Appendix 3

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

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Table A2-1
Director-General's Requirements
(Department of Planning and Infrastructure – 25 September 2013

Paraphrased Requirement	Relevant EIS Section(s)
GENERAL	
The Environmental Impact Statement (EIS) must include:	
• an executive summary;	Executive Summary
• a full/detailed description of the proposal, including:	
– identification of the resource;	1.4.5
– description of the site;	1.3
– a history of any previous quarrying operations on the site;	1.4.2
– the proposed works (including rehabilitation works);	Section 2
– the duration and intensity of extraction operations;	2.10
– any likely interactions between the proposed operations and existing/approved development and land use in the area; and	1.4 Section 4
– a detailed justification for the development;	Section 5
• a conclusion justifying the development on economic, social and environmental grounds, taking into consideration whether the proposal is consistent with the objects of the Environmental Planning & Assessment Act 1979; and	5.3
• a signed declaration from the author of the EIS, certifying that the information contained within the document is neither false nor misleading.	p iii
KEY ISSUES	
The EIS must also assess the potential impacts of the proposal during the establishment, operation and decommissioning of the proposal. The EIS must describe what measures would be implemented to avoid, minimise, mitigate, offset, manage and/or monitor the potential impacts on:	
• **Land Resources** - including a assessment of the potential impacts on:	
– soils and land capability, including an assessment of activities that would cause erosion and the measures proposed to minimise erosion and sedimentation;	4.13
– landforms and topography, including cliffs, rock formations, steep slopes, etc; and	4.1.2
– land use, including agricultural, forestry and conservation lands;	4.13
• **Water Resources** - including:	
– identification of any licensing requirements or other approvals under the *Water Act 1912* and/or *Water Management Act 2000*;	4.4.7
– an assessment of potential impacts on the quality and quantity of existing surface and ground water resources;	4.4.2, 4.9.2
– a description of the measures proposed to ensure the development can operate in accordance with the requirements of any relevant Water Sharing Plan or water source embargo;	4.4.4, 4.9.3
– an annual site water balance for representative years of the proposed life of the project; and	2.6.3
– a detailed description of the proposed water management system (including sewage), water monitoring program and other measures to mitigate surface and groundwater impacts;	4.4, 4.9

Table A2-1 (Cont'd)
Director-General's Requirements
(Department of Planning – 25 September 2013

Paraphrased Requirement	Relevant EIS Section(s)
KEY ISSUES (Cont'd)	
• **Biodiversity** - including:	
– accurate predictions of any vegetation clearing on site or for any road upgrades;	4.3.5
– a detailed assessment of the potential impacts of the development on any threatened species or populations or their habitats, endangered ecological communities and groundwater dependent ecosystems;	4.3.5
– a detailed description of the measures to maintain or improve the consideration of a Biodiversity Offset Strategy;	4.3.7
• **Heritage** - including:	
– an Aboriginal cultural heritage assessment (addressing 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	4.2, 4.7
– 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;	4.7
• **Traffic and Transport** - including:	
– an assessment of potential traffic impacts on the capacity, efficiency and safety of the road network, in particular the assessment must include a Road Safety Audit to review the condition of the proposed routes and identify any safety issues which may exacerbated by the development; and	4.10
– a description of the measures that would be implemented to maintain and/or improve the capacity. efficiency and safety of the road network in the surrounding area over the life of the project;	4.10.3
• **Noise and Vibration**	
– particularly any potential noise and vibration impacts on nearby private receptors due to construction, operation or road haulage;	4.5
• **Air Quality** - particularly any potential dust impacts on nearby private receptors from construction, operation or road haulage;	4.8
• **Rehabilitation** - including:	
– a detailed description of the proposed rehabilitation measures that would be undertaken during quarry closure;	2.13
– a detailed rehabilitation strategy, including justification for the proposed final land form and consideration of the objectives of any relevant strategic land use plans or policies; and	2.13
– the measures that would be undertaken to ensure sufficient financial resources are available to implement the proposed rehabilitation strategy;	2.13.1
• **Waste Management** - including importation of any waste material to the site;	2.4, 2.8, 2.9
• **Hazards and Risks** - including any transport or storage of dangerous goods;	2.8.2.4, 4.12
• **Visual Amenity**;	4.11
• **Agricultural Impacts**;	4.14
• **Utilities and Services**; and	2.8
• **Social and Economic Impacts**.	4.15

Table A2-1 (Cont'd)
Director-General's Requirements
(Department of Planning – 25 September 2013

Paraphrased Requirement	Relevant EIS Section(s)
ENVIRONMENTAL PLANNING INSTRUMENTS	
The EIS must assess the proposal against the relevant environmental planning instruments, including (but not limited to):	
• *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*;	3.3.3.2
• *State Environmental Planning Policy No. 33 - Hazardous and Offensive Development*;	3.3.3.3
• *State Environmental Planning Policy No. 44 - Koala Habitat Protection*;	3.3.3.4
• *State Environmental Planning Policy No. 55 - Remediation of Land*;	3.3.3.5
• *Bogan Local Environmental Plan 2011*; and	3.3.5
• relevant development control plans and section 94 plans, strategies and management plans.	3.3.4
GUIDELINES	
The EIS must take into account relevant State Government policies and guidelines, in particular the:	
• *Industrial Noise Policy* (EPA 2001),	4.5
• *Aquifer Interference Policy* (DPI 2012),	4.4
• *Soils and Construction: Managing Urban Stormwater* (Landcom 2004),	4.9
• *Guidelines for Fresh and Marine Water Quality and Guidelines for Water Quality Monitoring and Reporting* (ANZECC),	4.4, 4.9
• *Using the ANZECC Guideline and Water Quality Objectives in NSW* (DEC),	4.4
• *Approved Methods for the Modelling and Assessment of Air Pollutants* (DEC),	4.8
• *Approved Methods for Sampling and Analysis of Air Pollutants* (DEC),	4.8.1
• *Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft* (DECC 2004),	4.3
• *The Threatened Species Assessment Guideline - The Assessment of Significance* (DECC 2007),	4.3
• *Draft Guidelines for the Assessment of Aquatic Ecology in EIA* (DUAP 1998),	NA
• *Guide to investigation, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011),	4.2
• *Code of Practice of the Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010),	4.2
• *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010),	4.2
• *Draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation* (DEC 2005),	NA
• *Guide to Traffic Generating Development* (RTA),	4.10.1
• *Road Design Guide* (RTA) or latest versions.	4.10.1
During the preparation of the EIS you must consult the Department's EIS Guideline - Extractive Industries - Quarries. This guideline is available for purchase from the Department's Information Centre, 23-33 Bridge Street, Sydney or by calling 1300 305 695.	

Table A2-1 (Cont'd)
Director-General's Requirements
(Department of Planning – 25 September 2013

Paraphrased Requirement	Relevant EIS Section(s)
CONSULTATION	
During the preparation of the EIS, you must consult with Council and should consult with the relevant local, State and Commonwealth government authorities, service providers and community groups, and address any issues they may raise in the EIS. In particular, you should consult surrounding landowners and occupiers that are likely to be impacted by the proposal. Details of the consultations carried out and issues raised must be included in the EIS.	3.2.1, 3.2.2

Table A2-2
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
GENERAL		
Office of Environment and Heritage 03/09/2013	OEH's key information requirements for the proposal include an adequate assessment of: 1. Impacts to Aboriginal cultural heritage objects; and 2. Impacts on flora, fauna, threatened species, populations, communities and their habitats.	 4.2 4.3
Environment Protection Authority 04/09/2013	The executive summary should include a brief discussion of the extent to which the proposal achieves identified environmental outcomes.	Executive Summary
	The Proposal **Objective of the Proposal** The objectives of the proposal should be clearly stated and refer to:	
	a) the size and type of the operation, the nature of the processes and the products, by-products and wastes produced.	Section 2
	b) a life cycle approach to the production, use or disposal of products.	2.3
	c) the anticipated level of performance in meeting required environmental standards and cleaner production principles.	1.4.7, Section 4, Appendix 4
	d) the staging and timing of the proposal and any plans for future expansion.	1.4.6, 2.3
	e) the proposal's relationship to any other industry or facility.	1.4.1
	Description of the Proposal • Outline the production process including:	
	a) the environmental "mass balance" for the process - quantify in-flow and out-flow of materials, any points of discharge to the environment and their respective destinations (sewer, stormwater, atmosphere, recycling, landfill etc).	Section 4
	b) any life-cycle strategies for the products.	Section 2
	• Outline cleaner production actions, including:	
	a) measures to minimise waste (typically through addressing source reduction).	2.4, 2.9
	b) proposals for use or recycling of by-products.	2.4, 2.9
	c) proposed disposal methods for solid and liquid waste.	2.4, 2.9
	d) air management systems including all potential sources of air emissions, proposals to re-use or treat emissions, emission levels relative to relevant standards in regulations, discharge points.	4.8.5
	e) water management system including all potential sources of water pollution, proposals for re-use, treatment etc, emission levels of any wastewater discharged, discharge points, summary of options explored to avoid a discharge, reduce its frequency or reduce its impacts, and rationale for selection of option to discharge.	4.4.5, 4.9.3
	f) soil contamination treatment and prevention systems.	4.13.4

