

Appendix 2

Director-General's Requirements and Requirements of Consulted Government Agencies

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Director-General’s Requirements

Section 75F of the *Environmental Planning and Assessment Act 1979*

Application Number	05_0102
Project	Stage 1 of the Narrabri Coal Project, which includes: <ul style="list-style-type: none"> • underground mining, using continuous miner equipment; • crushing, screening and stockpiling coal on the site; and • transporting up to 2.5 million tonnes of coal a year to the Port of Newcastle by rail.
Site	Adjacent to the Kamilaroi Highway, 20 kilometres southeast of Narrabri.
Proponent	Narrabri Coal Pty Limited.
Date of Issue	24 January 2007.
Date of Expiration	24 January 2009.
General Requirements	<p>The Environmental Assessment must include</p> <ul style="list-style-type: none"> • an executive summary; • a detailed description of the project including the: <ul style="list-style-type: none"> – need for the project; – alternatives considered; and – various components and stages of the project; • consideration of any relevant statutory provisions; • a general overview of the environmental impacts of the project, identifying the key issues for further assessment, and taking into consideration the issues raised during consultation; • a detailed assessment of the key issues specified below, and any other significant issues identified in the general overview of environmental impacts of the project (see above), which includes: <ul style="list-style-type: none"> – a description of the existing environment; and – an assessment of the potential impacts of the project. • a description of the measures that would be implemented to avoid, minimise, mitigate, offset, manage and/or monitor the impacts of the project; • a draft Statement of Commitments, outlining environmental management, mitigation and monitoring measures; • a conclusion justifying the project, taking into consideration the environmental impacts of the proposal, the suitability of the site, and the benefits of the project; and • a signed statement from the author of the Environmental Assessment certifying that the information contained in the report is neither false nor misleading.
Key Issues	<ul style="list-style-type: none"> • Subsidence; • Soil & Water - including a detailed water balance; • Noise – including construction, operation, and rail noise impacts; • Air Quality; • Greenhouse Gases - a greenhouse gas assessment (including a quantitative analysis of greenhouse gas emissions associated with the combustion of product coal, and a qualitative assessment of the impacts of these emissions on the environment); • Traffic and Transport; • Flora and Fauna – including any impacts on critical habitats, threatened species, populations and ecological communities; • Heritage; • Visual – including any potential impacts on the Siding Spring Observatory • Socio-economic – particularly with regard to any increased demand for infrastructure and services in the region; and • Cumulative Impacts.



References	The Environmental Assessment must take into account relevant State Government technical and policy guidelines. While not exhaustive, guidelines which may be relevant to the project are included in the attached list.
Consultation	<p>During the preparation of the Environmental Assessment, you must consult with the relevant local, State or Commonwealth government authorities, service providers, community groups or affected landowners. The consultation process and the issues raised must be described in the Environmental Assessment.</p> <p>In particular you must consult with:</p> <ul style="list-style-type: none"> • Department of Environment and Conservation; • Department of Natural Resources; • Department of Primary Industries; • NSW Roads and Traffic Authority; and • Narrabri Shire Council. <p>The consultation process and the issues raised must be described in the Environmental Assessment.</p>
Deemed refusal period	60 days



State Government Technical and Policy Guidelines - For Reference

Aspect	Policy /Methodology
Soil and Water	<ul style="list-style-type: none"> • <i>Managing Urban Stormwater: Soils & Construction</i> (Landcom); • <i>Guidelines for Fresh and Marine Water Quality</i> (ANZECC); • <i>Rehabilitation Manual for Australian Streams</i> (Land and Water Resources Research and Development Corporation); • <i>NSW State Rivers and Estuaries Policy</i> (DNR); • <i>NSW Flood Prone Land Policy</i> (DNR); • <i>NSW Wetlands Management Policy</i> (DNR); • the various <i>State Groundwater Policy</i> documents (DNR); • any Water Sharing Plan under the <i>Water Management Act 2000</i> applicable to the site; • <i>Approved Methods for the Sampling and Analysis of Water Pollutants in NSW</i> (DEC); • <i>Environmental Guidelines: Use of Effluent by Irrigation</i> (DEC);
Flora and Fauna	<ul style="list-style-type: none"> • draft <i>Guidelines for Threatened Species Assessment</i> (DEC); • <i>Threatened Biodiversity Survey and Assessment: Guidelines for Development and Activities</i> (DEC); • <i>NSW Groundwater Dependent Ecosystem Policy</i> (DNR); • <i>Policy and Guidelines for Fish Friendly Waterway Crossings</i> (DPI);
Blasting and Vibration	<ul style="list-style-type: none"> • <i>Technical Basis for Guidelines to Minimise Annoyance due to Blasting and Ground Vibration</i> (ANZECC);
Noise	<ul style="list-style-type: none"> • <i>NSW Industrial Noise Policy</i> (DEC); • <i>Environmental Criteria for Road Traffic Noise</i> (DEC); • <i>Environmental Noise Control Manual</i> (DEC);
Air Quality	<ul style="list-style-type: none"> • <i>Approved Methods for the Modelling and Assessment of Air Pollutants in NSW</i> (DEC);
Greenhouse Gases	<ul style="list-style-type: none"> • <i>AGO Factors and Methods Workbook</i> (Australian Greenhouse Office);
Heritage	<ul style="list-style-type: none"> • draft <i>Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation</i> (DEC);
Subsidence	<ul style="list-style-type: none"> • <i>Guidelines for Application for Subsidence Management Approvals</i> (DPI);
Traffic	<ul style="list-style-type: none"> • <i>Guide to Traffic Generating Development</i> (RTA); • <i>RTA Road Design Guide</i> (RTA); • relevant Austroad standards;
Rehabilitation	<ul style="list-style-type: none"> • <i>Guidelines for Rehabilitation of Land for Agricultural End Use</i> (DPI); and
Waste	<ul style="list-style-type: none"> • <i>Environmental Guidelines: Assessment and Classification and Management of Liquid and Non-Liquid Wastes</i> (DEC).



