.

A public meeting was held at Glennies Creek Hall on 31 March 2009 to discuss the proposed study with Camberwell residents and interested members of the community. Submissions to the DoP were invited by 17 April 2009.

On 19 May 2009, the DGR's issued for the SEOC and modification required the consideration of the findings of this independent review.

ACOL has been an active participant in assisting the DoP through the provision of monitoring data collected through the extensive ACP air quality monitoring network, and through data collected during numerous attended noise monitoring surveys.

The air quality and acoustic specialists engaged by ACOL for the SEOC have liaised with the Independent Experts engaged by the DoP to ensure that the salient aspects of the review are incorporated within their impact assessments. ACOL representatives have also consulted with DoP representatives to ensure that where available key information from the review is included within the EA.

At the time of preparation of this document the findings of the Independent Review of Cumulative Impacts on Camberwell village have not been publicly released.

3.3 ACP Community Consultative Committee

The grant of development consent for the ACP on 11 October 2002 by the Minister for Planning contained a condition of consent to establish a Community Consultative Committee (CCC) relating to the construction and operation of the ACP. In accordance with *condition 10.1* the CCC comprises two representatives of ACOL (typically the General Manager and the Environment and Community Relations Manager), one representative of Singleton Council and four community representatives. The CCC is currently chaired by Singleton Councillor Godfrey Adamthwaite.

The CCC generally meets on a quarterly basis. Since 2003 there have been more than 22 meetings. The CCC was established to make comments and recommendations on the preparation and implementation of environmental management plans and to monitor compliance with the conditions of consent for the approved ACP.

To allow for the effective functioning of the CCC, ACOL provides information on the progress of the ACP, monitoring results and the environmental performance of the mine and any other information requested by the Chairman of the CCC. ACOL when requested provides access for site inspections by the CCC and takes minutes of the meeting that are made available for public inspection at Singleton Council within 14 days of the meeting.

The CCC was first formally notified of ACOL's intention to advance the development of the SEOC in December 2007. Updates on the progress of exploration and the feasibility study have been provided to the CCC on a regular basis since that time. In September 2008, a presentation of the proposed SEOC project (similar to that now proposed) was given to members of the CCC. Further information was supplied in December 2008, and in March 2009.

In the CCC meeting of March 2009, ACOL provided the members with copies of the Preliminary Environmental Assessment and presented conceptual plans for the future revitalisation and its vision of Camberwell. The vision was met with mixed responses and provided healthy debate as to what improvements could be made to Camberwell. All agreed that Camberwell was a village that should not be "lost" due to nearby mining.

ACOL propose that should the SEOC project be approved the CCC's scope be expanded to include the project so that effective community consultation continues.

3.4 Community Consultation

Following the grant of EL 4918 and EL 5860 ACOL introduced a community consultation program to notify the community of development in these areas, such as the existing ACP and the proposed SEOC. Elements of the community consultation program are discussed below.

3.4.1 Newspaper Notices

The SEOC Major Project Application was advertised within the Newcastle Herald and Singleton Argus newspapers on 24 March 2009 notifying the public and landowners of the proposed SEOC project and modifications to the existing ACP development consent.

ACOL placed notices in the Sydney Morning Herald newspaper on 9 and 17 October 2008, and Singleton Argus newspaper on 7 and 17 October 2009 for the formation of an Aboriginal Stakeholder register for the SEOC project. For more information refer to *Section 3.6* below.

ACOL placed public notices in the Singleton Argus newspaper on 3 and 7 April 2009 inviting residents and interested persons to attend the Community Information Sessions on 7 and 8 April, 2009 (see *Section 3.4.6*).

3.4.2 Newsletters

Since the commencement, of exploration activities at the ACP, ACOL has prepared a series of 31 newsletters to date, demonstrating ACOLs ongoing commitment to keeping the community informed on mining and mining related activities associated with the ACP. The newsletters have covered various issues related to the ACP, including exploration activities, planning and environmental assessment progress and outcomes, status of construction and operation activities, environmental monitoring and environmental performance of the project.

Newsletters dating back to November 2005 have informed residents of exploration activities south of Camberwell and east of Glennies Creek to determine if there is a viable resource in the area. Since that time the newsletters have provided further updates on the progress of exploration activities in the area, with the more recent newsletters incorporating information pertaining to the proposed SEOC project.

These newsletters sought to notify the local community of the progress of planning associated with the SEOC project, the commencement and progress of the EA report and community consultation activities being undertaken such as community information evenings. The majority of newsletters are hand delivered to land owners and occupiers of dwellings within Camberwell.

Copies of the last 20 ACOL newsletters can be downloaded from the ACP website at www.ashtoncoal.com.au.

3.4.3 Website and 1800 Telephone Line

ACOL has an established environmental access line (1800 657 639) and website (www.ashtoncoal.com.au) that covers the existing ACP operations. This access line and website has been used throughout the environmental assessment process to enable local residents and landowners, interested persons and key community groups to contact representatives of ACOL to discuss issues or aspects associated with the proposed SEOC project or to gain access to relevant publicly available information.

