Appendix 4

Coverage of Director-General's Requirements and Additional Matters for Consideration in the EIS

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Table A4.1
Coverage of Director-General's Requirements in the EIS

Paraphrased Requirement	Relevant EIS Section(s)
GENERAL REQUIREMENTS	
The Environmental Impact Statement (EIS) for the development must meet the form and content requirements in Clauses 6 and 7 of Schedule 2 of the Environmental Planning and Assessment Regulation 2000.	
• Clause 6 - Relevant information and declaration	Declaration (Page iii)
• Clause 7	
- 1(a) Summary of the EIS	Executive Summary
- 1(b) Statement of objectives of the development	2.1.1
- 1(c) Analysis of feasible alternatives	2.17
- 1(d)(i) Full description of the development	Section 2
- 1(d)(ii) Description of environment likely to be affected/significantly affected	Section 3 & 4
- 1(d)(iii) Likely impact of the development on the environment	Section 4
- 1(d)(iv) Measures to mitigate adverse effects of the development	Section 4 & Section 5
- 1(d)(v) List of approvals required	2.1.3
- 1(e) Compilation of mitigation measures	Section 5
- 2 Environmental Assessment Requirements for an EIS	Appendix 3
- 3 Not applicable	-
- 4 Principles of ecologically sustainable development	6.1.4
In addition, the EIS must include a:	
• detailed description of the development, including:	
- need for the proposed development;	1.5
- justification for the proposed mine plan, including efficiency of coal resource recovery, mine safety, and environmental protection;	2.3, 6.3
- likely staging of the development - including construction, operational stage/s and rehabilitation;	2.6, 2.7.3, 2.16
- likely interactions between, and staging of, the development and existing, approved and proposed mining operations in the vicinity of the site, including	1.4.3
- the Stratford and Bowens Road North Coal Mines and proposed extensions to the Stratford Mine	4.2.7.5, 4.3.6.1, 4.4.9, 4.4.8.3, 4.5.5.7, 4.6.7.6, 4.7.5.2, 4.9.4.4, 4.13.6.5, 4.16.5.4, 4.17.6.6
- AGL's existing and proposed coal seam gas operations	1.6.4
- TransGrid's existing and proposed power transmission lines	2.10.1, 4.15.2
- the operation of the Gloucester aircraft landing ground	4.15.4
- plans of any proposed building works;	2.4.4

Table A4.1 (Cont'd)
Coverage of Director-General's Requirements in the EIS

Paraphrased Requirement	Relevant EIS Section(s)
GENERAL REQUIREMENTS (Cont'd)	
• consideration of all relevant environmental planning instruments, including identification and justification of any inconsistencies with these instruments;	3.2
• risk assessment of the potential environmental impacts of the development, identifying the key issues for further assessment;	3.3.1 Appendix 6
• detailed assessment of the key issues specified below, and any other significant issues identified in this risk assessment, which includes: - a description of the existing environment, using sufficient baseline data; - an assessment of the potential impacts of all stages of the development, including any cumulative impacts, taking into consideration relevant guidelines, policies, plans and statutes; and - a description of the measures that would be implemented to avoid, minimise and if necessary, offset the potential impacts of the development, including proposals for adaptive management and/or contingency plans to manage any significant risks to the environment; and	Section 4
• consolidated summary of all the proposed environmental management and monitoring measures, highlighting commitments included in the EIS.	Section 5
KEY ISSUES	
LAND RESOURCES	
The EIS must include an Agricultural Impact Statement and a detailed assessment of the potential impacts on: • soils and land capability (including salinisation and contamination);	SCSC Vol 5 Part 13 4.8, 4.16
• landforms and topography, including rock formations, steep slopes, etc.;	4.1.2
• land use, including agricultural, forestry, conservation and recreational use;	4.1.5, 4.16.2
• agricultural resources and/or enterprises in the local area, with particular reference to highly productive alluvial soils that may be impacted directly or indirectly by the project, and including:	
- pre-mining and post-mining agricultural assessment and mapping (including Land Capability and Agricultural Suitability mapping) of soil characteristics across all proposed disturbance areas, and an assessment of their value and rehabilitation limitations;	4.8
- any change in land-use arising from requirements for biodiversity offsets;	2.16.9, 4.16.5.1
- a detailed description of the measures that would be implemented to avoid, reduce or mitigate impacts of the development on local agricultural resources and/or enterprises; and	4.8.4, 4.16.4
- justification for any significant long term changes to agricultural resources, particularly highly productive soils potentially affected by the development.	4.16.5, 4.16.6

Table A4.1 (Cont'd)
Coverage of Director-General's Requirements in the EIS

Paraphrased Requirement	Relevant EIS Section(s)
KEY ISSUES (Cont'd)	
WATER RESOURCES	
The EIS must include:	
• a detailed assessment of potential impacts on the quality and quantity of existing surface and groundwater resources, including:	
- detailed modelling of potential groundwater impacts, including any potential impacts on the alluvial aquifers of the Avon River and Waukivory Creek and confirmation of the physical extent of the river/creek's alluvium;	4.6.5, 4.6.7
- impacts on affected licensed water users and basic landholder rights; and	4.7.2.5, 4.7.5.3
- impacts on riparian, ecological, geo-morphological and hydrological values of watercourses, including environmental flows;	4.7.5, 4.12.5.2
• a detailed site water balance, including a description of site water demands, water disposal methods (inclusive of volume and frequency of any water discharges), water supply infrastructure and water storage structures;	4.7.4.6
• an assessment of proposed water discharge quantities and quality/ies against receiving water quality and flow objectives, including water diverted by the construction and operation of the proposed mine;	4.7.4.5
• assessment of impacts of salinity from mining operations, including disposal and management of coal rejects and modified hydrogeology, a salinity budget and the evaluation of salt migration to surface and groundwater sources;	4.7.4.4, 4.7.4.7
• identification of any licensing requirements or other approvals under the Water Act 1912 and/or Water Management Act 2000;	2.1.3, 3.2.3, 4.6.8
• demonstration that water for the construction and operation of the development can be obtained from an appropriately authorised and reliable supply in accordance with the operating rules of any relevant Water Sharing Plan (WSP);	2.1.3, 2.10.2, 4.6.8
• a description of the measures proposed to ensure the development can operate in accordance with the requirements of any relevant WSP or water source embargo;	4.7.5, 4.7.2.5 4.6.8
• a detailed description of the proposed water management system (including sewage), water monitoring program and other measures to mitigate surface and groundwater impacts; and	2.10.2, 2.11.4, 2.11.5, 4.6.6, 4.7.4, 4.7.6
• a detailed flood impact assessment, which identifies impacts on local flood regimes, including:	
- an assessment of the potential for flooding to occur in the open-cut pits; and	4.7.2.4, 4.7.3, 4.7.5.5
- any measures proposed to mitigate potential flood impacts.	4.7.4
BIODIVERSITY	
The EIS must include:	4.12.4
• measures taken to avoid, reduce or mitigate impacts on biodiversity;	4.12.6
• accurate estimates of proposed vegetation clearing;	2.7.2.2, 2.16.9, 4.12.5.2
• a detailed assessment of potential impacts of the development on any:	
- terrestrial or aquatic threatened species or populations and their habitats, endangered ecological communities and groundwater dependent ecosystems; and	4.12.5, 4.13.6
- regionally significant remnant vegetation, or vegetation corridors; and	4.12.2.2

Table A4.1 (Cont'd)
Coverage of Director-General's Requirements in the EIS

Paraphrased Requirement	Relevant EIS Section(s)
KEY ISSUES (Cont'd)	
BIODIVERSITY (Cont'd)	
• a comprehensive offset strategy to ensure the development maintains or improves the terrestrial and aquatic biodiversity values of the region in the medium to long term.	2.16.9, 4.12.4.4
HERITAGE	
The EIS must include: • an Aboriginal cultural heritage assessment (including both cultural and archaeological significance) which must: - demonstrate effective consultation with Aboriginal communities in determining and assessing impacts, and developing and selecting mitigation options and measures; and - outline any proposed impact mitigation and management measures (including an evaluation of the effectiveness and reliability of the measures); and	 4.10.5 4.10.8, 4.10.9
• a Historic heritage assessment (including archaeology) which must: - include a statement of heritage impact (including significance assessment) for any State significant or locally significant historic heritage items; and, - outline any proposed mitigation and management measures (including an evaluation of the effectiveness and reliability of the measures).	 4.11.3, 4.11.5 4.11.4
AIR QUALITY	
The EIS must include a quantitative assessment of potential: • construction and operational impacts, with a particular focus on dust emissions (including $PM_{2.5}$ and PM_{10} emissions, and dust generation from coal transport), as well as diesel, spontaneous combustion and blast fume emissions;	 4.4.8, 4.4.9
• reasonable and feasible mitigation measures to minimise dust, diesel, spontaneous combustion and blast fume emissions, including evidence that there are no such measures available other than those proposed; and	4.4.7
• monitoring and management measures, in particular real-time air quality monitoring and predictive meteorological forecasting.	4.4.7, 4.4.11
GREENHOUSE GASES	
The EIS must include: • a quantitative assessment of potential Scope 1, 2 and 3 greenhouse gas emissions;	 4.4.9.17
• a qualitative assessment of the potential impacts of these emissions on the environment; and	4.4.9.17
• an assessment of reasonable and feasible measures to minimise greenhouse gas emissions and ensure energy efficiency.	4.4.7.6

Table A4.1 (Cont'd)
Coverage of Director-General's Requirements in the EIS

Paraphrased Requirement	Relevant EIS Section(s)
KEY ISSUES (Cont'd)	
NOISE, VIBRATION AND BLASTING	
The EIS must include a quantitative assessment of potential:	
• construction, operational and off-site transport noise impacts;	4.2.7
• blasting impacts on people, livestock and property;	4.3.6
• reasonable and feasible mitigation measures (including assessments of restricted night time operations, not operating at night and not operating during evening and night-time hours), including evidence that there are no such measures available other than those proposed; and	4.2.5
• monitoring and management measures, in particular real-time, attended noise monitoring and predictive meteorological forecasting.	4.2.8
TRAFFIC AND TRANSPORT	
The EIS must include:	
• accurate predictions of the road and rail traffic generated by the project;	2.12
• a detailed assessment of the potential impacts of the development on the capacity, safety and efficiency of the:	
- local and regional rail network, having regard to the strategic objectives and cumulative impacts for the passenger and freight rail network; and	No Longer Applicable
- local and regional road network, with particular regard to a cumulative traffic impact assessment; condition assessment of the existing network; proposed new road infrastructure; and impacts of coal trains on level crossing operations;	4.9.2, 4.9.4
• details of mine to port or other domestic customer transport movements, train path availability and any required rail infrastructure works; and	No Longer Applicable
• a detailed description of the measures that would be implemented to maintain and/or improve the capacity, efficiency and safety of the road and rail networks in the surrounding area over the life of the project;	4.9.3
VISUAL	
The EIS must include:	
• a detailed assessment of the:	
- changing landforms on the site during the various stages of the project; and	4.5.5
- potential visual impacts of the project on private landowners in the surrounding area as well as key vantage points in the public domain (including the Kia Ora Lookout, Mograni Lookout and the walking trail at The Bucketts, west of Gloucester township), including lighting impacts; and	4.5.5
• a detailed description of the measures that would be implemented to minimise the visual impacts of the project;	4.5.4
WASTE	
The EIS must include:	
• accurate estimates of the quantity and nature of the potential waste streams of the development, including fine and coarse reject;	2.11
• a fine and coarse rejects disposal strategy; and	2.8.4
• a detailed description of the measures that would be implemented to minimise the production of waste on site, and ensure that any waste produced is appropriately managed.	2.8.4, 2.11

Table A4.1 (Cont'd)
Coverage of Director-General's Requirements in the EIS

Paraphrased Requirement	Relevant EIS Section(s)
KEY ISSUES (Cont'd)	
HAZARDS	
The EIS must detail potential hazards including bush fires and floods.	4.14, 4.7.2.4, 4.7.5.5
SOCIAL AND ECONOMIC	
The EIS must include an assessment of the: • potential direct and indirect economic benefits of the project for local and regional communities and the State;	4.18.2, 4.18.3
• potential impacts on local and regional communities, including: - increased demand for local and regional infrastructure and services (such as housing, childcare, health, education and emergency services); and - impacts on social amenity, particularly those impacts associated with residents of Gloucester, large lot residential estates on Gloucester's outskirts and nearby landowners and residents;	4.17.4, 4.17.6 4.17.6
• a detailed description of the measures that would be implemented to minimise the adverse social and economic impacts of the project, including any infrastructure improvements or contributions and/or voluntary planning agreement or similar mechanism; and	4.17.5
• a detailed assessment of the costs and benefits of the development as a whole, and whether it would result in a net benefit for the NSW community.	4.18.2
REHABILITATION	
The EIS must include the proposed rehabilitation strategy for the site, having regard to the key principles in the Strategic Framework for Mine Closure, including: • rehabilitation objectives, methodology, monitoring programs, performance standards and proposed completion criteria;	2.16
• nominated final land use, having regard to any relevant strategic land use planning or resource management plans or policies; and	2.16.8
• the potential for integrating this strategy with any other rehabilitation and/or offset strategies in the region.	4.12.4.2, 4.12.4.4
PLANS AND DOCUMENTS	
The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Environmental Planning and Assessment Regulation 2000. These documents should be included as part of the EIS rather than as separate documents.	See list of Figures in Contents

Table A4.1 (Cont'd)
Coverage of Director-General's Requirements in the EIS

Paraphrased Requirement	Relevant EIS Section(s)
KEY ISSUES (Cont'd)	
CONSULTATIONS	
During the preparation of the EIS, there must be consultation with relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners.	
• In particular you must consult with the:	
- Commonwealth Department of Sustainability, Environment, Water, Population and Communities;	3.2.2
- Office of Environment and Heritage (including the Heritage Branch);	3.2.2
- Environment Protection Authority;	3.2.2
- Division of Resources and Energy within the Department of Trade and	3.2.2
- Investment, Regional Infrastructure and Services;	3.2.2
- Department of Primary Industries (including the NSW Office of Water; NSW Forestry, Agriculture and Fisheries sections; Catchments and Lands (Crown Lands Division));	3.2.2
- Transport for NSW (including the Centre for Transport Planning, Roads and Maritime Services);	3.2.2
- NSW Health;	3.2.2
- Australian Rail Track Corporation, and downstream coal chain operators including RailCorp, Newcastle Ports Corporation and the Hunter Valley Coal Chain Co-ordinator;	3.2.2
- TransGrid;	3.2.2
- Hunter-Central Rivers Catchment Management Authority; and	3.2.2
- Gloucester Shire Council.	3.2.2
The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.	3.2

Table A4.2
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
	GENERAL	
Environment Protection Authority (02/04/12)	The objectives of the proposal should be clearly stated and refer to: • the size and type of the operation;	2.1.2
	• the nature of the processes and the products, by-products and wastes produced;	2.7, 2.8
	• the anticipated level of performance in meeting require environmental standards and cleaner production principles;	Section 4
	• the staging and timing of the proposal; and	2.7.3, 2.1.4
	• the proposal's relationship to any other industry or facility.	1.6.3
	The EIS will need to fully identify all of the processes and activities intended for the site over the life of the development. This will include details of: • the location of the proposed mine and details of the surrounding environment;	1.1, 4.1
	• the proposed layout of the site;	2.1.2
	• appropriate land use zoning;	3.2.3.6
	• ownership details of any residence and/or land likely to be affected by the proposed facility;	4.1.4 Appendix 7
	• maps/diagrams showing the location of residences and properties likely to be affected and other industrial developments, conservation areas, wetlands, etc. in the locality that may be affected by the facility;	4.1.4
	• all equipment proposed for use at the site;	2.7.5, 2.8.3, 2.9.2
	• chemicals, including fuel, used on the site and proposed methods for their transportation, storage, use and emergency management;	2.10.3, 2.10.5, 2.10.6
	• waste generation and disposal;	2.11
	• methods to mitigate any expected environmental impacts of the development;	Section 4
	• site rehabilitation following termination of the development.	2.16
NSW Resources and Energy (04/04/12)	The EIS should clearly show the proposed extent and sequence of the development. All areas affected by the proposal should be shown in the context of the natural and built environments. This should be in sufficient detail to enable an understanding of the scale of impacts and gauge the effectiveness of proposed control measures.	2.1.4, 2.4, 2.6, 2.7 4.1.3
	The EIS should state the interaction between the proposed mining activities and the existing environment and so include a comprehensive description of the following activities and their impacts: • Exploration Activities	2.2.2, 2.2.4
	• Mine layout and scheduling	2.4.2, 2.7.3
	• Coal crushing and handling, washery rejects handling and disposal management activities	2.8, 2.9, 2.11
	• Infrastructure facilities and storage requirements	2.4.4
	• Water management	2.10.2, 4.6, 4.7
	• Mine closure and decommissioning activities.	2.16

