Appendix 2

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

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Table A2.1
Director-General's Requirements
(Department of Planning – 8 November 2012)

Paraphrased Requirement	Relevant EA Section(s)
GENERAL	
The Environmental Impact Statement (EIS) must meet the minimum form and content requirements in clauses 6 and 7 of Schedule 2 of the Environmental Planning and Assessment Regulation 2000.	Entire document
WATER RESOURCES	
• The EIS must include: - impacts on surface water (including erosion and sedimentation run-off) and groundwater resources; - impacts on nearby sensitive water bodies; - impacts on stormwater management, wastewater management and flooding; - a detailed description of the proposed water management system (including sewage), water monitoring program and other measures to manage and mitigate surface and groundwater impacts; - details of water requirements including water supply; - the potential for soil and groundwater contamination; and - details of leachate collection and management.	4.2, 4.3 2.5.5
FLORA AND FAUNA	
• The EIS must include - accurate estimates of any vegetation clearing associated with the proposal; - a detailed assessment of the potential impacts of the proposal on any threatened species, populations, ecological communities or their habitats; and - a detailed description of the measures that would be implemented to avoid or mitigate impacts on biodiversity.	4.4
BIODIVERSITY	
• The EIS must outline pest, vermin and noxious weeds.	4.4.4
HERITAGE	
• The EIS must include a heritage assessment including Aboriginal cultural heritage.	4.11
AIR QUALITY	
• The EIS must include: - an air quality assessment including odour, dust and greenhouse gas emissions in accordance with relevant EPA guidelines. This assessment must consider any potential impacts on nearby private receptors;	4.7
NOISE	
• The EIS must include: - noise assessment outlining noise during construction, operation and traffic in accordance with relevant EPA guidelines. This assessment must consider any potential impacts on nearby private receptors;	4.6
TRAFFIC & TRANSPORT	
• The EIS must include a traffic and transport assessment.	4.10

Table A2.1 (Cont'd)
Director-General's Requirements
(Department of Planning – 8 November 2012)

Paraphrased Requirement	Relevant EA Section(s)
LANDFORM AND VISUAL AMENITY	
• The EIS must include:	
- a staged rehabilitation strategy, including detailed justification for the proposed final landform taking into consideration visual amenity impacts and the aims and objectives of any strategic land use plans/policies; and	2.12, 6.2
- the measures that would be undertaken to ensure sufficient financial resources are available to implement the proposed rehabilitation strategy.	2.5.4, 2.12.3
WASTE	
• The EIS must include	
- an analysis of whether there is justifiable demand for the proposal in accordance with the *Infrastructure SEPP;*	3.2, 5.2
- the measures that would be implemented to ensure that the proposal is consistent with the aims, objectives, and guidance in the *NSW Waste Avoidance and Resource Recovery Strategy 2007* and the EPA's (formerly DECC's) *Guidelines for Solid Waste Landfills;*	3.2.3.4
- details of the source, quantities and classification of waste to be received and landfilled;	2.2
- details on the location and size of stockpiles of unprocessed and processed/recycled waste at the premises; and	2.5.3
- details on landfill hole design and integrity.	1.3.3, 2.5.3
HAZARDS	
• The EIS must include:	
- an assessment of dangerous goods storage and handling, and fire management (including bushfires);	3.2.3.5.3, 4.8
CONSULTATION	
• During the preparation of the EIS, you should/must consult 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.	3.2.2
• Details of the consultations carried out and issues raised must be included in the EIS.	
POLICIES, GUIDELINES & PLANS	
The EIS must assess the proposal against the relevant environmental planning instruments, including but not limited to	
• *State Environmental Planning Policy (Infrastructure) 2007;*	
• *State Environmental Planning Policy No. 33 - Hazardous and Offensive Development;*	3.2.3.5
• *Bogan Local Environmental Plan 2009; and*	
• *relevant development control plans and section 94 plans.*	
During the preparation of the EIS, you must consult the Department's EIS Guideline - *Landfilling.* This guideline is available for purchase from the Department's Information Centre, 23-33 Bridge Street, Sydney or by calling 1300 305 695.	Noted

Table A2.2
Coverage of Environmental Issues

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
	GENERAL	
NSW EPA 18/12/12	The EIS executive summary should include a brief discussion of the extent to which the proposal achieves identified environmental outcomes.	Executive Summary
	• 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	2.2
	b) a life cycle approach to the production, use or disposal of products	2.5
	c) the anticipated level of performance in meeting required environmental standards and cleaner production principles	2.5
	d) the staging and timing of the proposal and any plans for future expansion	2.8
	e) the proposal's relationship to any other industry or facility.	2.9
	The EIS should: • 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.) b) any life-cycle strategies for the products.	2.6
	• Outline cleaner production actions, including: a) measures to minimise waste (typically through addressing source reduction) b) proposals for use or recycling of by-products c) proposed disposal methods for solid and liquid waste	2.6
	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	2.5.6
	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.	2.5.5, 4.2.3, 4.3.3
	f) soil contamination treatment and prevention systems.	2.5.3, 4.12.3
	• Outline construction works including: a) actions to address any existing soil contamination b) any earthworks or site clearing; re-use and disposal of cleared material (including use of spoil on-site) c) construction timetable and staging; hours of construction; proposed construction methods d) environment protection measures, including noise mitigation measures, dust control measures and erosion and sediment control measures.	4.12.3 2.4 2.8 Appendix 8

