



Mr Anthony Williams  
APP  
Level 2, 426 King Street  
Newcastle NSW 2300

Dear Mr Williams

**State Significant Development – Secretary’s Environmental Assessment  
Requirements (SEARs) Hearne Street, Mortdale Waste Management Facility  
(SSD 7421)**

Thank you for your request for SEARs dated 30 November 2015 for the preparation of an Environmental Impact Statement (EIS) for the above mentioned development proposal. A copy of the SEARs is attached.

The attached SEARs have been prepared in consultation with the relevant government authorities (see **Attachment 2**) and are based on the information you have provided to date. The Department will provide Hurstville City Council’s comments under a separate cover when they are available.

Please note that the Secretary may alter these SEARs at any time and that you must consult further with the Secretary if you do not lodge a development application and EIS for the development within two years of the date of issue of these SEARs.

The Department notes that the site currently operates under a separate consent. The Department prefers operations like the Mortdale Waste Management Facility to operate under a single, modern planning approval. Consequently, the Department encourages you to develop the project with this preference in mind, and to consider surrendering all of the existing planning approvals for the facility if the project is approved.

I wish to emphasise the importance of effective and genuine community consultation and the need for proposals to proactively respond to the community’s concerns. Accordingly a comprehensive, detailed and genuine community consultation and engagement process must be undertaken during preparation of the EIS. This process must ensure that the community is both informed of the proposal and is actively engaged in issues of concern to them. Sufficient information must be provided to the community so that it has a good understanding of what is being proposed and of the potential impacts.

If your development is likely to have a significant impact on matters of National Environmental Significance, it will require an approval under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This approval would be in addition to any approvals required under NSW legislation and it is your responsibility to contact the Department of Environment to determine if an approval under the EPBC Act is required (<http://www.environment.gov.au> or 6274 1111).

I would appreciate it if you would contact the Department at least two weeks before you propose to submit the development application and EIS for your development. This will enable the Department to:

- confirm the applicable fee (see Division 1AA, Part 15 of the *Environmental Planning and Assessment Regulation 2000*); and
- determine the number of copies (hard-copy and CD-ROM) of the EIS that will be required for reviewing purposes.

If you have any enquiries about these requirements, please contact Kate Masters, Planning Services at the Department on (02) 9228 6321 or via email at [kate.masters@planning.nsw.gov.au](mailto:kate.masters@planning.nsw.gov.au)

Yours sincerely



Chris Ritchie

**Director**

**Industry Assessments**

as delegate of the Secretary

16/12/15.

# 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*

<b>Application Number</b>	SSD 7421
<b>Development</b>	Increase the non-putrescible waste handling capacity of the Mortdale Waste Management Facility from 30,000 tonnes per annum (tpa) to 300,000 tpa.
<b>Location</b>	20 Hearne Street, Mortdale (Lot 1 DP 1013852)
<b>Applicant</b>	Hearne Street Pty Ltd
<b>Date of Issue</b>	December 2015
<b>General Requirements</b>	<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 a:</p> <ul style="list-style-type: none"> <li>• detailed description of the development, including:             <ul style="list-style-type: none"> <li>– a clear description of the existing operations carried out on the site and how the site operates lawfully under the <i>Environmental Planning and Assessment Act 1979</i> (EP&amp;A Act) including any reliance on existing use rights and/or planning approvals and how these will be consolidated;</li> <li>– need for the proposed development;</li> <li>– justification for the proposed development;</li> <li>– likely staging of the development - including construction, and operational stage/s;</li> <li>– likely interactions between the development and existing, approved and proposed operations in the vicinity of the site; and</li> <li>– plans of any proposed building works.</li> </ul> </li> <li>• demonstrate that the site is suitable for the proposed use in accordance with <i>State Environmental Planning Policy No 55 – Remediation of Land</i>;</li> <li>• consideration of all relevant environmental planning instruments, including identification and justification of any inconsistencies with these instruments;</li> <li>• consideration of issues discussed in <b>Attachment 2</b> (public authority responses to key issues);</li> <li>• risk assessment of the potential environmental impacts of the development, identifying the key issues for further assessment;</li> <li>• detailed assessment of the key issues specified below, and any other significant issues identified in this risk assessment, which includes:             <ul style="list-style-type: none"> <li>– a description of the existing environment, <u>using sufficient baseline data</u>;</li> <li>– 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;</li> <li>– a description of the measures that would be implemented to avoid, minimise and if necessary, offset the potential impacts of the development, including proposals for adaptive management and/or contingency plans to manage any significant risks to the environment; and</li> </ul> </li> <li>• a consolidated summary of all the proposed environmental management and monitoring measures, highlighting commitments included in the EIS.</li> </ul> <p>The EIS must also be accompanied by a report from a qualified quantity surveyor providing:</p> <ul style="list-style-type: none"> <li>• a detailed calculation of the capital investment value (as defined in clause 3 of the <i>Environmental Planning and Assessment Regulation</i></li> </ul>