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
GENERAL (Cont'd)		
Australian Rail Track Corporation (07/01/16)	• Any works proposed on ARTC land must be described and assessed appropriately within the EIS.	N/A
DPI Water (18/01/16)	A statement of where each element of the assessment requirements is addressed in the EIS (i.e. in the form of a table).	This table
NOISE, VIBRATION AND BLASTING		
DP&I (24/04/12)	The EIS must include a quantitative assessment of potential:	
	• construction, operational and off-site transport noise impacts;	4.2.7
	• blasting impacts on people, livestock and property;	4.3.6
	• reasonable and feasible mitigation measures (including assessments of restricted night time operations, not operating at night and not operating during evening and night-time hours), including evidence that there are no such measures available other than those proposed; and	4.2.5
	• monitoring and management measures, in particular real-time, attended noise monitoring and predictive meteorological forecasting.	4.2.8, 4.3.7
Environment Protection Authority (02/04/12)	The proposed development should be assessed using the guidelines contained in the *NSW Industrial Noise Policy* (EPA, 2000) and *Industrial Noise Policy Application Notes,* as detailed on page 2 of the *Interim Construction Noise Guideline* (DECC, 2009).	4.2.4
	Vibration from all activities (including construction and operation) to be undertaken on the premises should be assessed using the guidelines contained in the *Assessing Vibration:* a *technical guideline* (DEC, 2006).	4.3.3.2
	Blasting during the construction or operational stages of the proposed development should be demonstrated to be capable of complying with the guidelines contained in *Australian and New Zealand Environment Council- Technical basis for guidelines* to *minimise annoyance due* to *blasting over pressure and ground vibration* (ANZEC, 1990).	4.3.3.1, 4.3.6
	Operational noise from the proposed mine (including private haul roads and private railway lines) to be undertaken on the premises should be assessed using the guidelines contained in the *NSW Industrial Noise Policy* (EPA, 2000) and *Industrial Noise Policy Application Notes.*	4.2.4, 4.2.7.3
	The EIS must determine the rating background noise level and ambient (LAeq(period) noise levels in accordance with the *NSW Industrial Noise Policy.* The evaluation should take into account the construction and operational phases of the development over the "operating" hours proposed and take into account adverse weather conditions including temperature inversions. The assessment must identify any noise sensitive locations likely to be affected by activities at the site, such as residential properties, schools, churches, and hospitals.	4.2.2.2
	The EIS needs to clearly document what activities will occur at what time and assess worst case impacts of that activity occurring.	2.1.4, 2.7.3, 4.2.6, 4.2.7

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
NOISE, VIBRATION AND BLASTING (Cont'd)		
Environment Protection Authority (02/04/12) (Cont'd)	The project specific noise levels for the site must be determined. For each identified potentially affected receiver, this should include:	
	a) determination of the intrusive criterion for each identified potentially affected receiver,	4.2.4
	b) selection and justification of the appropriate amenity category for each identified potentially affected receiver,	4.2.4
	c) determination of the amenity criterion for each receiver,	4.2.4
	d) determination of the appropriate sleep disturbance limit.	4.2.3, 4.2.7.7
	The EIS needs to: • Include a detailed assessment of background noise levels throughout Gloucester township as well as in surrounding rural-residential estates and selected rural locations; and	4.2.2
	• Detail the number and location of residents who will likely experience a changed noise environment as a result of the proposal, that is, be able to hear mine noise for the first time.	4.2.7.6
	The specific meteorologic conditions of the Gloucester Valley needs to be assessed and taken into account in the noise assessments.	4.1.3
	The EIS will need to assess and demonstrate compliance with relevant noise limits in both normal and "adverse" weather conditions. The above assessment relating to the number and location of residents who will likely experience a changed noise environment also needs to consider the impacts during inversion conditions.	4.2.7.3
	The noise and vibration levels likely to be received at the most sensitive locations from construction and operational activities including road construction, blasting, pit construction, overburden handling, coal extraction, coal transportation and coal loading should be determined. Potential impacts should be determined for any identified significant adverse meteorological conditions.	4.1.4.2, 4.2.7, 4.3.6
	Sound power levels measured or estimated for all plant and equipment should be clearly stated and justified. The expected noise level and noise character (e.g.: tonality, impulsiveness, vibration, etc.) likely to be generated from noise sources during the following phases should be determined:	4.2.6.3
	• site establishment	4.2.6.2
	• construction	4.2.6.2
	• operational phases, including vehicle traffic, conveyors and any rail noise generated by the proposal.	4.2.5.2, 4.2.6.3, 4.2.7.4
	The assessment should specifically address the noise generated from coal preparation plants with particular reference to nearby areas such as Forbesdale Estate.	4.2.3, 4.2.5.2, 4.2.7, 4.2.8
	Cumulative noise impacts from this proposal, combined with existing and proposed mining activities nearby need to be assessed.	4.2.7.5
	Rail noise from the proposed rail loop and in particular impacts on residents and private land (without houses yet) needs to be given specific attention in the EIS.	N/A

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
NOISE, VIBRATION AND BLASTING (Cont'd)		
Environment Protection Authority (02/04/12) (Cont'd)	As it is possible that noise from activities like: heavy vehicle movements; dozers on coal stockpiles; washery processing, conveyor operation and rail use could cause audible noise to a large number of residents the EIS must include contour plots of cumulative noise in years 1, 3, 5, 7, 9, 11, 13, 15, 17 and 20 of mine operations and compare this to the existing situation. These noise contour plots must be overlain over a figure showing the mine premises north to include all of the town of Gloucester and south to Craven. Contour plot figures must be included for normal and worst case weather conditions, including noise enhancing winds and temperature inversions.	4.2.7
	Noise on public roads from increased road traffic generated by the mine should be assessed using the guidelines contained in the *Environmental Criteria for Road Traffic Noise* (EPA, 1999).	4.2.6.6, 4.2.7.8,
	Noise from new or upgraded public roads needs to be assessed using the *Environmental Criteria for Road Traffic Noise* (EPA, 1999).	4.2.7.2
	Noise from new or upgraded railways (other than railways on private premises) should be assessed using the *Interim Guideline for the Assessment of Noise from Rail Infrastructure Projects* (OECC, 2007).	N/A
	Noise from increased rail traffic on the NSW Rail Network should be assessed using the environmental assessment requirements for rail traffic-generating developments available at http://www.environment.nsw.gov.au/noise/railnoise.htm.	N/A
	The EIS needs to detail all noise amelioration measures proposed to address any noise issues identified.	4.2.5, 4.2.8
	The EIS needs to detail any noise monitoring proposed to assess compliance with relevant limits.	4.2.8
	Insulation should be offered for houses in the risk area. Problem noise needs to be recorded inside the dwelling as well as outside but outdoors only is the current requirements demand.	4.2.8
	The EIS should examine all activities associated with the proposed mine in terms of potential noise disturbance. It also should be recognised that the Valley has a significant number of temperature inversions at various times of the year which have the potential to exacerbate noise impacts.	4.1.3.8, 4.2.7, 4.2.8
	The analysis needs to examine in detail and potential noise impacts from road traffic generated by the mine activity, and blasting, processing, transfer of coal, loading of trains and noise disturbance from rail transport over the proposed 24 hours of operation. The analysis should also include a detailed assessment of individual component machinery contribution to overall noise generated from the proposed activity, and opportunities for overall minimisation of noise generation from the mining activity.	4.2.5, 4.2.6, 4.2.7, 4.2.8
	The analysis should also identify how noise levels might be monitored and suggest appropriate compliance requirements.	4.2.8
	The EIS should examine potential impacts on nearby buildings from mine related activities such as blasting and the increased road transport that will be generated from the site. The analysis should include recommendations for pre-mining assessment of nearby structures and measures for monitoring and compliance.	4.3.4, 4.3.6, 4.3.7, 4.2.7.8, 4.2.8

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
NOISE, VIBRATION AND BLASTING (Cont'd)		
NSW Health – Hunter New England Local Health District (29/03/12)	The EIS needs to clarify the definition of limited blasting.	Item not used.
	The proponent should clarify in the EIS how issues with vibration will be mitigated and should vibration issues arise, how this will be managed.	4.3.4, 4.3.7
	The proponent needs to demonstrate in the EIS that there has been community consultation in relation to noise.	3.2.2
	The EIS should also include measures to mitigate or reduce noise and indicate how noise will be managed should complaints in relation to noise be made during either mine construction or mine operational phases of the project.	4.2.5
	There is a need for the cumulative impacts of noise with respect to other activities conducted in the Gloucester Valley to be assessed and presented in the EIS for the proposed Rocky Hill Coal Project. Community consultation with respect to the cumulative noise impacts needs to be demonstrated in the EIS.	4.2.6.5, 4.2.7.5
Barrington-Gloucester-Stroud Preservation Alliance Inc. (26/03/12).	The EIS should provide an engineer's report on all private buildings within five kilometres but within three kilometres as an absolute minimum as a level of pre mine monitoring, particularly in regards to vibration damage.	4.3.4.1
Australian Rail Track Corporation (07/01/16)	Operational rail noise assessment in accordance with the *Rail Infrastructure Noise Guideline.*	N/A
	Guidelines Title/Agency (Date)	
	NSW Industrial Noise Policy and Application Notes (EPA, 2000) *Interim Construction Noise Guideline* (DECC, 2009). *Assessing Vibration:* a *technical guideline* (DEC, 2006). *Australian and New Zealand Environment Council- Technical basis for guidelines* to *minimise annoyance due* to *blasting over pressure and ground vibration* (ANZEC, 1990). *NSW Road Noise Policy (EPA, 2011)*	4.2.4, 4.2.5, 4.2.4, 4.2.5 4.3.3.2 4.3.3, 4.3.6 4.2.4.6
AIR QUALITY		
DP&I (24/04/12)	The EIS must include a quantitative assessment of potential: • construction and operational impacts, with a particular focus on dust emissions (including $PM_{2.5}$ and PM_{10} emissions, and dust generation from coal transport), as well as diesel, spontaneous combustion and blast fume emissions;	4.4.9
	• reasonable and feasible mitigation measures to minimise dust, diesel, spontaneous combustion and blast fume emissions, including evidence that there are no such measures available other than those proposed; and	4.4.7
	• monitoring and management measures, in particular real-time air quality monitoring and predictive meteorological forecasting;	4.4.7, 4.4.11

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
	AIR QUALITY (Cont'd)	
	Guidelines Title/Agency (Date)	
	Protection of the Environment Operations (Clean Air) Regulation 2002	Not Relevant
	Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (DEC)	4.4.8.2
	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW	4.4.4.1
Environment Protection Authority (02/04/12)	The EIS must:	
	• assess the risk associated with potential discharges of fugitive and point source emissions for all stages of the proposal. Assessment of risk relates to environmental harm, risk to human health and amenity.	4.4.8, 4.4.9, 4.4.10
	• justify the level of assessment undertaken on the basis of risk factors, including but not limited to: - proposal location; - characteristics of the receiving environment; and - type and quantity of pollutants emitted.	4.1.4.2, 4.4.4, 4.4.5, 4.4.8
	• describe the receiving environment in detail. The proposal must be contextualised within the receiving environment. The description must include but need not be limited to:	
	- meteorology and climate;	4.1.3
	- topography;	4.1.2
	- surrounding land-use;	4.1.5
	- receptors; and	4.1.4.2
	- ambient air quality.	4.4.4
	• include a detailed description of the proposal. All processes that could result in air emissions must be identified and described. Sufficient detail to accurately communicate the characteristics and quantity of all emissions must be provided. Identification and location of all fixed and mobile sources of dust/air emissions from the development, including rehabilitation, needs to be provided. The location of all emission sources should be clearly marked on a plan for key years of the mine development. The EIS needs to identify all pollutants of concern and estimate emissions by quantity (and size for particles), source(s) and discharge point(s). Note: emissions can be classed as either: be limited to: - point (e.g. emissions from stack or vent), or - fugitive (from wind erosion, leakages or spillages associated with loading or unloading, crushing/screening, conveyors, storage facilities, plant and yard operation, vehicle movements [dust from road, exhausts, loss from load], land clearing and construction works).	4.4.3, 4.4.5, 4.4.6, 4.4.8, SCSC Vol 1 Part 2a – Appendix D
	• include a consideration of 'worst case' emission scenarios and impacts.	4.4.9.10

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
AIR QUALITY (Cont'd)		
Environment Protection Authority (02/04/12) (Cont'd)	• account for cumulative impacts associated with existing emission sources as well proposed developments nearby. In particular, the EIS will need to assess the cumulative impacts associated with existing and proposed operations at the Stratford Coal Mine and the Bowens Road North Coal Mine.	4.4.8.3, 4.4.9
	• include air dispersion modelling. Air dispersion modelling must be conducted in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (2005). This assessment should include the following parameters: - dust deposition; - total suspended particulates; - PM_{10} particulate matter.	 4.4.9.7 4.4.9.2 4.4.9.3, 4.4.9.4
	• the air quality impact predictions should include plans showing projected incremental levels of 24-hour average PM_{10} concentrations, annual average dust deposition rates and annual average total suspended particulate concentrations throughout the life of the operation.	4.4.9 (Except TSP - PM_{10} considered more appropriate)
	• include an assessment of the potential impacts on air quality other than by dust, for example nitrogen oxide emissions. This will be particularly important given the proximity of the proposed mine to residential receivers.	4.4.9.11 to 4.4.9.14, 4.4.8.17
	• a specific assessment of the impacts on air quality of dust and any other pollutants generated during construction works is needed. In this context, particular attention should be given to: - The nature, extent and duration of dust generating activities, e.g. earthmoving/mining equipment, exposed surfaces, material stockpiles, unsealed trafficked areas, spillages, etc. - Consideration of the location of dust sources, particularly their proximity to sensitive receptors.	4.4.5, 4.4.8.2
	• describe control measures to be implemented to minimise pollutants including dust generation during any construction activities. Outline specifications of pollution control equipment (including manufacturer's performance guarantees where available) and management protocols for both point and fugitive emissions. Where possible, this should include cleaner production processes.	4.4.7.2
	• include details of an air quality monitoring program to determine effectiveness of mitigation and to verify predictions, including provision for investigations in response to complaints.	4.4.11
	The EIS should include an estimate of the greenhouse emissions intensity (per unit of production). Emissions intensity should be compared with best practice if possible.	4.4.8.4, 4.4.9.17
	The emissions should be estimated using an appropriate methodology, in accordance with NSW, Australian and international guidelines.	4.4.8.4
	The proponent should also evaluate and report on the feasibility of measures to reduce greenhouse gas emissions associated with the project. This could include a consideration of energy efficiency opportunities or undertaking an energy use audit for the site.	4.4.7.6

