NSW GOVERNMENT | Planning & Infrastructure

Major Projects Assessment
Mining & Industry Projects
Contact: Andrew Hartcher
Phone: (02) 9228 6503
Fax: (02) 9228 6466
Email: andrew.hartcher@planning.nsw.gov.au

Our Ref: 12/08192

Mr Terry Wetherall
Partner
JBA Planning Pty Ltd
29 Beach Street
WOLLONGONG NSW 2500

Dear Mr Wetherall

State Significant Development - Director-General's Requirements
Kembla Grange Resource Recovery Facility, Wollongong (SSD – 5300)

I have attached a copy of the Director-General's environmental assessment requirements (DGRs) for the preparation of an Environmental Impact Statement for the Kembla Grange Resource Recovery Facility.

These requirements are based on the information you have provided to date and have been prepared in consultation with the relevant government agencies and Wollongong City Council. Their comments, which you should address appropriately when preparing the EIS, are also attached (see Attachment 2). Please note that the Department may alter these requirements at any time, and that you must consult further with the Department if you do not lodge a development application and EIS for the development within two years of the date of issue of these DGRs. The Department will review the EIS for the development carefully before putting it on public exhibition, and will require you to submit an amended EIS if it does not adequately address the DGRs.

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.

Your proposal may require a separate approval under Commonwealth *Environment Protection Biodiversity Conservation Act 1999* (EPBC Act). If an EPBC Act approval is required, I would appreciate it if you would advise the Department accordingly, as the Commonwealth approval process may be integrated into the NSW approval process, and supplementary DGR's may need to be issued.

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 required for review.

If you have any enquiries about these requirements, please contact Andrew Hartcher on the details above.

Yours sincerely,

20.5.12

Chris Wilson
Executive Director
Major Projects Assessment
As delegate for the Director-General

Director General's Environmental Assessment Requirements

Section 78A(8A) of the *Environmental Planning and Assessment Act*

State Significant Development

Application Number	SSD-5300
Development	The Kembla Grange Resource Recovery Facility which includes: • the processing of up to 230,000 tonnes per annum of compost, metal, soil, building, concrete and brick waste; • waste storage and stockpile areas; and • ancillary infrastructure including plant and equipment such as crushers, screens and front-end loaders.
Location	50 Wyllie Road, Kembla Grange, NSW (Lot 10 DP 878167) in the Wollongong Local Government Area
Applicant	Bicorp Pty Ltd
Date of Issue	May 2012
General Requirements	The Environmental Impact Statement (EIS) for the development must meet the form and content requirements in Clauses 6 and 7 of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000.* In addition, the EIS must include a: • detailed description of the development, including: – need for the proposed development having particular regard to the aims, objectives, and guidance in the *NSW Waste Avoidance and Resource Recovery Strategy 2007;* – justification for the proposed development; – likely staging of the development - including construction, and operational stage/s; – likely interactions between the development and existing, approved and proposed operations in the vicinity of the site; and – plans of any proposed building works. • consideration of all relevant environmental planning instruments, including identification and justification of any inconsistencies with these instruments; • risk assessment of the potential environmental impacts of the development, identifying the key issues for further assessment; • detailed assessment of the key issues specified below, and any other significant issues identified in this risk assessment, which includes: – a description of the existing environment, using sufficient baseline data; – an assessment of the potential impacts of all stages of the development, including any cumulative impacts, taking into consideration relevant guidelines, policies, plans and statutes; and – a description of the measures that would be implemented to avoid, minimise and if necessary, offset the potential impacts of the development, including proposals for adaptive management and/or contingency plans to manage any significant risks to the environment. • consolidated summary of all the proposed environmental management and monitoring measures, highlighting commitments included in the EIS.
Key Issues	The EIS must address the following specific matters: • **Strategic Landuse Planning** – including: - demonstration that the proposal is generally consistent with the aims and objectives of all relevant environmental planning instruments including, but not limited to, the *Wollongong Local Environment Plan (West Dapto) 2012* (WLEP), the *Illawarra Regional Strategy* and relevant Development Control Plans (DCPs); - justification for any inconsistency between the proposed development and these environmental planning instruments; - details on the suitability of the site for the proposed development; and

- demonstration that the proposed development would be located on the portion of the site zoned IN2 Light Industrial under the WLEP.