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
	GENERAL (Cont'd)	
Environment Protection Authority 04/09/2013 (Cont'd)	• Outline construction works including:	
	a) actions to address any existing soil contamination.	NA
	b) any earthworks or site clearing; re-use and disposal of cleared material (including use of spoil on-site).	2.4
	c) construction timetable and staging; hours of construction; proposed construction methods.	2.10
	d) environment protection measures, including noise mitigation measures, dust control measures and erosion and sediment control measures.	4.5.5, 4.8.5, 4.9.4
	Consideration of Alternatives and Justification for the Proposal	
	• Consider the environmental consequences of adopting alternatives, including alternative:	
	a) sites and site layouts.	2.14.2
	b) access modes and routes.	2.14.3
	c) materials handling and production processes.	2.14.4
	d) waste and water management.	2.4, 2.6
	e) impact mitigation measures.	Appendix 4
	f) energy sources	NA
	• Selection of the preferred option should be justified in terms of:	
	a) ability to satisfy the objectives of the proposal.	2.1.1
	b) relative environmental and other costs of each alternative.	Section 4
	c) acceptability of environmental impacts-and contribution to identified environmental objectives.	Section 4
	d) acceptability of any environmental risks or uncertainties.	3.4
	e) reliability of proposed environmental impact mitigation measures.	Section 4
	f) efficient use (including maximising re-use) of land, raw materials, energy and other resources.	Section 2
	The Location **General**	
	• Provide an overview of the affected environment to place the proposal in its local and regional environmental context including:	
	a) meteorological data (e.g. rainfall, temperature and evaporation, wind speed and direction).	4.1.4
	b) topography (landform element, slope type, gradient and length).	4.1.2
	c) surrounding land uses (potential synergies and conflicts).	4.1.5
	d) geomorphology (rates of landform change and current erosion and deposition processes).	4.1.3
	e) soil types and properties (including erodibility; engineering and structural properties; dispersibility; permeability; presence of acid sulfate soils and potential acid sulfate soils).	4.13.2

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
	GENERAL (Cont'd)	
Environment Protection Authority 04/09/2013 (Cont'd)	f) ecological information (water system habitat, vegetation, fauna).	4.3.5
	g) availability of services and the accessibility of the site for passenger and freight transport.	4.10
	Identification and Prioritisation of Issues Provide an overview of the methodology used to identify and prioritise issues. The methodology should take into account:	
	a) relevant NSW government guidelines.	Section 4
	b) industry guidelines.	Section 4
	c) EISs for similar projects.	NA
	d) relevant research and reference material.	Section 6
	e) relevant preliminary studies or reports for the proposal.	SCSC
	f) consultation with stakeholders.	3.2
	• Provide a summary of the outcomes of the process including:	
	a) all issues identified including local, regional and global impacts (eg increased / decreased greenhouse emissions).	4.8.1
	b) key issues which will require a full analysis (including comprehensive baseline assessment).	Section 4
	c) issues not needing full analysis though they may be addressed in the mitigation strategy.	Section 4
	d) justification for the level of analysis proposed (the capacity of the proposal to give rise to high concentrations of pollution compared with the ambient environment or environmental outcomes is an important factor in setting the level of assessment).	3.5
	The Environmental Issues **General**	
	• The potential impacts identified in the scoping study need to be assessed to determine their significance, particularly in terms of achieving environmental outcomes, and minimising environmental pollution.	Section 4
	• Identify gaps in information and data relevant to significant impacts of the proposal and any actions proposed to fill those information gaps so as to enable development of appropriate management and mitigation measures. This is in accordance with ESD requirements.	5.3.2
	Describe Baseline Conditions	
	• Provide a description of existing environmental conditions for any potential impacts.	Section 4

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
	GENERAL (Cont'd)	
Environment Protection Authority 04/09/2013 (Cont'd)	**Assess Impacts**	
	• For any potential impacts relevant for the assessment of the proposal provide a detailed analysis of the impacts of the proposal on the environment including the cumulative impact of the proposal on the receiving environment especially where there are sensitive receivers.	Section 4
	• Describe the methodology used and assumptions made in undertaking this analysis (including any modelling or monitoring undertaken) and indicate the level of confidence in the predicted outcomes and the resilience of the environment to cope with the predicted impacts.	Section 4
	• The analysis should also make linkages between different areas of assessment where necessary to enable a full assessment of environmental impacts eg assessment of impacts on air quality will often need to draw on the analysis of traffic, health, social, soil and/or ecological systems impacts; etc.	Section 4
	• The assessment needs to consider impacts at all phases of the project cycle including: exploration (if relevant or significant), construction, routine operation, start-up operations, upset operations and decommissioning if relevant.	1.4.6, 2.2, 2.3, 2.10 2.13
	• The level of assessment should be commensurate with the risk to the environment.	3.5
	Describe Management and Mitigation Measures	
	• Describe any mitigation measures and management options proposed to prevent, control, abate or mitigate identified environmental impacts associated with the proposal and to reduce risks to human health and prevent the degradation of the environment. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.	Section 4, Appendix 4
	• Proponents are expected to implement a 'reasonable level of performance' to minimise environmental impacts. The proponent must indicate how the proposal meets reasonable levels of performance. For example, reference technology based criteria if available or identify good practice for this type of activity or development. A 'reasonable level of performance' involves adopting and implementing technology and management practices to achieve certain pollutant emissions levels in economically viable operations. Technology-based criteria evolve gradually over time as technologies and practices change.	Section 4
	• Use environmental impacts as key criteria in selecting between alternative sites, designs and technologies, and to avoid options having the highest environmental impacts.	Section 4

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
GENERAL (Cont'd)		
Environment Protection Authority 04/09/2013 (Cont'd)	• Outline any proposed approach (such as an Environmental Management Plan) that will demonstrate how commitments made in the EIS will be implemented. Areas that should be described include: a) operational procedures to manage environmental impacts. b) monitoring procedures. c) training programs. d) community consultation. e) complaint mechanisms including site contacts. f) strategies to use monitoring information to improve performance. g) strategies to achieve acceptable environmental impacts and to respond in event of exceedences (sic).	Various Section 4
	List of Approvals and Licences • Identify all approvals and licences required under environment protection legislation including details of all scheduled activities, types of ancillary activities and types of discharges (to air, land, water).	2.1.3
	Compilation of Mitigation Measures • Outline how the proposal and its environmental protection measures would be implemented and managed in an integrated manner so as to demonstrate that the proposal is capable of complying with statutory obligations under EPA licences or approvals (eg outline of an environmental management plan). • The mitigation strategy should include the environmental management and cleaner production principles which would be followed when planning, designing, establishing and operating the proposal. It should include two sections, one setting out the program for managing the proposal and the other outlining the monitoring program with a feedback loop to the management program.	Appendix 4 NA
	Justification for the Proposal • Reasons should be included which justify undertaking the proposal in the manner proposed, having regard to the potential environmental impacts.	5.3.3
Bogan Shire Council 22/10/2013	Ensure waste rock emplacements are of adequate design. Design should consider minimising visual impact whilst ensuring a stable structure.	2.4, 4.11

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
ABORIGINAL CULTURAL HERITAGE		
Office of Environment and Heritage 03/09/2013	1. Impacts to Aboriginal cultural heritage objects The EIS report should contain:	
	a. A description of the Aboriginal objects and declared Aboriginal places located within the area of the proposed development.	4.2.3
	b. A description of the cultural heritage values, including the significance of the Aboriginal objects and declared Aboriginal places, that exist across the whole area that will be affected by the proposed development, and the significance of these values for the Aboriginal people who have a cultural association with the land.	4.2.7
	c. A description of how the requirements for consultation with Aboriginal people as specified in clause 80C of the National Parks and Wildlife Regulation 2009 have been met.	4.2.1
	d. The views of those Aboriginal people regarding the likely impact of the proposed development on their cultural heritage. If any submissions have been received as a part of the consultation requirements, then the report must include a copy of each submission and your response.	4.2.5
	e. A description of the actual or likely harm posed to the Aboriginal objects or declared Aboriginal places from the proposed activity, with reference to the cultural heritage values identified, and the need apply for a Aboriginal Heritage Impact Permit (AHIP).	4.2.8
	f. A description of any practical measures that may be taken to protect and conserve those Aboriginal objects or declared Aboriginal places.	4.2.8
	g. A description of any practical measures that may be taken to avoid or mitigate any actual or likely harm, alternatives to harm or, if this is not possible, to manage (minimise) harm.	4.2.8
	h. A specific Statement of Commitment that the proponent will complete an Aboriginal Site Impact Recording Form and submit it to the Aboriginal Heritage Information Management System (AHIMS) Registrar, for each AHIMS site that is harmed through the proposed development.	Appendix 4
	In addressing these requirements, the proponent must refer to the following documents:	
	• *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW, 2010) - http://www.environment.nsw.gov.au/licences/consultation.htm. This document further explains the consultation requirements that are set out in clause BOC of the National Parks and Wildlife Regulation 2009. The process set out in this document must be followed and documented in the Environmental Assessment Report.	4.2.1
	• *Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW, 2010) http://www.environment.nsw.gov.au/licences/archinvestigations.htm. The process described in this Code should be followed and documented where the assessment of Aboriginal cultural heritage requires an archaeological investigation to be undertaken.	4.2.1