Table A2.1
Coverage of Director-General’s Requirements
(Department of Planning (6 January 2006 / 24 January 2007))

Issue	EA Section
General	
<p>The Environmental Assessment must include:</p> <ul style="list-style-type: none"> • an executive summary; • a detailed description of the project including the: <ul style="list-style-type: none"> – need for the project; – alternatives considered; and – various components and stages of the project; • consideration of any relevant statutory provisions; • a general overview of the environmental impacts of the project, identifying the key issues for further assessment, and taking into consideration the issues raised during consultation; • a detailed assessment of the key issues specified below, and any other significant issues identified in the general overview of environmental impacts of the project (see above), which includes: <ul style="list-style-type: none"> – a description of the existing environment; and – an assessment of the potential impacts of the project. • a description of the measures that would be implemented to avoid, minimise, mitigate, offset, manage and/or monitor the impacts of the project; • a draft Statement of Commitments, outlining environmental management, mitigation and monitoring measures; • a conclusion justifying the project, taking into consideration the environmental impacts of the proposal, the suitability of the site, and the benefits of the project; and • a signed statement from the author of the Environmental Assessment certifying that the information contained in the report is neither false nor misleading. 	<p>Page xv</p> <p>2.1.1 2.3, 2.16 2.4 to 2.15</p> <p>3.2.2, 3.3</p> <p>4A, 4B 4B 4B</p> <p>5</p> <p>6</p> <p>Page iii</p>
Subsidence	
<p>Assess the following potential impacts of the project (including any potential cumulative impacts), and describe what measures would be implemented to avoid, minimise, mitigate, offset, manage and/or monitor these impacts.</p> <p>Refer to the <i>Guideline for Application for Subsidence Management Approvals</i> (Department of Primary Industries).</p>	<p>2.5.5, 2.16, 4C.7, (see SCSC Part 8)</p>
Soil and Surface Water	
<p>Assess the following potential impacts of the project (including any potential cumulative impacts), and describe what measures would be implemented to avoid, minimise, mitigate, offset, manage and/or monitor these impacts.</p> <p>Include a detailed water balance, and refer to the <i>Guidelines for Fresh and Marine Water Quality</i> (ANZECC), <i>Managing Urban Stormwater: Soils & Construction</i> (Landcom), and the various <i>State Groundwater Policy</i> documents (Department of Natural Resources).</p>	<p>Surface Water - 4B.1.1, 4B.1.3 to 4B.1.8, 4C.3, Soil - 4B.5.1, 4B.5.2.5, 4B.5.2.6, 4C.5</p> <p>SW - 4B.1.1 Soil - 4B.5.1</p>



Table A2.1 (Cont’d)
Coverage of Director-General’s Requirements
(Department of Planning (6 January 2006 / 24 January 2007))

Issue	EA Section
Noise	
Assess the following potential impacts of the project (including any potential cumulative impacts), and describe what measures would be implemented to avoid, minimise, mitigate, offset, manage and/or monitor these impacts.	4B.9.5 4B.9.4 4B.9.6 4B.9.3.1
Refer to the <i>NSW Industrial Noise Policy, Environmental Criteria for Road Traffic Noise, and Environmental Noise Control Manual</i> , particularly for the rail noise assessment (Department of Environment and Conservation).	
Air Quality	
Assess the following potential impacts of the project (including any potential cumulative impacts), and describe what measures would be implemented to avoid, minimise, mitigate, offset, manage and/or monitor these impacts.	4B.7.1 4B.7.5 4B.7.6 4B.7.7 Table 3.1 Table 5.1
Refer to <i>Approved Methods for the Modelling and Assessment of Air Pollutants in NSW</i> (Department of Environment and Conservation).	4B.7.1
Greenhouse Gases	
A greenhouse gas assessment (including a quantitative analysis of greenhouse gas emissions associated with the combustion of product coal, and a qualitative assessment of the impacts of these emissions on the environment);	4B.7.3.2 4B.7.6.8 (see SCSC Part 1)
Transport	
Assess the following potential impacts of the project (including any potential cumulative impacts), and describe what measures would be implemented to avoid, minimise, mitigate, offset, manage and/or monitor these impacts.	4B.8.1 4B.8.5 4B.8.4.2 4B.8.4.3 Table 3.1 Table 5.1
Refer to the <i>Guide to Traffic Generating Development and Road Design Guide</i> (Roads & Traffic Authority), or relevant Austroad standards.	4B.8.1
Flora and Fauna (Ecology)	
Assess the following potential impacts of the project (including any potential cumulative impacts), and describe what measures would be implemented to avoid, minimise, mitigate, offset, manage and/or monitor these impacts.	4B.3.1 4B.3.4 4B.3.5 4B.3.6 Table 3.1 Table 5.1
Refer to the draft <i>Guidelines for Threatened Species Assessment</i> (Department of Environment and Conservation).	4B.8.1
Heritage	
Assess the following potential impacts of the project (including any potential cumulative impacts), and describe what measures would be implemented to avoid, minimise, mitigate, offset, manage and/or monitor these impacts.	4B.4.5 4B.4.6 4B.11 4C.6 Table 3.1 Table 5.1
Refer to the draft <i>Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation</i> (Department of Environment and Conservation).	Part 4 of SCSC