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
	GENERAL (Cont'd)	
NSW EPA 18/12/12 (Cont'd)	The EIS must: • consider the environmental consequences of adopting alternatives, including alternative: a) sites and site layouts b) access modes and routes c) materials handling and production processes d) waste and water management e) impact mitigation measures f) energy sources	2.13
	• Selection of the preferred option should be justified in terms of: a) ability to satisfy the objectives of the proposal b) relative environmental and other costs of each alternative c) acceptability of environmental impacts and contribution to identified environmental objectives d) acceptability of any environmental risks or uncertainties e) reliability of proposed environmental impact mitigation measures f) efficient use (including maximising re-use) of land, raw materials, energy and other resources.	Section 5
	The EIS must: • 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) b) topography (landform element, slope type, gradient and length) c) surrounding land uses (potential synergies and conflicts) d) geomorphology (rates of landform change and current erosion and deposition processes) e) soil types and properties (including erodibility; engineering and structural properties; dispersibility; permeability; presence of acid sulfate soils and potential acid sulfate soils) f) ecological information (water system habitat, vegetation, fauna) g) availability of services and the accessibility of the site for passenger and freight transport.	4.1.2 4.1.1 4.1.3 4.12.2 4.12.2 4.4 2.7

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
GENERAL (Cont'd)		
NSW EPA 18/12/12 (Cont'd)	Provide an overview of the methodology used to identify and prioritise issues. The methodology should take into account: a) relevant NSW government guidelines b) industry guidelines c) EISs for similar projects d) relevant research and reference material e) relevant preliminary studies or reports for the proposal f) consultation with stakeholders.	Section 3
	• Provide a summary of the outcomes of the process including: a) all issues identified including local, regional and global impacts (e.g. increased/ decreased greenhouse emissions) b) key issues which will require a full analysis (including comprehensive baseline assessment) c) issues not needing full analysis though they may be addressed in the mitigation strategy 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).	Section 3
	• 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. *Note: The level of detail should match the level of importance of the issue in decision making which is dependent on the environmental risk.*	Section 4
	• Provide a description of existing environmental conditions for any potential impacts.	Section 4
	• 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

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
GENERAL (Cont'd)		
NSW EPA 18/12/12 (Cont'd)	• The analysis should also make linkages between different areas of assessment where necessary to enable a full assessment of environmental impacts e.g. 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.	Section 4
	• The level of assessment should be commensurate with the risk to the environment.	Section 4
	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 Various
	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 Various
	• Use environmental impacts as key criteria in selecting between alternative sites, designs and technologies, and to avoid options having the highest environmental impacts.	2.13, Section 5
	• 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 exceedances.	2.5.4

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
GENERAL (Cont'd)		
NSW EPA 18/12/12 (Cont'd)	The EIS should identify the following Cumulative impacts:	
	• identify the extent that the receiving environment is already stressed by existing development and background levels of emissions to which this proposal will contribute.	Section 4
	• assess the impact of the proposal against the long term air, noise and water quality objectives for the area or region.	4.6.4, 4.7.4
	• identify infrastructure requirements flowing from the proposal (e.g. water and sewerage services, transport infrastructure upgrades).	2.3, 2.4, 2.5
	• assess likely impacts from such additional infrastructure and measures reasonably available to the proponent to contain such requirements or mitigate their impacts (e.g. travel demand management strategies).	2.5.2
	The EIS should provide a 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).	Section 3
	The EIS should provide a 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 (e.g. outline of an environmental management plan).	Appendix 8, 2.5.6
	• 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 8, 2.5.6
	The EIS should provide Justification for the Proposal • Reasons should be included which justify undertaking the proposal in the manner proposed, having - regard to the potential environmental impacts.	Section 5
AIR QUALITY/ODOUR		
NSW EPA 18/12/12	The EIS should identify potential air quality impacts (diesel emissions from plant and equipment and/or dust) during the construction and operational stages and identify mitigation strategies to minimize emissions. Potential odour impacts in relation to waste management at the facility during the operational stage should also be addressed in relation to sensitive receptors;	4.7
	• Identify all sources of air emissions from the development. *Note: emissions can be classed as either:* - point (e.g. 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).	4.7