	<p>2000) of the proposal, including details of all assumptions and components from which the CIV calculation is derived;</p> <ul style="list-style-type: none"> <li>• 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.</li> </ul>
<p><b>Key issues</b></p>	<p>The EIS must address the following specific matters:</p> <ul style="list-style-type: none"> <li>• <b>Waste Management</b> – including: <ul style="list-style-type: none"> <li>- a description of the waste streams that would be accepted at the site including the maximum daily, weekly and annual throughputs and the maximum size for stockpiles;</li> <li>- a description of waste processing operations, including a description of the technology to be installed, resource outputs, and the quality control measures that would be implemented;</li> <li>- details of how waste would be stored and handled on site, and transported to and from the site including details of how the receipt of non-conforming waste would be dealt with; and</li> <li>- the measures that would be implemented to ensure that the development is consistent with the aims, objectives and guidance in the <i>NSW Waste Avoidance and Resource Recovery Strategy 2014-2021</i>.</li> </ul> </li> <li>• <b>Traffic and Transport</b> – including: <ul style="list-style-type: none"> <li>- details of all traffic types and volumes likely to be generated during construction and operation, including a description of haul routes;</li> <li>- an assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections using SIDRA or similar traffic model;</li> <li>- detailed plans of the proposed layout of the internal road network and parking on site in accordance with the relevant Australian Standards; and</li> <li>- plans of any proposed road upgrades, infrastructure works or new roads required for the development.</li> </ul> </li> <li>• <b>Air Quality and Odour</b> – including: <ul style="list-style-type: none"> <li>- a quantitative assessment of the potential air quality, dust and odour impacts of the development in accordance with relevant Environment Protection Authority guidelines;</li> <li>- the details of buildings and air handling systems and strong justification for any material handling, processing or stockpiling external to a building;</li> <li>- a greenhouse gas assessment; and</li> <li>- details of proposed mitigation, management and monitoring measures.</li> </ul> </li> <li>• <b>Noise and Vibration</b> – including: <ul style="list-style-type: none"> <li>- a quantitative assessment of potential construction, operational and transport noise and vibration impacts in accordance with relevant Environment Protection Authority guidelines; and</li> <li>- details and justification of the proposed noise mitigation and monitoring measures.</li> </ul> </li> <li>• <b>Soil &amp; Water</b> – including: <ul style="list-style-type: none"> <li>- an investigation to identify any soil or water contamination on the site and proposed management measures;</li> <li>- a description of water and soil resources, topography, hydrology, watercourses and riparian lands on or nearby to the site;</li> <li>- a detailed site water balance, including identification of water requirements for the life of the project, measures that would be implemented to ensure an adequate and secure water supply is available for the proposal and a detailed description of the measures to minimise the water use at the site;</li> <li>- details of stormwater/wastewater/leachate management systems including the capacity of onsite detention systems, and measures to treat, reuse or dispose of water;</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>- a description of erosion and sediment controls;</li> <li>- an assessment of potential impacts to soil and water resources, topography, drainage lines, watercourses and riparian lands on or nearby to the site; and</li> <li>- consideration of salinity, flooding, contamination and acid sulfate soil impacts.</li> </ul> <ul style="list-style-type: none"> <li>• <b>Hazards</b> – including: <ul style="list-style-type: none"> <li>- a preliminary risk screening completed in accordance with State Environmental Planning Policy No. 33 – Hazardous and Offensive Development and Applying SEPP 33 (DoP, 2011), with a clear indication of class, quantity and location of all dangerous goods and hazardous materials associated with the development; and</li> <li>- should preliminary screening indicate that the project is "potentially hazardous" a Preliminary Hazard Analysis (PHA) must be prepared in accordance with Hazardous Industry Planning Advisory Paper No. 6 - Guidelines for Hazard Analysis (DoP, 2011) and Multi-Level Risk Assessment (DoP, 2011).</li> </ul> </li> <li>• <b>Visual</b> – including an assessment of the potential visual impacts of the project on the amenity of the surrounding area.</li> </ul>
<b>Plans and Documents</b>	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> . These documents should be included as part of the EIS rather than as separate documents.
<b>Consultation</b>	<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"> <li>• Hurstville City Council;</li> <li>• Environmental Protection Authority;</li> <li>• Department of Primary Industries;</li> <li>• Roads and Maritime Service; and</li> <li>• the surrounding land owners and occupiers that may be affected by the proposal.</li> </ul> <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 to address an issue, a short explanation should be provided.</p>
<b>Further consultation after 2 years</b>	If you do not lodge an EIS for the development within 2 years of the issue date of these SEAR's, you must consult with the Secretary in relation to the requirements for lodgement.
<b>References</b>	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 development.

## 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

#### Plans and Documents

The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Environmental Planning and Assessment Regulation 2000. Provide these as part of the EIS rather than as separate documents.

In addition, the EIS must include the following:

1. An existing site survey plan drawn at an appropriate scale illustrating:
  - the location of the land, boundary measurements, area (sq. m) and north point;
  - the existing levels of the land in relation to buildings and roads;
  - location and height of existing structures on the site;
  - location and height of adjacent buildings and private open space; and
  - all levels to be to Australian Height Datum (AHD).
2. A locality/context plan drawn at an appropriate scale should be submitted indicating:
  - watercourses including nearby rivers and creeks, and dams;
  - significant local features such as heritage items;
  - the location and uses of nearby buildings, shopping and employment areas, hospitals and schools; and
  - traffic and road patterns, pedestrian routes and public transport nodes.
3. An indication of the location of the site with respect to the relevant Land Zoning Map within the *Shoalhaven Local Environment Plan 2014*.
4. Drawings at an appropriate scale illustrating:
  - detailed plans, sections and elevations of the existing building, which clearly show all proposed internal and external alterations and additions.

#### Documents to be submitted

Documents to submit include:

- 1 electronic copy of all the documents and plans for review prior to exhibition; and
- other copies as determined by the Department once the development application is lodged.