Table A2.1 (Cont'd)
Coverage of Director-General’s Requirements
(Department of Planning (6 January 2006 / 24 January 2007))

Issue	EA Section
Visual Amenity	
Assess the following potential impacts of the project (including any potential cumulative impacts), and describe what measures would be implemented to avoid, minimise, mitigate, offset, manage and/or monitor these impacts.	4B.6.1 4B.6.3 4B.6.4 Table 3.1 Table 5.1
Include any potential impacts on the Siding Springs Observatory.	4B.6.1
Socio-economic	
Assess the following potential impacts of the project (including any potential cumulative impacts), and describe what measures would be implemented to avoid, minimise, mitigate, offset, manage and/or monitor these impacts. Particularly with regard to any increased demand for infrastructure and services in the region.	4B.10.4 4B.10.5 Table 3.1 Table 5.1
Consultation	
During the preparation of the EA, you must consult with the relevant local, State and Commonwealth government authorities, service providers, community groups and affected landowners.	3.2 Table 3.1 Table 5.1



Table A2.2
Issues Raised in Correspondence following the Planning Focus Meeting

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Government Authority	Issue	EA Section	SCSC Part/Section
General			
DEC (13 October 2005)	In summary, the DEC’s key information requirements for the project are: <ul style="list-style-type: none"> the impact on air quality, noise amenity, water quality and quantity; the design and layout of facilities to minimise potential impact and achieve ambient goals; the actions that will be taken to avoid or mitigate environmental impacts or compensatory measures to minimise unavoidable impacts. 	4B.7.6 4B.9.5 4B.1.7 2.1.3, 2.3 4B.7.5 4B.9.4 4B.1.4 4B.1.5	Part 6/6 Part 7/6 Part 1/8, 9, 10 & 13 Part 6/5 Part 7/5 Part 1/7
Narrabri Shire Council (19 December 2995)	Bushfire consideration planning for bushfire protection needs to be considered.	2.9.1	
References/Guidelines			
DEC (13 October 2005)	Industry codes of practice or best environmental management practice guidelines: <ul style="list-style-type: none"> the Department of Environment and Heritage’s Best Practice Environmental Management in Mining series; and the Australian Minerals Industry Code for Environmental Management. 	Reviewed Reviewed	
	Air Quality <ul style="list-style-type: none"> Protection of the Environment Operations (Clean Air) Regulation 2002 Approved Methods for the Sampling and Analysis of Air Pollutants in NSW Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW (Draft) Assessment and Management of Odour from Stationery Sources in NSW 	Reviewed Reviewed 4B.7.1 4B.7.4 NA	Part 6/3
	Noise and Vibration <ul style="list-style-type: none"> NSW Industrial Noise Policy (EPA, 1999) NSW Environmental Criteria for Road Traffic Noise (EPA, 1999) Technical Basis for Guidelines to Minimise Annoyance Due to Blasting Overpressure and Ground Vibration (ANZECC 1990) 	4B.9.3 4B.9.2 4B.9.3 4B.9.3	Part 7/4 Part 7/4 Part 7/4
Reviewed: Included in literature review conducted but not considered necessary to reference within the EA. NA: Not applicable to the project as proposed. Noted: No further reference required in the Environmental Assessment			



Table A2.2 (Cont'd)
Issues Raised in Correspondence following the Planning Focus Meeting