3.4.4 "One on One" Discussions

Representatives of ACOL have held "one on one" discussions with land owners and residents of dwellings both within Camberwell village and adjacent rural lands located within and outside EL 4918 and EL 5860 to explain the SEOC project and potential impacts that might arise from the project proceeding.

3.4.5 Consultation with Affected Landholders

ACOL recognise that without the consent of landholders within the SEOC project area a mining lease cannot be issued. Consultation with the landholders within the SEOC project area has been a

significant part of project development. Consultation has also occurred with nearby receptors that are likely to experience exceedances of environmental criteria.

Consultation that has occurred between landholders and ACOL representatives has included discussion of the property access arrangements to undertake the environmental assessment, the anticipated project timing, impacts to the land holdings, mitigation and or acquisition negotiations.

3.4.6 Community Information Sessions

Community information sessions were held in Camberwell on 7 and 8 April 2009 to provide residents of Camberwell and other interested persons, information on the proposed SEOC project.

In excess of 70 people attended the information sessions, ranging from people living within the village of Camberwell and the local area, to others living in other towns within the region. Attendees comprised land owners, occupiers of dwellings, employees and contractors at the existing ACP open cut and underground operations, employees of other coal mines, contractors, truck drivers, cleaners and farmers

Of those that attended, 31 completed a survey as discussed below.

3.4.7 Community Surveys

A number of community surveys have been conducted by ACOL in the Camberwell area since 2005. A brief description of these is given below with detailed findings and analysis described further within Section 5.26 of this EA.

3.4.7.1 November 2005 Community Survey

In November 2005, 50 residents within the Camberwell area were invited to participate in a community survey conducted by ACOL. Of these eleven (11) residents chose to participate. The survey was aimed at assessing the following issues:

- How the local community perceived the existing ACP operations in terms of its environmental performance and community initiatives.
- Community access to information about Ashton (web site, CCC, newsletter, direct contact).
- Major concerns relating to ACOL and mining impacts in general.
- Awareness of ACOL's offer to purchase any property within the village for market value.
- Proposed improvement projects for Camberwell.
- Local employment
- Awareness of exploration activities in the area south of Camberwell village and east of Glennies Creek.

3.4.7.2 October 2006 Community Survey

In October 2006, a similar survey was undertaken to the 2005 survey however a different methodology was implemented to enable consultation with a broader number of the community. A similar number to the 2005 survey offered to participate. ACOL received responses from twenty seven (27) residents of the Camberwell area.

3.4.7.3 April 2009 Community Survey

At the Community Information Sessions held 7 and 8 April 2009 attendees were invited to complete a survey. The following information was obtained with respect to the attendee, the existing ACP, Camberwell village and the SEOC project:

- Name, address and occupation.
- How coal mining affects them.
- The Ashton Coal Mine.

- Environmental performance.
- Awareness of CCC members and effectiveness.
- Awareness of community initiatives.
- Camberwell village.
 - Likes and dislikes.
 - Potential improvements.
 - Concerns about the future of Camberwell village.
- South East Open Cut.
 - Importance of various issues, cumulative, air, noise, employment, water, flora and fauna, affects on Camberwell village, final landform.
 - Composition of the final landform, grazing, open woodland or a combination of these.

Of the 70 people who attended a total of 31 attendees completed surveys. Of these, nine (9) of the surveys were completed by residents of Camberwell, while others resided in nearby towns of Singleton, Maitland, Cessnock, Greta, Muswellbrook, Aberdeen, and Scone. Twenty six (26) of the surveys were completed by people with direct employment in the mining industry.

Further discussion on Camberwell and ACOL's plans to maintain the village during mining are contained within *Section 5.26*.

3.4.8 Future Community Consultation

ACOL will continue with Community Information Sessions, Newspaper Notices, Newsletters and "One on One" discussions during and after the public exhibition of the Project Application and EA report for the SEOC project and upon commencement of construction and operation of the project.

Consultation will continue to occur with representatives of neighbouring mines, government agencies and service authorities.

3.5 Consultation with Neighbouring Lease Holders

Consultation has been undertaken with the holders of A81, Navidale Pty Limited. Navidale Pty Limited have provided a letter of support for this major project application. Ongoing consultation is directed towards some form of agreement that will enable the transfer of the surface entitlements.

3.6 Consultation with the Aboriginal Community

Community consultation with Aboriginal stakeholder groups was undertaken in accordance with the Department of Environment and Climate Change (DECC) guidelines: Interim Community Consultative Requirements for Applicants. Letters of notification of the project were sent to the DECCW, NSW Native Title Services, Office of the Registrar and Singleton Council.

Letters of invitation (to register an interest in the project) were sent to those stakeholders known to ACOL in accordance with a previously developed stakeholder register. Additional stakeholders identified by the above government agencies were also invited by letter to register an interest in the SEOC project.

Public notices advising of the SEOC project and inviting registrations from community groups and individual Aboriginal stakeholders were published in the public notices sections of the Singleton Argus newspaper on 7 and 17 October, 2008 and Sydney Morning Herald newspaper on 9 and 17 October, 2008.