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
AIR QUALITY (Cont'd)		
NSW Health – Hunter New England Local Health District (29/03/12)	The EIS should address impacts on the quality of drinking water harvested from roof catchments and stored in rainwater tanks and determine how its operations in both construction and mining phases may impact on rainwater tank quality.	4.4.9.15
	The EIS needs to demonstrate that there has been community consultation in relation to particulates and community acceptance of this imposition. It is noted in the proposal that air quality monitoring for PM_{10} is conducted at two sites, one north and one south of the proposed workings. It is recommended that the EIS demonstrates the adequacy of this air quality monitoring along with discussion that the community, namely the Forbesdale community are understanding and accepting of the need not to monitor PM_{10} in or in close proximity to their location.	4.4.11
	The proponent should also demonstrate in the EIS, considerations for monitoring of $PM_{2.5}$ and should the community raise the issue, monitoring of PM_{10}. There should also be inclusion of air quality monitoring within the township of Gloucester.	4.4.11
	The proponent should explore and demonstrate through community consultation that considerations have been given to the establishment of an air quality monitoring network with real-time accessibility to air quality parameters.	4.4.11, 4.17.6.2
	The EIS should include a comprehensive suite of measures to mitigate or reduce the generation of particulate matter and indicate how particulate matter generation will be managed in relation to construction, operation, adverse weather conditions or community complaints.	4.4.7
	Community consultation should include discussion of the cumulative impacts of particulates which needs to be demonstrated in the EIS.	4.4.8.3, 4.17.6.2
	The proponent needs to demonstrate in the EIS how SO_X production through blasting will be mitigated and should SO_X production through blasting occur, how this will be managed. The use of appropriate explosives to limit all-weather SO_X production should be detailed.	4.4.9.12
Barrington-Gloucester-Stroud Preservation Alliance Inc. (26/03/12)	The quality of tank water needs to be monitored regularly and yearly tank cleaning provided for all those within 5km. Bottled water may also be needed for some residencies.	4.4.9.15
Gloucester Shire Council (02/04/12)	The EIS needs to examine the potential impacts of dust as a consequence of the mine, especially fine particulates on nearby residential estates. Dust impacts are potentially significant given the scale of this mine in relation to its proximity to the township of Gloucester. The analysis should examine the potential impact on health from the exposed population, as well as potential impacts on water supplies including rainwater tanks constructed for domestic purposes.	4.4.9.15, 4.4.10

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
GREENHOUSE GAS EMISSIONS		
Department of Planning & Infrastructure (24/04/12)	The EIS must provide: • a quantitative assessment of potential Scope 1, 2 and 3 greenhouse gas emissions;	4.4.8.4, 4.4.9.17
	• a qualitative assessment of the potential impacts of these emissions on the environment; and	4.4.8.4, 4.4.9.17
	• an assessment of reasonable and feasible measures to minimise greenhouse gas emissions and ensure energy efficiency;	4.4.7.6, 4.4.9.17
Environment Protection Authority (02/04/12)	The EIS should include a comprehensive assessment of, and report on, the project's predicted greenhouse gas emissions (t CO_2e). Emissions should be reported broken down by: • Direct emissions (scope 1 as defined by the Greenhouse Gas Protocol – see reference in Attachment 2), • Indirect emissions from electricity (scope 2), and • Upstream and downstream emissions (scope 3)	4.4.8.4, 4.4.8.17
	Before and after implementation of the project, including annual emissions for each part of the project (construction, operation and decommissioning)	4.4.8.6
	Guidelines Title/Agency (Date)	
	Take into account the following guidelines (as applicable). *National Greenhouse Accounts Factors (Australian Department of Climate Change (DECC)* *Guidelines for Energy Savings Action Plans (DEUS)*	4.4.8.4 Superseded
HEALTH IMPACTS		
Barrington-Gloucester-Stroud Preservation Alliance Inc. (26/03/12)	The EIS should address the following: • $PM_{2.5}$ dust monitoring should be mandatory for this Project.	4.4.11
	• mining vehicles must be fitted with the most stringent exhaust emission equipment.	4.4.7.2, 4.4.7.3
	• blast gas needs to monitored and tighter regulation preventing blasting in wet conditions and reducing the maximum size of blasts.	4.4.7.4, 4.4.9.12
	• rail wagons must be covered.	No longer applicable
	• air purifiers should be provided for homes in the At Risk area.	4.4.7.1 – not necessary
	• An air quality monitoring system should be set up for Gloucester to provide real-time measurements posted on a web site.	4.4.11
	Barrington-Gloucester-Stroud Preservation Alliance Inc. request a $PM_{2.5}$ monitor that has tape that retains a sample of the dust at the time of the high readings.	4.4.11
	A lung function test should be part of Health Screening.	Not necessary.
	Provision of money for general community compensation and a sum to initiate research into psychological stress should be provided.	4.17.5

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
HEALTH IMPACTS (Cont'd)		
Gloucester Shire Council (02/04/12)	The proposed mine has already created a significant amount of community stress. The impacts of an approval for this mine should be examined in the EIS including potential social disruption and psychological impacts on individuals within the community.	4.17.6.2
VISIBILITY		
Department of Planning & Infrastructure (24/04/12)	The EIS must include a detailed assessment of: • changing landforms on the site during the various stages of the project; and	2.7.3, 4.5.3, 4.5.5.2
	• potential visual impacts of the project on private landowners in the surrounding area as well as key vantage points in the public domain (including the Kia Ora Lookout, Mograni Lookout and the walking trail at The Bucketts, west of Gloucester township), including lighting impacts; and	4.5.1, 4.5.2, 4.5.3, 4.5.5
	The EIS must provide a detailed description of the measures that would be implemented to minimise the visual impacts of the project;	4.5.4
NSW Health – Hunter New England Local Health District (29/03/12)	Due to the location of the proposed project being a rural farming area in close proximity to the southern area of the Gloucester community, management of light nuisance will need to be addressed in the EIS.	4.5.4.4, 4.5.5.5
Barrington-Gloucester-Stroud Preservation Alliance Inc. (26/03/12).	The EIS needs to identify heritage-scenic vistas and ensure the cumulative impact on those vistas is fully assessed. The impact of scenic-heritage vistas should be assessed from a wide coverage of viewing points.	4.5.5, 4.11.3
Gloucester Shire Council (02/04/12)	The EIS should include a comprehensive analysis of the visual impacts of the proposed mine from a range of locations in the surrounding area including the nearby residential estates and the range of public vantage points around the town, such as Kia Ora Lookout, Mograni lookout and the walking trail at the Bucketts west of the township.	4.5.2.2, 4.5.5
	The EIS should include an analysis of progressive changes to the landscape based on 3-D modelling to give a realistic interpretation of visual impacts over the life of the mine. While the western visual barrier is intended to be constructed in total early in the life of the mine, the other two visual barriers are proposed to be constructed over time and will therefore present as large areas of exposed overburden on a continuous basis.	4.5.5.5
	The visual impact analysis should also examine the effects of lighting at the mine site during the proposed evening hours up to 10:00pm, as well as any potential impacts during the proposed 10:00pm to 7:00am operational period, if the project meets sleep disturbance criteria as indicated in the Preliminary Application Report (PA Report).	4.5.5.5
	The visual impact analysis should also consider the scale of the proposed activity in relation to the township and the landscape generally. The proposed mine is approximately 2.5km north-south with the main pit being 1.5km long. This would be a significant element in the scale of the local landscape.	4.5.5

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
	GROUNDWATER	
DP&I (24/04/12)	The EIS must address the potential impacts on the quality and quantity of existing groundwater resources, including:	
	• detailed modelling of potential groundwater impacts, including any potential impacts on the alluvial aquifers of the Avon River and Waukivory Creek and confirmation of the physical extent of the river/creek's alluvium;	4.6.4, 4.6.5
	• impacts on affected licensed water users and basic landholder rights; and	4.6.7.4
	• assessment of impacts of salinity from mining operations, including disposal and management of coal rejects and modified hydrogeology. A salinity budget and the evaluation of salt migration to surface and groundwater sources;	2.8.4, 2.11.5, 4.6.3.4, 4.6.9, 4.6.7.3, 4.7.4.4, 4.7.4.7
	• identification of any licensing requirements or other approvals under the *Water Act* 1912 and/or *Water Management Act 2000;*	4.6.8
	• demonstration that water for the construction and operation of the development can be obtained from an appropriately authorised and reliable supply in accordance with the operating rules of any relevant Water Sharing Plan (WSP);	4.6.8
	• a description of the measures proposed to ensure the development can operate in accordance with the requirements of any relevant WSP or water source embargo;	4.6.8
	• a detailed description of the proposed water management system (including sewage), water monitoring program and other measures to mitigate groundwater impacts; and	2.11.4, 4.6.9, 4.7.4
	• a detailed flood impact assessment, which identifies impacts on local flood regimes, including:	
	- an assessment of the potential for flooding to occur in the open-cut pits; and	4.7.5.5
	- any measures proposed to mitigate potential flood impacts;	4.7.5.5
Environment Protection Authority (02/04/12)	• Describe existing groundwater quality. An assessment needs to be undertaken for any water resource likely to be affected by the proposal.	4.6.3.2, 4.6.3.4
	• Where groundwater may be impacted the assessment should identify appropriate groundwater environmental values.	4.6.3
	• Assess impacts against the relevant ambient water quality outcomes.	4.6.7
	The EIS needs to show an assessment of impacts on groundwater and groundwater dependent ecosystems.	4.13.6.4, 4.6.7.5, 4.12.5.7
	The EIS needs to provide an assessment of the likely impacts on watercourses and water resources. If any perennial, or ephemeral, watercourses are proposed to be removed the location, impacts and proposed remedial measures must be assessed in detail.	4.6.7.2

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
GROUNDWATER (Cont'd)		
Environment Protection Authority (02/04/12) (Cont'd)	The EIS will need to carefully assess any impacts on groundwater or potential draw-down of Waukivory Creek. The EIS also needs to closely consider the possibility of breakthrough of Waukivory Creek to the open cut in times of flood and any ameliorative measures necessary to prevent this occurring.	4.7.2.4 4.7.4 4.7.5.5
	The EIS needs to assess the impacts of water extraction on flows and ecological systems. Impacts also need to be compared against NSW Government River Flow Objectives.	4.6.7.2, 4.6.7.5, 4.7.5, 4.12.5.7, 4.13.6.4
	All remedial measures proposed must be described and assessed in detail within the EIS.	4.6.6
Barrington-Gloucester-Stroud Preservation Alliance Inc. (26/03/12)	The EIS needs to incorporate a comprehensive ground water model and describe the quality and quantity impacts that their activities would have on: • local groundwater used by landholders for stock and domestic bores;	4.6.3.5, 4.6.5, 4.6.7
	These impacts should include activities such as: • direct extraction of groundwater;	4.6.3, 4.6.7, 4.7.4.1, 4.7.4.5, 4.7.4.6,
	• use of water in coal mining and processing;	
	• collection and disposal of water from mine pits;	
	• redirection of existing surface flows during mine operation and in rehabilitation; and;	
	• use of water for dust suppression and mine spoil rehabilitation.	
	Cumulative impacts of such water management be assessed in relationship to: • existing coal mining by Gloucester Coal at Stratford;	4.6.7.6
	• proposed extensions at Stratford coal mine (currently at the EIS development stage);	4.6.7.6
	• Concept Plan approval for AGL to extract coal seam gas in Stages 1, 2 and 3;	N/A
	• the vertical interaction of proposed coal mining at 0-150m depth and coal seam gas(CSG) extraction at 150-900m at the same geographic location;	N/A
	• the water extraction by these operations;	4.6.7.6
	• future water usage by agriculture and urban development over the proposed 21 year life of the mine and 25 year potential operation of CSG extraction.	4.6.7.6, 4.6.5, 4.7.5.4
Gloucester Shire Council (02/04/12)	The EIS needs to outline potential cumulative impacts on the hydrology in this locality from the approved AGL coal seam gas project on the same land and other land in the immediate proximity is of fundamental importance. It is critical that the interrelationships between the two projects can be fully assessed.	N/A

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
GROUNDWATER (Cont'd)		
Gloucester Shire Council (02/04/12) (Cont'd)	There have been concerns expressed about the simplicity of the modelling done for that project, given the complexity of the geology of the Gloucester basin in this locality. It is understood that the Federal Government, through the newly created Interim Scientific Committee On Coal Seam Gas and Open Cut Coal mining to carry out an independent assessment in the Gloucester basin in the immediate future. The EIS should clearly state how this process will relate to this mining project.	4.6.5
	Specific issues in regard to the potential hydrological impact should include analysis of the impacts on groundwater and surface water in an overall Water Balance Study.	4.6.7, 4.7.4.6, 4.7.5
	The groundwater analysis should examine any potential impacts on aquifers and take into account the Department's recent Aquifer Disturbance Policy.	4.6.7.7
	The Water Balance Study should examine how the required annual supply of water will be drawn. It should examine water used for mining activities such as coal washing, dust suppression, landscaping maintenance etc. It should also examine the potential loss of base flow into Waukivory Creek as a consequence of water losses into mine pits from groundwater supply. It should also study any potential disposal of waters from the site and any contamination that it may incorporate from activities on the site. The Water Balance Study will need to address the variability of seasons in this landscape of droughts and floods.	4.6.3, 4.6.7.3, 4.6.7.2, 4.7.4.6
Hunter-Central Rivers Catchment Management Authority (11/03/12)	The EIS should address, groundwater monitoring of salinity at the site and downstream of this project throughout project operations.	4.6.9
	It is noted this proposal is in addition to two current operating coal mines and also approved and proposed coal seam gas operations. The EIS should not only address the impact of this project but also the cumulative impact of all these mining operations.	4.6.7.6, 4.7.5.2
NSW Health – Hunter New England Local Health District (29/03/12)	The EIS should address all operational factors that may impact water quality downstream and demonstrate how downstream water quality will not be adversely impacted and demonstrate the proponent's consultation with the community with mitigation proposed and management plans for dealing with complaints regarding impacts on the quality of drinking water.	1.8.2, 4.6.6, 4.6.7.3, 4.7.4, 4.7.5
NSW Office of Water (30/03/12)	The EIS needs to: • provide assurance that adequate, secure and appropriately authorised water supply is available for all activities for the life of the mine.	4.6.8
	• detail baseline monitoring (minimum of fortnightly data sampling for at least 2 years prior to mine operations) of all groundwater sources and dependent ecosystems within and adjacent to the mining operation area for calibration of models and development of trigger criteria.	4.6.3.3, 4.6.3.4, 4.13.3.8
	• Outline predictive assessments of potential impacts to groundwater sources, basic landholder's rights to water, adjacent licensed water users and dependent ecosystems and ongoing monitoring to enable comparison with predictions.	4.6.7, 4.6.9, 4.13.3.8

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
	GROUNDWATER (Cont'd)	
NSW Office of Water (30/03/12) (Cont'd)	• Provide mitigation strategies to address impacts on groundwater sources and dependent ecosystems for the operational and post mining phases of the proposal and final landform.	4.6.6, 4.6.9
	The EIS needs to • take into account the objects, water management principles and regulatory requirements of the *Water Act* 1912 and *Water Management Act 2000* (WMA 2000), as applicable.	2.1.3, 3.2.3.3
	• demonstrate how the proposal is consistent with the relevant rules in the *Water Sharing Plan for the Lower North Coast Unregulated and Alluvial Water Sources 2009* plan including environmental water provisions, rules for access licences, distance restrictions for water supply works and rules for the management of local impacts in respect of surface water and groundwater sources, ecosystem protection, water quality and surface-groundwater connectivity.	4.6.8, 4.7.5.7
	• provide a description of the site water use amount of water from groundwater sources.	4.6.5, 4.7.4.6
	The EIS needs to provide details of all proposed surface water and groundwater extraction, and the potential for displacement of water between water sources, and all water supply works to take water. Information is required on the purpose, location, construction and expected annual extraction volumes including details on all existing and proposed water supply works and details on all bores and excavations for the purpose of investigation, extraction, dewatering, testing and monitoring.	2.11, 4.7.4.6, 4.6.7, 4.7.5
	Water allocation account management rules, total daily extraction limits and rules governing environmental protection and access licence dealings also need to be considered, together with the capacity to obtain any additional entitlement required for the proposal either through application and/or trade.	4.6.8
	A groundwater assessment within and adjacent to the mine area must include details of all groundwater sources, potential Groundwater Dependent Ecosystems (GDEs) and existing groundwater users within the area (including the environment) and details of any potential impacts;	4.6.3, 4.6.4, 4.6.7, 4.12.3.2, 4.12.5.7, 4.13.3.8
DPI Water (18/01/16)	Annual volumes of groundwater proposed to be taken by the activity (including through inflow and seepage) from each groundwater source as defined by the relevant water sharing plan.	4.6.5, 4.6.8, 4.7.5.2
	Assessment of any volumetric water licensing requirements (including those for ongoing water take following completion of the project).	4.6.8, 4.7.5.7
	The identification of an adequate and secure water supply for the life of the project. Confirmation that water can be sourced from an appropriately authorised and reliable supply. This is to include an assessment of the current market depth where water entitlement is required to be purchased.	2.10.2, 2.11.5. 4.6.8, 4.7.2.5
	A detailed and consolidated site water balance.	2.7.4.6

