

Secretary's Environmental Assessment Requirements

Section 78A(8A) of the *Environmental Planning and Assessment Act*
 Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*

Application Number	SSD 6761
Proposal Name	Expansion of an existing clinical and quarantine waste management facility
Location	9 Kenoma Place, Arndell Park
Applicant	State Waste Services (NSW) c/o Stimpson and Baker Planning
Date of Issue	01 December 2014
General Requirements	<p>The Environmental Impact Statement (EIS) for the development must meet the form and content requirements in Clauses 6 and 7 of Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>.</p> <p>In addition, the EIS must include:</p> <ul style="list-style-type: none"> • an executive summary; • a clear description of the previous/existing uses of the site and how these uses operate lawfully under the <i>Environmental Planning and Assessment Act 1979</i> (EP&A Act), including any reliance on existing use rights and/or planning approvals; • a detailed description of the development including: <ul style="list-style-type: none"> – the need for the proposed development – justification for the proposed development – the likely staging of the development – the likely interactions between the development and existing, approved and proposed operations in the vicinity of the site – plans of any proposed building works. • consideration of all relevant environmental planning instruments, including identification and justification of any inconsistencies with these instruments; • consideration of the issues provided at Attachment 2 (public authority responses) • a risk assessment of the potential environmental impacts of the development, identifying the key issues for further assessment including: <ul style="list-style-type: none"> – a description of the existing environment, using sufficient baseline data – an assessment of the potential impacts of all stages of the development, including any cumulative impacts, taking into consideration relevant guidelines, policies, plans and statutes – a description of the measures that will be implemented to avoid, minimise, mitigate and if necessary, offset the potential impacts of the development, including proposals for adaptive management and/or contingency plans to manage significant risks to the environment. • a consolidated summary of all the proposed environmental management and monitoring measures, highlighting commitments included in the EIS; • a conclusion justifying the development on economic, social and

	<p>environmental grounds, including consideration of whether the development is consistent with the objects of the EP&A Act; and</p> <ul style="list-style-type: none"> • certification from the author of the EIS that the information contained within the document is neither false or misleading. <p>The EIS must also be accompanied by a report from a qualified quantity surveyor providing:</p> <ul style="list-style-type: none"> • a detailed calculation of the capital investment value (CIV) of the proposal as defined in clause 3 of the <i>Environmental Planning and Assessment Regulation 2000</i>, including details of all components of the CIV; • a close estimate of the jobs that will be created by the development during the construction and operational phases of the development; and • certification that the information provided is accurate at the date of preparation.
<p>Key issues</p>	<p>The EIS must address the following specific matters:</p> <ul style="list-style-type: none"> • Strategic and Statutory Context – including: <ul style="list-style-type: none"> – detailed justification for the proposal and suitability of the site and proposed transport routes; and – demonstration that the proposal is generally consistent with all relevant planning strategies, environmental planning instruments, development control plans (DCPs), and justification for any inconsistencies. • Waste Management – including: <ul style="list-style-type: none"> – details of how the material will be collected, managed and disposed of; – details of the quantities and classification of waste to be generated on site; – demonstration that the proposed handling, labelling, storage and disposal of clinical and related waste is consistent with <i>NSW Health’s Waste Management Guidelines for Health Care Facilities, August 1998</i>; – evidence that the expansion of the existing clinical and medical waste facility fulfils the objectives of the <i>NSW Waste Avoidance and Resource Recovery Strategy 2013-21</i>; and – evidence that NSW Health supports the method of treatment of the clinical waste. • Hazards and Risk – including: <ul style="list-style-type: none"> - a primary risk screening completed in accordance with <i>the State Environmental Planning Policy No.33 Hazardous and Offensive Development and Applying SEPP 33 (DOP, 2011)</i>, with a clear indication of class, quantity and location of all dangerous and hazardous materials associated with the development; and - should the preliminary screening indicate that the project is potentially hazardous, a Preliminary Hazards Analysis (PHA) must be prepared in accordance with the <i>Hazardous Industry Planning Advisory Paper No.6 - Guidelines for Hazards Analysis (COP, 2011) and Multi-Level Risk Assessment (DOP, 2011)</i>. • Soils and Water – including: <ul style="list-style-type: none"> – details of how water will be managed, such as, stormwater and flooding; – details of water requirements including water supply; and