A total of 21 Aboriginal community groups originally registered an interest in the project these being:

1. Aboriginal Native Title Consultants
2. Biامي Pty Ltd
3. Cacatua Culture Consultants
4. Culturally Aware
5. Gidawaa Walang
6. Giwiirr Consultants
7. Hunter Valley Aboriginal Corporation
8. Hunter Valley Cultural Consultants
9. Hunter Valley Cultural Surveying
10. Hunter Valley Natural and Cultural Resource Management
11. Lower Hunter Wonnarua Council Inc.
12. Ungoороo Aboriginal Corporation
13. Ungoороo Cultural and Community Services Inc
14. Upper Hunter Heritage Consultants
15. Wanaruah Local Aboriginal Land Council
16. Warren Taggart
17. Wattaka Cultural Consultants Services
18. Wonn 1 Contracting
19. Wonnarua Culture Heritage
20. Wonnarua Nations Aboriginal Corporation
21. Yarrawalk Enterprises

Late registrations of interest were received from Yinarr Cultural Services (25 May, 2009), Mr S Franks (2 September, 2009 Mr Franks was also registered as Biامي, and has now advised that all registrations for him are to be listed under Tocomwall Pty Ltd), Ms B Foot (via email correspondence from the DECCW on 3 September, 2009) and Valley Culture on 19 October, 2009.

All registered parties were forwarded a copy of the draft Aboriginal Archaeological Assessment for their review and comment.

Additional consultation was held with interested stakeholders on 27 October 2009 to provide groups with an update on the progress of the SEOC EA report and the results of a geomorphic study along the banks of Glennies Creek.

Further details on Aboriginal heritage is contained within Section 5.19.

3.7 Consultation with Singleton Council

Consultation with Singleton Council has been ongoing since the initial development of the ACP, with regular meetings. The Ashton Coal Mine CCC is chaired by an elected Councillor whilst officers of Council attend the meetings.

An initial meeting with the Mayor of Singleton – Councillor Sue Moore and ACOL representatives was held at Council's administrative offices on 5 March, 2009 to formally advise Council of the SEOC project.

In March 2009 consultation occurred with Singleton Council to determine the relevant planning documents that prevailed over the Camberwell area and to better understand how Council envisaged the future of Camberwell.

ACOL representatives provided a presentation to Singleton Council at its meeting held 6 April, 2009. Since the presentation to Council, ACOL representatives have discussed the SEOC project with Council's senior officers and their planning consultant. The presentation included ACOL's strategy to maintain Camberwell during mining.

Further consultation was undertaken with Council officers on 23 October and November, 2009 to discuss planning and recreational policies affecting the Camberwell area, ACOL's vision of maintaining and enhancing the village and Councils adopted position with not supplying reticulated water to the village.

3.8 Consultation with Government Authorities

On 26 June 2008 ACOL and its representatives presented the SEOC Conceptual Project Development Plan (CPDP) to the Department of Primary Industries – Mineral Resources (now Department of Industry and Investment (DII)). From this meeting support was given to the CPDP to allow the SEOC proposal to move to the next stage in the planning process.

On 6 August 2008 a letter was sent to the Department of Planning requesting that the project be considered a project to which Part 3A of the EP&A Act, 1979 applies and for the Department of Planning to convene a Planning Focus Meeting.

On 9 September 2008, the Director-General, as delegate of the Minister for Planning, formed an opinion under Clause 6(1) of *State Environmental Planning Policy (Major Projects) 2005*, that the Ashton South East Open Cut Coal Project is development referred to in Clause 5(1)(a) "*development for the purposes of mining that is coal mining*" – and is thus declared to be a project to which Part 3A of the *EP&A Act, 1979* applies.

Project applications were made to the Department of Planning on 11 March 2009.

A Planning Focus Meeting (PFM) was convened by the Department of Planning and held at the ACOL office on 31 March 2009. The purpose of the PFM was for the proponent to provide information regarding the project and allow government authorities the opportunity to identify potential issues or requirements.

Representatives from the following government organisations and authorities were invited to attend the PFM:

- Department of Planning (DoP).
- Department of Environment and Climate Change (DECC – now the Department of Environment Climate Change and Water – DECCW).
- NSW Department of Water and Energy (DWE –now split into DII and New South Wales Office of Water - NOW).
- Singleton Council.
- Department of Primary Industries (DPI – now DII) (apology).
- Roads and Traffic Authority (apology).

The DoP received written submissions advising the requirements from each authority, to allow the Director General of Planning to adequately formulate the Director General's Requirements (DGRs), otherwise referred to as the Environmental Assessment Requirements. The DGRs were issued on 20 May 2009.

Table 1.1 in *Section 1* provides a summary of the DGR's including where they have been addressed in the EA report. Since the PFM, consultation with the government organisations and authorities has occurred to clarify and assist the proponent's understanding of agency requirements to enable the preparation of the EA report including the proponent's draft Statement of Commitments.