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
GROUNDWATER (Cont'd)		
DPI Water (18/01/16) (Cont'd)	A detailed assessment against the NSW Aquifer Interference Policy (2012) using DPI Water's assessment framework.	4.6.7.7, 4.7.5.7
	Assessment of impacts on groundwater sources (both quality and quantity), related infrastructure, adjacent licensed water users, basic landholder rights, watercourses, riparian land, wetlands, and groundwater dependent ecosystems, and measures proposed to reduce and mitigate these impacts.	4.6.7, 4.7.5.7, 4.12.5.7, 4.13.6.4
	Full technical details and data of all groundwater modelling, and an independent peer review of the groundwater model.	4.6.5
	Proposed groundwater monitoring activities and methodologies.	4.6.9
	Proposed management and disposal of produced or incidental water.	2.11.5, 4.7.4.4
	Consideration of relevant policies and guidelines.	4.6.7.4, 4.6.7.8, 4.6.8, 4.7.5.7
	Assessment of whether the activity may have a significant impact on water resources, with reference to the Commonwealth Department of Environment Significant Impact Guidelines.	Section 4.3 of SCSC Vol 3, Part 4
	If the activity may have a significant impact on water resources, then provision of information in accordance with the Information Guidelines for Independent Expert Scientific Committee advice on coal seam gas and large coal mining development proposals, including completion of the information requirements checklist.	Not Applicable
MidCoast Water (02/04/12)	The EIS needs to provide in depth assessment and proposed mitigation measures has to be particularly comprehensive to address the risk to the alluvial aquifer associated with the Waukivory Creek.	4.6.7, 4.6.6
	The EIS needs to provide details of mine water demand to be met from the Gloucester Water Supply System and measures to save and re-use water where possible to be included. A Certificate of Compliance will be required from Mid Coast Water prior to the release of this development for construction, stating that satisfactory arrangements have been made for the provision of Mid Coast Water services to the development. This condition will ensure that proposed infrastructure can adequately service the development.	Not Applicable
	The EIS needs to outline impacts on surface and groundwater from the proposed mine have to be assessed with full regard to the total impacts of all existing and proposed coal mining and coal seam gas extraction operations in the Gloucester Basin**.**	4.6.7.6, 4.7.5.2

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
	GROUNDWATER (Cont'd)	
	Guidelines Title/Agency (Date)	
	Take into account the following guidelines (as applicable). • National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC); • NSW State Groundwater Policy Framework Document (1997); • NSW State Groundwater Quality Protection Policy (1998); • NSW State Groundwater Quantity Management Policy (1998); • NSW State Groundwater Dependent Ecosystems Policy (2002); • NSW Water Extraction Monitoring Policy'(2007); • NSW Water Conservation Strategy (2000); • Murray-Darling Basin Groundwater Quality. Sampling Guidelines. Technical Report No. 3 (MDBC) • Murray-Darling Basin Commission. Groundwater Flow Modelling Guideline (Aquaterra Consulting Pty Ltd) • Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000); • Australian and New Zealand Guidelines for Water Quality Monitoring and Reporting (2000); • Guidelines for the Assessment and Management of Groundwater Contamination (2007); • Guidelines for Groundwater Protection in Australia (1995); • Water Sharing Plan for the Lower North Coast Unregulated and Alluvial Water Sources 2009; • NSW Aquifer Interference Policy (2012); • Australian Groundwater Modelling Guidelines (2012); • Groundwater Monitoring and Modelling Plans – Information for prospective mining and petroleum exploration activities (2014); • Matters of National Environmental Significance. Significant Impact Guidelines 1.3 Coal seam gas and large coal mining development s – impacts on water resources (2014); and • Information Guidelines for the independent Expert Scientific Committee advice on coal seam gas and large coal mining development proposals (2015).	SCSC Vol 3 Part 4
	SURFACE WATER	
DP&I (24/04/12)	The EIS must include: • a detailed assessment of potential impacts on the quality and quantity of existing surface water resources, including: - impacts on affected licensed water users and basic landholder rights; and - impacts on riparian, ecological, geo-morphological and hydrological values of watercourses, including environmental flows;	 4.6.7.4, 4.7.3, 4.7.5.3, 4.7.5.7 4.13.6.4, 4.7.5, 4.12.5.7

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
SURFACE WATER (Cont'd)		
DP&I (24/04/12) (Cont'd)	• a detailed site water balance, including a description of site water demands, water disposal methods (inclusive of volume and frequency of any water discharges), water supply infrastructure and water storage structures;	4.7.4.6
	• an assessment of proposed water discharge quantities and qualities against receiving water quality and flow objectives, including water diverted by the construction and operation of the proposed mine;	2.11.5, 4.6.7.3, 4.7.2, 4.7.3, 4.7.4, 4.7.5
	• assessment of impacts of salinity from mining operations, including disposal and management of coal rejects and modified hydrogeology. A salinity budget and the evaluation of salt migration to surface and groundwater sources;	2.8.4, 2.11.5, 4.6.3.4, 4.6.7.3, 4.7.4.4, 4.7.4.7
	• identification of any licensing requirements or other approvals under the *Water Act* 1912 and/or *Water Management Act 2000;*	4.6.8, 4.7.5.7
	• demonstration that water for the construction and operation of the development can be obtained from an appropriately authorised and reliable supply in accordance with the operating rules of any relevant Water Sharing Plan (WSP);	4.6.8, 4.7.5.7
	• a description of the measures proposed to ensure the development can operate in accordance with the requirements of any relevant WSP or water source embargo;	4.6.8, 4.7.5.7
	• a detailed description of the proposed water management system (including sewage), water monitoring program and other measures to mitigate surface and groundwater impacts; and	2.11.4, 4.6.6, 4.6.9, 4.7.4, 4.7.6
Environment Protection Authority (02/04/12)	Describe the proposal including position of any intakes and discharges, volumes, water quality and frequency of all water discharges.	4.7.4
	Demonstrate that all practical options to avoid discharge have been implemented and environmental impact minimised where discharge is necessary.	4.7.4
	Describe existing surface quality. An assessment needs to be undertaken for any water resource likely to be affected by the proposal.	4.7.2.6
	State the Water Quality and River Flow Objectives for the receiving waters relevant to the proposal. These refer to the community's agreed environmental values and human uses endorsed by the NSW Government as goals for ambient waters.	4.7.2.6
	State the indicators and associated trigger values or criteria for the identified environmental values. This information should be sourced from the ANZECC (2000) *Guidelines for Fresh and Marine Water Quality.*	4.7.5.4
	Include a water balance for mining operations for mine operations at 5 yearly intervals, including water requirements (quantity, quality and source(s)) and proposed storm and wastewater disposal, including type, volumes, proposed treatment and management methods and re-use options.	4.7.4.6 (Note: More frequent than 5 years).

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
SURFACE WATER (Cont'd)		
Environment Protection Authority (02/04/12) (Cont'd)	Assess impacts against the relevant ambient water quality outcomes. Demonstrate how the proposal will be designed and operated to: a) protect the Water Quality Objectives for receiving waters where they are currently being achieved; and b) contribute towards achievement of the Water Quality Objectives over time where they are not currently being achieved.	4.7.2.6, 4.7.5
	Describe in detail any irrigation areas proposed for wastewaters produced. Irrigation of wastewater needs to be assessed against the EPA's guidance "*The Use of Effluent by Irrigation*".	2.11.4, 2.11.5, 4.7.4.4
	Describe in detail any water storage ponds, or basins, proposed to be constructed during the whole mine operational life. Provide locations of the proposed storage(s), estimated volume capacities and expected water quality. Describe under exactly what circumstances, if any, these storages would be discharged or allowed to overtop.	4.7.4
	Assess all water discharges (direct and indirect) expected to occur throughout the mine life. Discharge locations, receiving waters and likely impacts on the aquatic ecology of the receiving waters must be assessed in detail. Indirect discharges include any runoff or percolation of wastewaters that might occur following irrigation of mine water.	4.7.4.6, 4.7.5.7, 4.7.6, 4.13.6
	Where a discharge is proposed that includes a mixing zone, the proposal should demonstrate how wastewater discharged to waterways will ensure the ANZECC (2000) water quality criteria for relevant chemical and non-chemical parameters are met at the edge of the initial mixing zone of the discharge, and that any impacts in the initial mixing zone are demonstrated to be reversible.	4.7.4.6, 4.13.6, 2.11.5
	Describe how stormwater will be managed both during and after construction.	4.7.4, 4.7.5, 4.7.6,
	Assess the likely impacts on watercourses and water resources. If any perennial, or ephemeral, watercourses are proposed to be removed the location, impacts and proposed remedial measures must be assessed in detail.	4.7.5
	Environment Protection Authority notes the closeness of the proposed open cut to Waukivory Creek and the proposal for grout curtains where pits encroach within 150m of alluvial sediments adjacent to Waukivory Creek. The EIS will need to carefully assess any impacts on groundwater or potential draw-down of Waukivory Creek.	4.6.6.2, 4.6.7, 4.7.5
	Environment Protection Authority notes water usage of about 500ML/a and proposals to source water from Waukivory Creek and groundwater resources. The EIS needs to assess the impacts of water extraction on flows and ecological systems. Impacts also need to be compared against NSW Government River Flow Objectives.	4.6.7, 4.7.5
	All remedial measures proposed must be described and assessed in detail.	4.6.6, 4.6.7, 4.7.4, 4.7.5

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
SURFACE WATER (Cont'd)		
Environment Protection Authority (02/04/12) (Cont'd)	Describe how predicted impacts will be monitored and assessed over time. The proponent should develop a water quality and aquatic ecosystem monitoring program to monitor the responses for each component or process that affects the Water Quality Objectives that includes, for example:	4.7.2, 4.7.6, 4.13.7, 4.13.6.8
	c) adequate data for evaluating compliance with water quality standards and/or Water Quality Objectives;	4.7.2.6
	d) measurement of pollutants identified or expected to be present in any direct or indirect discharge.	4.6.9, 4.7.6
	Whether the proposal will significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.	4.7.2, 4.7.3, 4.7.5.6
	The EIS needs to assess the flood risk of floods greater than 1 in 100 year design flood event up to the probable maximum flood having consideration to any relevant provisions of the *NSW Floodplain Development Manual 2005.* The assessment should determine the flood hazard in the area; the impact of flooding on the proposed development and address the impact of the development and mining operations on flood behaviour at the site and adjacent lands.	4.7.5.5
	In addition, the assessment should include a sensitivity assessment of the potential impacts of an increase in rainfall intensity and runoff (10%, 20% and 30%) due to climate change on the flood behaviour for the 1 in 100 year design flood.	4.7.5.5
	The EIS needs to provide the design levels and details for the proposed conveyor structure traversing the Avon and Waukivory floodplains and ensure that the structure can withstand flood and debris loadings for a 1 in 100 year flood event.	N/A
Gloucester Shire Council (02/04/12)	The potential cumulative impacts on the hydrology in this locality from the approved AGL coal seam gas project on the same land and other land in the immediate proximity is of fundamental importance. It is critical that the interrelationships between the two projects can be fully assessed.	N/A
	Specific issues in regard to the potential hydrological impact should include analysis of the impacts on groundwater and surface water in an overall Water Balance Study	4.7.4.6
	The surface water analysis should include an examination of the diversion of waters from the elevated lands to the east of the mine site both to the north, and south to Waukivory Creek. This diversion will concentrate waters into the local streams and has the potential to cause damage at the feeder locations. It will also cause a disruption of flows that currently move across the landscape to the west. The 540 ha disturbance in the landscape as a potential to impact on water supplies in the immediate locality for stock, irrigation and domestic water purposes.	4.7.5

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
SURFACE WATER (Cont'd)		
Gloucester Shire Council (02/04/12) (Cont'd)	The Water Balance Study should examine how the required annual supply of water will be drawn. It should examine water used for mining activities such as coal washing, dust suppression, landscaping maintenance etc. It should also examine the potential loss of base flow into Waukivory Creek as a consequence of water losses into mine pits from groundwater supply. It should also study any potential disposal of waters from the site and any contamination that it may incorporate from activities on the site. The Water Balance Study will need to address the variability of seasons in this landscape of droughts and floods.	4.7.4.6
Hunter-Central Rivers Catchment Management Authority (11/03/12)	The EIS should address soil, groundwater and surface water monitoring of salinity at the site and downstream of this project throughout project operations.	4.6.3.4, 4.6.9, 4.7.2.2, 4.7.4.4, 4.7.6, 4.8.3.2, 4.8.4.4, 4.8.5
	It is noted this proposal is in addition to two current operating coal mines and also approved and proposed coal seam gas operations. The EIS should not only address the impact of this project but also the cumulative impact of all these mining operations.	4.6.7.6, 4.7.5.2
	The EIS should address the issue of clean water diversion including impact on the receiving stream from additional inflows as well as erosion and sediment control generally.	4.7.5, 4.7.4.2
NSW Office of Water (30/03/12)	The EIS needs to demonstrate that adequate, secure and appropriately authorised water supply is available for all activities for the life of the mine.	4.6.8, 4.7.5.7
	Compliance with the rules in the *Water Sharing Plan for the Lower North Coast Unregulated and Alluvial Water Sources* and relevant legislation, water management policies and guidelines.	4.7.5.7
	Baseline monitoring (minimum of fortnightly data sampling for at least 2 years prior to mine operations) of all surface water sources and dependent ecosystems within and adjacent to the mining operation area for calibration of models and development of trigger criteria.	4.7.2
	Predictive assessments of potential impacts to surface water sources, basic landholder's rights to water, adjacent licensed water users and dependent ecosystems and ongoing monitoring to enable comparison with predictions.	4.7.5
	Mitigation strategies to address impacts on surface water sources and dependent ecosystems for the operational and post mining phases of the proposal and final landform.	4.7.4, 4.7.6, 4.12.4.3
	To ensure the sustainable and integrated management of surface water sources and protection of riparian areas and waterfront land, as defined in the WMA 2000, an assessment of surface water sources within and adjacent to the mine area must include but is not limited to the following:	
	• Detail all surface water sources and existing surface water users within the area(including the environment) and details of any potential impacts on these users	4.7.2.5, 4.7.5.3
	• Baseline monitoring (minimum of fortnightly data sampling for at least 2 years prior to mine operations) for surface water quantity and quality for all watercourses.	4.7.2.6

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
SURFACE WATER (Cont'd)		
NSW Office of Water (30/03/12) (Cont'd)	The EIS needs to outline the Geomorphic and hydrologic assessment of Waukivory Creek, Oaky Creek and the Avon River including details of stream order (using the Strahler System), river character and behaviour (e.g. River Styles® assessment) and energy regimes both in channel and on any adjacent floodplains. In particular the geomorphic assessment should include analysis of Waukivory Creek and Oaky Creek at and downstream of the proposed entry points from the eastern diversion, with emphasis on the channels' resilience and capacity for adjustment and the identification of any geomorphic thresholds which may be breached as a result of the proposed development.	4.7.2.1, 4.7.2.2., 4.7.5.6,
	The EIS must include detailed description of all potential environmental impacts in terms of vegetation, sediment movement, channel stability, water quality and hydraulic regime.	4.7.3, 4.12.5
	A detailed description of the design features and measures to be incorporated into the proposal to guard against long term actual and potential environmental disturbances, particularly in respect of maintaining the natural hydrological regime and sediment movement patterns and the identification of riparian buffers needs to be included in the EIS. This should include detailed design criteria for the proposed overburden emplacement areas and eastern diversion, including strategies to ensure long-term stability of the constructed landforms and minimise impacts on receiving waters.	2.7.4, 4.7.4.2, 4.7.4.3, 4.7.5.6, 4.7.6.2,
	The EIS needs to detail the impact on water quality and remedial measures proposed to address any possible adverse effects.	4.7.5.4
	Provide a determination of critical thresholds for negligible impacts to surface water sources and dependent ecosystems.	4.7.5.4, 4.13.6
	The EIS needs to take into account the objects, water management principles and regulatory requirements of the *Water Act* 1912 and *Water Management Act 2000* (WMA 2000), as applicable.	3.2.3.3
	The EIS needs to demonstrate how the proposal is consistent with the relevant rules in the *Water Sharing Plan for the Lower North Coast Unregulated and Alluvial Water Sources 2009* including environmental water provisions, rules for access licences, distance restrictions for water supply works and rules for the management of local impacts in respect of surface water and groundwater sources, ecosystem protection, water quality and surface-groundwater connectivity.	4.6.8, 4.7.5.7
	A description of the site water use (amount of water from each water source) and management including all sediment dams, clean water diversion structures and water use storages with detail on the location, design specifications, storage capacities and approval status for all the existing and proposed water management structures and calculation of the maximum harvestable right dam capacity needs to be included in the EIS.	4.7.4.6
	The EIS needs to provide details of all proposed surface water extraction, and the potential for displacement of water between water sources, and all water supply works to take water. Information is required on the purpose, location, construction and expected annual extraction volumes including details on all existing and proposed water supply works which take surface water (pumps, dams, diversions, cuttings and levees).	4.7.4.6, 4.7.5