	<ul style="list-style-type: none"> - details of leachate collection and management. • Air Quality and Odour - including: <ul style="list-style-type: none"> - description of all potential odour sources and predicted odour emissions from the construction and operation of the clinical and quarantine waste facility; - an air quality assessment of all potential air quality and odour impacts from the development, including details of air quality and odour impacts on private properties, in accordance with relevant Environment Protection Authority guidelines; - details of mitigation, management and monitoring measures for preventing and/or minimising both point and fugitive emissions; and - an assessment of the effectiveness of the proposed air quality and odour mitigation measures. • Noise – including: <ul style="list-style-type: none"> - a description of all potential noise sources such as construction, operational, on and off-site traffic noise; - a noise impact assessment including a cumulative noise impact assessment in accordance with relevant Environment Protection Authority guidelines; and - details of noise mitigation, management and monitoring measures. • Traffic and Transport – including: <ul style="list-style-type: none"> - details of all traffic and transport demands likely to be generated during construction and operation, including confirmation of whether any additional car parking is required to ensure compliance with <i>the Blacktown Development Control Plan 2006</i>; - an assessment of predicted impacts on road safety and the capacity of the road network to accommodate the project; and - an assessment of likely toxicity levels of loads transported on arterial and local roads to and from the site, and an incident management strategy in the event that an incident occurs during transportation. • Cumulative Impacts – particularly in relation to air, noise and traffic associated with other nearby industrial or commercial operations.
<p>Plans and Documents</p>	<p>The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the <i>Environmental Planning and Assessment Regulation 2000</i>. Those documents should be included as part of the EIS rather than as separate documents.</p>
<p>Consultation</p>	<p>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners.</p> <p>In particular you must consult with:</p> <ul style="list-style-type: none"> • Blacktown City Council; • Environmental Protection Authority; • NSW Health; and • Roads and Maritime Services. <p>The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made</p>

	to address an issue, a short explanation should be provided
Further consultation after 2 years	If you do not lodge a development application and EIS for the development within two years of the issue date of these SEARs, you must consult further with the Secretary in relation to the preparation of the EIS.
References	The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. While not exhaustive, the following attachment contains a list of some of the guidelines, policies, and plans that may be relevant to the environmental assessment of this proposal.

ATTACHMENT 1

Technical and Policy Guidelines

The following guidelines may assist in the preparation of the Environmental Impact Statement. This list is not exhaustive and not all of these guidelines may be relevant to your proposal.

Many of these documents can be found on the following websites:

<http://www.planning.nsw.gov.au>

<http://www.bookshop.nsw.gov.au>

<http://www.publications.gov.au>

Policies, Guidelines & Plans

Aspect	Policy /Methodology
Waste	<p>Waste Avoidance and Resource Recovery Strategy 2007 (DECC)</p> <p>Waste Classification Guidelines (DECC)</p> <p>Environmental Guidelines: Assessment Classification and Management of Non-Liquid and Liquid Waste (NSW EPA)</p> <p>Environmental guidelines: Composting and Related Organics Processing Facilities (DEC)</p> <p>Environmental guidelines: Use and Disposal of Biosolid Products (NSW EPA)</p> <p>Composts, soil conditioners and mulches (Standards Australia, AS 4454)</p>
Hazards	<p>State Environmental Planning Policy No. 33 – Hazardous and Offensive Development</p> <p>Applying SEPP 33 – Hazardous and Offensive Development Application Guidelines (DUAP)</p>
Soil and Water	<p>Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC & NHMRC)</p> <p>National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPC)</p>
<i>Soil</i>	<p>Draft Guidelines for the Assessment & Management of Groundwater Contamination (DECC)</p> <p>State Environmental Planning Policy No. 55 – Remediation of Land Managing Land Contamination – Planning Guidelines SEPP 55 – Remediation of Land (DOP)</p>
<i>Surface Water</i>	<p>National Water Quality Management Strategy: Water quality management - an outline of the policies (ANZECC/ARMCANZ)</p> <p>National Water Quality Management Strategy: Policies and principles - a reference document (ANZECC/ARMCANZ)</p> <p>National Water Quality Management Strategy: Implementation guidelines (ANZECC/ARMCANZ)</p> <p>National Water Quality Management Strategy: Australian Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ)</p> <p>National Water Quality Management Strategy: Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC/ARMCANZ)</p> <p>Using the ANZECC Guideline and Water Quality Objectives in NSW (DEC)</p> <p>State Water Management Outcomes Plan</p> <p>NSW Government Water Quality and River Flow Environmental Objectives (DECC)</p> <p>Approved Methods for the Sampling and Analysis of Water Pollutants in</p>