- **Waste Management** – including:
  - identify, classify and quantify the likely waste streams that would be handled/stored/disposed of at the facility;
  - describe how this waste would be treated, stored, used, disposed and handled on site, and transported to and from the site, and the potential impacts associated with these issues, including current and future offsite waste disposal methods; and
  - the measures that would be implemented to ensure that the development is consistent with the aims, objectives and guidance in the *NSW Waste Avoidance and Resource Recovery Strategy 2007*.
- **Air Quality and Odour** – including:
  - a quantitative assessment of the potential air quality and odour impacts of the development and the effectiveness of the proposed air quality / odour control measures;
  - construction and operational impacts, including dust generation from the transport of materials and stockpiles; and
  - details of the proposed management and monitoring measures.
- **Noise** – including a quantitative assessment of potential:
  - construction, operational and transport noise impacts, including potential impacts on nearby receivers; and
  - details of the proposed noise management and monitoring measures.
- **Soil & Water** – including:
  - a detailed water balance for the development outlining the measures that would be implemented to minimise the use of water on site and measures to ensure an adequate and secure water supply is available for the proposal;
  - wastewater predictions, and the measures that would be implemented to treat, reuse and/or dispose of this water;
  - the proposed erosion and sediment controls during construction;
  - the proposed stormwater management system; and
  - consideration of the potential watercourse, riparian corridor, groundwater, salinity, contamination, flooding and acid sulfate soil impacts of the development.
- **Traffic and Transport** – including:
  - details of traffic types and volumes likely to be generated during construction and operation;
  - an assessment of the predicted impacts of this traffic on the safety and capacity of the surrounding road network and a description of the measures that would be implemented to upgrade and/or maintain this network over time;
  - details of key transport routes, site access, internal roadways, infrastructure works and parking; and
  - detailed plans of the proposed layout of the internal road network and parking on site in accordance with the relevant Australian standards.
- **Biodiversity** – including impacts on critical habitats (including riparian habitat and groundwater dependent ecosystems), threatened species, populations, ecological communities and native vegetation.
- **Greenhouse Gas** – including:
  - a quantitative assessment of the potential scope 1, 2 and 3 greenhouse gas emissions of the development, and a qualitative assessment of the potential impacts of these emissions on the environment; and
  - a detailed description of the measure that would be implemented on site to ensure that the development is energy efficient.
- **Hazards** – including a Preliminary Hazard Analysis (PHA) of the development, and an assessment of the potential fire risks (including bushfire risks) of the development;
- **Visual** – including;
  - an assessment of the potential visual impacts of the development on the amenity of the surrounding area; and
  - a detailed description of the measures (e.g. landscaping) that would be implemented to minimise the visual impacts of the development.

	• **Socio-Economic** – including a comprehensive assessment of the economic and social impacts of the development, demonstrating that it would have a net benefit for the community, paying particular attention to the potential impacts of the development on waste minimisation and resource recovery in the region.
Plans and Documents	The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the *Environmental Planning and Assessment Regulation 2000*. These documents should be included as part of the EIS rather than as separate documents.
Consultation	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. In particular you must consult with: • Environment Protection Authority; • Office of Environment and Heritage; • Department of Primary Industries (including the NSW Office of Water); • Transport for NSW (including Roads and Maritime Services); • Wollongong City Council; and • the local community and stakeholders. 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.
Further consultation after 2 years	If you do not lodge an EIS for the development within 2 years of the issue date of these DGRs, you must consult with the Director-General in relation to the requirements for lodgement.
References	The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. While not exhaustive, Attachment 1 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

Aspect	Policy /Methodology
Risk Assessment	
	AS/NZS 4360:2004 Risk Management (Standards Australia)
	HB 203: 203:2006 Environmental Risk Management – Principles & Process (Standards Australia)
Waste	
	Waste Avoidance and Resource Recovery Strategy 2007 (DECC)
	Waste Classification Guidelines (DECC)
	Environmental Guidelines: Assessment Classification and Management of Non-Liquid and Liquid Waste (NSW EPA)
	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)
Air Quality	
	Protection of the Environment Operations (Clean Air) Regulation 2002
	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)
Odour	
	Technical Framework: Assessment and Management of Odour from Stationary Sources in NSW (DEC)
	Technical Notes: Assessment and Management of Odour from Stationary Sources in NSW (DEC)
Noise	
	NSW Industrial Noise Policy (DECC)
	NSW Road Noise Policy (EPA)
	Environmental Noise Control Manual (DECC)
Soil and Water	
	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)
Soil	Draft Guidelines for the Assessment & Management if Groundwater Contamination (DECC)
	State Environmental Planning Policy No. 55 – Remediation of Land
	Managing Land Contamination – Planning Guidelines SEPP 55 – Remediation of Land (DOP)
Surface Water	National Water Quality Management Strategy: Water quality management - an outline of the policies (ANZECC/ARMCANZ)
	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)
	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)
	Greater Metropolitan Regional Environmental Plan No. 2 – Georges River Catchment
	Managing Urban Stormwater: Soils & Construction (Landcom)
	Managing Urban Stormwater: Treatment Techniques (DECC)
	Managing Urban Stormwater: Source Control (DECC)
	Technical Guidelines: Bunding & Spill Management (DECC)
Groundwater	National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC)
	NSW State Groundwater Policy Framework Document (DLWC)
	NSW State Groundwater Quality Protection Policy (DLWC)
	NSW State Groundwater Quantity Management Policy (DLWC) Draft
	Guidelines for the Assessment and Management of Groundwater Contamination (DECC)
Transport	
	Guide to Traffic Generating Development (RTA)
	Road Design Guide (RTA)
Biodiversity	
	State Environmental Planning Policy No 44– Koala Habitat Protection (SEPP 44)
	Draft Guidelines for Threatened Species Assessment under Part 3A of the *Environmental Planning and Assessment Act 1979* (DEC)
	DECCW's Threatened Species Assessment Guidelines – Assessment of Significance (2007).
	Policy & Guidelines - Aquatic Habitat Management and Fish Conservation (NSW Fisheries)
	The NSW State Groundwater Dependent Ecosystem Policy (DLWC)
Greenhouse Gas	
	AGO Factors and Methods Workbook (AGO)
	Guidelines for Energy Savings Action Plans (DEUS, 2005)
Hazards	
	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
Heritage	
Aboriginal	Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (DEC)
Non- Aboriginal	NSW Heritage Manual (NSW Heritage Office & DUAP)
	The Burra Charter (The Australia ICOMOS charter for places of cultural significance)
Social & Economic	
	Draft Economic Evaluation in Environmental Impact Assessment (DOP)
	Techniques for Effective Social Impact Assessment: A Practical Guide (Office of Social Policy, NSW Government Social Policy Directorate)