Government Authority	Issue	EA Section	SCSC Part/Section
References/Guidelines (Cont'd)			
DEC (13 October 2005)	Water Quality <ul style="list-style-type: none"> National Water Quality Management Strategy: Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC 2000) NWQMS Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC 2000) 	4B.1.1 4B.2.1 4B.1.8	Part 1/5, 6
	Waste Water <ul style="list-style-type: none"> National Water Quality Management Strategy: Guidelines for Sewerage Systems – Effluent Management (ARMCANZ/ANZECC 1997) National Water Quality Management Strategy: Guidelines for Sewerage Systems – Use of Reclaimed Water (ARMCANZ/ANZECC 2000) Environmental Guidelines for the Utilisation of Treated Effluent by Irrigation (NSW DEC 2004) 	Reviewed Reviewed Reviewed	
	Stormwater (note: some of these documents will be revised in 2006) <ul style="list-style-type: none"> Managing Urban Stormwater: Soils and Construction (Dept of Housing/DLWC 1998) Managing Urban Stormwater: Source Control (EPA 1998) Managing Urban Stormwater: Treatment Techniques (EPA 1998) 	Reviewed Reviewed Reviewed	Part 1/7
	Groundwater <ul style="list-style-type: none"> State Groundwater Policy Framework Document (DLWC 1997) The NSW State Groundwater Quality Protection Policy (DLWC 1998) (Draft) NSW State Groundwater Quantity Management Policy NSW State Groundwater Dependent Ecosystems Policy (DLWC, 2002) National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ & ANZECC, 1995) 	Reviewed Reviewed Reviewed Reviewed	Part 1/2 Part 1/2 Part 1/2 Part 1/2
	Waste <ul style="list-style-type: none"> Guidelines for the Use and Disposal of Biosolids Products (NSW EPA 1997) Environmental Guidelines: Solid Waste Landfills (NSW EPA 1996) Draft Environmental Guidelines – Industrial Waste Landfilling (April 1998) Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes 	NA NA NA NA	

Reviewed: Included in literature review conducted but not considered necessary to reference within the EA.

NA: Not applicable to the project as proposed.

Noted: No further reference required in the Environmental Assessment



Table A2.2 (Cont’d)
Issues Raised in Correspondence following the Planning Focus Meeting

Government Authority	Issue	EA Section	SCSC Part/Section
References/Guidelines (Cont’d)			
	Assessing Threatened Species Impacts Draft Guidelines for Threatened Species Assessment – Available from Department of Planning	4B.3.1	Part 3/_
	Assessing Aboriginal Cultural Heritage Impacts Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation – Available from Department of Planning Interim Community Consultation Requirements for Applicants	4B.4.1	Part 4/2
Approvals			
DEC (13 October 2005)	Based on the information provided to the DEC, the applicant will require an environment protection licence to: <ul style="list-style-type: none"> • carry out scheduled development work; and • carry out scheduled activities. 	Noted	
DPI (MR) (14 October 2005)	The Proponents are required to hold appropriate mining titles from the Department of Primary Industries - Mineral Resources Division (DPI (MR)) in order to mine this mineral. Any granted mining title is subject to standard and special conditions, with the preparation of a Mining Operations Plan, Annual Environmental Management Report and a Subsidence Management Plan being specific requirements for any lease before operations can commence. Relevant health and safety issues will need to be dealt with in accordance with the requirements of the <i>Coal Mine Health and Safety Act 2002</i> and the <i>Coal Mines Regulation Act 1982</i> .	Noted	
	The MLA will be required to have surface lease tenure for the pit-top and ventilation infrastructure areas and subsurface tenure for the mining areas.	Noted	
Subsidence			
DEC (13 October 2005)	In summary, the DEC’s key information requirements for the project are: <ul style="list-style-type: none"> • a strategic examination predicting the impacts of mine subsidence and potential ameliorative and preventative actions. 	4C	
DPI (MR) (14 October 2005)	The Proponent should conduct an assessment of the Stage 1 proposal (in detail) and the Stage 2 proposal (conceptually) to identify all potential impacts associated with subsidence due to underground mining.	4B, 4C	
Reviewed: Included in literature review conducted but not considered necessary to reference within the EA. NA: Not applicable to the project as proposed. Noted: No further reference required in the Environmental Assessment			



Table A2.2 (Cont'd)
Issues Raised in Correspondence following the Planning Focus Meeting

Government Authority	Issue	EA Section	SCSC Part/ Section
Project Description Details			
DPI (MR) (14 October 2005)	To understand and enable efficient management of coal handling and stockpiling, the material should be analysed by a certified laboratory and a risk assessment for spontaneous combustion undertaken. Techniques to minimise and manage the risk should be outlined. Similarly, analysis and assessment of potential acid mine drainage from the coal sequence should be undertaken.	2.2.4	
	The Proponent should clearly identify the proposed mining activities to be undertaken in the Stage 1 proposal and differentiate possible activities in the Stage 2 proposal. The EA should include a comprehensive description of the following activities and their impacts to the surrounding environment. <ul style="list-style-type: none"> • Specific underground mining activities. • Coal crushing and coal handling activities. • Surface facilities and storage requirements. • Ventilation and mine gas management infrastructure including access roads. 	2.5 2.6 2.4 2.5.6	
	The company is required to submit a detailed geological report and Resource / Reserve Statement for the project to DPI (MR). The Resource and Reserve estimates should be in accordance with the “JORC Guidelines for the Estimation and Reporting of Australian Black Coal Resources and Reserves”.	Provided separately by the Proponent	
Narrabri Shire Council (19 December 2005)	On-site infrastructure requirements, temporary or permanent structures such as amenity buildings and ancillary structures, temporary accommodation, workshops, fuel storage and any administration building or offices.	2.4	
Air Quality			
DEC (13 October 2005)	The goal is to maintain existing rural air quality and protect sensitive receptors, both on and off site, from adverse impacts of dust and odour.	4B.7.4	Part 6/5
	Dust is the primary concern with potential emissions from conveyors, transfer points, loading facilities and from coal stacks. Coal particles can also disperse in water spray drift when using recycled water. There is potential for odour from the exhaust fan due to engine emissions.	4B.7.5 4B.7.5.2 4B.7.6 4B.7.6.2 4B.7.6.4	Part 6/5
	The DEC experts that models used at existing premises in conjunction with analysis of local meteorologic and terrain data would be sufficient to inform decisions about design and management options.	4B.7.2 4A.1 4A.2	Part 6/5
Reviewed: Included in literature review conducted but not considered necessary to reference within the EA. NA: Not applicable to the project as proposed. Noted: No further reference required in the Environmental Assessment			