### 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
<b>Waste</b>	Waste Avoidance and Resource Recovery Strategy 2010-2021 (EPA)
	The National Waste Policy: Less Waste More Resources 2009
	Waste Classification Guidelines (DECC)
	Environmental guidelines: Composting and Related Organics Processing Facilities (DEC)
	Environmental guidelines: Use and Disposal of Biosolid Products (NSW EPA)
	Composts, soil conditioners and mulches (Standards Australia, AS 4454)
<b>Air Quality</b>	Protection of the Environment Operations (Clean Air) Regulation 2010
	Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (DEC)
	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC)
<b>Odour</b>	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)
<b>Transport</b>	Guide to Traffic Generating Development (RTA)
	Road Design Guide (RTA)
<b>Noise</b>	NSW Industrial Noise Policy (DECC)
	NSW Road Noise Policy (EPA, 2011)
	Environmental Criteria for Road Traffic Noise (NSW EPA)
	Interim Construction Noise Guideline (2009)
<b>Soil and Water</b>	Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC & NHMRC)
	National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPC)
	<i>Soil</i> Draft Guidelines for the Assessment & Management of Groundwater Contamination (DECC)
	State Environmental Planning Policy No. 55 – Remediation of Land
	Managing Land Contamination – Planning Guidelines SEPP 55 – Remediation of Land (DOP)
	Acid Sulfate Soils Manual (Stone et al. 1998)
	National Water Quality Management Strategy: Water quality management - an outline of the policies (ANZECC/ARMCANZ)
	NSW Guidelines for Controlled Activities on Waterfront Land (NOW, 2012)
	<i>Surface Water</i> National Water Quality Management Strategy: Policies and principles - a reference document (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Implementation guidelines (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Australian Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Australian Guidelines for Water

	Quality Monitoring and Reporting (ANZECC/ARMCANZ)
	Using the ANZECC Guideline and Water Quality Objectives in NSW (DEC)
	NSW State Rivers and Estuaries Policy(1993)
	State Water Management Outcomes Plan
	NSW Government Water Quality and River Flow Environmental Objectives (DECC)
	Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DEC)
	Managing Urban Stormwater: Soils & Construction (Landcom)
	Managing Urban Stormwater: Treatment Techniques (DECC)
	Managing Urban Stormwater: Source Control (DECC)
	Technical Guidelines: Bunding & Spill Management (DECC)
	NSW Floodplain Development Manual 2005
<i>Groundwater</i>	National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC)
	Australian Groundwater Modelling Guidelines (NWC, 2012)
	NSW State Groundwater Policy Framework Document (DLWC)
	NSW State Groundwater Quality Protection Policy (DLWC)
	NSW State Groundwater Dependent Ecosystems Policy (2002)
	NSW State Groundwater Quantity Management Policy (DLWC) Draft
	Guidelines for the Assessment and Management of Groundwater Contamination (DEC, 2007)
<b>Hazards</b>	
	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
	Applying SEPP 33 – Hazardous and Offensive Development Application Guidelines (DUAP)
	Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis
<b>Greenhouse Gas</b>	
	The National Greenhouse and Energy Reporting (Measurement) Technical Guidelines (NGER Technical Guidelines)
	Guidelines for Energy Savings Action Plans (DEUS, 2005)
<b>Visual</b>	
	Control of Obtrusive Effects of Outdoor Lighting (Standards Australia, AS 4282)
	State Environmental Planning Policy No 64 - Advertising and Signage

**ATTACHMENT 2**

**Public Authority Responses to Request for Key Issues**



Department of Environment and Planning  
GPO Box 39  
SYDNEY NSW 2001

Attention: Kate Masters

Notice Number 1536301  
File Number SF15/51213  
Date 10-Dec-2015

**RE: SEARs Request - Resource Recovery Facility - 20 Hearne Street, Mortdale**

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 1 December 2015.

The EPA has considered the details of the proposal as provided by Department of Environment and Planning (DPE) and has identified the information it requires to issue its Secretary's Environmental Assessment Requirements (SEARS) in Attachment A. In summary, the EPA's key information requirements for the proposal include an adequate assessment of:

1. capacity of the facility to control impacts from all pollutants generated through the processing of such a large volume of waste;
2. impacts on local waters from any discharges from the Premises;
3. impacts of air emissions including odour from the Premises; and
4. noise impacts on all receivers from not only on site activities but also from traffic on local roads.

**Throughput and Waste Storage**

The EPA is concerned that the proposed throughput of the development is significantly large for a small site. The EPA is concerned about the capacity of the Premises to control impacts from pollutants generated through the processing of 300,000 tonnes of waste per annum. The EPA requires the Proponent to:

- identify all pollutants possibly generated by each activity (including any ancillary activities such as onsite workshops) and each waste type, as well as the receptor pathways by which any such pollutant may impact receivers;
- provide details of the maximum volume of each waste type to be stored onsite at anyone time and the maximum throughput of each waste type;
- provide a detailed description as to how the Proponent will deal with non-conforming waste;
- assess the impact of all pollutants and pathways on each receiver;
- demonstrate that each impact can be effectively mitigated and managed.



The current draft environmental protection licence No.20622 ("the draft Licence") for the Premises permits no more than 5,000 tonnes at any one time ("the authorised amount"). If the Proponent requires the authorised amount to be increased in order to achieve the proposed throughput, this must also be assessed in the EIS. This includes consideration of controls of all potential pollutants from waste storage as well as the physical storage capacity on the Premises.

The EPA would expect that all waste be stored inside the building.

### **Water**

The EPA is concerned that the large proposed volume throughput at the Premises may generate a large volume of pollutants discharged into local waterways. The Proponent must demonstrate effective capture and treatment of all water at the Premises prior to discharge to waters. The EPA may require inclusion of a single point of discharge including pollution monitoring on the Licence.

The EPA would expect that the building be constructed to exclude all stormwater; and that internal surfaces grade inwards to contain all waste and leachate. The Proponent must provide detail of the drainage of these internal surfaces and storage systems.

### **Air**

The EPA is concerned that the large proposed volume throughput at the Premises may generate a large volume of pollutants discharged to air. The Proponent must demonstrate effective control of dust, odour and other potential pollutants from the Premises.

The EPA would expect that all haulage routes on the Premises are sealed and that all external surfaces be either sealed or vegetated.

In addition the preliminary assessment appears only to consider impacts from dust. The Proponent must consider all potential pollutants which may be generated from proposed activities, in particular odour. The proponent must prepare an assessment of the impacts of odour from the Premises, in particular from storage and processing of greenwaste, gross pollutant trap waste, grit / screenings from water plants, and vegetative waste from agriculture, silviculture or horticulture.