	NSW (DEC) Greater Metropolitan Regional Environmental Plan No. 2 – Georges River Catchment Managing Urban Stormwater: Soils & Construction (Landcom) Managing Urban Stormwater: Treatment Techniques (DECC) Managing Urban Stormwater: Source Control (DECC) Technical Guidelines: Bunding & Spill Management (DECC)
<i>Groundwater</i>	National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC) NSW State Groundwater Policy Framework Document (DLWC) NSW State Groundwater Quality Protection Policy (DLWC) NSW State Groundwater Quantity Management Policy (DLWC) Draft Guidelines for the Assessment and Management of Groundwater Contamination (DECC)
<i>Wastewater</i>	National Water Quality Management Strategy - Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1) – (2006).
Odour	Technical Framework: Assessment and Management of Odour from Stationary Sources in NSW (DEC) Technical Notes: Assessment and Management of Odour from Stationary Sources in NSW (DEC)
Noise	NSW Industrial Noise Policy (EPA, 2000) and Industrial Noise Policy Application Notes NSW Road Noise Policy (EPA, 2011) Environmental Noise Control Manual (DECC) Interim Construction Noise Guideline (DEDCC, 2009) Assessing Vibration: a Technical Guide (DEC, 2006) Interim Guidelines: Assessment of Noise from Rail Infrastructure Projects Rail Infrastructure Noise Guideline draft for Consultation Other Rail Noise: http://www.environment.nsw.gov.au/noise/railnoise.htm
Transport	<i>Roads Act 1993</i> Guide to Traffic Generating Development (RMS) Guide to Traffic Management (Austroads) Road Design Guide (RTA)
Greenhouse Gas	AGO Factors and Methods Workbook (AGO) Guidelines for Energy Savings Action Plans (DEUS, 2005)
Visual	Control of Obtrusive Effects of Outdoor Lighting (Standards Australia, AS 4282) State Environmental Planning Policy No 64 - Advertising and Signage
Heritage	Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (DEC) NSW Heritage Manual (NSW Heritage Office & DUAP)
<i>Aboriginal</i>	The Burra Charter (The Australia ICOMOS charter for places of cultural significance)
<i>Non- Aboriginal</i>	

ATTACHMENT 2
Public Authority Responses to Request for Key Issues



PCU56945

File no: MC-14-2158

13 November 2014

Department of Planning and Environment
GPO Box 39
Sydney NSW 2001

Attention: Thomas Piovesan

Dear Mr Piovesan,

**Request for Secretary's Environmental Assessment Requirements
Waste Management Facility, 14 Rayben Street Glendenning**

Thank you for your correspondence received by Council 31 October 2014, wherein Council was given the opportunity to provide comments for inclusion in the Secretary's Environmental Assessment Requirements (EARs) for the abovementioned State Significant Development.

A review of the Preliminary Environmental Impact Statement has been undertaken and Council requests that the list of issues outlined in **Attachment A** to this letter be included by the Department in the final EARs to the Applicant for detailed reporting in their Environmental Impact Statement, of particular concern to Council is that the Department needs to ensure that this will not be an offensive industry or Offensive Storage Establishment as both are prohibited in the zone.

Should you require any further information regarding this matter, please contact Council's Assistant Team Leader – Sara Smith, on 9839 6000.

Yours sincerely,

Judith Portelli
MANAGER DEVELOPMENT SERVICES AND ADMINISTRATION



ATTACHMENT A

The EIS must address the following matters:

Planning

1. The use could be an offensive industry or Offensive Storage Establishment which are both prohibited in the zone. Clear documentary evidence is to be submitted to demonstrate it is not prohibited in the zone.
2. Documentary evidence that the operation of this facility 24 hours a day will not impact on the amenity of the residential area 420m away from the site.
3. Statement of Environmental Effects to include operational details including the proposed uses (if known) hours of operation, staff numbers, delivery times. The types of trucks to be used – the trucks are to ensure they are covered.