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
AIR QUALITY/ODOUR (Cont'd)		
NSW EPA 18/12/12 (Cont'd)	• Provide details of the project that are essential for predicting and assessing air impacts including: a) the quantities and physio-chemical parameters (e.g. concentration, moisture content, bulk density, particle sizes etc.) of materials to be used, transported, produced or stored	4.7
	b) an outline of procedures for handling, transport, production and storage	4.7.3
	c) the management of solid, liquid and gaseous waste streams with potential for significant air impacts.	4.7.3
	The EIS should 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.	
	• Describe surrounding buildings that may effect plume dispersion.	4.1.3
	• Provide and analyse site representative data on following meteorological parameters: a) temperature and humidity b) rainfall, evaporation and cloud cover c) wind speed and direction d) atmospheric stability class e) mixing height (the height that emissions will be ultimately mixed in the atmosphere) f) katabatic air drainage g) air re-circulation.	4.1.2
	The EIS should describe baseline conditions including the following: • Provide a description of existing air quality and meteorology, using existing information and site representative ambient monitoring data.	4.1.2, 4.7
	• The EIS should assessment impacts including the following:	
	• Identify all pollutants of concern and estimate emissions by quantity (and size for particles), source and discharge point.	4.7.2
	• Estimate the resulting ground level concentrations of all pollutants. Where necessary (e.g. 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.	4.7.2
	• Describe the effects and significance of pollutant concentration on the environment, human health, amenity and regional ambient air quality standards or goals.	4.7.2
	• Describe the contribution that the development will make to regional and global pollution, particularly in sensitive locations.	4.7.2

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
AIR QUALITY/ODOUR (Cont'd)		
NSW EPA 18/12/12 (Cont'd)	• For potentially odorous emissions provide the emission rates in terms of odour units (determined by techniques compatible with EPA I DECCW procedures). Use sampling and analysis techniques for individual or complex odours and for point or diffuse sources, as appropriate. *Note: With dust and odour, it may be possible to use data from existing similar activities to generate emission rates.*	4.7.2
	• 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*); Assessment and Management of Odour from Stationary Sources in NSW* (EPA, 2001); *Technical Notes: Draft Policy: Assessment and Management of Odour from Stationary Sources in NSW* (EPA, 2001); *Load Calculation Protocol for use by holders of NSW Environment Protection Licences when calculating Assessable Pollutant Loads* (EPA, 1999).	4.7
	The EIS should describe management and mitigation measures including: • Outlining 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.	4.7.3
NOISE AND VIBRATION		
NSW EPA 18/12/12	The EIS should identify potential noise impacts during both construction and operational stages and identify mitigation strategies to be incorporated for both stages to minimise noise and comply with NSW policies and legislation on noise control.	4.6
	• 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.	4.6.2, 4.6.4
	• Specify the times of operation for all phases of the development and for all noise producing activities.	2.8.1, 2.8.2
	• 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
	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. • Identify the land use zoning of the site and the immediate vicinity and the potentially affected areas.	4.1.3, 4.6.2

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
NOISE AND VIBRATION (Cont'd)		
NSW EPA 18/12/12 (Cont'd)	The EIS should describe baseline conditions • Determine the existing background (LA90) and ambient (LAeq) noise levels in accordance with the *NSW Industrial Noise Policy.*	4.6.2
	• 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.	4.6.2
	• The noise impact assessment report should provide details of all monitoring of existing ambient noise levels including: a) details of equipment used for the measurements b) a brief description of where the equipment was positioned c) 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* d) details of the exact location of the monitoring site and a description of land uses in surrounding areas e) a description of the dominant and background noise sources at the site f) day, evening and night assessment background *levels* for each day of the monitoring period g) the final Rating Background Level (RBL) value h) graphs of the measured noise *levels* for each day should be *provided* i) 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 e-monitoring under Step 1 in Section 81.3 of the *NSW Industrial Noise Policy* j) determination of LAeq noise levels from existing industry.	4.6.2
	The EIS should assess the following impacts: • determine the project specific noise levels for the site. For each identified potentially affected receiver, this should include: 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 c) determination of the amenity criterion for each receiver e) determination of the appropriate sleep disturbance limit.	4.6

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
	NOISE AND VIBRATION (Cont'd)	
NSW EPA 18/12/12 (Cont'd)	• Maximum noise levels during night-time period (10pm-7am) should be assessed to analyse possible affects on sleep. Where LA 1 (1 min) noise levels from the site are less than 15 dB 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.	4.6
	• Determine expected noise level and noise character (e.g. tonality, impulsiveness, vibration, etc.) likely to be generated from noise sources during: a) site establishment b) construction c) operational phases d) transport including traffic noise generated by the proposal e) other services. *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).*	4.6
	• 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.	4.6
	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. 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.	4.6
	The EIS should describe the following 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.	4.6

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
NOISE AND VIBRATION (Cont'd)		
NSW EPA 18/12/12 (Cont'd)	• 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.	4.6
	Appropriate ameliorative measures may include: a) use of alternative transportation modes, alternative routes, or other methods of avoiding the new road usage b) control of traffic (e.g. limiting times of access or speed limitations) c) resurfacing of the road using a quiet surface d) use of (additional) noise barriers or bunds e) treatment of the facade to reduce internal noise levels buildings where the night-time criteria is a major concern f) more stringent limits for noise emission from vehicles (Le. using specially designed 'quite' trucks and/or trucks to use air bag suspension g) driver education h) appropriate truck routes i) limit usage of exhaust breaks j) use of premium muffles on trucks k) reducing speed limits for trucks I) ongoing community liaison and monitoring of complaints m) phasing in the increased road use.	4.6
SOILS / LAND CONTAMINATION		
NSW EPA 18/12/12	The EIS should identify measures to prevent contamination of soils and adjoining land and to prevent pollution of groundwater;	4.12
	The EIS should 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. This needs to take into consideration the existing landfill waste placement.	4.12
	The EIS describe baseline conditions and: • 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.	4.12
	The EIS should assess impacts and: • 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	4.12