The proponent's Major Project Application, the DGR's and other key documents associated with the project are available on the Department of Planning website, which will be updated as the project moves to a new phase in the assessment process.

ACOL and the environmental assessment team has consulted with other government agencies leading up to and following the PFM including several meetings, emails and telephone conversations with the NSW Office of Water, DPI-Minerals and the DECCW to better understand their requirements

for the assessment of the project. **Table 3.1** details the key consultation aspects that were undertaken during the preparation of the environmental assessment report.

Table 3.1: Summary of agency consultation.

Agency	Date	Discussion
Planning Focus Meeting, including: - DoP - DECCW - NOW - Singleton Council	31 March 2009	Presentation of the SEOC Project
Department of Planning	20 May 2009	- Director General's Environmental Assessment Requirements received.
	14 October 2009 28 October 2009	- Clarification of components of the requirements for Environmental Assessment. - Discussion of Environmental Assessment Requirements.
Department of Environment, Climate Change, Water	20 October 2009	- Biodiversity offsets. - Aboriginal heritage.
	04 November 2009	- Threatened species.
NSW Office of Water	26 March 2009	- Approach to assessment and preliminary findings.
	23 April 2009	- Briefing of NOW officers for SEOC project and discussion of issues including licensing,, impacts upon Glennies Creek and alluvium, opportunity costs and retention of water versus coal resources.
	13 August 2009	- Update on progress, and findings to date - advised expected submission dates. - Discussed further detailed model consultation.
	28 October 2009	- Licensing, alluvial impacts and groundwater.
	4 November 2009	- Technical groundwater modelling review with NOW modelling officers and discussion on licensing.
Department of Industry and Investment	26 June 2008	- Presentation of the Conceptual Project Development Plan for the SEOC.
	2 October 2009	- Project boundaries and mining leases.
	20 October 2009	- Project boundaries and mining leases.
	29 October 2009	- Project boundaries and mining leases.
Roads and Traffic Authority	14 October 2008	- Intersection specifications and conveyor crossing heights.
	4 March 2009	- Preliminary Environmental Assessment provided. - Intersection Concepts. - Geotechnical testing requirements. - Future road widening plans, and tree screening corridors. - Works Authorisation Deed (WAD) agreement required prior to commencement.

Agency	Date	Discussion
		<ul style="list-style-type: none"> - Design of conveyor crossing structure and maintenance plan. - No bridge pillars or piers will be permitted within the existing travel lanes or shoulders.
	9 March 2009	<ul style="list-style-type: none"> - Future highway widening plans.
	17 September 2009	<ul style="list-style-type: none"> - Further discussion on intersection concept plans - Copy of SKM Traffic Impact Assessment supplied.
	28 September 2009	<ul style="list-style-type: none"> - Discussion of intersection plans. - Discussion of conveyor crossing plans, conveyor to be enclosed with spill protection. - Construction Traffic Management Plans would be required for all construction accesses, the intersection construction and the conveyor crossing. - Works Authorisation Deeds (WADs) would also be required, as well as Road Occupancy Permits.
	30 September 2009	<ul style="list-style-type: none"> - A record of discussion supplied to RTA.
	23 October 2009	<ul style="list-style-type: none"> - 6.0 m vertical height clearance acceptable for conveyor structure, separate WADs and Road Occupancy Permits will be required for both the intersection and conveyor crossing.

3.9 Consultation with Rail Authorities

Consultation has been undertaken with the Hunter Valley Coal Chain Logistics Team (HVCCLT) regarding forecast growth in system capacity over forthcoming years. HVCCLT has confirmed that the current system capacity is approximately 95 Mtpa. Modelling undertaken by HVCCLT indicates that with the on time delivery of committed track works it will be possible to achieve 105 Mtpa system capacity by the end of 2009 and 110 Mtpa within the same period with the accelerated completion of the third track Road at Minimbah Bank, and by 2011 with further works it will be possible to achieve 140 Mtpa. These increases in system capacities are also contingent upon commercial arrangements to secure additional trains.

3.10 Consultation with Utility Service Providers

A dial before you dig search was conducted on two occasions for the SEOC project area to determine the presence of utilities. The search identified an optic fibre cable controlled by AAPT/PowerTel, telecommunication cables controlled by Telstra and electricity assets owned by Energy Australia.

The optic fibre owned by AAPT/PowerTel traverses the northern portion of the area adjacent to the New England Highway. Consultation with AAPT has included letters, telephone conversations, and emails to determine the exact location of the cable and the acceptable proximity and interaction with the mining operation.

The telecommunication cables owned by Telstra are distributed through the open cut area. Some will become redundant, others may require realignment around the mining operations.

The Energy Australia assets are overhead powerlines that will require relocation. Consultation has occurred on numerous occasions including letters, onsite meetings, telephone conversations and emails. Energy Australia have undertaken preliminary engineering design on the proposed routes for realignment to assess their technical feasibility.

Further discussion on the proposed management of these services is provided within *Section 4*.