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
	BIODIVERSITY	
Office of Environment and Heritage 03/09/2013	Biodiversity impacts can be assessed using either: SCENARIO 1 - BioBanking Assessment Methodology (BBAM) SCENARIO 2 - Assessed outside the BioBanking Assessment Methodology	
	Note: i. The Shire may be listed in Schedule 1 of SEPP No. 44 - Koala Habitat Protection. If so, the requirements of the SEPP regarding Koala habitat protection should also be considered by the proponent.	3.3.3.4
	The EIS should contain the following information as a minimum:	
	a. Description and geo-referenced mapping of study area (and associated spatial data files), e.g. overlays on topographic maps, satellite images and / or aerial photos, including details of map datum, projection and zone, all survey locations, vegetation communities (including classification and methodology used to classify), key habitat features and reported locations of threatened species, populations and ecological communities present in the subject site and study area. Separate spatial files (.shp format) to be provided to the OEH should include, at a minimum, shapefiles of the project site, impact footprint, vegetation mapping and classification for both the impact and any offset site(s);	4.3
	b. Description of survey methodologies used, including timing , location and weather conditions, and a comparison of survey effort (in tabular form) with that recommended in the Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities – Working Draft (DEC, 2004). Where survey effort is not consistent with those guidelines justification must be provided;	4.3.4
	c. Detailed description of vegetation communities (including classification and methodology used to classify) and including all plot data. Plot data should be supplied to the OEH in electronic format (eg MS-Excel) and organised by vegetation community;	4.3.5
	d. Details, including qualifications and experience of all staff undertaking the surveys, mapping and assessment of impacts as part of the EIA;	1.6
	e. Identification of national and state listed threatened biota known or likely to occur in the study area and their conservation status;	4.3.5
	f. 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;	4.3.6
	g. 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;	4.3.7

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
BIODIVERSITY (Cont'd)		
Office of Environment and Heritage 03/09/2013	h. 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 (see the requirements for this at point 6 below); and	4.3.7
	i. Provision of specific Statement of Commitments relating to biodiversity.	Appendix 4
	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.	4.3.7
	This assessment must take into account:	
	a. the factors identified in s.5A of the EP&A Act[1]; and	4.3.8.3
	b. the guidance provided *by The Threatened Species Assessment Guideline – The Assessment of Significance* (DECCW, 2007).	4.3.1
	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* should be considered.	NA
	With regard to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, the assessment should identify 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.	4.3.8
TRAFFIC		
Roads and Maritime Services 05/09/2013	The following key issues which should be addressed in the Environmental Impact Statement:	
	• A traffic impact study prepared in accordance with the methodology set out in Section 2 of the RTA's Guide to Traffic Generating Developments and including:	
	– Hours and days of construction and operation for each stage of the project and how proposed operations will interact with other road users;	2.7, 2.10.2

[1] Following threatened species assessment via the Assessment of Significance, it may be necessary to prepare a Species Impact Statement (SIS). The proponent will need to prepare a SIS in the following circumstances:

- If (after having addressed Section 5A) the flora/fauna assessment concludes that there is likely to be a Significant impact to threatened species, or
- The proposed development is likely to affect critical habitat declared under the TSC Act.

If a SIS is required, the proponent (not the consultant) must write to OEH for any formal requirements for the SIS that he might deem appropriate. The SIS must then be prepared in accordance with these requirements and provided to the OEH. In some instances the Minister for the Environment will also need to be consulted for approval.

Methods to reduce the impact on the protected and threatened species should be considered fully, and are considered an integral requirement within any SIS document.

Conducting an Assessment of Significance or an SIS according to the provisions of the EP&A Act and the TSC Act is a complex task and should be undertaken by suitably qualified person(s).

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
TRAFFIC (Cont'd)		
Roads and Maritime Services 05/09/2013 (Cont'd)	– Road transport volumes and types broken down into origin and destination, travel routes and peak hours for the construction, operation and decommissioning of the project. The study should provide details of projected transport operations including volumes of traffic and tonnage to be transported. Volumes should also include mine input related traffic generation (e.g. fuel deliveries, potable water deliveries, maintenance, services) and impacts of mine related traffic generation on public roads. The traffic study should address internal traffic movements and parking facilities;	2.7
	– An assessment of cumulative impacts during construction and operation of the project. In particular, the cumulative impacts of project traffic and traffic generated by the existing operations at the nearby Girilambone and Tritton Copper Mines;	2.5.2 2.7, 4.10.2
	– Any over size and over mass vehicles and loads expected for the construction, operation and decommissioning of the project. The shortest and least trafficked route should be given priority for the movement of construction materials and machinery to minimise the risk and impact to other motorists so far as is reasonably practicable;	2.7.1, 4.10.3
	– Temporary and permanent staff numbers (including employees and contractors) and staff parking arrangements during construction, operation and decommissioning of the project. Modes and volumes of transportation of mining staff to and from the site, details of measures proposed to minimise staff commuter traffic on the local and classified road network and measures to improve commuter safety should also be included;	2.11, 2.8.1, 4.10.3
	– The impact of generated traffic and measures employed to ensure efficiency and safety on the public road network during construction, operation and decommissioning of the project;	4.10.2, 4.10.3
	– Any mitigating measures required to address expected traffic generation.	4.10.2
	• Proposed access treatments should be identified and be in accordance with Austroads Guide to Road Design 2010 and RMS Supplements including safe intersection sight distance.	NA
Bogan Shire Council 22/10/2013	Detail the expected increased level in traffic generation and changes in transportation routes.	4.10.2
MINERAL RESOURCE		
Industry and Investment – Division of Resources and Energy 12/09/2013	The following key issues need to be addressed in sufficient detail in the draft Environmental Impact Statement (EIS):	
	• A summary of the regional, local geology and mineralisation including information on the geological units within which the resource area is both appropriate and adequate for the EIS.	4.1.3
	• A resource estimate.	1.4.5

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
MINERAL RESOURCE (Cont'd)		
Industry and Investment – Division of Resources and Energy 12/09/2013 (Cont'd)	• The mineralogy of the ore to be treated.	4.1.3
	• A summary of the project period providing sufficient detail for the EIS – i.e. eight years, comprising 2 years of site establishment activities, 4 years of mining and processing operations and 2 years of rehabilitation operations.	Section 2
	Additional information that should be included in the EIS includes:	
	• The amount of ore, mineralised waste and unmineralised waste rock anticipated to be produced and/or treated annually and during the life of the project.	2.3, 2.4, 2.10
	• The characteristics of the waste rock and tailings produced. The amount of material remaining in waste dumps and that to be used as backfill.	2.4.2, 2.4.3
	• Will there be any mineralised waste/low grade stockpiles remaining at the end of project life? – If so what is planned for this material and could it be recovered at a future time?	2.4.5
	• Estimate of the sulphide content (%) for each lens/zone to be mined.	2.4.2
	• A description of each lens to be mined (length, width, depth, any features different to the more general description).	2.3.4
	• Plans and cross-sections showing the planned resource blocks, low grade material not to be mined and the extraction sequence data.	Figure 2.3
	• A plan showing the surface projection of the ore zone(s) to be mined with planned layout of infrastructure and other features.	Figure 2.1
	• Will the proposed project sterilise low grade material that could be mined in the future?	1.4.6
ENVIRONMENTAL SUSTAINABILITY		
Industry and Investment – Division of Resources and Energy 12/09/2013	**Project Description** The EIS must provide a comprehensive description of all aspects of the project. In terms of text, plans or charts, it must also clearly show the proposed extent and sequence of development.	Section 2
	Description of existing environment, identification of impacts and constraints All areas affected by the mining proposal must be shown in the context of both the natural environment and the existing mine development. Impacts associated with the operational and post closure stages of the project must also be identified in detail and control strategies outlined. The following are the key issues to be addressed in the EIS that are likely to have a bearing on rehabilitation and mine closure.	
	• Groundwater impacts associated with mining operations and any bore field proposed for water supply purposes. Long term recovery patterns of groundwater and any bearing these may have on subsequent land uses.	4.4.6