The SEE shall address the current operations of the site and how the new development will not displace any car parking or impact on the current operations.
4. The proposal is considered to be Integrated Development as the proposed works are located within 40m of a watercourse.
5. Statement of Compliance against Blacktown Development Control Plan 2006.
6. Details of any payable Local Contributions.
7. Provide details on staging of the development (if proposed).
8. Car parking shall comply with the requirements of Blacktown Development Control Plan 2006.
9. Submission of signage including assessment against SEPP 64.
10. Lighting plan for the car park shall be submitted.
11. Details of any dangerous or hazardous goods, including assessment against SEPP 33 and a Preliminary Hazard Analysis if required.
12. Details of screening to water tanks (if tanks are proposed).
13. Details of external finishes and colours including photomontages.
14. Details of any retaining walls including materials of construction.
15. Details of any noise barrier walls on the residential side of the property.

Engineering and Drainage

1. The development should be as per “**Blacktown City Council, Engineering Guide for Development – 2005**” to facilitate the efficient processing of engineering plan submissions, and to ensure that infrastructure associated with the development is designed and constructed to safe, serviceable, economical to maintain and meets community expectations.
2. Stormwater water quality improvement targets are to be achieved on-site prior to discharge for the new building and any disturbed areas around the new building, accounting for all bypass. The targets are to be assessed using MUSIC and in accordance with all the requirements of Blacktown City Council’s Water Sensitive Urban Design. An electronic copy of MUSIC is to be provided to Council for assessment. The required percentage reductions in post development average annual load of pollutants are:

Pollutant	% post development pollutant reduction targets
Gross Pollutants	90
Total Suspended Solids	85
Total Phosphorous	65
Total Nitrogen	45
Total Hydrocarbons	90

Note: As MUSIC does not assess hydrocarbons, a gross pollutant trap targeting hydrocarbons and designed to treat the minimum 6 month flow from any newly disturbed areas is deemed to comply.

3. The development should achieve a minimum of 80% (assessed using MUSIC) of the non-potable water uses on-site for the new building and processes being met using rainwater. Non-potable uses include toilet flushing, any new industrial processes and landscape watering. Allow for toilet reuse of 0.1 KL/day per any new toilet/urinal, ignoring any disabled toilet. For watering landscaped areas (ignoring turf areas) allow 0.4 kL/year/m² as PET-Rain. For bioretention filter areas only (if used) allow 1 kL/year/m² as PET-Rain. Allow for a 20% loss in rainwater tank size volume in MUSIC compared to that shown on the design plans to allow for anaerobic zones, mains water top up levels and overflow levels.

Environmental Health

1. Noise – An acoustic assessment is required due to the nature of the business, and proximity to residential receivers. The assessment should take into consideration the Environment Protection Authority's document *NSW Industrial Noise Policy* and provide recommendations to mitigate the emission of offensive noise from the proposed development. The report shall be prepared by an appropriately qualified acoustic consultant that is a member of the *Association of Australian Acoustic Consultants*.

The report shall address any required noise attenuation measures to be imposed to ensure noise complies with the *NSW Industrial Noise Policy* between 10pm and 7am.

2. Odour – An odour assessment is required and must be completed in accordance with the requirements of the Office of Environment and Heritage document *Assessment and Management of Odour from Stationary Sources in NSW and Technical Framework* November 2006.
3. Stormwater – Stormwater management plan required to address potential sources of contamination from stormwater runoff.
4. Wastewater – Trade Waste Agreement is required with Sydney water.
5. NSW EPA must be consulted regarding licensing requirements, and if the proposed activity would fulfil the objectives of the NSW EPA's *NSW Waste Avoidance and Resource Recovery Strategy 2013–21*.

Traffic

1. A traffic report should be submitted with the application to address traffic implication of the proposal and an evening / night time (8pm – 7am) route plan to determine the impacts on residential amenity. All travel route shall limit night time routes between the hours of 8pm and 7am near residential areas.