3.11 Risk Analysis

An environmental and risk analysis for the SEOC was undertaken at the commencement of the project and continually through the environmental assessment process to determine the key issues associated with the project, whilst identifying measures to mitigate and/or identifying issues which required further investigation.

The issues have been generated through ACOL's management team's in-depth knowledge of the area gained from their existing operations, specialist consultants and through consultation with government agencies, local landowners, residents of the district, Aboriginal communities and the public.

Risk analysis is undertaken by assessing the consequence severity level (C) of an impact against the predicted frequency or probability (P) of the event occurring. For example, an issue with a high probability and high consequence severity has a High Risk while a low probability and low consequence severity has Negligible Risk.

The risk assessment has been undertaken generally in accordance with Risk Management Guidelines Companion to AS/NZS 4360:2004. **Table 3.2** defines the consequence severity, **Table 3.3** defines the likely probability and **Table 3.4** defines the resulting risk.

The identified issues and associated risk rankings are presented in **Table 3.5**.

A preliminary hazard analysis (PHA) was also undertaken for the project to determine the potential safety risks associated with operational type activities, including the use of explosives. This risk analysis is discussed in more detail within *Section 5.22*.

Table 3.2: Table of consequence severity levels

Consequence Type	Consequence Severity Level				
	1	2	3	4	5
Health and safety	Fatality/permanent disability.	Serious lost time injury >1 month.	Moderate 1 week to 1 month lost time injury.	Minor lost time injury 1 day to 1 week.	No lost time injury.
Natural environment	Very serious long-term environmental impairment of ecosystem functions.	Serious long-term environmental impairment of ecosystem functions.	Serious medium term environmental effects.	Moderate, short-term effects but not affecting ecosystem functions.	Minor effects on biological or physical environment.
Social/cultural heritage	On-going serious widespread social issues, or significant irreparable damage or loss of structures/items of cultural significance.	On-going serious social issues, or significant damage to structures/items of cultural significance.	Medium-term social impacts on local population, or permanent damage to items of cultural significance.	Minor medium-term social impacts on local population, or damage or loss of items of low cultural significance.	Minor short-term social impacts on local population, or damage of items of low cultural significance.
Community/government reputation/ media	Serious public or media outcry (international coverage).	Significant adverse national media/public/ non-government organisation attention.	Attention from media and/or heightened concern by local community. Criticism by non-government organisations.	Minor, adverse local public attention.	Localised community complaints.
Project Development	Project is not Approved/ OR cannot proceed.	Project is approved, with imposed conditions making project un-economic	Project approved subject to onerous conditions OR proceeds with limitations.	Project approved with appropriate conditions/ proceeds with minor limitations.	Project Approved as proposed / and proceeds as proposed.
Legal	Significant prosecution and fines. Very serious litigation including class actions.	Major breach of regulation. Major litigation.	Serious breach of regulation with investigation or report to authority with prosecution and /or moderate fine possible.	Minor legal issues, minor non-compliances and breaches of regulation.	

Table 3.3: Table of probabilities of occurrence

A	Almost certain	The event is expected to occur during the project.
B	Likely	The event will occur during the project.
C	Possible	The event will probably occur at some time during the project.
D	Unlikely	The event could occur at some time during the project.
E	Rare	The event may occur only in exceptional circumstances.

Table 3.4: Risk assessment matrix

Probability	Consequence				
	1	2	3	4	5
A	H	H	H	M	M
B	H	H	M	M	L
C	H	H	M	L	N
D	H	M	L	L	N
E	M	L	L	N	N

H = High, M = Medium, L = Low, N = Negligible

Table 3.5: Preliminary risk analysis of issues raised during project planning and consultation.

No	Aspect	Potential Risks and Issues	Risk			Proposed Action
			P ¹	C ²	R ³	
1.	Project Development and Approval	<ul style="list-style-type: none"> Environmental restrictions adjacent to Glennies Creek reduce pit shell to a point project is unviable. 	C	2	H	<ul style="list-style-type: none"> Undertake preliminary environmental assessments of potential issues to gain better understanding. Undertake consultation with key agencies to determine requirements for studies. Undertake additional drilling and groundwater investigations to understand alluvial/colluvial issues. Undertake conceptual engineering design of infrastructure to better understand potential constraints. Urgent submission of EA Report to DoP to allow sufficient assessment timeframe.
		<ul style="list-style-type: none"> Environmental offsets (e.g. water, biodiversity) make project un-economic. 	C	2	H	
		<ul style="list-style-type: none"> Significant engineering design and construction required for infrastructure. 	C	3	M	
		<ul style="list-style-type: none"> Project Approval does not occur within planned timeframe, resulting in employment layoffs. 	C	2	H	
2.	Land Ownership	<ul style="list-style-type: none"> Landowner not willing to sell or agree to coal mining on their land. 	B	1	H	<ul style="list-style-type: none"> Continue community liaison and liaison with affected landowners to purchase property or form agreement.
		<ul style="list-style-type: none"> No road closure of Perry Street (a Crown paper road) and partial road closure of Glennie Street. 	D	3	L	<ul style="list-style-type: none"> Undertake consultation and make appropriate applications through Singleton Council and Department of Lands.
3.	Flora and Fauna	<ul style="list-style-type: none"> Vegetation clearing. 	A	3	H	<ul style="list-style-type: none"> ACOL to engage ERM and Marine Pollution Research to undertake flora, fauna and aquatic assessment of the study area in accordance with the DECC guidelines. Design surface facilities and schedule SEOC to minimise impacts to flora, fauna and
		<ul style="list-style-type: none"> Habitat loss. 	A	3	H	