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
ENVIRONMENTAL SUSTAINABILITY (Cont'd)		
Industry and Investment – Division of Resources and Energy 12/09/2013 (Cont'd)	• Any surface water flow regimes and how these will be impacted by the project both during and after mining has ceased.	4.9.4
	• The flora, fauna and ecological attributes of the disturbed area should be recorded and placed in a regional context.	4.3.2
	• Characterise soils across the proposed area of surface disturbance and assesses their value and identify any limitations they present for rehabilitation. Land capability characteristics of the site also need to be described.	4.13.3
	• Identify any Potential Acid Forming (PAF) material that may be found on site. The existing knowledge bank on waste rock geochemistry should be expanded with a comprehensive test program directed to ascertain the acid generation potential and leachate composition of the Avoca Tank Project waste streams.	2.4.2
	• Investigations should consider Acid Mine Drainage (AMD) potential, the composition of waste rock leachates (whether acidic or not), as well as the potential for saline drainage. A comprehensive range of potential leachate ions/species must be considered. The resulting waste classification scheme should be subject to ongoing and, if necessary, longer term investigations on the AMD potential and leachate quality of waste rock. This should be provided for in the EIS Statement of Commitments.	2.4.2
	• The geochemistry of waste materials must be characterised and the potential for adverse leachate seepages to occur, both during and after mining, must be assessed. The geochemical assessment should cover the full range of environmentally significant compounds that may be mobilised from soils, waste rock and tailings. Where there is a potential for acidic leachate from either tailings or waste rock to occur, management measures to prevent this occurring are to be presented. Contingency measures to deal with unexpected poor quality seepages (acid or saline) from the tailings and waste rock storages are also required.	2.4.2
	Rehabilitation and Mine Closure	
	• **Rehabilitation Objectives**: Describe the strategic rehabilitation objectives for the project and how these comply with relevant Government legislation or policies, research outcomes or industry leading practice. Describe the potential for integrating the rehabilitation strategy with any other offset (or conservation) strategies in the region.	2.13.3, 2.13.4

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
ENVIRONMENTAL SUSTAINABILITY (Cont'd)		
Industry and Investment – Division of Resources and Energy 12/09/2013 (Cont'd)	• **Final Voids and Waste Rock Emplacements**: The EIS must include a detailed consideration of the final rehabilitation options for the open pit and waste rock dumps. Issues associated with final voids and waste rock landforms such as stability, acid rock drainage, ground and surface water and aesthetics need to be addressed. The number, location and geometry of any final voids in the landscape must be fully justified. Final mine voids seldom, if ever, have a beneficial use and the permanent costs to the environment and future agricultural production should be acknowledged by the applicant and considered by the Department of Planning & Infrastructure before any approval.	2.3.4, 2.4.3
	• Final Land Use: Describe proposed final land uses for each disturbance domain (infrastructure areas, waste rock storages, subsidence zones, final void etc.) and provide a conceptual plan depicting these uses and final landforms.	2.13.6
	• Performance Standards and Completion Criteria: For each disturbance domain, identify relevant performance measures (e.g. open woodland revegetation) and indicative completion criteria (e.g. Number of surviving trees trees/hectare after 5 years).	2.13.4
	• Monitoring and Research: Outline the proposed rehabilitation methods and techniques and proposed monitoring and research programs.	2.13.8
	• Post-closure maintenance: Describe any post-rehabilitation maintenance requirements for the project site and how these will be managed.	2.13.8
	Other Considerations	
	Mining Operations Plan (MOP)	
	Subject to any planning approval prior to commencement, the proponent will be required to submit and have approved a Mining Operations Plan.	2.13.1
	Rehabilitation Security Bond	
	A review of the rehabilitation security bond will also be undertaken prior to project commencement.	4.13.1
Environment Protection Authority 04/09/2013	**The Proposal**	
	• Demonstrate that the planning process and any subsequent development incorporates objectives and mechanisms for achieving ESD, including:	5.3.2
	a) an assessment of a range of options available for use of the resource, including the benefits of each option to future generations	5.3.2
	b) Proper valuation and pricing of environmental resources,	5.3.2
	c) Identification of who will bear the environmental costs of the proposal.	5.3.2.5

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
	AIR QUALITY	
Environment Protection Authority 04/09/2013	**The Proposal**	
	• Identify all sources of air emissions from the development. *Note: emissions can be classed* as *either:* – *point (eg emissions from stack or vent) or* – *fugitive (from wind erosion, leakages or spillages, associated with loading or unloading, conveyors, storage facilities, plant and yard operation, vehicle movements (dust from road, exhausts, loss from load), land clearing and construction works).*	4.8.3
	• Provide details of the project that are essential for predicting and assessing air impacts including:	
	a) the quantities and physio-chemical parameters (eg concentration, moisture content, bulk density, particle sizes etc) of materials to be used, transported, produced or store.	2.5
	b) an outline of procedures for handling, transport, production and storage.	2.3, 2.4, 2.5, 2.7
	c) the management of solid, liquid and gaseous waste streams with potential for significant air impacts.	2.4, 2.6
	The Location Describe the topography and surrounding land uses. Provide details of the exact locations of dwellings, schools and hospitals. Where appropriate provide a perspective view of the study area such as the terrain file used in dispersion models.	4.1
	• Describe surrounding buildings that may effect plume dispersion.	4.1.5
	• Provide and analyse site representative data on following meteorological parameters: a) temperature and humidity.	4.1.4.2
	b) rainfall, evaporation and cloud cover.	4.1.4.4
	c) wind speed and direction.	4.1.4.5
	d) atmospheric stability class.	NA
	e) mixing height (the height that emissions will be ultimately mixed in the atmosphere).	NA
	f) katabatic air drainage.	NA
	g) air re-circulation.	NA
	The Environmental Issues **Describe Baseline Conditions** • Provide a description ·of existing air quality and meteorology, using existing information and site representative ambient monitoring data.	4.8.2

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
	AIR QUALITY (Cont'd)	
Environment Protection Authority 04/09/2013 (Cont'd)	**Assess Impacts** Identify all pollutants of concern and estimate emissions by quantity (and size for particles), source and discharge point.	4.8.5
	• 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 heath and amenity.	
	• Justify the level of assessment undertaken on the basis of risk factors, including but not limited to:	3.5
	a. proposal location;	
	b. characteristics of the receiving environment; and	
	c. type and quantity of pollutants emitted.	
	• Describe the receiving environment in detail. The proposal must be contextualised within the receiving environment (local, regional and inter-regional as appropriate). The description must include but need not be limited to:	
	d. meteorology and climate;	4.1.4
	e. topography;	4.1.2
	f. surrounding land-use; receptors; and	4.1.5
	g. ambient air quality.	4.8.2
	Include a detailed description of the proposal. All processes that could result in air emissions (including blasting) must be identified and described. Sufficient detail to accurately communicate the characteristics and quantity of all emissions must be provided.	
	• Include a consideration of 'worst case' emission scenarios and impacts at proposed emission limits.	4.8.3
	• Account for cumulative impacts associated with existing emission sources as well as any currently approved developments linked to the receiving environment.	4.8.6
	• Include air dispersion modelling where there is a risk of adverse air quality impacts, or where there is sufficient uncertainty to warrant a rigorous numerical impact assessment. Air dispersion modelling must be conducted in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (2005) htlp:/lwww.environment.nsw.gov.aufresources/air/ammodellin905361.pdf	NA
	• Demonstrate the proposal's ability to comply with the relevant regulatory framework, specifically the *Protection of the Environment Operations* (POEO) Act (1997) and the *POEO (Clean Air) Regulation* (2002).	4.8.4
	• Provide an assessment of the project in terms of the priorities and targets adopted under the NSW State Plan 2010.	4.15.2.2

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
	AIR QUALITY (Cont'd)	
Environment Protection Authority 04/09/2013 (Cont'd)	• Detail emission control techniques/practices that will be employed by the proposal and demonstrate that these are best management practice, by applying the procedure outlined in *Coal Mine Particulate Matter Control Best Practice Site-specific determination guideline* (November 2011). http://www.erivironment.nsw.gov.au/resources/air/20110813coalmineparticulate.pdf	4.8.5
	• Estimate the resulting ground level concentrations of all pollutants. Where necessary (eg potentially significant impacts and complex terrain effects), use an appropriate dispersion model to estimate ambient pollutant concentrations. Discuss choice of model and parameters with the EPA.	4.8.6
	• Describe the effects and significance of pollutant concentration on the environment, human health, amenity and regional ambient air quality standards or goals.	4.8.4
	• Describe the contribution that the development will make to regional and global pollution, particularly in sensitive locations.	4.8.1
	• For potentially odorous emissions provide the emission rates in terms of odour units (determined by techniques compatible with EPA / DECCW procedures). Use sampling and analysis techniques for individual or complex odours and for point or diffuse sources, as appropriate.	NA
	• Reference should be made to relevant guidelines e.g. *Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW* (EPA, 2001); *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW* (EPA, 2001); *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (2005), *Coal Mine Particulate Matter Control Best Practice – Site-specific determination guideline* (November 2011), *Load Calculation Protocol for use by holders of NSW Environment Protection Licences when calculating Assessable Pollutant Loads* (EPA, 1999).	4.8.1
	Describe Management and Mitigation Measures • 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.	4.8.6
Bogan Shire Council 22/10/2013	Detail management activities to reduce and suppress dust generation.	4.8.5