The EPA would expect that all waste storage and processing be undertaken inside the building.

### **Noise**

The EPA is concerned that the proposed increase in operational hours may negatively impact on nearby receivers. In particular proposed 24hr loading and unloading at the Premises will lead to increased truck traffic on local roads. The Proponent must demonstrate that noise levels from activities at the premises and from increased traffic meet EPA guidelines.

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 blue ink, appearing to be 'Steven James', written over a horizontal dotted line.

**Steven James**

**Unit Head**

**Waste & Resources - Waste Management**

(by Delegation)



**ATTACHMENT A: EIS REQUIREMENTS FOR  
RESOURCE RECOVERY FACILITY - 20 HEARNE STREET,  
MORTDALE**

**How to use these requirements**

The EPA requirements have been structured in accordance with the DIPNR EIS Guidelines, as follows. It is suggested that the EIS follow 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**

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



## **B The proposal**

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### **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.
- Include a diagram that details: areas for haulage, waste receipt, processing, storage and quarantine; infrastructure for environmental controls including dust, noise, stormwater, wheelwash and weighbridge; and site boundaries, stormwater drainage areas and unused stabilised areas.
- 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  
proper valuation and pricing of environmental resources
  - b) 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**

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### **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 or road traffic to and from 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**

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- 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**

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### **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.

#### ***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.

#### **4. 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
  - a) coarse particulates;
  - b) PM10 and PM2.5;
  - c) odour; and
  - d) any other potential pollutants identified in the assessment process.

##### ***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).*

### **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.

## **5. 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



#### 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.
- 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).

### ***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), where relevant.

### ***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 *Waste Classification Guidelines* (EPA, 2014).

### ***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**

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- 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**

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- 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**

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



- d) determination of the appropriate sleep disturbance limit
- e) determination of the traffic noise criteria.
- Maximum noise levels during night-time period (10pm-7am) should be assessed to analyse possible effects 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, including road traffic, 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, including road traffic, 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.

#### ***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.



## ATTACHMENT B: GUIDANCE MATERIAL

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

<b>Waste, Chemicals and Hazardous Materials and Radiation</b>	
<b>Waste</b>	
Environmental Guidelines: Solid Waste Landfills (EPA, 1996)	<a href="http://www.epa.nsw.gov.au/resources/waste/envguidlns/solidlandfill.pdf">http://www.epa.nsw.gov.au/resources/waste/envguidlns/solidlandfill.pdf</a>
Draft Environmental Guidelines - Industrial Waste Landfilling (April 1998)	<a href="http://www.epa.nsw.gov.au/resources/waste/envguidlns/industrialfill.pdf">http://www.epa.nsw.gov.au/resources/waste/envguidlns/industrialfill.pdf</a>
Waste Classification Guidelines (DECC, 2009)	<a href="http://www.epa.nsw.gov.au/waste/envguidlns/index.htm">http://www.epa.nsw.gov.au/waste/envguidlns/index.htm</a>
Resource recovery exemption	<a href="http://www.epa.nsw.gov.au/waste/RRecoveryExemptions.htm">http://www.epa.nsw.gov.au/waste/RRecoveryExemptions.htm</a>
<b>Chemicals subject to Chemical Control Orders</b>	
Chemical Control Orders (regulated through the EHC Act )	<a href="http://www.epa.nsw.gov.au/pesticides/CCOs.htm">http://www.epa.nsw.gov.au/pesticides/CCOs.htm</a>
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
<b>Water and Soils</b>	
<b>Acid sulphate soils</b>	
Coastal acid sulfate soils guidance material	<a href="http://www.environment.nsw.gov.au/acidsulfatesoil/">http://www.environment.nsw.gov.au/acidsulfatesoil/</a>
Acid Sulfate Soils Planning Maps	<a href="http://www.environment.nsw.gov.au/acidsulfatesoil/riskmaps.htm">http://www.environment.nsw.gov.au/acidsulfatesoil/riskmaps.htm</a>
<b>Contaminated Sites Assessment and Remediation</b>	
Managing land contamination: Planning Guidelines – SEPP 55 Remediation of Land	<a href="http://www.planning.nsw.gov.au/assessingdev/pdf/qu_contam.pdf">http://www.planning.nsw.gov.au/assessingdev/pdf/qu_contam.pdf</a>
Guidelines for Consultants Reporting on Contaminated Sites (EPA, 2000)	<a href="http://www.epa.nsw.gov.au/resources/clm/20110650consultantsguidelines.pdf">http://www.epa.nsw.gov.au/resources/clm/20110650consultantsguidelines.pdf</a>
Guidelines for the NSW Site Auditor Scheme - 2nd edition (DEC, 2006)	<a href="http://www.epa.nsw.gov.au/resources/clm/auditorglines06121.pdf">http://www.epa.nsw.gov.au/resources/clm/auditorglines06121.pdf</a>
Sampling Design Guidelines (EPA, 1995)	Available by request from EPA's Environment Line