¹ P = Probability of Issue occurring – See **Table 3.2**, (A – Almost Certain to E – Rare).
² C = Consequence Severity Level – See **Table 3.1**, (1 – Most severe to 5 – least severe).
³ R = Assigned Risk Level – **Table 3.3**, (H = High, M =Medium, L = Low, N = Negligible).

No	Aspect	Potential Risks and Issues	Risk			Proposed Action
			P ¹	C ²	R ³	
		<ul style="list-style-type: none"> Impacts to threatened species, endangered populations, endangered ecological communities, migratory species. 	C	3	M	aquatic attributes in the SEOC area. <ul style="list-style-type: none"> Develop an offset strategy to maintain and enhance biodiversity values through proactive management of existing vegetation and revegetation. Seek to establish, manage and enhance linkages with surrounding nature corridors and rehabilitate in accordance with the Synoptic Plan.
4.	Aquatic Ecology	<ul style="list-style-type: none"> Impacts to surface water quality and quantity. 	B	3	M	<ul style="list-style-type: none"> ACOL to engage ERM to undertake flora, fauna and aquatic assessment of the study area in accordance with DECC guidelines. Engage Worley Parsons to assess impacts to surface water quality and quantities. Design surface facilities and SEOC to minimise impacts to water quality and fish habitats.
		<ul style="list-style-type: none"> Significant habitat loss. 	B	3	M	
		<ul style="list-style-type: none"> Impacts to possible Groundwater Dependant Ecosystems. 	C	3	M	
5.	Aboriginal Heritage	<ul style="list-style-type: none"> Loss of or impact to items of aboriginal heritage. 	A	3	H	<ul style="list-style-type: none"> ACOL to engage Insite Heritage to undertake Aboriginal heritage assessment of the study area in accordance with the DECC guidelines. Design of SEOC and facilities to minimise impact to items of archaeological significance.
6.	European Heritage	<ul style="list-style-type: none"> Loss of or impact to items of potential European heritage. (There are no heritage sites recorded on the site in environmental planning instruments, with exception to Camberwell Church and Camberwell Community Hall located outside the footprint). 	B	4	M	<ul style="list-style-type: none"> ACOL to engage Heritas Architecture to assess European Heritage in the SEOC project area. Design of SEOC and facilities to minimise impact to items of historical significance.
7.	Water	<ul style="list-style-type: none"> Insufficient availability of water for operational uses. 	C	3	M	<ul style="list-style-type: none"> Review drought security of mining operation and potential mitigation measures. Investigate dam opportunities in the SEOC for the storage of excess water for use during periods of drought.
		<ul style="list-style-type: none"> Excess water from surface or groundwater sources. 	C	3	M	

No	Aspect	Potential Risks and Issues	Risk			Proposed Action
			P ¹	C ²	R ³	
8.	Surface Water	<ul style="list-style-type: none"> Reduction in surface water quantity to Glennies Creek. 	B	4	M	<ul style="list-style-type: none"> Engage Worley Parsons to undertake surface water assessment of SEOC Project, including the development of surface water management strategy. Undertake geomorphology assessment of Glennies Creek. Design SEOC pit shell to stand off from creek in potentially sensitive areas. Design final void to be toward eastern side of pit rather than western side near creek. Design final landform to be free draining, with adequate drainage lines to convey water through final landform to Glennies Creek.
		<ul style="list-style-type: none"> Degradation of water quality in Glennies Creek. 	C	3	M	
		<ul style="list-style-type: none"> Channel migration of Glennies Creek into the SEOC. 	C	2	H	
9.	Flooding	<ul style="list-style-type: none"> Risk to human life from pit inundation. 	D	1	H	<ul style="list-style-type: none"> Engage Worley Parsons to undertake flooding study. Design infrastructure above 1 in 100 year flood level for Glennies Creek. Design levee structures to protect SEOC during periods of high flow in Glennies Creek. Restrict open cut to areas above the 1 in 5 year flood levels and predominantly above 1 in 20 year level.
		<ul style="list-style-type: none"> Risk to production from pit inundation. Damage to proposed SEOC infrastructure from flooding events. 	C	2	H	
		<ul style="list-style-type: none"> Impact to other properties from changes in flooding behaviour of Glennies Creek and Hunter River. 	C	2	H	
10.	Groundwater	<ul style="list-style-type: none"> Unacceptable alluvial inflows from Glennies Creek to SEOC. 	C	2	H	<ul style="list-style-type: none"> ACOL to engage Aquaterra to prepare a groundwater assessment and strategy that aims to minimise impacts to groundwater, and assesses potential impacts against the relevant criteria. Investigate engineering designs where possible to limit impacts to alluvial groundwaters, e.g. an alluvial/ colluvial barrier wall system. Design infrastructure and mining operations to minimise impacts. Fill final void with tailings/ reject to minimise void depth and size.
		<ul style="list-style-type: none"> Final void becomes long term sink for groundwater. 	C	3	M	