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
SOILS / LAND CONTAMINATION (Cont'd)		
NSW EPA 18/12/12 (Cont'd)	c) subsidence or instability d) soil erosion e) disturbing acid sulfate or potential acid sulfate soils.	4.12
	• Reference should be made to relevant guidelines e.g. *Contaminated Sites - Guidelines for Consultants Reporting on Contaminated Sites* (EPA, 1997); *Contaminated Sites - Guidelines on Significant Risk of Harm and Duty to Report* (EPA, 1999).	4.12
	The EIS should provide the following 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).	4.12
WATER		
NSW EPA 18/12/12	The EIS should identify potential impacts to surface and groundwater during the construction stage and identify appropriate pollution control systems to protect surface and ground water resources during the construction and operational stages. Attention should also be given to erosion and sediment controls during the construction stage and the rehabilitation stage, and the inclusion of permanent erosion and sediment controls where required.	4.2, 4.3
	The assessment should also address leachate management and how it will be managed and mitigated. Reference should be made to the EPA's Environmental Guidelines: Solid Waste Landfills (1996).	2.5.5
	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) b) the management of discharges with potential for water impacts c) drainage works and associated infrastructure; land-forming and excavations; working capacity of structures; and water resource requirements of the proposal.	4.2, 4.3

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
	WATER (Cont'd)	
NSW EPA 18/12/12 (Cont'd)	• Outline site layout, demonstrating efforts to avoid proximity to water resources (especially for activities with significant potential impacts e.g. effluent ponds) and showing potential areas of modification of contours, drainage etc.	4.2, 4.3
	• 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.	4.2, 4.3
	The assessment should 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.	4.2, 4.3
	The EIS should describe baseline conditions including the following: • 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). *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).*	4.2, 4.3
	• 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.	4.2, 4.3
	• 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.	4.2, 4.3

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
	WATER (Cont'd)	
NSW EPA 18/12/12 (Cont'd)	• Provide site drainage details and surface runoff yield.	4.2, 4.3
	• 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).	4.2, 4.3
	• 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.	4.2, 4.3
	• Describe the state of the receiving waters and relate this to the a) lake or estuary flushing characteristics b) specific human uses (e.g. exact location of drinking water off take) c) sensitive ecosystems or species conservation values d) a description of the condition of the local catchment e.g. erosion levels, soils, vegetation cover, etc. 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 f) historic river flow data where available for the catchment.	4.2, 4.3
	The EIS should assess the following 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).	4.2, 4.3
	• 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.	4.2, 4.3
	• Include a rationale, along with relevant calculations, supporting the prediction of the discharges.	4.2, 4.3
	• 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).	4.2, 4.3
	• 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).	4.2, 4.3
	• Identify any potential impacts on quality or quantity of groundwater describing their source.	4.2, 4.3

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
	WATER (Cont'd)	
NSW EPA 18/12/12 (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.	4.2, 4.3
	• Identify impacts associated with the disturbance of acid sulfate soils and potential acid sulfate soils.	4.2, 4.3
	• 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.	4.2, 4.3
	• 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.	4.2, 4.3
	• 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.*	4.2, 4.3
	• 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.	4.2, 4.3
	• 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.	4.2, 4.3
	• Reference should be made to relevant guidelines e.g. Managing Urban Storm water: Soils and Construction (Landcom, 2004), Guidelines for Fresh and Marine Water Quality ANZECC 2000).	4.2, 4.3

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
WATER (Cont'd)		
NSW EPA 18/12/12 (Cont'd)	The EIS should describe the following 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.	4.2, 4.3
	• 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.	4.2, 4.3
	• 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.	4.2, 4.3
	• Outline pollution control measures relating to storage of materials, possibility of accidental spills (e.g. preparation of contingency plans), appropriate disposal methods, and generation of leachate.	4.2, 4.3
	• Describe hydrological impact mitigation measures including: a) site selection (avoiding sites prone to flooding and waterlogging, actively eroding or affected by deposition) b) minimising runoff c) minimising reductions or modifications to flow regimes d) avoiding modifications to groundwater.	4.2, 4.3
	• Describe groundwater impact mitigation measures including: a) site selection retention of native vegetation and revegetation b) artificial recharge c) providing surface storages with impervious linings d) monitoring program.	4.2, 4.3
	• Describe geomorphological impact mitigation measures including: a) site selection b) erosion and sediment controls c) minimising in stream works d) treating existing accelerated erosion and deposition e) monitoring program.	4.2, 4.3
	• Any proposed monitoring should be undertaken in accordance with the Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DECCW 2004).	4.2, 4.3