National Environment Protection (Assessment of Site Contamination) Measure 1999 (or update)	<a href="http://www.scew.gov.au/nepms/assessment-site-contamination">http://www.scew.gov.au/nepms/assessment-site-contamination</a>
<b>Soils – general</b>	
Managing land and soil	<a href="http://www.environment.nsw.gov.au/soils/landandsoil.htm">http://www.environment.nsw.gov.au/soils/landandsoil.htm</a>
Managing urban stormwater for the protection of soils	<a href="http://www.environment.nsw.gov.au/stormwater/publications.htm">http://www.environment.nsw.gov.au/stormwater/publications.htm</a>
Landslide risk management guidelines	<a href="http://www.australiangeomechanics.org/resources/downloads/">http://www.australiangeomechanics.org/resources/downloads/</a>
Site Investigations for Urban Salinity (DLWC, 2002)	<a href="http://www.environment.nsw.gov.au/resources/salinity/booklet3siteinvestigationsforurbansalinity.pdf">http://www.environment.nsw.gov.au/resources/salinity/booklet3siteinvestigationsforurbansalinity.pdf</a>
Local Government Salinity Initiative Booklets	<a href="http://www.environment.nsw.gov.au/salinity/solutions/urban.htm">http://www.environment.nsw.gov.au/salinity/solutions/urban.htm</a>
<b>Water</b>	
Water Quality Objectives	<a href="http://www.environment.nsw.gov.au/ieo/index.htm">http://www.environment.nsw.gov.au/ieo/index.htm</a>
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	<a href="http://www.environment.gov.au/water/publications/quality/nwqms-guidelines-4-vol1.html">http://www.environment.gov.au/water/publications/quality/nwqms-guidelines-4-vol1.html</a>
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)	<a href="http://www.environment.nsw.gov.au/resources/legislation/approved-methods-water.pdf">http://www.environment.nsw.gov.au/resources/legislation/approved-methods-water.pdf</a>

## Kate Masters

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**From:** Marnie Stewart  
**Sent:** Friday, 4 December 2015 10:29 AM  
**To:** Kate Masters  
**Subject:** SEARs Request - Resource Recovery Facility - 20 Hearne Street, Mortdale

**Importance:** High

Hi Kate

Thank you for forwarding the SSD to the Office of Environment and Heritage (OEH) for consideration.

After reviewing the relevant documents, OEH's Greater Sydney Planning Team has concluded that the matter does not contain biodiversity, natural hazards or Aboriginal cultural heritage issues that require a formal OEH response. We have no further need to be involved in the assessment of this project.

Regards,

Marnie Stewart  
Senior Operations Officer  
Regional Operations  
Office of Environment and Heritage  
T: 02 9995 6868  
F: 02 9995 6900  
W: [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au)  
Please note my work days are Tues- Fri

 Save paper, save the planet! think before you print.

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**From:** Kate Masters  
**Sent:** Tuesday, 1 December 2015 3:46 PM  
**To:** [hccmail@hurstville.nsw.gov.au](mailto:hccmail@hurstville.nsw.gov.au); OEH Planning Matters Mailbox; EPA WARR Waste Operations Mailbox; [landuse.enquiries@dpi.nsw.gov.au](mailto:landuse.enquiries@dpi.nsw.gov.au); [landuse.enquiries@industry.nsw.gov.au](mailto:landuse.enquiries@industry.nsw.gov.au); 'Water Referrals'; [tchristy@hurstville.nsw.gov.au](mailto:tchristy@hurstville.nsw.gov.au); Development Sydney  
**Cc:** David Mooney  
**Subject:** SEARs Request - Resource Recovery Facility - 20 Hearne Street, Mortdale

Dear All,

The Department has received a request for Secretary's environmental assessment requirements (SEARs) from APP Group on behalf of Hearne Street Pty Ltd to expand the existing resource recovery facility at 20 Hearne Street, Mortdale. The expansion includes increasing the non-putrescible waste handling capacity from 30,000 tonnes per annum (tpa) to 300,000 tpa. The proposal also seeks to:

- Replace the existing weighbridge with two larger weighbridges;
- Construct a new shed and awning with a combined area of 2534 m<sup>2</sup> to house all site processing operations;
- Construct an ancillary office building; and
- Install pollution control equipment.

The proposal is State significant development under *State Environmental Planning Policy (State and Regional Development) 2011* as the relevant threshold for resource recovery is 100,000 tonnes per annum. As such, the Minister for Planning is the consent authority.

I have attached a copy of the Preliminary Environmental Assessment. To assist with issuing the SEARs, I would appreciate it if you could review the documentation and send me your Agency's requirements for the preparation of the Environmental Impact Statement by close of business Tuesday, **15 December 2015**.

## Kate Masters

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**From:** Carla Ganassin <carla.ganassin@dpi.nsw.gov.au>  
**Sent:** Monday, 7 December 2015 3:10 PM  
**To:** Kate Masters  
**Cc:** Wayne Jones  
**Subject:** Fwd: FW: SEARs Request - Resource Recovery Facility - 20 Hearne Street, Mortdale  
**Attachments:** 10336\_Mortdale\_Request\_for\_SEARS\_20151130reduced.pdf

Dear Kate,

Fisheries will not be contributing to the SEARs for this proposal as the proposal does not raise any matters of concern under the *Fisheries Management Act*.

Regards,

**Carla Ganassin** | Regional Assessment Officer  
**NSW Department of Primary Industries** | Fisheries NSW | Aquatic Ecosystems Unit  
Block E, Level 3, 84 Crown Street, Wollongong NSW 2500  
SEND MAIL TO: Locked Bag 1 | Nelson Bay NSW 2315  
**T:** 02 4222 8342 | **F:** 02 4225 9056 | **E:** [carla.ganassin@dpi.nsw.gov.au](mailto:carla.ganassin@dpi.nsw.gov.au)  
**W:** [www.dpi.nsw.gov.au](http://www.dpi.nsw.gov.au)

*Conserve, Share, Provide*

----- Forwarded message -----

**From:** <[ahp.central@dpi.nsw.gov.au](mailto:ahp.central@dpi.nsw.gov.au)>  
**Date:** 4 December 2015 at 09:29  
**Subject:** FW: SEARs Request - Resource Recovery Facility - 20 Hearne Street, Mortdale  
**To:** Carla Ganassin <[carla.ganassin@dpi.nsw.gov.au](mailto:carla.ganassin@dpi.nsw.gov.au)>

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**From:** Wayne Jones [mailto:[wayne.jones@dpi.nsw.gov.au](mailto:wayne.jones@dpi.nsw.gov.au)]  
**Sent:** Friday, 4 December 2015 9:17 AM  
**To:** Water Referrals; AHP Central; Rebecca Johnson; Landuse Ag; Landuse Minerals  
**Subject:** SEARs Request - Resource Recovery Facility - 20 Hearne Street, Mortdale

Hi all

TRIM ref: V15/4528#42, INW15/59636

Please see email below from Planning requesting SEARs on the above project.