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
SURFACE WATER (Cont'd)		
NSW Office of Water (30/03/12) (Cont'd)	An outline of water allocation account management rules, total daily extraction limits and rules governing environmental protection and access licence dealings also need to be considered, together with the capacity to obtain any additional entitlement required for the proposal either through application and/or trade.	4.6.8, 4.7.5.7
DPI Water (18/01/16)	Annual volumes of surface water proposed to be taken by the activity (including through inflow and seepage) from each surface water source as defined by the relevant water sharing plan.	4.6.5, 4.6.8
	Assessment of any volumetric water licensing requirements (including those for ongoing water take following completion of the project).	4.6.8, 4.7.5.7
	The identification of an adequate and secure water supply for the life of the project. Confirmation that water can be sourced from an appropriately authorised and reliable supply. This is to include an assessment of the current market depth where water entitlement is required to be purchased.	2.10.2, 2.11.5, 2.6.8
	A detailed and consolidated site water balance.	4.7.4.6
	A detailed assessment against the NSW Aquifer Interference Policy (2012) using DPI Water's assessment framework.	4.6.7.7, 4.7.5.7
	Assessment of impacts on surface water sources (both quality and quantity), related infrastructure, adjacent licensed water users, basic landholder rights, watercourses, riparian land, wetlands, and measures proposed to reduce and mitigate these impacts.	4.6.6, 4.6.7, 4.7.4, 4.7.5.7, 4.12.5.7, 4.13.6.4
	Full technical details and data of all surface water modelling.	4.7.4
	Proposed surface water monitoring activities and methodologies.	4.7.6
	Proposed management and disposal of produced or incidental water.	2.11.5, 4.7.4
	Assessment of any potential cumulative impacts on water resources, and any proposed options to manage the cumulative impacts.	4.7.5.2, 4.6.7.6
	Consideration of relevant policies and guidelines.	4.7.5.7
NSW Resources and Energy (04/04/12)	The EIS needs to outline surface water flow and flooding regimes and how these will be impacted and mitigated by the project both during and after mining has ceased.	4.7.2.4, 4.7.5.5
	The EIS should address all operational factors that may impact water quality downstream and demonstrate how downstream water quality will not be adversely impacted.	2.3.4, 2.10.2, 2.11.5, 4.7.5
Department of Primary Industries – Fisheries (29/07/12)	The area on the north east where the predicted area of impact and Oaky Creek seems to intersect. The actual footprint and any impact on Oaky Creek needs to be clarified and assessed. This includes any work or impacts on the alluvium.	4.7.2.1, 4.7.2.2, 4.7.3, 4.7.4.2, 4.7.5.6
	Diversion of water around the pit needs to be clearly identified in the water management strategies and this should include assessment on how this water is delivered to existing waterways to ensure that further degradation of the waterways does not occur.	2.3.4, 4.7.4
	Clearly outline the final use and any proposed remediation measures to be carried out on final voids.	2.16

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
SURFACE WATER (Cont'd)		
Australian Rail Track Corporation (07/01/16)	Hydrology and flood assessment to enable ARTC to determine if any impacts to our infrastructure from the proposal.	N/A
Department of Primary Industries – Fisheries (19/02/16)	Creek/river crossings should comply with our Policy and Guidelines for Waterway Crossings.	2.5.3, 4.13.6
FLOODING		
Environment Protection Authority (02/04/12)	• The EIS also needs to closely consider the possibility of breakthrough of Waukivory Creek to the open cut in times of flood and any ameliorative measures necessary to prevent this occurring.	4.6.7.2, 4.7.2.2, 4.7.2.4, 4.7.5.6 SCSC Vol 3 Part 5 Appendix C
	• Whether the proposal incorporates appropriate measures to manage risk to life from flood.	4.7.4.2
	• Whether the proposal is likely to result in unsustainable social and economic costs to the community as a consequence of flooding.	4.7.5.5
	• The EIS needs to provide full details of the flood assessment and modelling undertaken in determining the design flood levels, including the 1 in 100 year flood levels.	4.7.2.1, 4.7.5.5, 4.7.2.4
	• The EIS needs to provide a diagram showing the conceptual mine area layout and the location of the 1 in 100 year flood line to demonstrate if the proposed bund and other works are located outside the 1 in 100 year flood line.	Figure 4.5
	Whether the proposal is consistent with any floodplain risk management plans.	4.7.2.4
	Whether the proposal is compatible with the flood hazard of the land.	4.7.5.5
	Whether the proposal will significantly adversely affect flood behaviour resulting in detrimental increases in the potential flood affectation of other development or properties.	4.7.5.5
Gloucester Shire Council (02/04/12)	• Hydrological analysis should also look at flooding in this locality given that the proposed activity, and especially the proposed western screen mound, the toe of which is within the Avon River floodway.	4.7.5.5
Barrington-Gloucester-Stroud Preservation Alliance Inc. (26/03/12)	• A full flood study is to be undertaken to the highest possible standard and a full surface water hydrology study be undertaken in all the River's qualities.	4.7.2.4, 4.7.5.5
	• Gloucester's town water supply;	4.7.2.5
	• irrigators in the Gloucester and Manning river systems;	4.7.2.5, 4.7.5.3, 4.7.5.4
	• extraction of water by Mid Coast Water for usage downstream such as the towns of Wingham, Taree, etc.; and;	4.7.2.5
	• collection and disposal of water from mine pits;	4.7.4.3, 4.7.4.4, 4.7.4.5

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
FLOODING (Cont'd)		
Barrington-Gloucester-Stroud Preservation Alliance Inc. (26/03/12) (Cont'd)	• redirection of existing surface· flows during mine operation and in rehabilitation; and;	4.7.4, 4.7.5.2
	• use of water for dust suppression and mine spoil rehabilitation.	4.7.4.4, 4.7.4.6, 4.7.5
Hunter-Central Rivers Catchment Management Authority (11/03/12)	• The EIS should address all potential contingencies in respect of flooding within the operation area but also both upstream and downstream of the project area.	4.7.5.5
SOILS / LAND CAPABILITY / AGRICULTURAL SUITABILITY		
DP&I (24/04/12)	The EIS must include a detailed assessment of the potential impacts on:	
	• Soils and land capability (including salinization and contamination);	4.8.2 to 4.8.5
	• pre-mining and post-mining agricultural assessment and Mapping (including Land Capability and Agricultural Suitability mapping) of soil characteristics across all proposed disturbance areas, and an assessment of their value and rehabilitation limitations;	4.8.3, 4.8.5, 4.16.3.3
	• a detailed description of the measures that would be implemented to avoid, reduce or mitigate impacts of the development on local agricultural resources and/or enterprises.	4.8.4, 4.16.4
	The EIS must include a detailed assessment of the potential impacts on:	
	• Soils and land capability (including salinization and contamination);	4.8.2 to 4.8.5
	• pre-mining and post-mining agricultural assessment and Mapping (including Land Capability and Agricultural Suitability mapping) of soil characteristics across all proposed disturbance areas, and an assessment of their value and rehabilitation limitations;	4.8.3.7, 4.8.5, 4.16.3.3
	• a detailed description of the measures that would be implemented to avoid, reduce or mitigate impacts of the development on local agricultural resources and/or enterprises.	4.8.4, 4.16.4
Environment Protection Authority (02/04/12)	The EIS should include: • an assessment of potential impacts on soil and land resources, being guided by *Soil and Landscape Issues in Environmental Impact Assessment* (DLWC 2000). The nature and extent of any significant impacts should be identified. Particular attention should be given to soil erosion and sediment transport - in accordance with *Managing urban storm water: soils and construction,* Vol. 1 (Landcom 2004) and Vol. 2 Mines and Quarries (DECC 2008).	4.7, 4.8.2, 4.8.3, 4.16.5.1
	• a description of the mitigation and management options that will be used to prevent, control, abate or minimise identified soil and land resource impacts associated with the project. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.	4.8.4, 4.8.6

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
SOILS / LAND CAPABILITY / AGRICULTURAL SUITABILITY (Cont'd)		
Environment Protection Authority (02/04/12) (Cont'd)	• whether contaminated soils are likely to be disturbed during the proposed works. If contaminated soils are likely to be disturbed, the EIS should detail the measures to be adopted to protect human health and the environment, and if necessary remediate or dispose of the contaminated material.	3.2.3.4
Gloucester Shire Council (02/04/12)	The proposed mine has the potential to have significant impacts on agricultural activity in the immediate locality. The site meets a number of the criteria included in the Department's recent Strategic Regional Land-Use Planning framework as Strategically Significant Agricultural Land. Given this policy direction from the Department and its imminent implementation, it is considered that this site should be assessed in accordance with the framework. The subject land is substantially class 2 and 3 land and may include areas of class 1 land. It has high rainfall, fertile soils, and with an overall area of 745 ha represents a potentially significant loss of land from agricultural production in the local area. The analysis should also examine the wider potential impacts on agriculture outside the boundaries of the site.	3.2.3.5, 4.8.5, 4.16 SCSC Vol 5 Part 13
Hunter-Central Rivers Catchment Management Authority (11/03/12)	The EIS should address soil, groundwater and surface water monitoring of salinity at the site and downstream of this project throughout project operations.	2.11.5, 4.6.9, 4.6.3.4, 4.7.2.6, 4.7.5, 4.7.6, 4.8.3
NSW Resources and Energy (04/04/12)	The EIS should characterise soils across the proposed area of surface disturbance and assess their value and identify any limitations they present for rehabilitation. Land capability characteristics of the site also need to be described.	4.8
	The EIS must outline land use issues and impacts.	4.1.4.2, 4.1.5, 4.15, 4.16
DPI Agriculture (18/01/16)	Concerns highlighted in the original response made on 14 November 2013 by the former Office of Agricultural Sustainability and Food Security include details on:	
	• soil management unit areas and soil stripping supply calculations; and	2.7.2.3, 2.16.6, 4.8.3, 4.8.4
	• agricultural socio-economic aspects associated with agricultural tourism, land values and employment displacement from agriculture.	4.16.5.3, 4.16.5.4, 4.17.6.7
	Guidelines Title/Agency (Date)	
	Take into account the following guidelines (as applicable). • Soil and Landscape Issues in Environmental Impact Assessment (DLWC 2000). • Managing urban storm water: soils and construction, Vol. 1 (Landcom 2004) and Vol. 2 Mines and Quarries (DECC 2008).	2.7.2.2, 4.7.4.3

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
AGRICULTURAL IMPACT STATEMENT		
DP&I (24/04/12)	The EIS must include an Agricultural Impact Statement incorporating	SCSC Vol 5 Part 13
	• soils and land capability (including salinisation and contamination);	4.8.3, 4.8.5, 4.16.3.3
	• landforms and topography, including rock formations, steep slopes,	4.1.2, 4.16.3.3
	• land use, including agricultural, forestry, conservation and recreational use;	4.1.5, 4.16.5
	• agricultural resources and/or enterprises in the local area, with particular reference to highly productive alluvial soils that may be impacted directly or indirectly by the project, and including:	4.16.2, 4.16.3
	- any change in land-use arising from requirements for biodiversity offsets;	2.16.9, 4.12.4.4, 4.16.5.1
	- a detailed description of the measures that would be implemented to avoid, reduce or mitigate impacts of the development on local agricultural resources and/or enterprises; and	4.8.4, 4.16.4
	- justification for any significant long term changes to agricultural resources, particularly highly productive soils potentially affected by the development.	4.16.5, 4.16.6
Gloucester Shire Council (02/04/12)	The proposed mine has the potential to have significant impacts on agricultural activity in the immediate locality. The site meets a number of the criteria included in the Department's recent Strategic Regional Land-Use Planning framework as Strategically Significant Agricultural Land. Given this policy direction from the Department and its imminent implementation, it is considered that this site should be assessed in accordance with this framework. The subject land is substantially class 2 and 3 land and may include areas of class 1 land. It has high rainfall, fertile soils, and with an overall area of 745 ha represents a potentially significant loss of land from agricultural production in the local area. The analysis should also examine the wider potential impacts on agriculture outside the boundaries of the site.	4.16, SCSC Vol 5 Part 13 4.8.2, 4.8.3, 4.8.4, 4.8.5
	Guidelines Title/Agency (Date)	
	Take into account the following guidelines (as applicable). *Guidelines of agricultural impact statement (DP&I March 2012)*	SCSC Vol 5 Part 13 Sect 1.2
TRAFFIC AND TRANSPORT		
DP&I (24/04/12)	The EIS must include:	
	• accurate predictions of the road and rail traffic generated by the project;	2.12, SCSC Vol 4 Part 9 App D
	• a detailed assessment of the potential impacts of the development on the capacity, safety and efficiency of the:	
	- local and regional rail network, having regard to the strategic objectives and cumulative impacts for the passenger and freight rail network; and	No longer applicable

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
TRAFFIC AND TRANSPORT (Cont'd)		
DP&I (24/04/12) (Cont'd)	- local and regional road network, with particular regard to a cumulative traffic impact assessment; condition assessment of the existing network; proposed new road infrastructure; and impacts of coal trains on level crossing operations;	4.9.2, 4.9.3, 4.9.4
	• details of mine to port or other domestic customer transport movements, train path availability and any required rail infrastructure works; and	N/A
	• a detailed description of the measures that would be implemented to maintain and/or improve the capacity, efficiency and safety of the road and rail networks in the surrounding area over the life of the project;	4.9.3 Figure 4.58
Gloucester Shire Council (02/04/12)	The proposed mine, if approved, will significantly impact local road infrastructure due to a significant increase in the volume and size of traffic utilising local roads. The intersections of Jacks Road with the Bucketts Way and Jacks Road and Waukivory Road as the major access to the mine, and the bridges over the Avon River and Waukivory Creek will all need to be significantly upgraded. Increased traffic volumes and particularly heavy construction traffic, will have a detrimental impact on many local access roads which will all need strengthening and upgrading. The volume and frequency of traffic over the railway level crossing on Jacks Road also needs to be examined to establish the need for a replacement crossing with a traffic bridge over the railway line.	4.9.2, 4.9.3, 4.9.4
NSW Health – Hunter New England Local Health District (29/03/12)	Noise, light and dust all need to be assessed in regards to transport to avoid adverse health effects on the surrounding community. Mine traffic during both construction and operational phases also needs to be addressed in the EIS.	2.12, 4.2.7.6. 4.4.5, 4.5.5.7, 4.9.4.3
NSW Transport Roads & Maritime Services (03/04/12)	The traffic and transport study shall be prepared in accordance with the RTA's Guide to Traffic Generating Developments and is to include (but not be limited to) the following:	
	• Identify all relevant vehicular traffic routes and intersections for access to/from the subject area during the construction and operational phases.	4.9.2
	• Current traffic counts for all of the above traffic routes and intersections.	4.9.2.2
	• The anticipated additional vehicular traffic generated from the proposed development and the trip distribution on the road network during both the construction and operational phases. It is requested that the predicted traffic flows are shown diagrammatically to a level of detail sufficient for easy interpretation.	2.12
	• Consideration of the traffic impacts on existing and proposed intersections and the capacity of the local and classified road network to safely and efficiently cater for the additional vehicular traffic generated by the proposed development.	4.9.4