Table A2.2 (Cont’d)
Issues Raised in Correspondence following the Planning Focus Meeting

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Government Authority	Issue	EA Section	SCSC Part/Section
Air Quality (Cont’d)			
Narrabri Shire Council (19 December 2005)	Dust, noise, vibration and odour impacts the development shall have on the neighbouring residents. What mitigation methods are to be incorporated to reduce these impacts and landuse conflicts?	4B.7.1 4B.7.6.2 4B.7.5.2	Part 6/5.9, 5.10
	What gas emissions are envisaged and/or compositions? Will this pose any safety concerns or does it have any potential for value adding (harvestable resource).	4B.7.6.3 4B.7.6.5	
Noise and Vibration			
DEC (13 October 2005)	The development should design the mine and associated activities to comply with the NSW Government’s Industrial Noise Policy (INP).	4B.9.1 4B.9.3	Part 7/4
	There appears to be a large number of neighbouring residences that could be impacted by noise from crushing and grinding, conveyors, loading and unloading, machinery maintenance, increased local traffic and train movements associated with loading (shunting).	Fig. 4B.26	Part 7/3.3
	The DEC suggests that there should be sufficient knowledge accumulated from existing developments to quickly predict any exceedance of the INP and develop appropriate responses in either design or operation.	4B.9.4 4B.9.5	Part 7/3, 4, 5, 6
Narrabri Shire Council (19 December 2005)	Dust, noise, vibration and odour impacts the development shall have on the neighbouring residents. What mitigation methods are to be incorporated to reduce these impacts and landuse conflicts?	4B.9.4 4B.9.5	Part 7/6
Water Resources			
DEC (13 October 2005)	The DEC understands that a goal of the project is to be a “zero discharge facility”.	4B.1.4.2.4 4B.1.4.2.5 4B.1.4.3.3	Part 1/9, 13
	The DEC recommends that a water balance be prepared to model water management through the life cycle of the mine including the initial construction phase.	4B.1.4.3.3	Part 1/9
	Any discharge points will need to be identified with estimates of the frequency and volume of discharges and likely water quality limits for: <ul style="list-style-type: none"> • Total dissolved and suspended solids; • Non Filterable Residue; • Grease and oil; • Nutrients; • pH; and • Total Organic Carbon. 	4B.1.8	Part 1/11
Reviewed: Included in literature review conducted but not considered necessary to reference within the EA. NA: Not applicable to the project as proposed. Noted: No further reference required in the Environmental Assessment			



Table A2.2 (Cont'd)
Issues Raised in Correspondence following the Planning Focus Meeting

Government Authority	Issue	EA Section	SCSC Part/ Section
Water Resources - (Cont'd)			
DNR (14 October 2005)	The EA should outline all drainage lines and waterbodies likely to be impacted on by the development including any proposals for creek crossings. This should include an outline of type of structure to be used, erosion and sediment control, plantings and rehabilitation proposed and consideration of fish and fish passage. The impacts on water quality and quantity should be addressed including impacts on the other users. The proponents need to be aware of the Farms Dam Policy and Harvestable Right to ensure they comply with the requirements. The EA should also include a surface water monitoring plan.	4B.1.2 4B.1.4 4B.1.5 4B.1.7.5 4B.1.8	Part 7
DPI (MR) (14 October 2005)	Water management has been identified as being an issue for mine planning. The EA should detail, but not be limited to, the: <ul style="list-style-type: none"> Detailed description of water courses and hydrological studies of the impacted catchment areas Integration of water sharing and water strategies for external users Contingencies for water storages and diversions around the impacted area Control and management of mine water and runoff water Risk assessment and management in the event of flooding of the operations, and environmental impact on local flooding patterns. 	4B.1.2 N/A 4B.1.5 4B.1.5 4B.1.2.5 4B.1.7.6	Part 16
	DPI (MR) would encourage the proponent to find an alternate location for the access road instead of the location outlined in the Background Paper as there appears to be suitable alternate locations without crossing a water course.	Figure 2.5	Table 5.1, Part 16
Narrabri Shire Council (14 October 2005)	Stormwater would need to be managed to ensure that waters are not diverted, which could potentially lead to damaging the shire road network as a result of increase localised flows.		Table 5.1, Part 16
	The development proposal may need to consider the impacts from severe rainfall events upon the surrounding creek systems, which may impact upon the developments infrastructure and access.	4B.1.2.5 4B.1.7.6	
Water Resources – Groundwater			
DNR (14 October 2005)	Stage 1 As part of this stage it is expected that permanent monitoring wells be established at a number of sites with piezometers in each discrete aquifer unit. Hydraulic parameters for each of the discrete units will be required to identify the existing groundwater system. These monitoring bores should be sampled on a regular basis to determine water quality over time and will provide essential baseline information for stage 2 assessment. It is recommended that continuous loggers be installed in each of the monitoring bores to assist with future calibration and predictive capability of the numerical model for stage 2. Ideally monitoring of groundwater near the proposed longwall trial will assist in the assessment of stage 2.	4B.2.6 4C.4	Table 5.1, Part 16
Reviewed: Included in literature review conducted but not considered necessary to reference within the EA. NA: Not applicable to the project as proposed. Noted: No further reference required in the Environmental Assessment			