Industry, Key Sites & Social Projects
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Teille Whiteman

Notice Number 1526273
File Number EF13/4830
Date 14-Nov-2014

RE: Proposal - Expansion of Existing Clinical and Quarantine Waste Management Facility - State Waste Services, 9 Kenoma Place Arndell Park NSW - LGA: Blacktown City Council (Designated and Integrated Development)

I refer to your request for the Environment Protection Authority's (EPA) requirements for the environmental assessment (EA) in regard to the above proposal received by EPA on 6 November 2014.

The EPA has considered the details of the proposal as provided by NSW Planning & Environment and has identified the information it requires to issue its general terms of approval in Attachment A.

In carrying out the assessment, the proponent should refer to the relevant guidelines as listed in Attachment B and any relevant industry codes of practice and best practice management guidelines.

Please note that this response does not cover biodiversity or Aboriginal cultural heritage issues, which are the responsibility of the Office of Environment and Heritage.

The Proponent should be made aware that any commitments made in the EA may be formalised as approval conditions and may also be placed as formal licence conditions.

The Proponent should be made aware that, consistent with provisions under Part 9.4 of the *Protection of the Environment Operations Act 1997* ("the Act") the EPA may require the provision of a financial assurance and/or assurances. The amount and form of the assurance(s) would be determined by the EPA and required as a condition of an Environment Protection Licence ("EPL").

In addition, as a requirement of an EPL, the EPA will require the Proponent to prepare, test and implement a Pollution Incident Response Management Plan and/or Plans in accordance with Section 153A of the Act.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Greg Thomas', written over a horizontal line.

Greg Thomas
Manager Hazardous Materials Advice
Hazardous Materials, Chemicals & Radiation
(by Delegation)



ATTACHMENT A: EIS REQUIREMENTS FOR

Expansion of Existing Clinical and Quarantine Waste Management Facility, State Waste Services 9 Kenoma Place Arndell Park, NSW.

How to use these requirements

The EPA requirements have been structured in accordance with the Department of Planning and Environment's EIS Guidelines, as follows. It is suggested that this EIS follows the same structure:

- A. Executive summary
- B. The proposal
- C. The location
- D. Identification and prioritisation of issues
- E. The environmental issues
- F. List of approvals and licences
- G. Compilation of mitigation measures
- H. Justification for the proposal

A Executive summary

The executive summary should include a brief discussion of the extent to which the proposal achieves identified environmental outcomes.

B The proposal

1. Objectives 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
 - b) a life cycle approach to the production, use or disposal of products
 - c) the anticipated level of performance in meeting required environmental standards and cleaner production principles
 - d) the staging and timing of the proposal and any plans for future expansion
 - e) the proposal's relationship to any other industry or facility.

2. Description of the proposal

General

- 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.
- 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
 - 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
 - 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.
 - f) soil contamination treatment and prevention systems.
- 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.

Air

- 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).*
- 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 stored
 - b) an outline of procedures for handling, transport, production and storage
 - c) the management of solid, liquid and gaseous waste streams with potential for significant air impacts.

Noise and vibration

- 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.
- Specify the times of operation for all phases of the development and for all noise producing activities.
- 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.

Water

- 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 <http://www.environment.nsw.gov.au/ieo/index.htm>, 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.
- 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.
- 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.

Waste and chemicals

- 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
 - 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.
- 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.
- 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.
- 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.
- Reference should be made to the guidelines: *Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes* (NSW EPA, 1999).

ESD

- Demonstrate that the planning process and any subsequent development incorporates objectives and mechanisms for achieving ESD, including:
 - a) an assessment of a range of options available for use of the resource, including the benefits of each option to future generations
 - b) proper valuation and pricing of environmental resources
 - c) identification of who will bear the environmental costs of the proposal.

3. Rehabilitation

- Outline considerations of site maintenance, and proposed plans for the final condition of the site (ensuring its suitability for future uses).

4. Consideration of alternatives and justification for the proposal

- 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
- 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.

C The location

1. General

- Provide an overview of the affected environment to place the proposal in its local and regional environmental context including:
 - a) meteorological data (eg 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.

2. Air

- 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.
- 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.

3. Noise and vibration

- 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. Water

- 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: <http://www.environment.nsw.gov.au/ieo/index.htm> 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.