No	Aspect	Potential Risks and Issues	Risk			Proposed Action
			P ¹	C ²	R ³	
11.	Air Quality	<ul style="list-style-type: none"> Degradation of air quality from SEOC and cumulative impacts from surrounding mines. 	A	2	H	<ul style="list-style-type: none"> ACOL to engage PAEHolmes to prepare an air quality assessment. Assessment to be undertaken in accordance with relevant guidelines and assessed against relevant criteria. Develop operational practices to reduce dust generation such as: <ul style="list-style-type: none"> Minimise disturbance area at any one time. Haul road lengths are as short as practicable and employ appropriate dust control practices. Rehabilitation will be undertaken progressively and as soon as practicable. Relocation and cessation of mining in unfavourable weather conditions. Trafficked areas to be watered. Potential non-mine-owned land impacts to be determined by modelling.
		<ul style="list-style-type: none"> Increased greenhouse gas emissions and associated impacts to climate change 	A	3	H	<ul style="list-style-type: none"> ACOL to engage PAEHolmes to prepare a greenhouse gas assessment. Assessment to be undertaken in accordance with relevant guidelines and assessed against relevant criteria. Design infrastructure and mining operations to minimise impacts. Haul road lengths are as short as practicable. All machinery/vehicles/equipment is maintained in good conditions and employ best available technology economically achievable (BATEA).

No	Aspect	Potential Risks and Issues	Risk			Proposed Action
			P ¹	C ²	R ³	
12.	Noise	<ul style="list-style-type: none"> Degradation of acoustical amenity from construction and operation of SEOC and cumulative impacts of surrounding mines. 	A	3	H	<ul style="list-style-type: none"> ACOL to engage Spectrum Acoustics to prepare an acoustical impact assessment, which includes construction, operation, onsite and offsite road and rail impacts. Assessment to be undertaken in accordance with relevant guidelines and assessed against relevant criteria. Design of mine will ensure that noise impacts are minimised. Haul road lengths are as short as practicable and in good condition. Construction of environmental bund to minimise noise impacts to village of Camberwell. All machinery/vehicles/equipment is maintained in good conditions and employ best available technology economically achievable (BATEA). Potential non-mine-owned land impacts to be determined by modelling.
		<ul style="list-style-type: none"> Degradation of acoustical amenity from increased rail noise associated with SEOC. 	C	4	L	<ul style="list-style-type: none"> ACOL to engage Spectrum Acoustics to potential impact from increase in rail movements. Assessment to be undertaken in accordance with relevant guidelines and assessed against relevant criteria.
13.	Blasting and Vibration	<ul style="list-style-type: none"> Disturbance to non-mine-owned dwellings. Damage of nearby structures (optic fibre, powerlines, rail line, New England Highway and bridge over Glennies Creek), Glennies Creek and 	C	3	M	<ul style="list-style-type: none"> ACOL to engage Spectrum Acoustics to prepare a blasting and vibration assessment. Assessment to be undertaken in accordance with relevant guidelines and assessed against relevant criteria. Design mining operations to minimise impacts. Blast management plans to be cognisant of limitations (highway and utilities) and design blast accordingly in consultation with utility and road authority. Road closures will be required.
14.	Traffic and Transport	<ul style="list-style-type: none"> Safety and traffic flow disruptions to New England Highway users and ACOL employees 	D	2	M	<ul style="list-style-type: none"> ACOL to engage Sinclair Knight Merz Pty Limited to prepare a traffic assessment, including preliminary site intersection design to AUSROADS Standard.

No	Aspect	Potential Risks and Issues	Risk			Proposed Action
			P ¹	C ²	R ³	
		<ul style="list-style-type: none"> • Temporary road closures during blasting activities. 	A	5	M	<ul style="list-style-type: none"> • Preparation of Blast Management Plan to address temporary road closures.
		<ul style="list-style-type: none"> • Non-availability of rail capacity for increased production 	D	3	L	<ul style="list-style-type: none"> • ACOL to liaise with Hunter Valley Coal Chain Logistics Team to determine available capacity.
15.	Visual	<ul style="list-style-type: none"> • Disturbance of visual amenity (including night lighting impacts) for surrounding residents and road users. 	A	3	H	<ul style="list-style-type: none"> • ACOL to engage O’Hanlon Design Pty Ltd to prepare a visual impact assessment; • Construction of environmental bund to screen SEOC operations from residents of village of Camberwell; and • Design infrastructure and mining operations to minimise impacts.
16.	Social and Economic	<ul style="list-style-type: none"> • The loss of significant gain for local, regional, state and national economies, through royalties, taxes and employment, if the project was not approved. 	C	1	H	<ul style="list-style-type: none"> • ACOL to engage Hunter Valley Research Foundation to prepare economic impact assessment.
17.		<ul style="list-style-type: none"> • Reduction in property values. 	D	3	L	<ul style="list-style-type: none"> • Increased employment in a region generally results in greater demand for available residential properties, resulting in generally increased property values. • Properties directly impacted by mining operations with exceedances of accepted criteria would be managed where feasible or purchased at pre-mining/market land values. • The relatively transient nature of the mining means impacts to individual properties are temporary. • Real estate in Camberwell (as a result of mining) has a history of higher property prices than areas within Singleton. • No further action required.