A co-ordinated Department of Primary Industries reply through the Director PLI is required for State Significant Development matters, including former/continuing Major Projects.



## Department of Primary Industries

OUT15/35407

Ms Kate Masters  
Industry Assessments  
NSW Department of Planning and Environment  
GPO Box 39  
SYDNEY NSW 2001

Kate.Masters@planning.nsw.gov.au

Dear Ms Masters,

### **Mortdale Resource Recovery Facility Request for input into Secretary's Environmental Assessment Requirements**

I refer to your email dated 1 December 2015 to the Department of Primary Industries in respect to the above matter.

Comment has been sought from DPI Water, Fisheries, and Agriculture. Any further referrals to DPI can be sent by email to [landuse.enquiries@dpi.nsw.gov.au](mailto:landuse.enquiries@dpi.nsw.gov.au). DPI Fisheries and Agriculture advise no issues with this proposal. DPI Water comments are provided below.

#### Comment by DPI Water

DPI Water has reviewed the supporting documentation accompanying the request for Secretary's Environmental Assessment Requirements (SEARs) and provides the following comments, and further detail in **Attachment A**.

It is recommended that the EIS be required to include:

- Annual volumes of surface water and groundwater proposed to be taken by the activity (including through inflow and seepage) from each surface and groundwater source as defined by the relevant water sharing plan.
- Assessment of any volumetric water licensing requirements (including those for ongoing water take following completion of the project).
- The identification of an adequate and secure water supply for the life of the project. Confirmation that water can be sourced from an appropriately authorised and reliable supply. This is to include an assessment of the current market depth where water entitlement is required to be purchased.
- A detailed and consolidated site water balance.
- Assessment of impacts on surface and ground water sources (both quality and quantity), related infrastructure, adjacent licensed water users, basic

landholder rights, watercourses, riparian land, and groundwater dependent ecosystems, and measures proposed to reduce and mitigate these impacts.

- Full technical details and data of all surface and groundwater modelling.
- Proposed surface and groundwater monitoring activities and methodologies.
- Assessment of any potential cumulative impacts on water resources, and any proposed options to manage the cumulative impacts.
- Consideration of relevant policies and guidelines.
- A statement of where each element of the SEARs is addressed in the EIS (i.e. in the form of a table).

Should you require further information please contact Ben Dodd, Water Regulation Officer on 8838 7548 or at [ben.dodd@dpi.nsw.gov.au](mailto:ben.dodd@dpi.nsw.gov.au).

Yours sincerely



Mitchell Isaacs  
**Director, Planning Policy & Assessment Advice**  
15/12/2015

## Attachment A

### Mortdale Resource Recovery Facility Request for Input into Secretary's Environment Assessment Requirements DPI Water - General Assessment Requirements for general projects

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The following detailed assessment requirements are provided to assist in adequately addressing the assessment requirements for this proposal.

For further information visit the DPI Water website, [www.water.nsw.gov.au](http://www.water.nsw.gov.au)

#### Key Relevant Legislative Instruments

This section provides a basic summary to aid proponents in the development of an Environmental Impact Statement (EIS), and should not be considered a complete list or comprehensive summary of relevant legislative instruments that may apply to the regulation of water resources for a project.

The EIS should take into account the objects and regulatory requirements of the *Water Act 1912* (WA 1912) and *Water Management Act 2000* (WMA 2000), and associated regulations and instruments, as applicable.

#### *Water Management Act 2000 (WMA 2000)*

Key points:

- Volumetric licensing in areas covered by water sharing plans,
- Works within 40m of waterfront land,
- SSD & SSI projects are exempt from requiring water supply work approvals and controlled activity approvals as a result of the *Environmental Planning & Assessment Act 1979 (EP&A Act)*,
- No exemptions for volumetric licensing apply as a result of the *EP&A Act*,
- Basic landholder rights, including harvestable rights dams,
- Aquifer interference activity approval and flood management work approval provisions have not yet commenced and are regulated by the *Water Act 1912*,
- Maximum penalties of \$2.2 million plus \$264,000 for each day an offence continues apply under the *WMA 2000*.

#### *Water Act 1912 (WA 1912)*

Key points:

- Volumetric licensing in areas where no water sharing plan applies,
- Monitoring bores,
- Aquifer interference activities that are not regulated as a water supply work under the *WMA 2000*,
- Flood management works,
- No exemptions apply to licences or permits under the *WA 1912* as a result of the *EP&A Act*,
- Regulation of water bore driller licensing.

#### *Water Management (General) Regulation 2011*

Key points:

- Provides various exemptions for volumetric licensing and activity approvals,
- Provides further detail on requirements for dealings and applications.

*Water Sharing Plans* – these are considered regulations under the *WMA 2000*

*Access Licence Dealing Principles Order 2004*

## *Harvestable Rights Orders*

### **Water Sharing Plans**

It is important that the proponent understands and describes the ground and surface water sharing plans, water sources, and management zones that apply to the project. The relevant water sharing plans can be determined spatially at [www.ourwater.nsw.gov.au](http://www.ourwater.nsw.gov.au). Multiple water sharing plans may apply and these must all be described.

The *Water Act 1912* applies to all water sources not yet covered by a commenced water sharing plan.