Table A2.2 (Cont’d)
Issues Raised in Correspondence following the Planning Focus Meeting

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Government Authority	Issue	EA Section	SCSC Part/Section
Water Resources – Groundwater (Cont’d)			
DNR (14 October 2005) (Cont’d)	A numerical model will be required for both Stage 1 and Stage 2. Hydraulic parameters identified from investigations during the construction of monitoring bores will provide the information to model the current groundwater systems. It is not expected that Stage 1 model will be a calibrated model but will be able to provide some predictions on what the likely make of groundwater and impact to groundwater that can be expected.	4B.2.5.2	Part 2/6, 7
	Where the groundwater intercepted and allowable surface water harvesting is insufficient to accommodate ROM activities it will be necessary for the company to source additional waters.	4B.2.5.4	Part 2/8.1, 9
	There is a current embargo in both the GAB and the alluvial groundwater resources of the Namoi.	Noted	Part 2/2
	There is potential within the Gunnedah Basin GWMA to apply for additional entitlement and possible options for temporary transfers from the alluvial groundwater source to the mine. Specifics on the accessing of additional water for ROM activities will need to be addressed during the planning stage with DNR.	Noted	Part 2/2
	The interception of groundwater and its subsequent use/disposal is expected to require specific licencing as outlined in the draft Aquifer Interference Policy. Details of this policy will need to be provided at a later stage.	Noted	Part 2/2
	Stage 2 The proposed use of longwall mining techniques to extract coal after Stage 1 will have significant and permanent impacts on the subsurface hydraulics and groundwater resources. The fracturing and subsidence from longwall mining will result in significant secondary fracturing allowing hydraulic connection between some if not all identified aquifers and additional ingress into the mine workings. Management of this additional water will be critical to the mine operations as well as environmental considerations.	4C.4	Part 2/8.3
	The GAB is an embargoed system, and it is likely that additional ingresses to the mine, from longwall mining, will be predominantly from waters held within GAB formations. The policy of aquifer interference from mining is currently being drafted, it is expected that the mine will require specific licencing for aquifer interference.	Noted	
	There is potential for water quality changes as well as increased transmissivities and storage as a result of the fracturing with short to medium term impacts on existing users and long term impacts to the resource.	4B.2.5	Part 2/8

Reviewed: Included in literature review conducted but not considered necessary to reference within the EA.

NA: Not applicable to the project as proposed.

Noted: No further reference required in the Environmental Assessment



Table A2.2 (Cont'd)
Issues Raised in Correspondence following the Planning Focus Meeting

Government Authority	Issue	EA Section	SCSC Part/Section
Water Resources – Groundwater (Cont'd)			
DNR (14 October 2005) (Cont'd)	<p>A subsidence model will help to identify the extent of this fracturing and bedding separation and would be used in subsequent groundwater modelling.</p> <p>Installation of additional monitoring wells may be required based on identified impacts and previous monitoring and longwall trials.</p> <p>The data collected over the period between Stage 1 and Stage 2 should be of sufficient quality and quantity to allow the development of a calibrated numerical model. The model for Stage 2 will be required to predict the make of water into the mine and changes to groundwater hydraulics within the resource, pre, during, and post Stage 2 extraction.</p> <p>Considerations in both Stage 1 and Stage 2 should be given to what contingency plans are available for existing users which may be impacted by the mine activities such as alternative water supplies.</p> <p>Whilst the proposed extraction are not expected to impact directly on the alluvial groundwater resources of the Namoi River, there is potential for indirect impacts. It will be important that the issue of containment or disposal of waters from groundwater intercepted or other mine activities such as stockpiles, where waters are of poorer quality and may drain into the alluvium or the Namoi River is addressed.</p>	<p>4C.4</p> <p>4B.2.6</p> <p>Noted</p> <p>4B.2.6</p> <p>2.5.5 4B.1.3 to 4B.1.6 4B.2.3 to 4B.2.6</p>	<p>Part 2/9</p> <p>Part 2/9</p> <p>Part 2/9</p> <p>Part 1/6, 7 Part 2/9</p>
Narrabri Shire Council (19 December 2005)	Groundwater supply protection from any contamination associated with the development	4B.2.3 to 4B.2.6	Part 2/3, 5-10
Subsidence			
DEC (13 October 2005)	<p>Subsidence resulting from longwall mining has the potential to have significant impact on rigid surface features and infrastructure such as roads, pipelines, bridges and houses.</p> <p>Subsidence can also alter local streams by changing slopes and altering flow velocities and surface patterns. Subsidence may impact groundwater resources by fracturing aquifers and interacting with surface waters by providing alternative pathways for groundwater accession or discharges.</p> <p>The DEC recommends that a strategic analysis of the potential impacts of subsidence be undertaken to identify any sensitive ecosystems or structures that may be impacted. The results of the analysis should be used to inform the mine layout and longwall panel design so that future subsidence impacts are minimised.</p>	<p>4C.4</p> <p>4C.5</p>	
<p>Reviewed: Included in literature review conducted but not considered necessary to reference within the EA.</p> <p>NA: Not applicable to the project as proposed.</p> <p>Noted: No further reference required in the Environmental Assessment</p>			