ATTACHMENT 2
Agency EIS Requirements

NSW Department of Infrastructure and Planning
GPO Box 39
SYDNEY NSW 2001

Attention: Andrew Hartcher

Notice Number	1505958
File Number	FIL12/4723
Date	17-May-2012

Dear Mr Hartcher

Proposed Resource Recovery Facility - 50 Wylie Road, Kembla Grange

I refer to your request for the Environment Protection Authority's (EPA) requirements for the environmental impact statement (EIS) in regard to the above proposal received by the EPA on 8 May 2012.

The EPA has considered the details of the proposal as provided by the Department of Infrastructure and Planning and has identified the information it requires to issue its general terms of approval in Attachment A. In summary, the EPA's key information requirements for the proposal include an adequate assessment of:

1. Baseline conditions that exist at the site of the proposed development;
2. Potential environmental impacts arising from the development and its ongoing activities, including noise, dust, water quality, odours and visual impacts; and
3. Possible management and mitigation processes that will be implemented to protect the environment from these impacts.

Yours sincerely

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Cate Woods

Unit Head

Waste Operations

(by Delegation)

ATTACHMENT A: EIS REQUIREMENTS FOR

Proposed Resource Recovery Facility
50 Wylie Road, Kembla Grange

How to use these requirements

The EPA requirements have been structured in accordance with the DoPI 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

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

B The proposal

1. Objectives of the proposal

- The objectives of the proposal should be clearly stated and refer to:
  a) the size and type of the operation, the nature of the processes and the products, by-products and wastes produced
  b) a life cycle approach to the production, use or disposal of products
  c) the anticipated level of performance in meeting required environmental standards and cleaner production principles
  d) the staging and timing of the proposal and any plans for future expansion
  e) the proposal's relationship to any other industry or facility.

2. Description of the proposal

General

- Outline the production process including:
  a) the environmental "mass balance" for the process – quantify in-flow and out-flow of materials, any points of discharge to the environment and their respective destinations (sewer, stormwater, atmosphere, recycling, landfill etc)
  b) any life-cycle strategies for the products.
- Outline cleaner production actions, including:
  a) measures to minimise waste (typically through addressing source reduction)
  b) proposals for use or recycling of by-products
  c) proposed disposal methods for solid and liquid waste
  d) air management systems including all potential sources of air emissions, proposals to re-use or treat emissions, emission levels relative to relevant standards in regulations, discharge points
  e) water management system including all potential sources of water pollution, proposals for re-use, treatment etc, emission levels of any wastewater discharged, discharge points, summary of options explored to avoid a discharge, reduce its frequency or reduce its impacts, and rationale for selection of option to discharge.
- 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 www.environment.nsw.gov.au/ieo, using technical criteria derived from the Australian and New Zealand Guidelines for Fresh and Marine Water Quality, ANZECC 2000)
  b) the management of discharges with potential for water impacts
  c) drainage works and associated infrastructure; land-forming and excavations; working capacity of structures; and water resource requirements of the proposal.
- 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 *Waste Classification Guidelines 2010.*
- 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: *Waste Classification Guidelines 2010.*

ESD

- Demonstrate that the planning process and any subsequent development incorporates objectives and mechanisms for achieving ESD, including:

an assessment of a range of options available for use of the resource, including the benefits of each option to future generations

  f) proper valuation and pricing of environmental resources
  g) identification of who will bear the environmental costs of the proposal.