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
ABORIGINAL CULTURAL HERITAGE		
NSW Office of Environment and Heritage	The EIS should contain • a description of the Aboriginal objects and declared Aboriginal places located within the area of the proposed development.	4.11
	• 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.	4.11
	• 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.	4.11
	• 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.	4.11
	• 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).	4.11
	• a description of any practical measures that may be taken to protect and conserve those Aboriginal objects or declared Aboriginal places.	4.11
	• 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.	4.11
	• 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.	4.11
	In addressing these requirements, the proponent must refer to the following documents: a) 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 80C 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. b) 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.	4.11

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
ABORIGINAL CULTURAL HERITAGE (Cont'd)		
NSW Office of Environment and Heritage (Cont'd)	*Notes:* *1. An Aboriginal Site Impact Recording Form (http://www.environment.nsw.gov.au/licences/DECCAHIMSSiteRecordingForm.htm) must be completed and submitted to the Aboriginal Heritage Information Management System (AHIMS) Registrar, for each AHIMS site that is harmed through archaeological investigations required or permitted through these environmental assessment requirements.* *2. Under section 89A of the National Parks and Wildlife Act 1974, it is an offence for a person not to notify OEH of the location of any Aboriginal object the person becomes aware of, not already recorded on the Aboriginal Heritage Information Management System (AHIMS). An AHIMS Site Recording Form should be completed and submitted to the AHIMS Registrar (http://www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm), for each Aboriginal site found during investigations*.	
BIODIVERSITY		
NSW Office of Environment and Heritage	Biodiversity impacts can be assessed using either the BioBanking Assessment Methodology (scenario 1) or a detailed biodiversity assessment (scenario 2). The requirements for each of these approaches are detailed below. The BioBanking Assessment Methodology can be used to assess impacts of a proposal and to determine required offsets. Offset options may be developed in consultation with OEH officers and in accordance with the 'NSW OEH interim policy on assessing and offsetting biodiversity impacts of Part 3A, State significant development (SSD) and State significant infrastructure (SSI) projects.'	4.4
	Scenario 1 - Where a proposal is assessed using the BioBanking Assessment Methodology (BBAM) 1. Where the BioBanking Assessment Methodology is being used to assess impacts of a proposal and to determine required offsets, and a BioBanking Statement is not being obtained, the EIS should contain a detailed biodiversity assessment and all components of the assessment must be undertaken in accordance with the *BioBanking Assessment Methodology and Credit Calculator* Operational Manual (DECCW, 2008).	4.4
	2a. The EIS should include a specific Statement of Commitments which: • is informed by the outcomes of the proposed BioBanking assessment offset package; • sets out the ecosystem and species credits required by the BioBanking Assessment Methodology and how these ecosystem and/or species credits will be secured and obtained; • demonstrates how all options have been explored to avoid red flag areas; and • includes all relevant 'BioBanking files (e.g. *.xml output files), data sheets, underlying assumptions (particularly in the selection of vegetation types from the vegetation types database), and documentation (including maps, aerial photographs, GIS shape files, other remote sensing imagery etc.) to ensure that the OEH can conduct an appropriate review of the assessment.	4.4

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
BIODIVERSITY (Cont'd)		
NSW Office of Environment and Heritage (Cont'd)	3. Where the 'NSW OEH interim policy on assessing and offsetting biodiversity impacts of Part 3A, State significant development (SSD) and State significant infrastructure (SSI) projects' is being used then the proponent must stipulate which level(s) of offset is being offered in relation to each of the vegetation communities and threatened species that require species credits. In accordance with the interim policy, justification must be provided as to why it is appropriate to apply the Tier 2 ('no net loss') or Tier 3 ('mitigated net loss') outcomes. In considering whether the mitigated net loss standard is appropriate, justification must be provided on: (i) whether the credits required by the calculator are available on the market; (ii) whether alternative offset sites (other than credits) are available on the market; and (iii) the overall cost of the offsets and whether these costs are reasonable given the circumstances'. This must be to satisfaction of, and in consultation with, OEH.	
	4. Where appropriate, likely impacts (both direct and indirect) on any adjoining and/or nearby OEH estate reserved under the *National Parks and Wildlife Act 1974* or any marine and estuarine protected areas under the *Fisheries Management Act 1994* or the *Marine Parks Act 1997* should be considered. Please refer to the *Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water* (DECCW, 2010).	
	5. With regard to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, the assessment should identify and assess any relevant Matters of National Environmental Significance and whether the proposal has been referred to the Commonwealth or already determined to be a controlled action.	4.4
	Scenario 2 - Where a proposal is assessed outside the BioBanking Assessment Methodology: 1. The EIS should include a detailed biodiversity assessment, including assessment of impacts on threatened biodiversity, native vegetation and habitat. This assessment should address the matters included in the following sections.	
	2. A field survey of the site should be conducted and documented in accordance with relevant guidelines, including: • the Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna - *Amphibians* (DECCW, 2009); • Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities -Working Draft (DEC, 2004); and • Threatened species survey and assessment guideline information on www.environment.nsw.gov.au/threatenedspecies/surveyassessmentgdlns.htm. • Commonwealth survey requirements (birds, bats, reptiles, frogs, fish and mammals): http://www.environment.gov.au/epbc/publications/guidelines.html. These are relevant when species or communities listed under the *Environment Protection and Biodiversity Conservation Act* are present.	