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
TRAFFIC AND TRANSPORT (Cont'd)		
NSW Transport Roads & Maritime Services (03/04/12) (Cont'd)	• The study shall also give consideration to the cumulative traffic impacts of other proposed and approved developments in the area.	4.9.4.4
	• Consideration of the impacts of construction traffic on the road network in the vicinity of the development and measures to minimise any identified impacts.	4.9.4.3
	• Identify the necessary road network infrastructure upgrades that are required to maintain existing levels of service on both the local and classified road network. In this regard, preliminary concept drawings shall be submitted with the EA for any 'identified road infrastructure upgrades. However, it should be noted that any identified road infrastructure upgrades will need to be to the satisfaction of RMS and/or Council.	4.9.3
	• Intersection analysis (such as SIDRA) shall be submitted to determine the need for intersection and road capacity upgrades. The intersection analysis shall include (but not be limited to) the following: - Current traffic counts and 10 year traffic growth projections - With and without development scenarios considered - 95th percentile back of queue lengths - Delays and level of service on all legs for the relevant intersections - Electronic data for RMS review.	4.9.4.3
	It is recommended that the proponent discuss the project with RMS prior to commencing preparation of the traffic and transport study. RMS will provide further comment on the subject project on receipt of the required traffic and transport study and more detailed information referred as part of the project application process.	SCSC Vol 4 Part 9 Sect 1.7
	Guidelines Title/Agency (Date)	
	Take into account the following guidelines (as applicable). • RTA's Guide to Traffic Generating Developments • Department of Planning EIS Guidelines Road and Related Facilities • Roads and Traffic Authority's Guide to Traffic Generating Developments - Section 2 Traffic Impact Studies	4.9.1 SCSC Vol 4 Part 9 Sect 1.2
ABORIGINAL CULTURAL AND HISTORIC HERITAGE		
DP&I (24/04/12)	The EIS must include an Aboriginal cultural heritage assessment (including both cultural and archaeological significance) which must: • demonstrate effective consultation with Aboriginal communities in determining and assessing impacts, and developing and selecting mitigation options and measures; and	4.10.5
	• outline any proposed impact mitigation and management measures (including an evaluation of the effectiveness and reliability of the measures); and	4.10.9

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
ABORIGINAL CULTURAL AND HISTORIC HERITAGE (Cont'd)		
DP&I (24/04/12) (Cont'd)	The EIS must include a historic heritage assessment (including archaeology) which must: • include a statement of heritage impact (including significance assessment) for any State significant or locally significant historic heritage items; and,	4.11.5
	• outline any proposed mitigation and management measures (including an evaluation of the effectiveness and reliability of the measures);	4.11.4
Environment Protection Authority (02/04/12)	The proponent needs to identify any potential impacts of the proposal on these known Aboriginal sites/objects (camp sites, artefact scatters, isolated finds, culturally modified trees and Potential artefact deposits (PADs) and landforms which have yielded a significant volume of evidence of Aboriginal occupation, including the identification three (3) Aboriginal sites within the project area – two isolated finds and a PAD), the sensitivity and significance of these sites to the traditional Aboriginal knowledge holders and any relationship that may exist between these sites and any Aboriginal cultural heritage values of the project area.	4.10.6.3, 4.10.7, 4.10.8, 4.10.9, 4.10.10
	The EIS must address and document the information requirements set out in the draft *'Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation'* (Department of Environment and Conservation 2005).	4.10.1
	The EIS must include surveys by suitably qualified archaeological consultants in consultation with all of the local Aboriginal knowledge holders.	1.9, 4.10.5, 4.10.6
	The EIS should identify the nature and extent of impacts on Aboriginal cultural heritage values across the project area and clearly articulate strategies proposed to avoid/minimise these impacts. If impacts are proposed as part of the final development, clear justification for such impacts should be provided.	4.10.9, 4.10.10
	The EIS must assess and document the archaeological and Aboriginal significance of the site's Aboriginal cultural heritage values.	4.10.10
	The EIS needs to provide a description of the actions that will be taken to avoid or mitigate impacts of the project on Aboriginal cultural heritage values. This must include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented. Any proposed methodology for Aboriginal cultural heritage investigation should reflect best practice standards recommended by OEH in the 'Code of Practice for Archaeological Investigations of Objects in New South Wales (2010).	4.10.7, 4.10.8
	The EIS must provide documentary evidence to demonstrate that effective community consultation with Aboriginal communities has been undertaken in assessing impacts, developing protection and mitigation options and making final recommendations. OEH supports broad-based Aboriginal community consultation and as a guide OEH's 'Aboriginal cultural heritage consultation requirements for proponents 2010' provides a useful model to follow.	4.10.5

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
ABORIGINAL CULTURAL AND HISTORIC HERITAGE (Cont'd)		
Environment Protection Authority (02/04/12) (Cont'd)	If impacts on Aboriginal cultural heritage values are proposed as part of the final development, an assessment of the proposed impacts in the context of *'inter generational equity'* and cumulative impact must be undertaken. This assessment must examine both cultural and archaeological perspectives equally at both the local and regional levels, with consideration given to the site level and broader landscape level.	4.10.10
Office of Environment and Heritage (04/01/16)	The EIS must identify and describe Aboriginal cultural heritage values that exist across the whole area that will be affected by the development and document these in the EIS. This may include the need for surface survey and test excavation.	4.10.9, 4.10.10
	Where Aboriginal cultural heritage values are identified, consultation with Aboriginal people must be undertaken and documented in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the EIS.	4.10.5, 4.10.10
	Impacts on Aboriginal cultural heritage values are to be assessed and documented in the EIS. The EIS must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and OEH notified.	4.10.9, 4.10.10
Barrington-Gloucester-Stroud Preservation Alliance Inc. (26/03/12)	The EIS should provide a full understanding of historical, scenic and social qualities as well as assessing the requirements for social heritage significance under the Australian Heritage Council guidelines for National heritage significance.	4.5, 4.11.2, 4.11.3, 4.11.5
Gloucester Shire Council (02/04/12)	The EIS should examine any potential Heritage impacts at a number of different scales. The first level is any potential disturbance to artefacts of Aboriginal or European heritage on the site. There should also be an examination on the potential impact this mine might have on the cultural heritage of Gloucester as an agricultural service town. There is also a potential significant disturbance to the heritage landscape of the valley which has a long history of agricultural activity dating back to the Australian Agricultural Company in 1826.	4.10.7, 4.11, 4.16, 4.17
NSW Health – Hunter New England Local Health District (29/03/12)	The EIS should demonstrate thorough engagement of the Aboriginal Community to assess Aboriginal Heritage issues in relation to this proposal.	4.10.5
	An independent assessment of the satisfaction of the Aboriginal Community with this engagement process should be included in the EIS.	NA
NSW Heritage Council (26/03/12)	The EIS should address the heritage significance of the site and any impacts the development may have upon this significance should be assessed. This assessment should include natural areas and places of Aboriginal, historic or archaeological significance. It should also include a consideration of wider heritage impacts in the area surrounding the site.	4.10.9, 4.10.10, 4.11.2, 4.11.3, 4.11.5,

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
ABORIGINAL CULTURAL AND HISTORIC HERITAGE (Cont'd)		
NSW Heritage Council (26/03/12) (Cont'd)	The proponent should consult lists maintained by the Office of Environment & Heritage, the National Trust of Australia (NSW), the Australian Government under the Environment Protection and Biodiversity Conservation Act 1999 and the local council in order to identify any identified items of heritage significance in the area affected by the proposal.	4.11.2.2
	Non-Aboriginal heritage items within the area affected by the proposal should be identified by field survey. This should include any buildings, works, relics (including relics underwater), gardens, landscapes, views, trees or places of non-Aboriginal heritage significance. A statement of significance and an assessment of the impact of the proposal on the heritage significance of these items should be undertaken. Any policies/measures to conserve their heritage significance should be identified. This assessment should be undertaken in accordance with the guidelines in the NSW Heritage Manual. The field survey and assessment should be undertaken by a qualified practitioner/consultant with historic sites experience.	SCSC Vol 5 Part 12 4.11.3, 4.11.4, 4.11.5
	The proposal should have regard to any impacts on places, items or relics of significance to Aboriginal people. Where it is likely that the project will impact on Aboriginal heritage, adequate community consultation should take place regarding the assessment of significance, likely impacts and management/mitigation measures.	4.10.5
	Where possible refer to archaeological zoning plans or archaeological management plans held by Local Councils.	NA
	Guidelines Title/Agency (Date)	
	Take into account the following guidelines (as applicable).	
	• *'Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation' (Department of Environment and Conservation 2005).*	4.10.1
	• *OEH in the 'Code of Practice for Archaeological Investigations of Objects in New South Wales (2010).*	4.10.1
	• *OEH's 'Aboriginal cultural heritage consultation requirements for proponents 2010'.*	4.10.5.1
	• *The Burra Charter (The Australia ICOMOS charter for places of cultural significance).*	
	• *NSW Heritage Manual (NSW Heritage Office).*	4.11.5.2
	• *Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW* (DECCW 2011).	4.10.1
ECOLOGY		
DP&I (24/04/12)	The EIS must address measures taken to avoid, reduce or mitigate impacts on biodiversity; including:	
	• measures taken to avoid, reduce or mitigate impacts on biodiversity	4.12.4
	• accurate estimates of proposed vegetation clearing;	2.16.9.2, 4.12.5.2

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
	ECOLOGY (Cont'd)	
DP&I (24/04/12) (Cont'd)	• a detailed assessment of potential impacts of the development on any: - terrestrial or aquatic threatened species or populations and their habitats, endangered ecological communities and groundwater dependent ecosystems; and - regionally significant remnant vegetation, or vegetation corridors.	4.12.5, 4.13.6 4.12.2.2, 4.12.5.2, 4.12.5.8
	• a comprehensive offset strategy to ensure the development maintains or improves the terrestrial and aquatic biodiversity values of the region in the medium to long term;	4.12.4.4, 2.16.9
Environment Protection Authority (02/04/12)	Biodiversity impacts can be assessed using **either** the BioBanking Assessment Methodology (Scenario 1) or a detailed Biodiversity Assessment (Scenario 2). The requirements for Scenario 1 are detailed in the following section.	
	Scenario 1 Where a BioBanking Statement is being sought under Part 7 A of the *Threatened Species Conservation* Act 1995 (TSC Act), the assessment must be undertaken by an accredited BioBanking assessor (as specified under Section 142B (1)(c) of the TSC Act 1995) and done in accordance with the *BioBanking Assessment Methodology and Credit Calculator Operational Manual* (DECCW, 2008) It is noted that DECCW (2008) has been superseded by the BioBanking Assessment Methodology 2014 (OEH, 2014a) and the most recent version of the BioBanking Credit Calculator (Version 4.0).	2.16.9
	The EIS should include a specific Statement of Commitments that reflects all requirements of the BioBanking Statement including the number of credits required and any DG approved variations to impact on Red Flags.	Section 5
	Where the BioBanking Assessment Methodology is being used to assess impacts of a proposal and to determine required offsets, and a BioBanking Statement is not being obtained, the EIS should contain a detailed biodiversity assessment and all components of the assessment must be undertaken in accordance with the *BioBanking Assessment Methodology and Credit Calculator Operational Manual* (DECCW, 2008). It is noted that DECCW (2008) has been superseded by the BioBanking Assessment Methodology 2014 (OEH, 2014a) and the most recent version of the BioBanking Credit Calculator (Version 4.0).	2.16.9, 4.12.4.4
	The EIS should include a specific Statement of Commitments which: • is informed by the outcomes of the proposed BioBanking assessment offset package;	Section 5
	• sets out the ecosystem and species credits required by the BioBanking Assessment Methodology and how these ecosystem and/or species credits will be secured and obtained;	2.16.9, Section 5
	• if the ecosystem or species credits cannot be obtained, provides appropriate alternative options to offset expected impacts, noting that an appropriate alternative option may be developed in consultation with OEH officers and in accordance with OEH policy;	Section 5

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
ECOLOGY (Cont'd)		
Environment Protection Authority (02/04/12) (Cont'd)	• demonstrates how all options have been explored to avoid red flag areas;	4.12.4
	• includes all relevant 'BioBanking files (e.g. *.xml output files), data sheets, underlying assumptions (particularly in the selection of vegetation types from the vegetation types database), and documentation (including maps, aerial photographs, GIS shape files, other remote sensing imagery, etc. [as per Attachment 3]) to ensure that OEH can conduct an appropriate review of the assessment.	Biosis to supply electronically
	Where appropriate, likely impacts (both direct and indirect) on any adjoining and/or nearby OEH estate reserved under the National Parks and Wildlife Act 1974 or any marine and estuarine protected areas under the Fisheries Management Act 1994 or the Marine Parks Act 1997 should be considered. Please refer to the Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water (DECCW, 2010).	4.12.2.2
	With regard to the Commonwealth Environment Protection and Biodiversity Conservation Act 1999, the assessment should identify and assess any relevant Matters of National Environmental Significance and whether the proposal has been referred to the Commonwealth or already determined to be a controlled action.	3.2.3.2, 4.12.5.3, 4.12.5.4
	Biodiversity impacts can be assessed using **either** the BioBanking Assessment Methodology (Scenario 1) or a detailed Biodiversity Assessment (Scenario 2). The requirements for Scenario 1 are detailed in the following section.	SCSC Vol 4 Part 7
	Scenario 2 The EIS should include a detailed biodiversity assessment, including assessment of impacts on threatened biodiversity, native vegetation and habitat. This assessment should address the matters included in the following sections.	4.12
	A field survey of the site should be conducted and documented in accordance with relevant guidelines, including: • the Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna - Amphibians (DECCW, 2009) • Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft (DEC, 2004), and	4.12.2.3, 4.12.2.4

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
	ECOLOGY (Cont'd)	
Environment Protection Authority (02/04/12) (Cont'd)	• Threatened species survey and assessment guideline information on www.environment.nsw.gov.au/threalenedspecies/surveyassessmentgdlns.htm.	4.12.2.2
	• Recent (less than five years old) surveys and assessments may be used. However, previous surveys should not be used if they have: been undertaken in seasons, weather conditions or following extensive disturbance events when the subject species are unlikely to be detected or present, or utilised methodologies, survey sampling intensities, timeframes or baits that are not the most appropriate for detecting the target subject species,	4.12.2
	Determining the list of potential threatened species for the site must be done in accordance with the *Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft* (DEC, 2004) and the *Guidelines for Threatened Species Assessment* (Department of Planning, July 2005). The OEH Threatened Species website http://www.environment.nsw.gov.au/threatenedspecies/ and the *Atlas of NSW Wildlife* database must be the primary information sources for the list of threatened species present. The BioBanking Threatened Species Database, the Vegetation Types databases (available on DECCW website at http://www.environment.nsw.gov.au/biobanking/biobankingtspd.htm. and http://www.environment.nsw.gov.au/biobanking/vegtypedatabase.htm. respectively) and other data sources (e.g. PlantNET, On line Zoological Collections of Australian Museums (http://www.ozcam.orgD, previous or nearby surveys, etc.) may also be used to compile the list.	4.12.2.2 4.12.3
	OEH would expect all communities (forested and non-woody/grassy native vegetation communities (albeit with varying levels of anthropogenic disturbance), which include derived grasslands) to be adequately sampled and assessed, including the application of an appropriate offset strategy that compensates for the loss of all impacted habitats.	4.12.3.2
	OEH notes the following known and/or predicted threatened species (based on OEH *Atlas of NSW Wildlife* database, vegetation mapping and potential habitat) which have broad habitat matches to that of the site occur on or areas nearby (approx. 10-20 km radius) to the proposal. These should be targeted during surveying (but not be limited to just these):	4.12.2
	FLORA	
	Trailing Woodruff *(Asperula asthenes)** - flowers and fruits in spring (Thompson 2009); fruits are required to separate genera *Asperula* and *Galium* (Harden 1992).	4.12.2.2
	White-flowered Wax Plant *(Cynanchum elegans)** - flowers August to February (-May), with a peak in November; and mature fruits appear between December and May (Benson & McDougall 1993).	4.12.2.2