Table A2.2 (Cont’d)
Issues Raised in Correspondence following the Planning Focus Meeting

Government Authority	Issue	EA Section	SCSC Part/Section
Soils and Land Capability			
DNR (14 October 2005)	The EA should identify the soil types located on the site and assess whether they are suitable for this type of proposal. This would also include viewing the land capability mapping available. The EA should discuss any rehabilitation proposed post mining, any potential contamination issues and include an Erosion and Sediment Control Plan.	2.4.3 4B.5.2 4B.5.3 2.15 2.15.6	
DPI (MR) (14 October 2005)	The EA should clearly define the classes for Land Capability and Agricultural Suitability. The Proponent should plan final landform to reinstate the pre-mining Land Capability classes or alternative and the landscape units must be clearly identified in the EA final rehabilitation plans. For reinstatement of Classes 1, 2 and 3, selective soil profile management is required. To effectively manage soils and land capabilities, the Proponent should apply “Best Practice” for soil handling and management.	4B.5. 2.15.5 2.4.3 4B.5.2.6	
Ecology			
DEC (13 October 2005)	<ol style="list-style-type: none"> 1. A field survey of the site should be conducted and documented in accordance with the draft “Guideline for Threatened Species Assessment”. 2. Likely impacts on threatened species and their habitat need to be assessed, evaluated and reported on. The assessment should specifically report on the considerations listed in Step 3 of the draft guideline. 3. Describe the actions that will be taken to avoid or mitigate impacts or compensate to prevent unavoidable impacts of the project on threatened species and their habitat. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented. 4. The EA needs to clearly state whether it meets each of the key thresholds set out in Step 5 of the draft guideline. 	4B.3 4B.3.2.2 4C.5 4B.3.6 4C.5 4C.5 4C.5	
DNR (14 October 2005)	The EA will need to provide a description of vegetation communities on site and the impact of the proposal on these communities. The EA should also include a fauna survey of any areas affected by the proposed development. An assessment of relevant species listed on the <i>Threatened Species Conservation Act 1995</i> , <i>Fisheries Management Act 1994</i> and the <i>Environment Protection and Biodiversity Conservation Act 1999</i> using appropriate guidelines should be undertaken. The report should outline mitigation measures and a rehabilitation program for any affected areas.	4B.3.3.2 4B.3.2.2 4B.3.4 4B.3.5	
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Table A2.2 (Cont'd)
Issues Raised in Correspondence following the Planning Focus Meeting

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Government Authority	Issue	EA Section	SCSC Part/Section
Aboriginal Heritage Values			
DEC (13 October 2005)	1. The EA should address and document the information requirements set out in the draft "Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community consultation" involving surveys and consultation with the Aboriginal community. 2. Identify the nature and extent of impacts on Aboriginal cultural heritage values across the project area. 3. Describe the actions that will be taken to avoid or mitigate impacts or compensate to prevent unavoidable impacts of the project on Aboriginal cultural heritage values. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented. 4. The EA needs to clearly demonstrate that effective community consultation with Aboriginal communities has been undertaken in determining and assessing impacts, developing options and making final recommendations.	4B.4.1 4B.4.2 4B.4.4 4B.4.3, 4B.4.4 4B.4.5 4B.4.2 4B.4.4	Part 4/2 Part 4/8 Part 4/12 Part 4/2, App.2
Stakeholder Engagement / Community Consultation			
DPI (MR) (14 October 2005)	DPI (MR) suggests that the Proponent review the following options. <ul style="list-style-type: none"> Consulting with all neighbours within vicinity of the mine. Conduct public information meetings within the Narrabri and Baan Baa / Boggabri areas, with a possible open day being held at the Project Site. Provide regular updates to the community via a newsletter or letter-drop. 	3.2.2.1 3.2.2.2 3.2.2.2	Part 9/App. 5 Part 9/5 Part 9/8
Social and Economic Aspects			
Narrabri Shire Council (19 December 2005)	The cumulative socio-economic impacts that the development shall have on the townships within the shire. Community consultation to be undertaken in relation to the mine and the impacts on socio-demographic of these communities.	4B.10.5 3.2.2.4	Part 9/8
Rehabilitation and Offsets			
DPI (MR) (14 October 2005)	The EA should identify the application of green off-sets for flora and fauna impact mitigation within the proposed area. The Proponent is encouraged to assess the opportunity for compensation areas on external areas as well as the disturbed area.	NA	
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Table A2.2 (Cont’d)
Issues Raised in Correspondence following the Planning Focus Meeting