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
BIODIVERSITY (Cont'd)		
NSW Office of Environment and Heritage (Cont'd)	It is preferable for proponents to use the Interim Vegetation Mapping Standard data form to collect the vegetation plot data for the project site, and any offset site associated with the project. This will provide data that is useful for vegetation mapping as well as in the BioBanking Assessment Methodology. This is available at http://www.environment.nsw.gov.au/research/VISplot.htm. If a proposed survey methodology is likely to vary significantly from the above methods, the proponent should discuss the proposed methodology with the OEH prior to undertaking the EIS, to determine whether the OEH considers that it is appropriate. Recent (less than five years old) surveys and assessments may be used. However, previous surveys should not be used if they have: • been undertaken in seasons, weather conditions or following extensive disturbance events when the subject species are unlikely to be detected or present, or • utilised methodologies, survey sampling intensities, timeframes or baits that are not the most appropriate for detecting the target subject species, unless these differences can be clearly demonstrated to have had an insignificant impact upon the outcomes of the surveys. If a previous survey is used, any additional species listed under the TSC Act since the previous survey took place, must be surveyed for.	4.4
	Determining the list of potential threatened species for the site must be done in accordance with the Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft (DEC, 2004) and the Guidelines for Threatened Species Assessment (Department of Planning, July 2005). The OEH Threatened Species website http://www.environment.nsw.gov.au/threatenedspecies/ and the Atlas of NSW Wildlife database must be the primary information sources for the list of threatened species present. The BioBanking Threatened Species Database, the Vegetation Types databases (available on OEH website at http://www.environment.nsw.gov.au/biobanking/biobankingtspd.htm and http://www.environment.nsw.gov.au/biobanking/vegtypedatabase.htm, respectively) and other data sources (e.g. PlantNET, Online Zoological Collections of Australian Museums (http://www.ozcam.org/), previous or nearby surveys etc.) may also be used to compile the list.	4.4
	3. The EIS should contain the following information as a minimum: a. The requirements set out in the *Guidelines for Threatened Species Assessment* (Department of Planning, July 2005);	4.4

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
BIODIVERSITY (Cont'd)		
NSW Office of Environment and Heritage (Cont'd)	b. 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, shape files of the project site, impact footprint, vegetation mapping and classification for both the impact and any offset site(s);	4.4
	c. Description of survey methodologies used, including timing, location and weather conditions;	4.4
	d. 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 (e.g. MS-Excel) and organised by vegetation community;	4.4
	e. Details, including qualifications and experience of all staff undertaking the surveys, mapping and assessment of impacts as part of the EIA;	4.4
	f. Identification of national and state listed threatened biota known or likely to occur in the study area and their conservation status;	4.4
	g. Description of the likely impacts of the proposal on biodiversity and wildlife corridors, including direct and indirect and construction and operation impacts. Wherever possible, quantify these impacts such as the amount of each vegetation community or species habitat to be cleared or impacted, or any fragmentation of a wildlife corridor;	4.4
	h. Identification of the avoidance, mitigation and management measures that will be put in place as part of the proposal to avoid or minimise impacts, including details about alternative options considered and how long term management arrangements will be guaranteed;	4.4
	i. Description of the residual impacts of the proposal. If the proposal cannot adequately avoid or mitigate impacts on biodiversity, then a biodiversity offset package is expected (see the requirements for this at point 6 below); and	4.4
	j. Provision of specific Statement of Commitments relating to biodiversity.	4.4

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
BIODIVERSITY (Cont'd)		
NSW Office of Environment and Heritage (Cont'd)	An assessment of the significance of direct and indirect impacts of the proposal must be undertaken for threatened biodiversity known or considered likely to occur in the study area based on the presence of suitable habitat. This assessment must take into account: a. the factors identified in s.5A of the EP&A Act; and b. the guidance provided by *The Threatened Species Assessment Guideline – The Assessment of Significance (DECCW, 2007)* which is available at: http://www.environment.nsw.gov.au/resources/threatenedspecies/tsaguide07393.pdf	4.4
	5. Where an offsets package is proposed by a proponent for impacts to biodiversity (and a BioBanking Statement has not been sought) this package should: a) Meet either the OEH's Principles for the use of biodiversity offsets in NSW1, which are available at: www.environment.nsw.gov.au/biocertification/offsets.htm, or the OEH Interim policy on assessing and offsetting biodiversity impacts of part 3A developments; b) Identify the conservation mechanisms to be used to ensure the long term protection and management of the offset sites; and c) Include an appropriate Management Plan (such as vegetation or habitat) that has been developed as a key amelioration measure to ensure any proposed compensatory offsets, retained habitat enhancement features within the development footprint and/or impact mitigation measures (including proposed rehabilitation and/or monitoring programs) are appropriately managed and funded.	4.4
	6. Where appropriate, likely impacts (both direct and indirect) on any adjoining and/or nearby OEH estate reserved under the National Parks and Wildlife Act 1974 or any marine and estuarine protected areas under the Fisheries Management Act 1994 or the Marine Parks Act 1997 should be considered. Refer to the Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water (DECC, 2010).	4.4
	7. 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.	4.4
FLORA		
NSW Office of Environment and Heritage	The EIA document should fully describe the existing environment including flora and fauna, so that future impacts can be properly assessed and then reviewed (e.g. during the public participation phase).	4.4
	• The EIA should include a report of flora that includes the following:	
	• detailed location map and identification of the area surveyed (including the location of photographs, transects, areas of significance etc.),	