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
ECOLOGY (Cont'd)		
Environment Protection Authority (02/04/12) (Cont'd)	**FLORA (Cont'd)**	
	Slaty Red Gum *(Eucalyptus glaucina)* - flowers from September to November (Brooke & Kleinig 1999); although locally frequent it is restricted to these areas, where it is known to hybridise with the closely allied red gum - *Eucalyptus tereticornis* (e.g. Taree area). It can be distinguished by its angled (quadrangular) younger branchlets which have persistent angle striations on older growth (K. Hill [RBG] correspondence sent to DECC).	4.12.2.2
	Grove's Paperbark *(Melaleuca groveana)** - flowers spring (Harden 2002).	4.12.2.2
	Scant Pomaderris *(Pomaderris queenslandica):* - flowers in spring - summer (Stanley & Ross 1986), with buds apparent for many months before flowers open; NPWS (2002) note flowering occurs specifically between October to November.	4.12.2.2
	Rainforest Senna (Senna *acclinis)* - flowers spring and summer (Harden, 2002).	4.12.2.2
	Magenta Lilly Pilly *(Syzygium paniculatum)** - flowers December to January / March (Harden 2002, Benson & McDougall 1998), though mature fruits are required to positively identify this species, which mature in May (Payne 1997).	4.12.2.2
Office of Environment and Heritage (04/01/16)	*Pterostylis chaetophora* - is a cryptic ground orchid with a persistent underground tuber, so the species can only be observed with the appearance of flowers, which appear between September and November (Bishop 2000).	4.12.2.2
	Craven Grey Box *(Eucalyptus largeana)* - flowering period May to July (Brooker & Kleinig 1999); flowers, buds, fruit and adult leaves required for identification (Brooker & Kleinig 1999).	4.12.2.2
	Guthrie's Grevillea *(Grevillea guthrieana)* - flowers during spring (Harden 2002), specifically August to October (Makinson 2000); known from nearby at Booral near Bulahdelah (to the south of the proposal) and predicted for the Gloucester-Stroud Valley (OEH TSPD database).	SCSC Vol 4 Part 7 Appendix 4
Environment Protection Authority (02/04/12)	**FAUNA**	
	Amphibians	
	Booroolong Frog *(Utoria booroolongensis)**	4.12.2.2
	Stuttering Frog *(Mixophyes balbus)*	4.12.2.2
	Giant Barred Frog *(Mixophyes iterates)* - OEH would expect specific targeted searches on this species given that it is known to occur to the south of the proposal and there is a potential for indirect impacts, especially if there is a proposal for a discharge to waters or a proposal to irrigate mine water in the area.	4.12.2.2
Office of Environment and Heritage (04/01/16)	Davies' Tree Frog *(Litoria daviesae)*	4.12.2.2

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
ECOLOGY (Cont'd)		
Environment Protection Authority (02/04/12)	**Reptiles**	
	Stephen's Banded Snake *(Hoplocephalus stephensil)*	4.12.2.2
	Birds	4.12.2.2
	Bush Stone-curlew (*Burhinus grallarius*)	
	Gang-gang Cockatoo (*Callocephalon fimbriatum*)	
	Glossy Black Cockatoo (*Calyptorhynchus lathami*)	
	Spotted Harrier (*Circus assimilis*)	
	Brown Treecreeper (*Climaeteris pieumnus subsp. vietoriae*)	
	Barred Cuckoo-shrike (*Coracina lineata*)	
	Varied Sittella (*Daphoenositta chrysoptera*)	
	Black-necked Stork (*Ephipporhynchus asiaticus*)	
	White-fronted Chat (*Epthianura albifrons*)	
	Little Lorikeet (*Glossopsitta pusilla*)	
	Little Eagle (*Hieraaetus morphnoides*)	
	Swift Parrot (*Lathamus discolor*)*	
	Hooded Robin (*Melanodryas cucullata*)	
	Turquoise Parrot (*Neophema pulchella*)	
	Barking Owl (*Ninox connivens*)	
	Powerful Owl (*Ninox strenua*)	
	Oliver Whistler (*Pachycephala olivacea*)	
	Scarlet Robin (*Petroica boodang*)	
	Flame Robin (*Petroica phoenicea*)	
	Grey-crowned Babbler (*eastern subspecies*) (*Pomatostomus temporalis subsp. temporalis*)	
	Rose-crowned Fruit-dove (*Ptilinopus regina*)	
	Wompoo Fruit-dove (*Ptilinopus magnificus*)	
	Superb Fruit-dove (*Ptilinopus superbus*)	
	Speckled Warbler (*Pyrrholaemus sagittatus*)	
	Diamond Firetail (*Stagonopleura guttata*)	
	Red-backed Button-quail (*Turnix maculosa*)	
	Masked Owl (*Tyto novaehollandiae*)	
	Sooty Owl (*Tyto tenebricosa*)	
	Regent Honeyeater (*Xanthomyza phrygia*)*	
Office of Environment and Heritage (04/01/16)	Black Falcon (*Falco subniger*)	4.12.2.2
	Australasian Bittern (*Botaurus poiciloptilus*)	
	Black Bittern (*Ixobrychus flavicollis*)	
	Osprey (*Pandion cristatus*)	

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
ECOLOGY (Cont'd)		
Environment Protection Authority (02/04/12)	**Mammals** Rufous Bettong (*Aepyprymnus rufescens*) Eastern Pygmy-possum (*Cercartetus nanus*) Large-eared Pied Bat (*Chalinolobus dwyeri*) Spotted-tailed Quail (*Oasyurus maculatus*) * Eastern False Pipistrelle (*Falsistrellus tasmaniensis*) Golden-tipped Bat (*Kerivoula papuensis*) Parma Wallaby (*Macropus parma*) Little Bentwing-bat (*Miniopterus australis*) Eastern Bent-wing Bat (*Miniopterus schreibersii* subsp*. oceanensis*) Eastern Freetail bat (*Mormopterus norfolkensis*) Large-footed Myotis (*Myotis adversus*) Parma Wallaby (*Macropus parma*) Yellow-bellied Glider (*Petaurus australis*) Squirrel Glider (*Petaurus norfolcensis*) Brush-tailed Rock Wallaby (*Petrogale penieillata*) * Brush-tailed Phascogale (*Phascogale tapoatafa*) Koala (*Phascolarctos cinereus*) Common Planigale (*Planigale maculata*) Long-nosed Potoroo (*Potorous tridactylus*)* only subspecies tridactylus (SE Mainland) is listed on EPBC Act. Grey-headed Flying-fox (*Pteropus poliocephalus*)* Yellow-bellied Sheathtail-bat (*Saccolaimus flaviventris*) Greater Broad-nosed Bat (*Scoteanax rueppellii*) Red-legged Pademelon (*Thylogale stigmatica*)*	4.12.2.2 4.12.2.2
	* EPBC Act listed species.	
	The EIS should contain the following information as a minimum: a) The requirements set out in the *Guidelines for Threatened Species Assessment* (Department of Planning, July 2005).	4.12
	b) Description and geo-referenced mapping of study area (and spatial data files), e.g. overlays on topographic maps, satellite images and *for* aerial photos, including details of map datum, projection and zone, all survey locations, all vegetation communities, key habitat features and reported locations of threatened species, populations and *ecological* communities present in the subject site and study area.	4.12.3.2, 4.12.3.3, 4.12.3.5 Figure 4.65 Figure 4.66 Biosis to supply digital data

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
	ECOLOGY (Cont'd)	
Environment Protection Authority (02/04/12) (Cont'd)	c) Description of survey methodologies used, including timing, location and weather conditions.	4.12.2.3, 4.12.2.4 SCSC Vol 4 Part 7
	d) Details, including qualifications and experience of all staff undertaking the surveys, mapping and assessment of impacts as part of the EIS.	SCSC Vol 4 Part 7
	e) Detailed description of all vegetation communities (both forested and non-woody [e.g. derived grasslands], including classification and methodology used to classify) and including all plot data. Plot data should be supplied to the OEH in electronic format (e.g. MS-Excel) and organised by vegetation community;	4.12.3.2 SCSC Vol 4 Part 7
	f) Identification of national and state listed threatened biota known or likely to occur in the study area and their conservation status.	4.12.2.2, 4.12.3
	g) Description of the likely impacts of the proposal on biodiversity and wildlife corridors, including direct and indirect and construction and operation impacts. Wherever possible, quantify these impacts such as the amount of each vegetation community or species habitat to be cleared or impacted, or any fragmentation of a wildlife corridor. The proposal should provide an assessment of the cumulative impacts of the proposal in relation to other nearby developments, such as (but not limited to) Stratford Coal Extension Project, AGL Coal Seam Gas Projects and various exploratory activities.	4.12.5, 4.13.6
	h) Identification of the avoidance, mitigation and management measures that will be put in place as part of the proposal to avoid or minimise impacts, including details about alternative options considered and how long term management arrangements will be guaranteed.	4.12.4, 4.12.6
	i) Description of the residual impacts of the proposal. If the proposal cannot adequately avoid or mitigate impacts on biodiversity, then a biodiversity offset package is expected.	4.12.5, 4.12.6, 4.12.7
	j) Provision of specific Statement of Commitments relating to biodiversity.	Section 5
	An assessment of the significance of direct and indirect impacts of the proposal must be undertaken for threatened biodiversity known or considered likely to occur in the study area based on the presence of suitable habitat. This assessment must take into account: a) the factors identified in s.5A of the EP&A Act, and	4.12.5.4
	b) the guidance provided by *The Threatened Species Assessment Guideline - The Assessment of Significance (DECCW, 2007).*	4.12.5.4

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
ECOLOGY (Cont'd)		
Environment Protection Authority (02/04/12) (Cont'd)	Where an offsets package is proposed by a proponent for impacts to biodiversity (and a BioBanking Statement has not been sought) this package should: a) Meet OEH's *Principles for the use of biodiversity offsets in NSW,* which are available at: www.environment.nsw.gov.au/biocertification/offsets.htm.	2.16.9, 4.12.4.4
	b) Identify the conservation mechanisms to be used to ensure the long term protection and management of the offset sites.	2.16.9
	c) Include an appropriate Management Plan (such as vegetation or habitat) that has been developed as a key amelioration measure to ensure any proposed compensatory offsets, retained habitat enhancement features within the development footprint and/or impact mitigation measures (including proposed rehabilitation and/or monitoring programs) are appropriately managed and funded.	2.16.9, 4.12.6, 4.12.4.3
	With respect to managing and conserving a proposed offset in perpetuity, OEH considers and supports the following as appropriate conservation mechanisms: • The establishment of biobanking sites with biobanking agreements under the *Threatened Species Conservation Act* 1995 (TSC Act); • The dedication of land under the *National Parks and Wildlife Act* 1974 (NPW Act);	2.16.9.6
	• A Conservation Agreement under the NPW Act;	2.16.9.6
	• A Trust Agreement under the Nature Conservation Trust Act 2001; or	2.16.9.6
	• A Planning Agreement under s 93F of the *Environmental Planning and Assessment Act* 1979.	2.16.9.6
	The OEH notes The Glen Nature Reserve is located just to the east / south-east of the proposal, and as such any direct or indirect impacts need to be documented and assessed.	4.12.2.2
Office of Environment and Heritage (04/01/16)	If utilising the BioBanking Assessment Methodology (BBAM) (rather than the new *Framework for Biodiversity Assessment* which was released on 1 October 2014), the 'BioBanking Assessment Methodology 2014' will need to be used. A new version of the BioBanking Credit Calculator (October 2014) has become the compulsory version of the tool to use for BioBanking assessments and includes updated vegetation types (now known as 'Plant Community Types') and threatened species information. Any new assessments will need to be run through this version of the tool and appropriate credit files submitted.	2.16.9
	Please note applications that have utilised the 2012 version of the BBAM credit tool cannot be assessed under the new BBAM 2014 version. Therefore all previously credit calculations from the EIS, along with any new offset scenarios / calculations will require re-submitting utilising the 2014 version of credit tool.	2.16.9

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
ECOLOGY (Cont'd)		
Office of Environment and Heritage (04/01/16) (Cont'd)	With respect to securing a biodiversity offset in perpetuity, OEH now considers the following measures:	2.16.9
	• the establishment of BioBanking sites with BioBanking agreements under the *Threatened Species Conservation Act* 1995 (TSC Act),	2.16.9
	• the retirement of BioBanking credits (where appropriate credits are available),	2.16.9
	• the dedication of land as a public reserve under the *National Parks and Wildlife Act 1974* (NPW Act),	2.16.9
	• a Conservation Agreement in-perpetuity registered on title under s69A-KA of the NPW Act,	2.16.9
	• a Trust Agreement in-perpetuity registered on title under the *Nature Conservation Trust Act 2001, and*	2.16.9
	• a Planning Agreement under s 93F (soon to be s116T) of the *Environmental Planning and Assessment Act* 1979.	2.16.9
Great Lakes Council (30/03/12)	Provision of habitat offsetting requirements for clearing of remnant vegetation on the site and disruption of corridors should consider the procurement of offsets in the local area which contribute to the "Tops to Lakes" corridor linkage. Any approval should ensure offsetting benefits the local environment and contributes to work already underway to improve habitat linkages.	2.16.9, 4.12.2.2, 4.12.4.4
Hunter-Central Rivers Catchment Management Authority (11/03/12)	Initial reports indicate up to 25 hectares of intact native vegetation will be required to be removed to allow mining operations. Where native vegetation is to be, cleared it should be adequately off-set with the offsets determined using a State accepted methodology such as Biobanking or otherwise consistent with the Improve or Maintain principle of the Native Vegetation Act. Off-sets should be listed on the land title in perpetuity and accompanied by sufficient resources to provide for on-going management. The EIS should address the full extent of native vegetation removal and address offsets based on the above principles.	2.16.9, 4.12.4.4
NSW Resources and Energy (04/04/12)	The flora, fauna and ecological attributes of the disturbed area should be recorded and placed in a regional context.	4.12
Department of Primary Industries – Fisheries (29/07/12)	The *Environmental Impact Statement* must: • Describe and discuss significant habitat areas.	4.12.2.2, 4.12.3.5, 4.12.5, 4.13.2, 4.13.3
	• Outline the habitat requirements of threatened species likely to occur in the Study Area.	4.12.2.2, 4.13.2.2,
	• Indicate the location, nature and extent of habitat removal or modification which may result from the proposed action.	2.16.9, 4.12.3.2, 4.13.4
	• Discuss the potential impact of the modification or removal of habitat.	4.12.5, 4.13.4

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
ECOLOGY (Cont'd)		
Department of Primary Industries – Fisheries (29/07/12) (Cont'd)	• Identify and discuss any potential for the Proposal to introduce barriers to the movement of fish species.	4.7.3, 4.13.2.2, 4.13.4, 4.13.5
	• Describe and discuss any other potential impacts of the Proposal on fish species or their habitat.	4.6, 4.7, 4.13.4
	• Consider how the Proposal has been or may be modified and managed to conserve fisheries habitat within the Site and in the Study Area.	4.13.5, 4.13.6
	In discussing alternatives to the Proposal, and the measures proposed to mitigate any effects of the Proposal, consideration must be given to developing long term management strategies to protect areas within the Study Area which are of particular importance for fish species. This may include proposals to restore or improve habitat.	4.13.4, 4.13.5, 4.13.6, 4.13.7
	Any proposed pre-construction monitoring plans or on-going monitoring of the effectiveness of the mitigation measures must be outlined in detail, including the objectives of the monitoring program, method of monitoring, reporting framework, duration and frequency.	4.13.7
	Guidelines Title/Agency (Date)	
	Take into account the following guidelines (as applicable). • *The Threatened Species Assessment Guideline - The Assessment of Significance (DECCW, 2007).*	4.12.1
	• *Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft (DEC, 2004)*	4.12.1
	• *Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna – Amphibians (DECCW 2009)*	4.12.2.4
	• *Guidelines for Threatened Species Assessment (DoP 2005)*	4.12.1
	• *Framework for Biodiversity Assessment (OEH, 2014)*	2.16.9
	• *NSW Biodiversity Offsets Policy for Major Projects (OEH, 2014)*	2.16.9
	• *BioBanking Assessment Methodology 2014 (OEH, 2014)*	4.12.4.4, 2.16.9
	• *Credit Calculator for Major Projects and Biobanking Operational Manual (OEH, 2016)*	2.16.9, 4.12.4.4
	• *NSW State Groundwater Dependent Ecosystem Policy (DLWC)*	SCSC Vol 4 Part 7 Sect 4.2
	• *Policy and Guidelines – Aquatic Habitat Management and Fish Conservation (NSW Fisheries)*	4.13.5
	• *Policy and Guidelines – Fish Friendly Waterway Crossings (NSW Fisheries)*	4.13.5
	• *State Environmental Planning Policy No. 44 – Koala Habitat Protection*	3.2.3.4, 4.12.5.5
	• *Risk Assessment Guidelines for Groundwater Dependent Ecosystems (NOW, 2012)*	N/A