The EIS is required to:

- Demonstrate how the proposal is consistent with the relevant rules of the Water Sharing Plan including rules for access licences, distance restrictions for water supply works and rules for the management of local impacts in respect of surface water and groundwater sources, ecosystem protection (including groundwater dependent ecosystems), water quality and surface-groundwater connectivity.
- Provide a description of any site water use (amount of water to be taken from each water source) and management including all sediment dams, clear water diversion structures with detail on the location, design specifications and storage capacities for all the existing and proposed water management structures.
- Provide an analysis of the proposed water supply arrangements against the rules for access licences and other applicable requirements of any relevant WSP, including:
  - Sufficient market depth to acquire the necessary entitlements for each water source.
  - Ability to carry out a “dealing” to transfer the water to relevant location under the rules of the WSP.
  - Daily and long-term access rules.
  - Account management and carryover provisions.
- Provide a detailed and consolidated site water balance.
- Further detail on licensing requirements is provided below.

### **Relevant Policies and Guidelines**

The EIS should take into account the following policies (as applicable):

- NSW Guidelines for Controlled Activities on Waterfront Land (NOW, 2012)
- NSW Aquifer Interference Policy (NOW, 2012)
- Risk Assessment Guidelines for Groundwater Dependent Ecosystems (NOW, 2012)
- Australian Groundwater Modelling Guidelines (NWC, 2012)
- NSW State Rivers and Estuary Policy (1993)
- NSW Wetlands Policy (2010)
- NSW State Groundwater Policy Framework Document (1997)
- NSW State Groundwater Quality Protection Policy (1998)
- NSW State Groundwater Dependent Ecosystems Policy (2002)
- NSW Water Extraction Monitoring Policy (2007)

DPI Water policies can be accessed at the following links:

<http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/default.aspx>  
<http://www.water.nsw.gov.au/Water-licensing/Approvals/Controlled-activities/default.aspx>

An assessment framework for the NSW Aquifer Interference Policy can be found online at: <http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/Aquifer-interference>.

### **Licensing Considerations**

The EIS is required to provide:

- Identification of water requirements for the life of the project in terms of both volume and timing (including predictions of potential ongoing groundwater take following the cessation of operations at the site – such as evaporative loss from open voids or inflows).
- Details of the water supply source(s) for the proposal including any proposed surface water and groundwater extraction from each water source as defined in the relevant Water Sharing Plan/s and all water supply works to take water.
- Explanation of how the required water entitlements will be obtained (i.e. through a new or existing licence/s, trading on the water market, controlled allocations etc.).
- Information on the purpose, location, construction and expected annual extraction volumes including details on all existing and proposed water supply works which take surface water, (pumps, dams, diversions, etc.).
- Details on all bores and excavations for the purpose of investigation, extraction, dewatering, testing and monitoring. All predicted groundwater take must be accounted for through adequate licensing.
- Details on existing dams/storages (including the date of construction, location, purpose, size and capacity) and any proposal to change the purpose of existing dams/storages.
- Details on the location, purpose, size and capacity of any new proposed dams/storages.
- Applicability of any exemptions under the *Water Management (General) Regulation 2011* to the project.

Water allocation account management rules, total daily extraction limits and rules governing environmental protection and access licence dealings also need to be considered.

The Harvestable Right gives landholders the right to capture and use for any purpose 10% of the average annual runoff from their property. The Harvestable Right has been defined in terms of an equivalent dam capacity called the Maximum Harvestable Right Dam Capacity (MHRDC). The MHRDC is determined by the area of the property (in hectares) and a site-specific run-off factor. The MHRDC includes the capacity of all existing dams on the property that do not have a current water licence. Storages capturing up to the harvestable right capacity are not required to be licensed but any capacity of the total of all storages/dams on the property greater than the MHRDC may require a licence.

For more information on Harvestable Right dams, including a calculator, visit:

<http://www.water.nsw.gov.au/Water-licensing/Basic-water-rights/Harvesting-runoff/Harvesting-runoff>

### **Dam Safety**

Where new or modified dams are proposed, or where new development will occur below an existing dam, the NSW Dams Safety Committee should be consulted in relation to any safety issues that may arise. Conditions of approval may be recommended to ensure safety in relation to any new or existing dams.

See [www.damsafety.nsw.gov.au](http://www.damsafety.nsw.gov.au) for further information.

## **Surface Water Assessment**

The predictive assessment of the impact of the proposed project on surface water sources should include the following:

- Identification of all surface water features including watercourses, wetlands and floodplains transected by or adjacent to the proposed project.
- Identification of all surface water sources as described by the relevant water sharing plan.
- Detailed description of dependent ecosystems and existing surface water users within the area, including basic landholder rights to water and adjacent/downstream licensed water users.
- Description of all works and surface infrastructure that will intercept, store, convey, or otherwise interact with surface water resources.
- Assessment of predicted impacts on the following:
  - flow of surface water, sediment movement, channel stability, and hydraulic regime,
  - water quality,
  - flood regime,
  - dependent ecosystems,
  - existing surface water users, and
  - planned environmental water and water sharing arrangements prescribed in the relevant water sharing plans.

## **Groundwater Assessment**

To ensure the sustainable and integrated management of groundwater sources, the EIS needs to include adequate details to assess the impact of the project on all groundwater sources.

Where it is considered unlikely that groundwater will be intercepted or impacted (for example by infiltration), a brief site assessment and justification for the minimal impacts may be sufficient, accompanied by suitable contingency measures in place in the event that groundwater is intercepted, and appropriate measures to ensure that groundwater is not contaminated.

Where groundwater is expected to be intercepted or impacted, the following requirements should be used to assist the groundwater assessment for the proposal.