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
FLORA (Cont'd)		
NSW Office of Environment and Heritage (Cont'd)	• at least one of the following: a land satellite image, vegetation communities map, aerial photograph, or a remnant vegetation map,	4.4
	• A map identifying the vegetation communities located in the study area and the areas of each vegetation community to be impacted.	
	• a complete plant list (including scientific names of those plants) of all tree, shrub, ground cover and aquatic species, categorised according to country of origin (ie., native versus exotic),	
	• a detailed description of vegetation structure (in terms of a scientifically accepted classification system) and spatial distribution (i.e. plant densities and patterning) on the site, including a vegetation map,	
	• describe the condition and integrity of the vegetation including a description of any past disturbance,	
	• an account of the likely original vegetation communities (pre-, or at early settlement), and an assessment of the likely regional distribution of the original communities,	
	• an assessment of whether the plant communities are adequately represented in conservation reserves or otherwise protected,	
	• an account of the hydrology of the area and how this relates to the dynamics of the vegetation communities,	
	• a list of known and **likely** threatened species as listed under Schedules 1 & 2 (*Threatened Species Conservation Act 1995*) which might occur at the site. The OEH database needs to be accessed and the likelihood of occurrence of threatened flora species determined,	
	• an assessment of the impacts of the proposal on flora, on-site and off-site (e.g. siltation, water availability or drainage changes) and measures to mitigate these impacts,	
	• an assessment of the significance of the impact of the development at both the site and at the regional scale,	
	• a detailed rehabilitation/management plan including a list of the plant species to be used during rehabilitation (if required),	
	• detail methodologies used and a list of the reference literature cited, and	
	• any other issues that may be considered relevant.	
FAUNA		
NSW Office of Environment and Heritage	The EIA document should include a report on the fauna (including protected and threatened species), that includes the following: • detailed location map and identification of the area surveyed (including the location of photographs, transects, areas of significance etc.),	4.4
	• at least one of the following: a land satellite image, vegetation communities map, aerial photograph, or a remnant vegetation map,	
	• a complete list of all known and likely terrestrial and aquatic species (e.g. birds, mammals, reptiles	

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
FAUNA (Cont'd)		
NSW Office of Environment and Heritage (Cont'd)	• and amphibians including scientific names). It is suggested that invertebrates also be considered as they form part of the food chain for many fauna species,	4.4
	• those species which are protected, threatened or listed under any international agreements, as well as introduced species,	
	• those species known or likely to breed in the area,	
	• any species which have specific habitat requirements found within the project area,	
	• those species or populations which may be near the limit of their geographic range or are a disjunct/isolated population,	
	• assessment of the importance or otherwise of the location as a corridor, migratory route or drought refuge, in relation to other remnant vegetation, riparian and wetland areas or habitat in the region,	
	• assessment of the impacts of the proposal on all fauna and its habitat, at both the site and at the regional scale,	
	• identification of any mitigation measures proposed to limit or ameliorate the impact of the proposal,	
	• detailed methodologies used and a list of the reference literature cited, and,	
	• any other issues that may be considered relevant.	
	Again, the above guidelines will provide some of the information required for the Threatened Species component of Biobanking, but may not be sufficient for Biobanking offset calculations. Please refer to the Biobanking website or contact OEH for specific information relating to Biobanking assessment requirements	4.4
	SEPP No. 44 - Koala Habitat Protection 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 be considered by the proponents.	3.2.4.4
	Apart from the need to consider the impact on protected species, the proponent will need to address the requirements of legislation that currently governs threatened species protection and impact assessment in NSW. The Threatened Species Conservation Act (1995) (TSC Act) protects all threatened flora and fauna native to NSW (excluding fish and marine plants). The proponent will need to consider the provisions of this Act.	