5. Soil Contamination Issues

- 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.

D Identification and prioritisation of issues / scoping of impact assessment

- 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.

- 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)
 - 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).

E The environmental issues

1. 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.
- 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.

Describe baseline conditions

- Provide a description of existing environmental conditions for any potential impacts.

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.
- 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.
- 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.
- 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.
- The level of assessment should be commensurate with the risk to the environment.

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.
- 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.
- Use environmental impacts as key criteria in selecting between alternative sites, designs and technologies, and to avoid options having the highest environmental impacts.
- 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.

2. Air

Describe baseline conditions

- Provide a description of existing air quality and meteorology, using existing information and site representative ambient monitoring data. This description should include the following parameters.

Assess impacts

- Identify all pollutants of concern and estimate emissions by quantity (and size for particles), source and discharge point.
- 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 DECCW.
- Describe the effects and significance of pollutant concentration on the environment, human health, amenity and regional ambient air quality standards or goals.
- Describe the contribution that the development will make to regional and global pollution, particularly in sensitive locations.

- 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.
Note: With dust and odour, it may be possible to use data from existing similar activities to generate emission rates.
- Reference should be made to *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (DEC, 2001); *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW* (DEC, 2007); *Assessment and Management of Odour from Stationary Sources in NSW* (DEC, 2006); *Technical Notes: Assessment and Management of Odour from Stationary Sources in NSW* (DEC, 2006); *Load Calculation Protocol for use by holders of NSW Environment Protection Licences when calculating Assessable Pollutant Loads* (DECC, 2009).

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.

3. Noise and vibration

Describe baseline conditions

- 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.
- 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 re-monitoring under Step 1 in Section B1.3 of the *NSW Industrial Noise Policy*
 - j) determination of LAeq noise levels from existing industry.

Assess 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
 - d) determination of the appropriate sleep disturbance limit.
- Maximum noise levels during night-time period (10pm-7am) should be assessed to analyse possible affects on sleep. Where LA1(1min) 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*.
- Determine expected noise level and noise character (eg 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).

- 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.
- The noise impact assessment report should include:
 - a) a plan showing the assumed location of each noise source for each prediction scenario
 - 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
 - c) any assumptions made in the predictions in terms of source heights, directivity effects, shielding from topography, buildings or barriers, etc
 - 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 SoundPlan computer models are adopted, the approach should be appropriately justified and validated
 - e) an assessment of appropriate weather conditions for the noise predictions including reference to any weather data used to justify the assumed conditions

- 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
- g) for developments where a significant level of noise impact is likely to occur, noise contours for the key prediction scenarios should be derived
- h) an assessment of the need to include modification factors as detailed in Section 4 of the *NSW Industrial Noise Policy*.
- Discuss the findings from the predictive modelling and, where relevant noise criteria have not been met, recommend additional mitigation measures.
- 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.
- 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 exceedence
 - 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.
- 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.

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.
- 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
 - b) control of traffic (eg: 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 façade to reduce internal noise levels buildings where the night-time criteria is a major concern
- f) more stringent limits for noise emission from vehicles (i.e. 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
- l) ongoing community liaison and monitoring of complaints
- m) phasing in the increased road use.

4. Water

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).
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 (DEC 2004) or be approved and analyses undertaken by accredited laboratories).
- Provide site drainage details and surface runoff yield.
- 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: <http://www.environment.nsw.gov.au/ieo/index.htm>. 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.
- 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.environment.gov.au/water/publications/quality/nwqms-guidelines-4-vol1.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 ANZECC 2000 Guidelines endorse the application of the trigger values and decision trees as a tool to assess risk to environmental values in groundwater.
- State any locally specific objectives, criteria or targets, which have been endorsed by the government e.g. the Healthy Rivers Commission Inquiries or the NSW Salinity Strategy (DLWC, 2000) (<http://www.environment.nsw.gov.au/salinity/government/nswstrategy.htm>).

- 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.
- 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:
 - a) lake or estuary flushing characteristics
 - b) specific human uses (e.g. exact location of drinking water offtake)
 - 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.