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
	NOISE AND VIBRATION	
Environment Protection Authority 04/09/2013	**The Proposal**	
	• Identify all noise sources from the development (including both construction and operation phases). Detail all potentially noisy activities including ancillary activities such as transport of goods and raw materials.	4.5.4
	• Specify the times of operation for all phases of the development and for all noise producing activities.	2.10.1
	• For projects with a significant potential traffic noise impact provide details of road alignment (include gradients, road surface, topography, bridges, culverts etc), and land use along the proposed road and measurement locations - diagrams should be to a scale sufficient to delineate individual residential blocks.	NA
	The Location	
	• Identify any noise sensitive locations likely to be affected by activities at the site, such as residential properties, schools, churches, and hospitals. Typically the location of any noise sensitive locations in relation to the site should be included on a map of the locality.	4.5.2
	• Identify the land use zoning of the site and the immediate vicinity and the potentially affected areas,	4.1.5.2
	The Environmental Issues	
	Describe Baseline Conditions	4.5.2
	• Determine the existing background (LA90) and ambient (LAeq) noise levels in accordance with the *NSW Industrial Noise Policy*.	
	• Determine the existing road traffic noise levels in accordance with the NSW Environmental Criteria for Road Traffic Noise, where road traffic noise impacts may occur.	4.5.3.4
	• The noise impact assessment report should provide details of all monitoring of existing ambient noise levels including:	
	details of equipment used for the measurements	
	h) a brief description of where the equipment was positioned.	4.5.2.4
	i) a statement justifying the choice of monitoring site, including the procedure used to choose the site, having regards to the definition of 'noise sensitive locations(s)' and 'most affected locations(s)' described in Section 3.1.2 of the NSW Industrial Noise Policy.	4.5.2.4
	j) details of the exact location of the monitoring site and a description of land uses in surrounding areas.	4.5.2.4
	k) a description of the dominant and background noise sources at the site.	4.5.4
	l) day, evening and night assessment background levels for each day of the monitoring period.	4.5.6
	m) the final Rating Background Level-(RBL) value.	4.5.4

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
	NOISE AND VIBRATION (Cont'd)	
Environment Protection Authority 04/09/2013 (Cont'd)	n) graphs of the measured noise levels for each day should be provided.	Appendix 8
	o) a record of periods of affected data (due to adverse weather and extraneous noise), methods used to exclude invalid data and a statement indicating the need for any re-monitoring under Step 1 in Section B1.3 of the *NSW Industrial Noise Policy*.	Appendix 8
	p) determination of LAeq noise levels from existing industry.	4.5.2.4
	Assess impacts	
	• Determine the project specific noise levels for the site. For each identified potentially affected receiver, this should include:	4.5.3
	a) determination of the intrusive criterion for each identified potentially affected receiver.	
	b) selection and justification of the appropriate amenity category for each identified potentially affected receiver.	4.5.3
	c) determination of the amenity criterion for each receiver.	4.5.3
	d) determination of the appropriate sleep disturbance limit.	4.5.3.3
	Maximum noise levels during night-time period (10pm-7am) should be assessed to analyse possible affects on sleep. Where LA1(1 min) noise levels from the site are less than 15dB above the background LA90 noise level, sleep disturbance impacts are unlikely. Where this is not the case, further analysis is required. Additional guidance is provided in Appendix B of the *NSW Environmental Criteria for Road Traffic Noise*.	4.5.3.3
	• Determine expected noise level and noise character (eg tonality, impulsiveness, vibration, etc) likely to be generated from noise sources during:	
	a) site establishment.	4.5.4.1
	b) Construction.	4.5.4.1
	c) operational phases.	4.5.4.1
	d) transport including traffic noise generated by the proposal.	4.5.4.2
	e) other services.	NA
	Note: The noise impact assessment report should include noise source data for each source in 1/1 or 1/3 octave band frequencies including methods for references used to determine noise source levels. Noise source levels and characteristics can be sourced from direct measurement of similar activities or from literature (if full references are provided).	
	• Determine the noise levels likely to be received at the most sensitive locations (these may vary for different activities at each phase of the development). Potential impacts should be determined for any identified significant adverse meteorological conditions. Predicted noise. levels under calm conditions may also aid in quantifying the extent of impact where this is 'not the most adverse condition.	4.5.2

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
NOISE AND VIBRATION (Cont'd)		
Environment Protection Authority 04/09/2013 (Cont'd)	• The noise impact assessment report should include: a) a plan showing the assumed location of each noise source for each prediction scenario.	Figure 4.5
	b) a list of the number and type of noise sources used in each prediction scenario to simulate all potential significant operating conditions on the site.	4.5.4
	c) any assumptions made in the predictions in terms of source heights, directivity effects, shielding from topography, buildings or barriers, etc.	4.5.4 Appendix 8
	d) methods used to predict noise impacts including identification of any noise models used. Where modelling approaches other than the use of the ENM or Sound Plan computer models are adopted, the approach should be appropriately justified and validated.	Appendix 8
	e) an assessment of appropriate weather conditions for the noise predictions including reference to any weather data used to justify the assumed conditions.	4.5.4
	f) the predicted noise impacts from each noise source as well as the combined noise level for each prediction scenario under any identified significant adverse weather conditions as well as calm conditions where appropriate.	Appendix 8
	g) for developments where a significant level of noise impact is likely to occur, noise contours for the key prediction scenarios should be derived.	NA
	h) an assessment of the need to include modification factors as detailed in Section 4 of the *NSW Industrial Noise Policy*:	NA
	• Discuss the findings from the predictive modelling and, where relevant noise criteria have not been met, recommend additional mitigation measures.	NA
	• The noise impact assessment report should include details of any mitigation proposed including the attenuation that will be achieved and the revised noise impact predictions following mitigation.	4.5.5
	• Where relevant noise/vibration criteria cannot be met after application of all feasible and cost effective mitigation measures the residual level of noise impact needs to be quantified by identifying: a) locations where the noise level exceeds the criteria and extent of exceedance (sic). b) numbers of people (or areas) affected. c) times when criteria will be exceeded. d) likely impact on activities (speech, sleep, relaxation, listening, etc). e) change on ambient conditions. f) the result of any community consultation or negotiated agreement.	NA

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
	NOISE AND VIBRATION (Cont'd)	
Environment Protection Authority 04/09/2013 (Cont'd)	• For the assessment of existing and future traffic noise, details of data for the road should be included such as assumed traffic volume; percentage heavy vehicles by time of day; and details of the calculation process. These details should be consistent with any traffic study carried out in the EIS.	4.5.4.2
	• Where blasting is intended an assessment in accordance with the Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration (ANZECC, 1990) should be undertaken. The following details of the blast design should be included in the noise assessment: a) bench height, burden spacing, spacing burden ratio. b) blast hole diameter, inclination and spacing. c) type of explosive, maximum instantaneous charge, initiation, blast block size, blast frequency.	2.3.2.1, 4.6.3
	Describe management and mitigation measures • Determine the most appropriate noise mitigation measures and expected noise reduction including both noise controls and management of impacts for both construction and operational noise. This will include selecting quiet equipment and construction methods, noise barriers or acoustic screens, location of stockpiles, temporary offices, compounds and vehicle routes, scheduling of activities, etc.	4.5.5
	• For traffic noise impacts, provide a description of the ameliorative measures considered (if required), reasons for inclusion or exclusion, and procedures for calculation of noise levels including ameliorative measures. Also include, where necessary, a discussion of any potential problems associated with the proposed ameliorative measures, such as overshadowing effects from barriers. Appropriate ameliorative measures may include:	
	a) use of alternative transportation modes, alternative routes, or other methods of avoiding the new road usage.	4.5.5
	b) control of traffic (eg: limiting times of access or speed limitations).	4.5.5
	c) resurfacing of the road using a quiet surface.	NA
	d) use of (additional) noise barriers or bunds.	NA
	e) treatment of the facade to reduce internal noise levels buildings where the night-time criteria is a major concern.	NA
	f) more stringent limits for noise emission from vehicles (Le. using specially designed 'quite' trucks and/or trucks to use air bag suspension.	NA
	g) driver education.	4.5.5
	h) appropriate truck routes.	4.5.5
	i) limit usage of exhaust breaks.	NA
	j) use of premium muffles on trucks.	NA

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
NOISE AND VIBRATION (Cont'd)		
Environment Protection Authority 04/09/2013 (Cont'd)	k) reducing speed limits for trucks.	NA
	l) ongoing community liaison and monitoring of complaints.	4.5.4
	m) phasing in the increased road use.	NA
WATER		
Environment Protection Authority 04/09/2013	**The Proposal** • Provide details of the project that are essential for predicting and assessing impacts to waters:	
	a) including the quantity and physio-chemical properties of all potential water pollutants and the risks they pose to the environment and human health, Including the risks they pose to Water Quality Objectives in the ambient waters (as defined on www.environment.nsw.gov.au/ieo.using technical criteria derived from the Australian and New Zealand Guidelines for Fresh and Marine Water Quality, ANZECC 2000).	4.4.2, 4.9.2
	b) the management of discharges with potential for water impacts.	2.6.2
	c) drainage works and associated infrastructure; land-forming	2.6
	d) and excavations; working capacity of structures; and water resource requirements of the proposal.	2.6
	• Outline site layout, demonstrating efforts to avoid proximity to water resources (especially for activities with significant potential impacts eg effluent ponds) and showing potential areas of modification of contours, drainage etc.	Figure 2.1
	• Outline how total water cycle considerations are to be addressed showing total water balances for the development (with the objective of minimising demands and impacts on water resources). Include 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.	2.6.3
	The Location • Describe the catchment including proximity of the development to any waterways and provide an assessment of their sensitivity/significance from a public health, ecological and/or economic perspective. The Water Quality and River Flow Objectives on the website: www.environment.nsw.gov.au/ieo should be used to identify the agreed environmental values and human uses for any affected waterways. This will help with the description of the local and regional area.	4.4.2, 4.9.2
	The Environmental Issues **Describe Baseline Conditions** Describe existing surface and groundwater quality - an assessment needs to be undertaken for any water resource likely to be affected by the proposal and for all conditions (e.g. a wet weather sampling program is needed if runoff events may cause impacts).	