No	Aspect	Potential Risks and Issues	Risk			Proposed Action
			P ¹	C ²	R ³	
18.	Rehabilitation and Final Landform	<ul style="list-style-type: none"> Environmental bund that remains a permanent unnatural looking structure on the landscape. 	C	3	M	<ul style="list-style-type: none"> Commission landscape architect to provide input into final landform design. Design a final landform that incorporates undulations, spurs and valleys with drainage lines and mixed vegetation to breakup the length of the overburden face.
		<ul style="list-style-type: none"> Ineffective rehabilitation of SEOC following mining inconsistent with surrounding vegetation communities and landforms 	C	3	M	<ul style="list-style-type: none"> Develop rehabilitation strategies based on sound industry practice, scientific research and consistent with synoptic plan. Engage Soil Conservation Service to determine limitations in soils and measures to improve rehabilitation potential. Develop a final landform that is an appropriate, stable, safe and unobtrusive with respect to the original landform. Ensure proposed rehabilitation and final landform is consistent with strategic land use objectives.
		<ul style="list-style-type: none"> Excessive final void and/or ineffective utilisation of void post mining Final void location inappropriate. 	C	3	M	<ul style="list-style-type: none"> Minimise final voids through effective mine planning and develop strategy for the management of final voids. Design final void that is cognisant of site constraints, such as Glennies Creek.
19.	Land Use	<ul style="list-style-type: none"> Degradation of land capability following completion of open cut mining 	C	4	L	<ul style="list-style-type: none"> Engage Soil Conservation Services to determine pre-mining land capability of the disturbance area to quantify impact.
20.	Cumulative Impacts	<ul style="list-style-type: none"> Increased impacts from SEOC and surrounding mining operations 	A	3	H	<ul style="list-style-type: none"> Ensure assessments of surface waters, groundwater, flora and fauna, noise and air quality investigate impacts with respect to the existing and potential impacts from adjoining coal mines.

No	Aspect	Potential Risks and Issues	Risk			Proposed Action
			P ¹	C ²	R ³	
21.	Geochemical Assessment	<ul style="list-style-type: none"> Salt and acid generation from coal and overburden, from open cut and underground mining degrading surface water quality. 	D	3	L	<ul style="list-style-type: none"> ACOL to engage Environmental Geochemistry International Pty Limited to prepare a geochemical assessment of overburden, coal and reject from underground and open cut areas.
22.	Preliminary Hazard Analysis	<ul style="list-style-type: none"> Public and mine personnel safety during the construction and operational phases of the project. 	C	1	H	<ul style="list-style-type: none"> ACOL to engage Sinclair Knight Merz Pty Limited to prepare preliminary hazard analysis for the project that assesses potential risks to mine personnel and public.
23.	Soils	<ul style="list-style-type: none"> Increased erosion of soils due to erodible soil types within the project area. Soils contamination resulting from spillage of hydrocarbons and other chemicals. Alteration of physical and chemical soil properties 	C	3	M	<ul style="list-style-type: none"> Soil Conservation Service to determine soil limitations and strategies to conserve the soil resources. Prepare erosion and sediment control plan.

3.12 Public Exhibition of the Environmental Assessment

The EA report will be placed on public exhibition by the Department of Planning for a period of at least 30 days. Members of the public and interested persons will be invited to make written submissions on any aspect of the project.

If you wish to make a submission on the SEOC, the submission should include the following information: -

- Your name and address;
- The South East Open Cut – Major Project Number 08_0182
- A statement on whether you support or object to the proposal; and
- The reasons why you support or object to the proposal.

Your submission must reach the Department of Planning by the specified date in the public notice and be addressed to:

Major Development Assessments,
Department of Planning
GPO Box 39
Sydney, NSW 2001.

Under Section 75H of the EP&A Act 1979 the Director-General is required to send copies of submissions or a report of the issues raised in those submissions to the proponent, other parties and any other authorities the Director-General considers appropriate, but the names and addresses would be withheld.

The EA report will be available at the offices of the Department of Planning and Singleton Council.

3.13 Consultation Post Developments Approval

If the project is granted Project Approval the proponent will continue consultation with land owners and the community during construction and mining operations. The telephone hotline, web site, newsletter and complaints register will continue to be maintained through the construction and operation of the SEOC.