Assess impacts

- No proposal should breach clause 120 of the *Protection of the Environment Operations Act 1997* (i.e. pollution of waters is prohibited unless undertaken in accordance with relevant regulations).
- 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.
- Include a rationale, along with relevant calculations, supporting the prediction of the discharges.
- 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).
- 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).
- Identify any potential impacts on quality or quantity of groundwater describing their source.
- 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.
- Identify impacts associated with the disturbance of acid sulfate soils and potential acid sulfate soils.
- 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.epa.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.
- 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.
- 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.

- 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.
- 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.
- Reference should be made to *Managing Urban Stormwater: Soils and Construction* (DECC, 2008), *Guidelines for Fresh and Marine Water Quality* ANZECC 2000), *Environmental Guidelines: Use of effluent by Irrigation* (DEC, 2004).

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.
- 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.
- 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.
- 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.
- 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.
- Describe groundwater impact mitigation measures including:

- a) site selection
- b) retention of native vegetation and revegetation
- c) artificial recharge
- d) providing surface storages with impervious linings
- e) monitoring program.
- Describe geomorphological impact mitigation measures including:
 - a) site selection
 - b) erosion and sediment controls
 - c) minimising instream works
 - d) treating existing accelerated erosion and deposition
 - e) monitoring program.
- Any proposed monitoring should be undertaken in accordance with the *Approved Methods for the Sampling and Analysis of Water Pollutants in NSW* (DEC 2004).

5. Soils and contamination

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.

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.
- Reference should be made to *Contaminated Sites – Guidelines for Consultants Reporting on Contaminated Sites* (OEH, 2011); *Contaminated Sites – Guidelines on Significant Risk of Harm from Contaminated Land and the Duty to Report* (EPA, 2003).

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).

6. Waste and chemicals

Describe baseline conditions

- Describe any existing waste or chemicals operations related to the proposal.

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.
- Reference should be made to *Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes* (EPA, 1999).

Describe management and mitigation measures

- 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.

7. 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.
- 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).
- 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).

F. 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).

G. 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.

H. Justification for the Proposal

- Reasons should be included which justify undertaking the proposal in the manner proposed, having regard to the potential environmental impacts.

ATTACHMENT B: GUIDANCE MATERIAL

Title	Web address
Relevant Legislation	
<i>Contaminated Land Management Act 1997</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+140+1997+cd+0+N
<i>Environmentally Hazardous Chemicals Act 1985</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+14+1985+cd+0+N
<i>Environmental Planning and Assessment Act 1979</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
<i>Protection of the Environment Operations Act 1997</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N
<i>Water Management Act 2000</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N
Licensing	
Guide to Licensing	www.epa.nsw.gov.au/licensing/licenceguide.htm
Air Issues	
Air Quality	
Approved methods for modelling and assessment of air pollutants in NSW (2005)	http://www.epa.nsw.gov.au/resources/air/ammodelling05361.pdf
POEO (Clean Air) Regulation 2010	http://www.legislation.nsw.gov.au/maintop/view/inforce/subordleg+428+2010+cd+0+N
Noise and Vibration	
Interim Construction Noise Guideline (DECC, 2009)	http://www.epa.nsw.gov.au/noise/constructnoise.htm
Assessing Vibration: a technical guideline (DEC, 2006)	http://www.epa.nsw.gov.au/noise/vibrationguide.htm
Industrial Noise Policy Application Notes	http://www.epa.nsw.gov.au/noise/applicnotesindustnoise.htm
Environmental Criteria for Road Traffic Noise (EPA, 1999)	http://www.epa.nsw.gov.au/resources/noise/roadnoise.pdf
Interim Guideline for the Assessment of Noise from Rail Infrastructure Projects (DECC, 2007)	http://www.epa.nsw.gov.au/noise/railinfranoise.htm
Environmental assessment requirements for rail traffic-generating developments	http://www.epa.nsw.gov.au/noise/railnoise.htm