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
	WATER (Cont'd)	
Environment Protection Authority 04/09/2013 (Cont'd)	*Note: Methods of sampling and analysis need to conform with an accepted standard (e.g. Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DECCW 2004) or be approved and analyses undertaken by accredited laboratories).*	
	• Provide site drainage details and surface runoff yield.	2.6.3
	• State the ambient Water Quality and River Flow Objectives for the receiving waters. These refer to the community's agreed environmental values and human uses endorsed by the Government as goals for the ambient waters. These environmental values are published on the website: www.environment.nsw.gov.au/ieo. The EIS should state the environmental values listed for the catchment and waterway type relevant to your proposal. NB: A consolidated and approved list of environmental values are not available for groundwater resources. Where groundwater may be affected the EIS should identify appropriate groundwater environmental values and justify the choice.	4.9.2.2, 2.6.2, 4.4.2.
	• 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 (http://www.deh.gov.au/water/quality/nwqms/volume1.html)(Note that, as at 2004, the NSW Water Quality Objectives booklets and website contain technical criteria derived from the 1992 version of the ANZECC Guidelines. The Water Quality Objectives remain as Government Policy, reflecting the community's environmental values and long-term goals, but the technical criteria are replaced by the more recent ANZECC 2000 Guidelines). NB: While specific guidelines for groundwater are not available, the ANCECC 2000 Guidelines endorse the application of the trigger values and decision trees as a tool to assess risk to environmental values in groundwater.	4.9.2.2, 2.6.2, 4.4.2.
	• State any locally specific objectives, criteria or targets, which have been endorsed by the government e.g. the Healthy Rivers Commission Inquiries (www.hrc.nsw.gov.au) or the NSW Salinity Strategy (DLWC, 2000) (www.dlwc.nsw.gov.au/care/salinity/#Strategy).	NA
	• Where site specific studies are proposed to revise the trigger values supporting the ambient Water Quality and River Flow Objectives, and the results are to be used for regulatory purposes (e.g. to assess whether a licensed discharge impacts on water quality objectives), then prior agreement from the EPA on the approach and study design must be obtained.	NA

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
	WATER (Cont'd)	
Environment Protection Authority 04/09/2013 (Cont'd)	• Describe the state of the receiving waters and relate this to the relevant Water Quality and River Flow Objectives (i.e. are Water Quality and River Flow Objectives being achieved?). Proponents are generally only expected to source available data and information. However, proponents of large or high risk developments may be required to collect some ambient water quality / river flow / groundwater data to enable a suitable level of impact assessment. Issues to include in the description of the receiving waters could include:	4.4.2, 4.9.2
	a) lake or estuary flushing characteristics.	NA
	b) specific human uses (e.g. exact location of drinking water offtake).	NA
	c) sensitive ecosystems or species conservation values.	4.9.2
	d) a description of the condition of the local catchment e.g. erosion levels, soils, vegetation cover, etc.	4.9.2
	e) an outline of baseline groundwater information, including, but not restricted to, depth to watertable, flow direction and gradient, groundwater quality, reliance on groundwater by surrounding users and by the environment.	4.4.2.5
	f) historic river flow data where available for the catchment.	NA
	Assess impacts	
	• No proposal should breach clause 120 of the Protection of the *Environment Operations Act 1997* (Le. pollution of waters is prohibited unless undertaken in accordance with relevant regulations).	4.4.6, 4.9.4
	• Identify and estimate the quantity of all pollutants that may be introduced into the water cycle by source and discharge point including residual discharges after mitigation measures are implemented.	Section 4
	• Include a rationale, along with relevant calculations, supporting the prediction of the discharges.	2.6.3
	• Describe the effects and significance of any pollutant loads on the receiving environment. This should include impacts of residual discharges through modelling, monitoring or both, depending on the scale of the proposal. Determine changes to hydrology (including drainage patterns, surface runoff yield, flow regimes, wetland hydrologic regimes and groundwater).	4.4.5, 4.9.5
	• Describe water quality impacts resulting from changes to hydrologic flow regimes (such as nutrient enrichment or turbidity resulting from changes in frequency and magnitude of stream flow).	NA
	• Identify any potential impacts on quality or quantity of groundwater describing their source.	4.4.4, 4.9.4

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
	WATER (Cont'd)	
Environment Protection Authority 04/09/2013 (Cont'd)	• Identify potential impacts associated with geomorphological activities with potential to increase surface water and sediment runoff or to reduce surface runoff and sediment transport. Also consider possible, impacts such as bed lowering, bank lowering, instream siltation, floodplain erosion and floodplain siltation.	2.6.3
	• Identify impacts associated with the disturbance of acid sulfate soils and potential acid sulfate soils.	NA
	• Containment of spills and leaks shall be in accordance with the technical guidelines section 'Bunding and Spill Management' of the Authorised Officers Manual (EPA, 1995) (http://www.environment.nsw.gov.au/mao/bundingspill.htm) and the most recent versions of the Australian Standards referred to in the Guidelines. Containment should be designed for no-discharge.	NA
	• The significance of the impacts listed above should be predicted. When doing this it is important to predict the ambient water quality and river flow outcomes associated with the proposal and to demonstrate whether these are acceptable in terms of achieving protection of the Water Quality and River Flow Objectives. In particular the following questions should be answered: a) will the proposal protect Water Quality and River, Flow Objectives where they are currently achieved in the ambient waters; and b) will the proposal contribute towards the achievement of Water Quality and River Flow Objectives over time, where they are not currently achieved in the ambient waters.	NA NA
	• Consult with the EPA as soon as possible if a mixing zone is proposed (a mixing zone could exist where effluent is discharged into a receiving water body, where the quality of the water being discharged does not immediately meet water quality objectives. The mixing zone could result in dilution, assimilation and decay of the effluent to allow water quality objectives to be met further downstream, at the edge of the mixing zone). The EPA will advise the proponent under what conditions a mixing zone will and will not be acceptable, as well as the information and modelling requirements for assessment. *Note: The assessment of water quality impacts needs to be undertaken in a total catchment management context to provide a wide perspective on development impacts, in particular cumulative impacts.*	NA
	• Where a licensed discharge is proposed, provide the rationale as to why it cannot be avoided through application of a reasonable level of performance, using available technology, management practice and industry guidelines.	2.6.2
	• Where a licensed discharge is proposed, provide the rationale as to why it represents the best environmental outcome and what measures can be taken to reduce its environmental impact.	2.6.2

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
	WATER (Cont'd)	
Environment Protection Authority 04/09/2013 (Cont'd)	• Reference should be made to relevant guidelines e.g. Managing Urban Storm water: Soils and Construction (Landcom, 2004), and Guidelines for Fresh and Marine Water Quality ANZECC 2000).	4.4.1
	Describe management and mitigation measures	
	• Outline stormwater management to control pollutants at the source and contain them within the site. Also describe measures for maintaining and monitoring any stormwater controls.	2.6.2
	• Outline erosion and sediment control measures directed at minimising disturbance of land, minimising water flow through the site and filtering, trapping or detaining sediment. Also include measures to maintain and monitor controls as well as rehabilitation strategies.	2.6.2
	• Describe waste water treatment measures that are appropriate to the type and volume of waste water and are based on a hierarchy of avoiding generation of waste water; capturing all contaminated water (including stormwater) on the site; reusing/recycling waste water; and treating any unavoidable discharge from the site to meet specified water quality requirements.	2.6.4
	• Outline pollution control measures relating to storage of materials, possibility of accidental spills (eg preparation of contingency plans), appropriate disposal methods, and generation of leachate.	2.8.2.4
	• Describe hydrological impact mitigation measures including:	
	a) site selection (avoiding sites prone to flooding and waterlogging, actively eroding or affected by deposition).	NA
	b) minimising runoff.	Section 2
	c) minimising reductions or modifications to flow regimes.	2.6.2
	d) avoiding modifications to groundwater.	4.4.6
	• Describe groundwater impact mitigation measures including:	
	a) site selection.	4.4.6
	b) retention of native vegetation and revegetation.	4.4.6
	c) artificial recharge.	NA
	d) providing surface storages with impervious linings.	2.6.1
	e) monitoring program.	4.4.8
	Describe geomorphological impact mitigation measures including:	
	a) site selection.	4.4.6
	b) erosion and sediment controls.	2.6.2
	c) minimising instream works.	Figure 2.1
	d) treating existing accelerated erosion and deposition.	2.6.2
	e) monitoring program.	4.9.5
	• Any proposed monitoring should be undertaken in accordance with the Approved Methods for the *Sampling and Analysis of Water Pollutants in NSW* (DECCW 2004).	Noted