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
INFRASTRUCTURE		
TransGrid (04/04/12)	The EIS should assess the potential impacts to TransGrid's existing 132 kV transmission line. Consideration should be given to the 45 m wide easement (within which certain activities are restricted) and maintaining access for TransGrid to each of the transmission structures and the complete length of the line on the subject land.	4.15.2
	The proposed mine area is also within corridor options 1 and 1 a, identified by TransGrid for a proposed 330 kV transmission line between Stroud and Lansdowne, which is scheduled to be in-service in the mid-2010's (State Significant Infrastructure, project application number SSI-5208). The EIS should also assess the potential impacts to the proposed future line should it be built across the mine area and any cumulative impacts from the two projects.	4.15.2
TransGrid (18/03/16)	Consider *Transgrid Easement Guidelines for Third Party Development.*	4.15.2
SOCIO-ECONOMIC		
DP&I (24/04/12)	The EIS must address: • potential direct and indirect economic benefits of the project for local and regional communities and the State;	SCSC Vol 5 Part 15 4.17.6.4, 4.18
	• potential impacts on local and regional communities, including: - increased demand for local and regional infrastructure and services (such as housing, childcare, health, education and emergency services); and - impacts on social amenity, particularly those impacts associated with residents of Gloucester, large lot residential estates on Gloucester's outskirts and nearby landowners and residents;	4.16.5.4, 4.17.4, 4.17.6 4.17.4, 4.17.6
	• a detailed description of the measures that would be implemented to minimise the adverse social and economic impacts of the project, including any infrastructure improvements or contributions and/or voluntary planning agreement or similar mechanism; and	4.17.5
	• a detailed assessment of the costs and benefits of the development as a whole, and whether it would result in a net benefit for the NSW community; and	4.18.2 SCSC Vol 5, Part 15
Gloucester Shire Council (02/04/12)	The EIS will need to examine the potential losses to the local environment that may follow any approval. This has the potential to shift the whole local economy and needs to be examined in detail in the EIS.	4.16.5, 4.17.6
	The EIS should also examine the effects on individual property values, both residential and agricultural in close proximity to the site.	4.16.2, 4.17.6.8,
	The impact analysis should also examine changes in local employment as a consequence of any approval both in terms of availability and increased costs for employees in other parts of the economy.	4.16.5.3, 4.17.6.6, 4.18.4.2

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
SOCIOECONOMIC (Cont'd)		
NSW Health – Hunter New England Local Health District (29/03/12)	The proponent needs to consider both the social and psychological impacts of the proposal on the Gloucester community in the EIS along with discussion as to how the community will be supported. It is noted that the proponent has been in consultation with landowners and has actively purchased land for the proposed mining operations. This puts some residential dwelling in very close proximity to mining operations which include open cut pit workings, Coal Handling and Preparation Plant, Overland Conveyor and Rail Load-out Facility operations. It is the view of this office that occupation of residential dwellings is not appropriate in close proximity to mining operations including those dwellings which are located on land which forms the footprint of the mining operations due to potential health impacts and nuisance associated with issues such as particulate matter, noise and blasting. Occupation of residential dwelling in close proximity to mining operations can also lead to psychological distress for individuals. The proponent needs to demonstrate how residential dwellings in the mining operations footprint are to be managed.	4.17.6
	The EIS should outline consultation with Gloucester Exploration Project CCC, release of newsletters, one-on-one consultations and website access to information with ability to pose questions and raise concerns/issues which will be addressed in the EIS. A requirement for independent assessment of community satisfaction with community engagement should be included to provide reassurance of performance in this important area and guidance for future improvement if required.	3.2.2, 4.17.6
	The EIS will need to demonstrate the methods and procedures which will be deployed to prevent unauthorised access to the site both during the construction and mining phases to ensure that people are not able to easily gain access and be subject to accidents involving incidents such as falls or entanglement in mechanical assets.	2.3.5, 2.15
Barrington-Gloucester-Stroud Preservation Alliance Inc. (26/03/12)	A socio-economic assessment of the consequences of the Rocky Hill Project should be grouped under five main headings: • physical health	4.17.3.8, 4.17.6.2
	• psychological health	4.17.3.8, 4.17.6.2
	• social disruption	4.17.3.9, 4.17.6
	• consequences for the local economy	4.17.6.9, 4.17.7, 4.18.4
	• property value loss.	4.16.2, 4.17.6.8, 4.17.5.4
	A full and rigorous assessment of cumulative impact on tourism should be undertaken.	4.16.2.2, 4.17.6.1, 4.17.6.7
	A separate submission on land and property values should be provided.	4.17.6.8

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
SOCIOECONOMIC (Cont'd)		
	Guidelines Title/Agency (Date)	
	Take into account the following guidelines (as applicable). • Draft Economic Evaluation in Environmental Impact Assessment (DoP) • Techniques for Effective Social Impact Assessment: A Practical Guide (Office of Social Policy, NSW Government Social Policy Directorate)	SCSC Vol 5 Part 15 Sect 1.1 SCSC Vol 5 Part 15 Sect 1.1
WASTE AND CHEMICALS		
DP&I (24/04/12)	The EIS must include: • accurate estimates of the quantity and nature of the potential waste streams of the development, including fine and coarse reject;	2.7.3, 2.8.4, 2.11
	• a fine and coarse rejects disposal strategy; and	2.8.4
	• a detailed description of the measures that would be implemented to minimise the production of waste on site, and ensure that any waste produced is appropriately managed;	2.11, 3.2.3.3
Environment Protection Authority (02/04/12)	The EIS must: • identify, characterise and classify all waste, including proposed quantities of the waste and the disposal locations for the waste. This includes waste that is intended for re-use or recycling. **Note:** All waste must be classified in accordance with Environment Protection Authority's Classification Guidelines.	2.7.3.3, 2.11
	• include information demonstrating that the Proponent is aware of the relevant legislative requirements for disposal of the waste, including any relevant Resource Recovery Exemptions, as gazetted by Environment Protection Authority from time to time.	2.11
	• identify any fuel or chemical storage areas to be established on the site and describe the measures proposed to minimise the potential for leakage or the migration of pollutants into the soil/waters or from the site.	2.10.3, 2.10.6, 2.11
ACID ROCK DRAINAGE		
NSW Resources and Energy (04/04/12)	The following are the key issues to be addressed in the EIS that are likely to have a bearing on rehabilitation and mine closure. • Geological constraints including geotechnical stability and geochemistry. DRE notes particularly that some interburden I overburden strata within the sequence proposed for mining is Potentially Acid Forming (PAF). DRE expects the EIS to assess and mitigate potential for Acid Mine Drainage (AMD) by specific management and commitments. This may require provision of selective handling, emplacement encapsulation and lime treatment of PAF interburden / overburden and pit floor exposures.	2.3.3.3,2.7.2.4, 2.8.4,

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
CUMULATIVE IMPACT		
Gloucester Shire Council (02/04/12)	The assessment should also include the cumulative impact of the existing Gloucester coal extraction at Stratford, the AGL project and this proposed mine on the issues mentioned above of water, air, noise, visual, market perceptions, and job losses to mining mentioned above.	1.6.3, 1.6.4, 4.2.6.5,4.2.7.5, 4.3.6.1, 4.4.8.3, 4.4.9, 4.5.5.7, 4.6.5, 4.6.7.6, 4.7.5.2, 4.13.6.5, 4.16.5.4, 4.17.6.10
Hunter-Central Rivers Catchment Management Authority (11/03/12)	It is noted this proposal is in addition to two current operating coal mines and also approved and proposed coal seam gas operations. The EIS should not only address the impact of this project but also the cumulative impact of all these mining operations.	1.6.3, 1.6.4, 4.2.6.5,4.2.7.5, 4.3.6.1, 4.4.8.3, 4.4.9, 4.5.5.7, 4.6.5, 4.6.7.6, 4.7.5.2, 4.13.6.5, 4.16.5.4, 4.17.6.10
Barrington-Gloucester-Stroud Preservation Alliance Inc. (26/03/12)	The Rocky Hill Project should be assessed in conjunction with the existing Gloucester Coal Stratford mine and the AGL Gloucester LE Pty Ltd (AGL) coal seam gas project, including Stage 1 and the concept plan. The Rocky Hill project will add substantially to the cumulative impact on all environmental qualities including water, air, noise and visual impact as well as on service facilities such as roads and transport	1.6.3, 1.6.4, 4.2.7.5, 4.3.6.1, 4.4.8.3, 4.4.9, 4.5.5.7, 4.6.5, 4.6.7.6, 4.7.5.2, 4.13.6.5, 4.16.5.4, 4.17.6.10
REHABILITATION		
DP&I (24/04/12)	The EIS must include: • a rehabilitation strategy for the site, having regard to the key principles in the Strategic Framework for Mine Closure, including:	2.16
	• rehabilitation objectives, methodology, monitoring programs, performance standards and proposed completion criteria;	2.16.2, 2.16.3, 2.16.7
	• nominated final land use, having regard to any relevant strategic land use planning or resource management plans or policies; and	2.16.5, 2.16.6, 2.16.8
	• the potential for integrating this strategy with any other rehabilitation and/or offset strategies in the region.	2.15
NSW Office of Water (30/03/12)	The EIS must provide the following: • Details of proposed rehabilitation measures to restore any land, water sources and dependent ecosystems which are degraded by the proposed development.	2.16.6
	• Justification of criteria regarding completion of any rehabilitation program.	2.16.2, 2.16.3
	• Justification of the proposed final landform with regard to minimising impacts on local and regional surface and groundwater sources, floodplains, dependent ecosystems, basic landholder rights to water and adjacent/downstream licensed water users.	2.16.5

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
REHABILITATION (Cont'd)		
NSW Office of Water (30/03/12) (Cont'd)	• Details of measures for the ongoing management of the site following the cessation of the proposed development.	2.16.7
	• Details of the measures to be undertaken to ensure that sufficient resources are available to implement the proposed rehabilitation program.	2.7.2.3, 2.16.1
DPI Water (18/01/16)	Details of the final landform of the site, including final void management (where relevant) and rehabilitation measures.	2.16.5, 2.16.6
NSW Resources and Energy (04/04/12)	The EIS must apply and identify 3D landscape imaging to assist community understanding of progressive mining and rehabilitation.	2.7.3, 2.16, 4.5.5
	The DRE's role focuses on ensuring that mined land in NSW is effectively rehabilitated and returned to beneficial post mining land uses. This is undertaken by requiring mine operators to have strategies in place to ensure the rehabilitation of all mined land, and strategies for an orderly transition from a mining land use to an agreed stable and beneficial post mining use. At the EIS stage, the strategies may be conceptual in nature. Each of the following aspects of rehabilitation planning should be addressed in the strategy: • identification and assessment of post mining land use options and including a statement of the preferred post mining land use outcome in the EIS. This should include a discussion of the benefits of the post mining land to a subsequent landowner, the local community and the state of NSW.	2.16.8
	• a set of project rehabilitation objectives must be included that clearly define the environmental outcomes required to achieve the final land use. Identify each rehabilitation domain and describe rehabilitation objectives for each domain (including for example, rehabilitation areas, watercourses, waste emplacements, final voids, and infrastructure areas.)	2.16.2
	• nomination of strategic completion criteria for the five phases of the rehabilitation process, namely (1) Decommissioning; (2) Landform Establishment; (3) Growth Media Development; (4) Ecosystem Establishment; and (5) Ecosystem Development. If necessary, objective criteria may be presented as ranges rather than finite indicator levels. Subjective criteria may also apply where a gap in technical knowledge is experienced. Further refinement of these criteria will be undertaken and included in the Rehabilitation and Environmental Management Plan (REMP).	2.16.3, 2.16.4
	• a drawing at an appropriate scale with final landform contours should be provided identifying the following attributes of the final landform: vegetation types; habitat features; contaminated areas; final voids; access and internal roads; fencing design; and other remaining infrastructure such as sheds, dams, bores and pipelines.	2.16.5 Figure 2.19 Figure 2.20
	• an outline of the proposed rehabilitation methods and techniques and proposed monitoring and research programs.	2.16.6
	• a description of any post-rehabilitation maintenance requirements for the project site and how these will be managed.	2.16.6, 2.16.7

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
REHABILITATION (Cont'd)		
Hunter-Central Rivers Catchment Management Authority (11/03/12)	The land which is encompassed by the proposed project site is currently used for agricultural purposes, notably beef cattle grazing. The EIS should address the how the land will be returned to its current land capability and land use potential when mine operations are complete and the site rehabilitated.	2.16.6, 4.16.5
	Guidelines Title/Agency (Date)	
	Take into account the following guidelines (as applicable).	
	• Mine Rehabilitation – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth of Australia)	2.16.1
	• Mine Closure and Completion – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth of Australia)	2.16.1
	• Strategic Framework for Mine Closure (ANZMEC-MCA)	2.16.1
BUSH FIRE		
NSW Rural Fire Service (06/01/16)	The subject land is mapped as bushfire prone land by Gloucester Shire Council. The NSW Rural Fire Service considers that the amended EIS for the proposed quarry should address the following:	
	• identification of bush fire prone land within 140 metres of the proposed development;	4.14.2.2 Figure 4.69
	• the aims and objectives of '*Planning for Bushfire Protection 2006*';	4.14.2.1
	• identification of potential ignition sources during construction and operation of the development;	2.10.3, 2.10.5, 4.14.6
	• storage of fuels and other hazardous materials including any explosives for blasting;	4.14.6
	• stockpiling of mulched vegetation;	4.14.6
	• proposed bushfire protection measures for the development, including vegetation management and fire suppression capabilities;	4.14.6
	• operational access for fire fighting appliances to the site; and	2.15, 4.14.6
	• emergency and evacuation planning.	4.14.6
LICENCING		
Environment Protection Authority (02/04/12)	Should project approval be granted, the proponent will need to make a separate application to Environment Protection Authority for an EPL for the proposed facility prior to undertaking any on site works. Additional information is available through the *EPA Guide to Licensing* document.	2.1.3
NSW Office of Water (30/03/12)	Water allocation account management rules, total daily extraction limits and rules governing environmental protection and access licence dealings also need to be considered, together with the capacity to obtain any additional entitlement required for the proposal either through application and/or trade.	2.1.3, 2.10.2, 4.6.8
NSW Resources and Energy (04/04/12)	As coal is a prescribed mineral under the Mining Act 1992, the proponent is required to hold appropriate mining titles from DRE in order to mine this mineral. The proponent should liaise with DRE regarding any proposed mining lease application.	2.1.3

Table A4.2 (Cont'd)
Coverage of Additional Matters Identified for Consideration in the EIS

Agency / Organisation	Paraphrased Matter	Relevant EIS Section(s)
LICENCING (Cont'd)		
NSW Resources and Energy (04/04/12) (Cont'd)	Any Environmental Impact Statement (EIS) for this project should clearly identify existing coal titles, coal title applications and the final proposed mining lease area for the site to address mining and mining purpose activity as prescribed under the Mining Act 1992. Note this is to include CHPP, coal handling and conveyance up to the rail load out.	1.4, 2.1.3
	The proposed eastern out of pit emplacement area not currently held under coal title by the proponent. Under the Mining Act 1992 Minister's consent is required before an application can be made for a coal title (Section 13(4) Mining Act 1992). GRL has submitted an application to request Minister's consent to apply for a mining lease for land within the Rocky Hill Coal Project boundary but not currently held under coal title. DRE is currently processing this application to initiate a request for the Minister's consent. The proponent should note that a mining lease application cannot be submitted without prior Minister's consent.	Not Applicable –consent to lodge MLA issued 23/05/2012 and MLA 466 subsequently issued
SECURITY		
NSW Health – Hunter New England Local Health District (29/03/12)	The EIS will need to demonstrate the methods and procedures which will be deployed to prevent unauthorised access to the site both during the construction and mining phases to ensure that people are not able to easily gain access and be subject to accidents involving incidents such as falls or entanglement in mechanical assets.	2.15

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