Waste, Chemicals and Hazardous Materials and Radiation	
Waste	
Environmental Guidelines: Solid Waste Landfills (EPA, 1996)	http://www.epa.nsw.gov.au/resources/waste/envguidlns/solidlandfill.pdf
Draft Environmental Guidelines - Industrial Waste Landfilling (April 1998)	http://www.epa.nsw.gov.au/resources/waste/envguidlns/industrialfill.pdf
Waste Classification Guidelines (DECC, 2009)	http://www.epa.nsw.gov.au/waste/envguidlns/index.htm
Resource recovery exemption	http://www.epa.nsw.gov.au/waste/RRRecoveryExemptions.htm
Chemicals subject to Chemical Control Orders	
Chemical Control Orders (regulated through the EHC Act)	http://www.epa.nsw.gov.au/pesticides/CCOs.htm
National Protocol - Approval/Licensing of Trials of Technologies for the Treatment/Disposal of Schedule X Wastes - July 1994	Available in libraries
National Protocol for Approval/Licensing of Commercial Scale Facilities for the Treatment/Disposal of Schedule X Wastes - July 1994	Available in libraries
Water and Soils	
Acid sulphate soils	
Coastal acid sulfate soils guidance material	http://www.environment.nsw.gov.au/acidsulfatesoil/
Acid Sulfate Soils Planning Maps	http://www.environment.nsw.gov.au/acidsulfatesoil/riskmaps.htm
Contaminated Sites Assessment and Remediation	
Managing land contamination: Planning Guidelines – SEPP 55 Remediation of Land	http://www.planning.nsw.gov.au/assessingdev/pdf/gu_contam.pdf
Guidelines for Consultants Reporting on Contaminated Sites (EPA, 2000)	http://www.epa.nsw.gov.au/resources/clm/20110650consultantsguidelines.pdf
Guidelines for the NSW Site Auditor Scheme - 2nd edition (DEC, 2006)	http://www.epa.nsw.gov.au/resources/clm/auditorguidelines06121.pdf
Sampling Design Guidelines (EPA, 1995)	Available by request from EPA's Environment Line

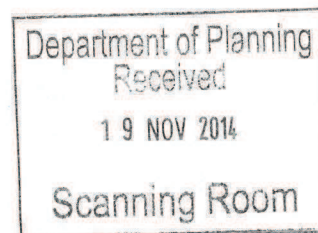
National Environment Protection (Assessment of Site Contamination) Measure 1999 (or update)	http://www.scew.gov.au/nepms/assessment-site-contamination
Soils – general	
Managing land and soil	http://www.environment.nsw.gov.au/soils/landandsoil.htm
Managing urban stormwater for the protection of soils	http://www.environment.nsw.gov.au/stormwater/publications.htm
Landslide risk management guidelines	http://www.australiangeomechanics.org/resources/downloads/
Site Investigations for Urban Salinity (DLWC, 2002)	http://www.environment.nsw.gov.au/resources/salinity/booklet3siteinvestigationsforurbansalinity.pdf
Local Government Salinity Initiative Booklets	http://www.environment.nsw.gov.au/salinity/solutions/urban.htm
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	http://www.environment.gov.au/water/publications/quality/nwqms-guidelines-4-vol1.html
Applying Goals for Ambient Water Quality Guidance for Operations Officers – Mixing Zones	Contact the EPA on 131555
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.environment.nsw.gov.au/resources/legislation/approved-methods-water.pdf



PCU56986

17 November 2014

Our Reference: SYD14/01331 (A7892295)
DP&I Ref: SSD-6761



Secretary
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Attention: **Teille Whiteman**

Dear Sir/Madam

**EXPANSION OF THE HANDLING CAPACITY OF A QUARANTINE WASTE FACILITY
9 KENOMA PLACE, ARNDELL PARK**

Reference is made to your letter dated 10 November 2014 requesting Roads and Maritime Services (Roads and Maritime) to provide details of key issues and assessment requirements regarding the abovementioned development for inclusion in the Secretary's Environmental Assessment (EA) requirements.

Roads and Maritime require the following issues to be included in the transport and traffic impact assessment of the proposed development:

1. Daily and peak traffic movements likely to be generated by the proposed development including the impact on nearby intersections.
2. Roads and Maritime requires an assessment of the likely toxicity levels of loads transported on arterial and local roads to / from the site and, consequently, the preparation of an incident management strategy for crashes involving such loads, if relevant.

Any inquiries in relation to this development application can be directed to Malgy Coman on 8849 2413 or development.sydney@rms.nsw.gov.au.

Yours faithfully,

Angela Malloch
Senior Land Use Planner
Network and Safety Section