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
WATER (Cont'd)		
Office of Water 03/10/2013	NSW Office of Water requires the EIS for the proposal to demonstrate the following:	
	1. Adequate and secure water supply for the proposal. Confirmation that water supplies for construction and operation are sourced from an appropriately authorised and reliable supply.	2.6.1, 2.6.3
	2. Identification of site water demands, water sources (surface and groundwater), water disposal methods and water storage structures in the form of a water balance. The water balance is to outline the proposed water management on the site and to also include details of any water reticulation infrastructure that supplies water to and within the site.	2.6.3
	3. An impact assessment on adjacent licensed water users (surface and groundwater), riparian ecosystems and groundwater-dependent ecosystems. This is to meet the requirements of relevant state policy such as the NSW Aquifer Interference Policy, in addition to the objects and principles of the *Water Management Act 2000* which can be accessed at the following link: http://www.water.nsw.gov.au/vVater-managementiLaw-andPolicy/default.aspx.	4.4.6
	4. An assessment of the potential to intercept groundwater and predicted maximum annual dewatering volumes, water quality and disposal/retention methods. This is to also include the modelled zone of influence for a number of stages both during mining operations and post mine life until equilibrium is achieved. This is to meet the requirements of the NSW Aquifer Interference Policy.	4.4.6.1
	5. An impact assessment of the construction, operation and final landform of the proposed onsite waste rock emplacement, water management ponds and other potentially contaminating facilities. This is to include an assessment of the processing, management and disposal of potentially contaminating materials at the Tritton Copper Mine.	2.6.2
	6. An assessment of any proposed modification to surface water management including modelling of redistribution of waters and an assessment of impact on neighbouring properties and the associated watercourse and floodplain.	4.9.4
	7. An impact assessment of any proposed works within or adjacent to watercourses and adequate provision of buffer requirements. This is to also include proposed pipelines and temporary or permanent vehicle crossings within the project application area. Ability to achieve the principles of the *Water Management Act 2000* and the requirements of the "Guidelines for Controlled Activities on Waterfront Land' will be required. The relevant guidelines can be accessed at the following link: http://www.water.nsw.gov.au/WaterLicensing/Approvals/Controlled-activities/default.aspx.	4.9.4

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
	WATER (Cont'd)	
Office of Water 03/10/2013 (Cont'd)	8. Preparation of a surface water management plan and groundwater management plan to integrate the proposed water balance and management for the site and to identify adequate mitigating and monitoring requirements for both water quality and water volume.	4.4.5 and 4.9.4
	9. Existing and proposed water licensing requirements in accordance with the *Water Act 1912* and *Water Management Act 2000* (whichever is relevant). This is to demonstrate that existing licences (include licence numbers) and licensed uses are appropriate, and to identify where additional licences are proposed. The proponent will be required to ensure they hold adequate licensed entitlement commensurate with the anticipated volume of groundwater take prior to this take occurring. Groundwater take includes the volume of water intercepted by the proposed activities both via the underground mine and any extraction bores, in addition to any ongoing take induced by groundwater inflows and evaporative loss when the mine workings begin to fill. The maximum annual requirements need to be regularly reviewed through updates of modelling and reviews of metering data.	4.4.7
	10. Adequate mitigating and monitoring requirements to address surface water and groundwater impacts.	2.6.2, 4.4.5, 4.9.3
	Groundwater Source The assessment is required to identify groundwater issues and potential degradation to the groundwater source and provide the following:	
	• Details of the predicted highest groundwater table at the development site.	4.4.2.3
	• Details of any works likely to intercept, connect with or result in pollutants infiltrating into the groundwater sources.	2.3.3
	• Details of any proposed groundwater extraction, including purpose, location and construction details of all proposed bores and expected annual extraction volumes.	4.4
	• Describe the flow directions and rates and the physical and chemical characteristics of the groundwater source.	4.4.2.1, 4.4.2.2
	• Details of the predicted impacts of any final landform on the groundwater regime.	2.13.7
	• Details of the existing groundwater users within the area (including the environment) and include details of any potential impacts on these users.	4.4.2.4
	• Assessment of the quality of the groundwater for the local groundwater catchment.	4.4.2.5
	• Details of how the proposed development will not potentially diminish the current quality of groundwater, both in the short and long term.	4.4.5
	• Details on preventing groundwater pollution so that remediation is not required.	4.4.5
	• Quantification of impacts on groundwater dependent ecosystems (GDEs).	4.4.2.6

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
	WATER (Cont'd)	
Office of Water 03/10/2013 (Cont'd)	• Details on protective measures to minimise any impacts on groundwater dependent ecosystems.	4.4.2.6
	• Details of proposed methods of the disposal of waste water and approval from the relevant authority.	2.6
	• Assessment of the potential for saline intrusion of the groundwater and measures to prevent such intrusion into the groundwater aquifer.	2.6, 4.4.4.5
	• Details of the results of any models or predictive tools used to predict groundwater drawdown, inflows to the site and impacts on affected water sources.	4.4.4
	Where potential impact/s are identified the assessment will need to identify limits to the level of impact and contingency measures that would remediate, reduce or manage potential impacts to the existing groundwater resource and any dependent groundwater environment or water users, including information on:	
	• Details of any proposed monitoring programs, including water levels and quality data.	4.4.8
	• Reporting procedures for any monitoring program including mechanism for transfer of information.	4.4.8
	• Description of the remedial measures or contingency plans proposed.	4.4.5, 4.9.3
	Licensing	
	• All proposed groundwater works, including bores for the purpose of investigation, extraction, dewatering, testing or monitoring must be identified in the proposal and an approval obtained from the Office of Water prior to their installation. Approved SSD and SSI projects may be excluded from the requirement for approvals due to Section 89J and 115ZG of the *Environmental Planning and Assessment Act 1979*.	4.4.7
	• All predicted groundwater take must be accounted for through adequate licensing.	4.4.7
	Groundwater Dependent Ecosystems (GDEs) The assessment is required to identify any impacts on GDEs. GDEs are ecosystems which have their species composition and natural ecological processes wholly or partially determined by groundwater. GDEs represent a vital component of the natural environment. GDEs can vary dramatically in how they depend on groundwater from having occasional or no apparent dependence through to being entirely dependent. GDEs occur across both the surface and subsurface landscapes ranging in area from a few metres to many kilometres. Increasingly, it is being recognised that surface and groundwaters are often interlinked and aquatic ecosystems may have a dependence on both.	

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
	WATER (Cont'd)	
Office of Water 03/10/2013 (Cont'd)	Ecosystems that can depend on groundwater and that may support threatened or endangered species, communities and populations, include: • Terrestrial vegetation that show seasonal or episodic reliance on groundwater. • River base flow systems which are aquatic and riparian ecosystems in or adjacent to streams/rivers dependent on the input of groundwater to base flows. • Aquifer and cave ecosystems. • Wetlands. • Estuarine and near-shore marine discharge ecosystems. • Fauna which directly depend on groundwater as a source of drinking water or that live within water which provide a source. The *NSW Aquifer Interference Policy and* the *NSW Groundwater Dependent Ecosystem Policy* provides guidance on the protection and management of GDEs. It sets out management objectives and principles to: • Ensure the most vulnerable and valuable ecosystems are protected. • Manage groundwater extraction within defined limits thereby providing flow sufficient to sustain ecological processes and maintain biodiversity. • Ensure sufficient groundwater of suitable quality is available to ecosystems when needed. • Ensure the *precautionary principle* is applied to protect GDEs, particularly the dynamics of flow and availability and the species reliant on these attributes. A number of gazetted WSPs list and map priority GDEs and set out the management strategies and actions for sharing and protecting groundwater quality, quantity and dependent ecosystems. As indicated above, any GDEs that may be affected significantly need to be clearly identified and the impacts quantified to enable proper assessment.	4.4.2.6 4.4.2.6 NA NA NA
	Surface Water The Office of Water is responsible for the management of rivers, estuaries, wetlands and adjacent riverine plains so they can sustain environmental, social and economic uses for the people in New South Wales.	Noted
	<u>Watercourse/Riparian</u> The assessment is required to consider the impact of the proposal on the watercourses and associated riparian vegetation within the site and provide the following: • Identify the sources of surface water. • Details of stream order (using the Strahler System).	4.9.2 4.9.2.1