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
FAUNA (Cont'd)		
NSW Office of Environment and Heritage (Cont'd)	The TSC Act contains lists of threatened species, which are divided into a number of categories – those presumed extinct, endangered species, critically endangered species and vulnerable species. It also contains lists of endangered populations, endangered ecological communities, critically endangered ecological communities and vulnerable ecological communities. This Act also allows for the declaration of critical habitat, key threatening processes and the preparation of both Recovery Plans and Threat Abatement Plans. These listings and plans must be considered as part of the EIA process. If an activity or development is proposed in a locality likely or known to be occupied by a threatened species, population, ecological community or critical habitat, any potential impact to that threatened species must be taken into account during the development assessment process. However under the EP&A Act, some types of development are not required to go through approval processes. Please note that a licence may still be required under the TSC Act if such a development/activity is likely to harm a threatened species, population or ecological community. Proponents can voluntarily use BioBanking to minimise and offset their impacts on biodiversity. The scheme provides an alternative path for proponents to the current threatened species assessment of significance process.	4.4
	Assessment of Significance & Species Impact Statements If during the flora or fauna assessment or survey, threatened species are found or are likely to occur in the area, the proponents must undertake an Assessment of Significance as outlined in section 5A of the EP&A Act to determine whether or not the development would be likely to have a significant impact upon threatened species. The Assessment of Significance is a statutory mechanism which allows decision makers to assess whether a proposed development or activity is likely to have a significant effect on threatened species, populations or ecological communities, or their habitats. The Assessment of Significance is contained within section 5A of the EP&A Act and consists of seven factors which need to be addressed for informed decisions to be made regarding the effect of a proposed development or activity on threatened species, populations or ecological communities, or their habitats. A copy of OEH's Threatened species assessment guidelines: The assessment of significance can be obtained from the OEH website at: http://www.environment.nsw.gov.au/resources/threatenedspecies/tsaguide07393.pdf	4.4

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
FAUNA (Cont'd)		
NSW Office of Environment and Heritage (Cont'd)	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. The OEH advises that 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).	4.4
INCIDENT MANAGEMENT PROCEDURES		
NSW EPA 18/12/12	Adequate procedures must be established including notification requirements to the ARA for incidents that cause material harm to the environment (refer s147-153 of the POEO Act);	2.5.4
CUMULATIVE IMPACT		
NSW EPA 18/12/12	The EIS need to identify the cumulative impact of the existing and proposed site expansion;	Section 4
MONITORING		
NSW EPA 18/12/12	The EIS should provide details of the proposed environmental monitoring network for the site. This should include descriptions of any groundwater, soil and gas monitoring locations for the proposal, and should be considered in conjunction with the existing waste premise. Justification for the proposed network monitoring locations should also be provided.	Section 4
ESD		
NSW EPA 18/12/12	The EIS must demonstrate that the planning process and any subsequent development incorporates *objectives* and mechanisms for achieving ESD, including: an assessment of a range of options available for use of the resource, including the benefits of each option to future generations f) proper valuation and pricing of environmental resources g) identification of who will bear the environmental costs of the proposal.	Section 5
REHABILITATION		
NSW EPA 18/12/12	The EIS must outline considerations of site maintenance, and proposed plans for the final condition of the site (ensuring its suitability for future uses). This should include an assessment of the existing site and its rehabilitation.	2.12

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
	WASTE AND CHEMICALS	
NSW EPA 18/12/12	The EIS should outline measures to ensure adequate control measures are in place for storages of chemicals / fuels to reduce the risk of spills contaminating land and waterways;	2.10.1.2
	Waste Management - identify options and strategies for waste minimisation; reuse and recycling across all activities during the construction and operational stages. This should address both the existing landfill and future expansion area;	2.6
	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).	2.2
	• 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 b) any stockpiling of wastes or recovered materials at the site c) any waste processing related to the facility, including reuse, recycling, reprocessing (including composting) or treatment both on- and off-site. d) the method for disposing of all wastes or recovered materials at the facility e) the emissions arising from the handling, storage, processing and reprocessing of waste at the facility f) the proposed controls for managing the environmental impacts of these activities.	2.6
	• Provide details of spoil disposal with particular attention to: a) the quantity of spoil material likely to be generated b) proposed strategies for the handling, stockpiling, reuse/recycling and disposal of spoil c) the need to maximise reuse of spoil material in the construction industry 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 e) designation of transportation routes for transport of spoil.	2.5.3
	• 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.	3.2.3.5.3
	• 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.	2.10.1.2

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

Government Agency	Paraphrased Requirement	Relevant EA Section(s)
WASTE AND CHEMICALS (Cont'd)		
NSW EPA 18/12/12 (Cont'd)	• Reference should be made to the guidelines: Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes (NSW EPA, 1999).	NA
	The EIS should include a description of the following baseline conditions • describe any existing waste or chemicals operations related to the proposal.	1.3
	The EIS should assess the following impacts: • assess the adequacy of proposed measures to minimise natural resource consumption and minimize impacts from the handling, transporting, storage, processing and reprocessing of waste and/or chemicals. • reference should be made to relevant guidelines e.g. *Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes* (EPA, 1999).	Section 5
	The EIS should describe the following management and mitigation measures:	Section 5
	• Outline measures to minimise the consumption of natural resources.	
	• Outline measures to avoid the generation of waste and promote the re-use and recycling and reprocessing of any waste.	
	• Outline measures to support any approved regional or industry waste plans.	

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