- The known or predicted highest groundwater table at the site.
- Works likely to intercept, connect with or infiltrate the groundwater sources.
- Any proposed groundwater extraction, including purpose, location and construction details of all proposed bores and expected annual extraction volumes.
- Bore construction information is to be supplied to DPI Water by submitting a "Form A" template. DPI Water will supply "GW" registration numbers (and licence/approval numbers if required) which must be used as consistent and unique bore identifiers for all future reporting.
- A description of the watertable and groundwater pressure configuration, flow directions and rates and physical and chemical characteristics of the groundwater source (including connectivity with other groundwater and surface water sources).
- Sufficient baseline monitoring for groundwater quantity and quality for all aquifers and GDEs to establish a baseline incorporating typical temporal and spatial variations.
- The predicted impacts of any final landform on the groundwater regime.
- The existing groundwater users within the area (including the environment), any potential impacts on these users and safeguard measures to mitigate impacts.

- An assessment of groundwater quality, its beneficial use classification and prediction of any impacts on groundwater quality.
- An assessment of the potential for groundwater contamination (considering both the impacts of the proposal on groundwater contamination and the impacts of contamination on the proposal).
- Measures proposed to protect groundwater quality, both in the short and long term.
- Measures for preventing groundwater pollution so that remediation is not required.
- Protective measures for any groundwater dependent ecosystems (GDEs).
- Proposed methods of the disposal of waste water and approval from the relevant authority.
- The results of any models or predictive tools used.

Where potential impact/s are identified the assessment will need to identify limits to the level of impact and contingency measures that would remediate, reduce or manage potential impacts to the existing groundwater resource and any dependent groundwater environment or water users, including information on:

- Any proposed monitoring programs, including water levels and quality data.
- Reporting procedures for any monitoring program including mechanism for transfer of information.
- An assessment of any groundwater source/aquifer that may be sterilised from future use as a water supply as a consequence of the proposal.
- Identification of any nominal thresholds as to the level of impact beyond which remedial measures or contingency plans would be initiated (this may entail water level triggers or a beneficial use category).
- Description of the remedial measures or contingency plans proposed.
- Any funding assurances covering the anticipated post development maintenance cost, for example on-going groundwater monitoring for the nominated period.

### **Groundwater Dependent Ecosystems**

The EIS must consider the potential impacts on any Groundwater Dependent Ecosystems (GDEs) at the site and in the vicinity of the site and:

- Identify any potential impacts on GDEs as a result of the proposal including:
  - the effect of the proposal on the recharge to groundwater systems;
  - the potential to adversely affect the water quality of the underlying groundwater system and adjoining groundwater systems in hydraulic connections; and
  - the effect on the function of GDEs (habitat, groundwater levels, connectivity).
- Provide safeguard measures for any GDEs.

### **Watercourses, Wetlands and Riparian Land**

The EIS should address the potential impacts of the project on all watercourses likely to be affected by the project, existing riparian vegetation and the rehabilitation of riparian land. It is recommended the EIS provides details on all watercourses potentially affected by the proposal, including:

- Scaled plans showing the location of:
  - wetlands/swamps, watercourses and top of bank;
  - riparian corridor widths to be established along the creeks;
  - existing riparian vegetation surrounding the watercourses (identify any areas to be protected and any riparian vegetation proposed to be removed);

- the site boundary, the footprint of the proposal in relation to the watercourses and riparian areas; and
- proposed location of any asset protection zones.
- Photographs of the watercourses/wetlands and a map showing the point from which the photos were taken.
- A detailed description of all potential impacts on the watercourses/riparian land.
- A detailed description of all potential impacts on the wetlands, including potential impacts to the wetlands hydrologic regime; groundwater recharge; habitat and any species that depend on the wetlands.
- A description of the design features and measures to be incorporated to mitigate potential impacts.
- Geomorphic and hydrological assessment of water courses including details of stream order (Strahler System), river style and energy regimes both in channel and on adjacent floodplains.

### **Landform rehabilitation**

Where significant modification to landform is proposed, the EIS must include:

- Justification of the proposed final landform with regard to its impact on local and regional surface and groundwater systems;
- A detailed description of how the site would be progressively rehabilitated and integrated into the surrounding landscape;
- Outline of proposed construction and restoration of topography and surface drainage features if affected by the project; and
- An outline of the measures to be put in place to ensure that sufficient resources are available to implement the proposed rehabilitation.

### **Consultation and general enquiries**

General licensing enquiries can be made to Advisory Services: [water.enquiries@dpi.nsw.gov.au](mailto:water.enquiries@dpi.nsw.gov.au), 1800 353 104.

Assessment or state significant development enquiries, or requests for review or consultation should be directed to the Strategic Stakeholder Liaison Unit, [water.referrals@dpi.nsw.gov.au](mailto:water.referrals@dpi.nsw.gov.au).

A consultation guideline and further information is available online at:

[www.water.nsw.gov.au/water-management/law-and-policy/planning-and-assessment](http://www.water.nsw.gov.au/water-management/law-and-policy/planning-and-assessment)

**End Attachment A**



15 December 2015

Our Reference: SYD15/01543 (A11125480)  
Council Ref: SSD 7421

Senior Planner  
Industry Assessments  
Department of Planning & Environment  
GPO Box 39  
SYDNEY NSW 2001

Attention: Kate Masters

Dear Sir/Madam,

MORTDALE RESOURCE RECOVERY FACILITY  
20 HEARNE STREET, MORTDALE

Reference is made to the department's email dated 1 December 2015 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 Requirements (SEARs).

Roads and Maritime has reviewed the submitted draft SEARs and has no further request for inclusion.

Should you have any further inquiries in relation to this matter, please do not hesitate to contact Hans Pilly Mootanah on telephone 8849 2076 or by email at [development.sydney@rms.nsw.gov.au](mailto:development.sydney@rms.nsw.gov.au)

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'R. Nicholson', followed by a horizontal line.

Rachel Nicholson  
**A/ Senior Land Use Planner**  
**Network and Safety Section**