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
	WATER (Cont'd)	
Office of Water 03/10/2013 (Cont'd)	• Details of any proposed surface water extraction, including quantity, purpose, location of existing pumps, dams, diversions, cuttings and levees.	4.9.4
	• Details of available surface water licences that could be purchased to account for any proposed extractions.	NA
	• Detailed description of any proposed development or diversion works including all construction, clearing, draining, excavation and filling.	Section 2
	• An assessment of the impacts of the proposed methods of excavation, construction and material placement on the watercourse and associated vegetation.	NA
	• A detailed description of all potential water related environmental impacts of any proposed development in terms of riparian vegetation, sediment movement, water quality and hydrologic regime.	4.9.4
	• A description of the design features and measures to be incorporated into any proposed development to guard against anything more than minimal long term actual and potential environmental disturbances, particularly in respect of maintaining the natural hydrologic regime and sediment movement patterns and the identification of riparian buffers. (See note below).	4.9.4
	• Details of the impact on water quality and remedial measures proposed to address more than minimal adverse effects.	4.9.4
	Riparian corridors form a transition zone between terrestrial and aquatic environments and perform a range of important environmental functions. The protection or restoration of vegetated riparian areas is important to maintain or improve the geomorphic form and ecological functions of watercourses through a range of hydrologic conditions in normal seasons and also in extreme events. Refer to NSW Office of Water Guidelines for Controlled Activities (July 2012) available via: http://www.water.nsw.gov.auiWater-Licensing/Approvals/Controlled-activitles/default.aspx	
	Water Management Structures/Dams The Office is responsible for the management and licensing of these structures under water legislation. If the proposal includes existing or proposed water management structures/dams, the assessment should provide information on the following: • Date of construction (for existing structure/s). • Details of the legal status/approval for existing structure/s. • Details of any proposal to change the purpose of existing structure/s. • Details if any remedial work is required to maintain the integrity of the existing structure/s. • Clarification if the structure/s is on a watercourse.	N/A

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
WATER (Cont'd)		
Office of Water 03/10/2013 (Cont'd)	• Details of the purpose, location and design specifications for the structure/s. • Size and storage capacity of the structure/s. • Calculation of the Maximum Harvestable Right Dam Capacity (MHRDC) for the site. • Details if the structure/s is affected by flood flows. • Details of any proposal for shared use, rights and entitlement of the structure/s. • Details if the proposed development/subdivision has the potential to bisect the structure/s. NSW Office of Water's Farm Dams Assessment Guide provides details on harvestable rights and the calculation of the MHRDC. Refer to: http://www.water.nsw.gov.au/Water-Licensing/Basic-water-rights/Harvesting-runoff/Harvesting-runoff/default.aspx.	2.13.7.2 NA 2.6.2, 2.13.7.2 NA
	Basic Landholder Rights The *WMA* identifies Basic Landholder Rights (BLRs) for access to water whereby landholders over an aquifer or with river or lake frontage can access water for domestic (household) purposes or to water stock without the need for a water licence (although a works approval may still be required for a bore utilising BLR). Pipeline constructions and easements may therefore affect existing BLR users and therefore all potentially affected BLR users need to be identified and the impacts quantified.	4.4.2.4, 4.4.6
	Sustainable Water Supply The assessment is required to address the issue of provision of a sustainable water supply for any project proposal. The assessment should include Water Management Plans detailing how a sustainable water supply can be sourced and implemented. Through the implementation of BASIX, Integrated Water Cycle Management and Water Sensitive Urban Design, any proposed development should also exhibit high water use efficiency.	2.6, 4.4.5, 4.9.4.
Bogan Shire Council 22/10/2013	Ensure the control and management of surface and ground waters are adequately addressed.	2.6, 4.4, 4.9
WASTE AND CHEMICALS		
Environment Protection Authority 04/09/2013	**The Proposal** • Provide details of the quantity and type of both liquid waste and non-liquid waste generated, handled, processed or disposed of at the premises. Waste must be classified according to the *Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-liquid Wastes (NSW EPA, 1999)*. • Provide details of liquid waste and non-liquid waste management at the facility, including: a) the transportation, assessment and handling of waste arriving at or generated at the site.	2.4, 2.9 2.4., 2.9

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
WASTE AND CHEMICALS (Cont'd)		
Environment Protection Authority 04/09/2013 (Cont'd)	b) any stockpiling of wastes or recovered materials at the site.	2.4.3, 2.4.4
	c) any waste processing related to the facility, including reuse, recycling, reprocessing (including composting) or treatment both on- and off-site.	2.4.4, 2.4.5, 2.9
	d) the method for disposing of all wastes or recovered materials at the facility.	2.4.3, 2.4.4
	e) the emissions arising from the handling, storage, processing and reprocessing of waste at the facility.	2.4.2.
	f) the proposed controls for managing the environmental impacts of these activities.	Section 4
	Provide details of spoil disposal with particular attention to:	
	a) the quantity of spoil material likely to be generated.	2.4.5
	b) proposed strategies for the handling, stockpiling, reuse/recycling and disposal of spoil.	2.4.3, 2.4.4
	c) the need to maximise reuse of spoil material in the construction industry.	2.4
	d) identification of the history of spoil material and whether there is any likelihood of contaminated material, and if so, measures for the management of any contaminated material.	2.4.2
	e) designation of transportation routes for transport of spoil.	2.4.3
	• Provide details of procedures for the assessment, handling, storage, transport and disposal of all hazardous and dangerous materials used, stored, processed or disposed of at the site, in addition to the requirements for liquid and non-liquid wastes.	2.4, 2.9
	• Provide details of the type and quantity of any chemical substances to be used or stored and describe arrangements for their safe use and storage.	2.8.2.4, 2.9
	The Environmental Issue **Describe Baseline Conditions** • Describe any existing waste or chemicals operations related to the proposal.	2.6.1, 2.8.4.1, 2.9
	Assess impacts • Assess the adequacy of proposed measures to minimise natural resource consumption and minimise impacts from the handling, transporting, storage, processing and reprocessing of waste and/or chemicals.	2.4
	Describe management and mitigation measures • Outline measures to minimise the consumption of natural resources.	2.9
	• Outline measures to avoid the generation of waste and promote the re-use and recycling and reprocessing of any waste.	2.9
	• Outline measures to support any approved regional or industry waste plans.	NA

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
	REHABILITATION	
Environment Protection Authority 04/09/2013	**The Proposal** • Outline considerations of site maintenance, and proposed plans for the final condition of the site (ensuring its suitability for future uses).	2.13
Bogan Shire Council 22/10/2013	Provide sufficient detail of rehabilitation activity and expected timing with a management focus on progressive rehabilitation where practical.	2.13
	SOIL	
Environment Protection Authority 04/09/2013	**Location** • Provide details of site history - if earthworks are proposed, this needs to be considered with regard to possible soil contamination, for example if the site was previously a landfill site or if irrigation of effluent has occurred.	1.3, 4.13
	The Environmental Issue **Describe Baseline Conditions** • Provide any details (in addition to those provided in the location description – Section C) that are needed to describe the existing situation in terms of soil types and properties and soil contamination.	4.13.2
	Assess impacts • Identify any likely impacts resulting from the construction or operation of the proposal, including the likelihood of: a) disturbing any existing contaminated soil. b) contamination of soil by operation of the activity. c) subsidence or instability. d) soil erosion. e) disturbing acid sulfate or potential acid sulfate soils.	 NA 4.13.4 2.14.2 2.6.2, 4.13.4 NA
	Describe management and mitigation measures • Describe and assess the effectiveness or adequacy of any soil management and mitigation measures during construction and operation of the proposal including: a) erosion and sediment control measures. b) proposals for site remediation - see *Managing Land Contamination, Planning Guidelines SEPP 55 - Remediation of Land* (Department of Urban Affairs and Planning and Environment Protection Authority, 1998). c) proposals for the management of these soils - *see Assessing and Managing Acid Sulfate Soils*, Environment Protection Authority, 1995 (note that this is the only methodology accepted by the EPA).	 2.14.2 2.13, 3.3.3.5 NA

Table A2-2 (Cont'd)
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EIS Section(s)
CUMULATIVE IMPACTS		
Environment Protection Authority 04/09/2013	**The Environmental Issues** • Identify the extent that the receiving environment is already stressed by existing development and background levels of emissions to which this proposal will contribute. • Assess the impact of the proposal against the long term air, noise and water quality objectives for the area or region. • Identify infrastructure requirements flowing from the proposal (eg water and sewerage services, transport infrastructure upgrades), and all infrastructure upgrades/modifications required at the existing mine infrastructure at Girilambone and Hermidale to cater for the Avoca Tank Project. • Assess likely impacts from such additional infrastructure and measures reasonably available to the proponent to contain such requirements or mitigate their impacts· (eg travel demand management strategies). • Identify all existing mining operations that will be operated concurrently with the proposed project, time frames, and the likely cumulative impacts and mitigation measures to reduce impacts over the life of the project.	1.4.3, Section 4 Section 4 Section 2 Section 4 1.4.3, Section 4
BUSHFIRE MANAGEMENT		
Bogan Shire Council 22/10/2013	Detail management activities to reduce the potential for bushfires and emergency procedures in the event of bushfire.	4.12
ACID ROCK DRAINAGE		
Bogan Shire Council 22/10/2013	Illustrate management practices to predict, identify and manage potentially acid forming material that will prevent the formation of acid mine drainage.	2.4, 2.4.2.1, 2.5.1,

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