Government Authority	Issue	EA Section	SCSC Part/ Section
Rehabilitation and Offsets (Cont’d)			
DPI (MR) (14 October 2005) (Cont’d)	The Proponent should detail the conceptual rehabilitated final landform of the impacted areas. The EA should detail, but not be limited to, the:	2.15	
	<ul style="list-style-type: none"> Method of linking the final landform with the pre-existing land use and any offset areas. 	2.15.5	
	<ul style="list-style-type: none"> Options of restoring and enhancing the natural ecology of the area. 	2.15.5	
	<ul style="list-style-type: none"> Sealing of underground entries. 	2.15.4	
	Establish a clear set of rehabilitation completion criteria that includes short, medium and long-term ecological criteria.	2.15.6 to 2.15.8	
Visual Amenity			
DPI (MR) (14 October 2005)	The EA should include detailed design and management strategy for the proposed visual bunds and other screening options adjacent to the Kamilaroi Highway and any affected residents.	2.4.11, 2.4.3.4, 4B.6.3	
Narrabri Shire Council (19 December 2005)	What shall be the visual impact of the development on the surrounding environment and neighbouring residents? What mitigation methods are to be incorporated to reduce these impacts and land use conflicts?	4B.6	
Traffic and Transport			
RTA (13 October 2005)	<ul style="list-style-type: none"> Existing traffic volumes of the Kamilaroi Highway (SH29) including traffic type break up, peak volumes, peak times and future growth rates. 	4B.8.2 Fig. 4B.25	
	<ul style="list-style-type: none"> A Traffic Impact study detailing expected vehicle types, volumes and movements during both construction and operation. The study is to be broken down into peak and general times. 	4B.8	
	<ul style="list-style-type: none"> Intersection treatments and mitigation measures to cater for predicted traffic impacts. This is to include any required temporary or staged treatments and other measures such as covering of loads. Treatments are to be provided for the proposed new junction as well as any other temporary junctions or existing intersection upgrades. The intersections are to cater for all heavy and over dimensional vehicles that will be accessing the development. 	2.4.4, Fig. 4B.25 4B.8.4	
	<ul style="list-style-type: none"> Details of the rail crossing. It is noted that queuing onto the highway while giving way at the rail crossing is unacceptable. 	2.4.4 4B.8.4	
	<ul style="list-style-type: none"> Details of any over dimensional or restricted vehicles expected. 	4B.8.4.2	
	<ul style="list-style-type: none"> Road / intersection design will be assessed on RTA Road Design Guide requirements. 	Noted	
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Table A2.2 (Cont’d)
Issues Raised in Correspondence following the Planning Focus Meeting

Government Authority	Issue	EA Section	SCSC Part/Section
Traffic and Transport (Cont’d)			
RTA (13 October 2005)	<ul style="list-style-type: none"> Details of parking provisions and delivery / service areas. Details of advertising and signage. Details of any proposed lighting of roads and public spaces. The developer will be required to submit engineering construction plans as well as pavement design details. A formal agreement in the form of a Works Authorisation Deed (WAD) may be required between the developer and the RTA should the developer wish to undertake “private financing and construction” of the access with the Mid Western Highway. This agreement is necessary on works in which the RTA has a statutory interest. A Road Occupancy Licence is required if traffic is to be impacted on. A Traffic Management Plan is to be submitted as part of this application. 	<p>2.4.5</p> <p>4B.8.4.2</p> <p>4B.8.4.1</p> <p>Noted</p> <p>Noted</p> <p>Noted</p> <p>4B.8.4</p>	
Narrabri Shire Council (19 December 2005)	All access from the Highway shall have to comply with RTA requirements. Any access to the site off a shire road shall be needed to comply with Council’s shire road access requirements. As it is currently unknown how access will be gained to the site, no further comment can be provided until further information is forthcoming.	<p>Noted</p> <p>2.4.4</p>	
	Sight distance to the proposed intersection at the highway would need to be sufficient to ensure that commuters on the highway have sufficient time to avoid people accessing the mine site.	<p>2.4.4,</p> <p>4B.8.4</p> <p>Fig. 2.8</p>	
	Oversize vehicles need to be catered for. If the planned access was over the railway line, it will need to ensure that there is sufficient room for the vehicles to queue so that they don’t disrupt highway traffic flows and train movements. If any underpass is constructed, what height clearance will be required? If vehicles higher than this require site access how will they gain it? If an under pass was installed and the shire road realigned to utilise this, the road way would need to be free draining.	<p>4B.8.4,</p> <p>Fig. 2.8</p>	
	The cumulative impact on the local road network. What traffic generation is envisaged as a result of the development? Is existing infrastructure sufficient? How shall this development relate to existing mining activities in the area? Has consideration been given to the full potential of the mine including future stages?	<p>4B.8.5</p>	
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