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

  reliability of proposed environmental impact mitigation measures
  e) efficient use (including maximising re-use) of land, raw materials, energy and other resources.

C The location

1. General

- Provide an overview of the affected environment to place the proposal in its local and regional environmental context including:
  a) meteorological data (eg rainfall, temperature and evaporation, wind speed and direction)
  b) topography (landform element, slope type, gradient and length)
  c) surrounding land uses (potential synergies and conflicts)
  d) geomorphology (rates of landform change and current erosion and deposition processes)
  e) soil types and properties (including erodibility; engineering and structural properties; dispersibility; permeability; presence of acid sulfate soils and potential acid sulfate soils)
  f) ecological information (water system habitat, vegetation, fauna)
  g) availability of services and the accessibility of the site for passenger and freight transport.

2. Air

- Describe the topography and surrounding land uses. Provide details of the exact locations of dwellings, schools and hospitals. Where appropriate provide a perspective view of the study area such as the terrain file used in dispersion models.
- Describe surrounding buildings that may effect plume dispersion.
- Provide and analyse site representative data on following meteorological parameters:
  a) temperature and humidity
  b) rainfall, evaporation and cloud cover
  c) wind speed and direction
  d) atmospheric stability class
  e) katabatic air drainage
  f) air re-circulation.

3. Noise and vibration

- Identify any noise sensitive locations likely to be affected by activities at the site, such as residential properties, schools, churches, and hospitals. Typically the location of any noise sensitive locations in relation to the site should be included on a map of the locality.
- Identify the land use zoning of the site and the immediate vicinity and the potentially affected areas.

4. Water

- Describe the catchment including proximity of the development to any waterways and provide an assessment of their sensitivity/significance from a public health, ecological and/or economic perspective. The Water Quality and River Flow Objectives on the website: www.environment.nsw.gov.au/ieo should be used to identify the agreed environmental values and human uses for any affected waterways. This will help with the description of the local and regional area.

5. Soil Contamination Issues

- Provide details of site history – if earthworks are proposed, this needs to be considered with regard to possible soil contamination, for example if the site was previously a landfill site or if irrigation of effluent has occurred.

D Identification and prioritisation of issues / scoping of impact assessment

- Provide an overview of the methodology used to identify and prioritise issues. The methodology should take into account:
  a) relevant NSW government guidelines
  b) industry guidelines
  c) EISs for similar projects
  d) relevant research and reference material
  e) relevant preliminary studies or reports for the proposal
  f) consultation with stakeholders.
- Provide a summary of the outcomes of the process including:
  a) all issues identified including local, regional and global impacts (eg increased/ decreased greenhouse emissions)
  b) key issues which will require a full analysis (including comprehensive baseline assessment)
  c) issues not needing full analysis though they may be addressed in the mitigation strategy
  d) justification for the level of analysis proposed (the capacity of the proposal to give rise to high concentrations of pollution compared with the ambient environment or environmental outcomes is an important factor in setting the level of assessment).

E The environmental issues

1. General

- The potential impacts identified in the scoping study need to be assessed to determine their significance, particularly in terms of achieving environmental outcomes, and minimising environmental pollution.
- Identify gaps in information and data relevant to significant impacts of the proposal and any actions proposed to fill those information gaps so as to enable development of appropriate management and mitigation measures. This is in accordance with ESD requirements.

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: 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.

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 and Guidance for the Modelling and Assessment of Air Pollutants in NSW* (EPA, 2001); *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW* (EPA, 2001); *Assessment and Management of Odour from Stationary Sources in NSW* (EPA, 2001); *Technical Notes: Draft Policy: Assessment and Management of Odour from Stationary Sources in NSW (EPA, 2001).*

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:

details of equipment used for the measurements

h) a brief description of where the equipment was positioned

i) a statement justifying the choice of monitoring site, including the procedure used to choose the site, having regards to the definition of 'noise sensitive locations(s)' and 'most affected locations(s)' described in Section 3.1.2 of the *NSW Industrial Noise Policy*

j) details of the exact location of the monitoring site and a description of land uses in surrounding areas

k) a description of the dominant and background noise sources at the site

l) day, evening and night assessment background levels for each day of the monitoring period

m) the final Rating Background Level (RBL) value

n) graphs of the measured noise levels for each day should be provided

o) a record of periods of affected data (due to adverse weather and extraneous noise), methods used to exclude invalid data and a statement indicating the need for any re-monitoring under Step 1 in Section B1.3 of the *NSW Industrial Noise Policy*

p) determination of LAeq noise levels from existing industry.

Assess impacts

- Determine the project specific noise levels for the site. For each identified potentially affected receiver, this should include:
  a) determination of the intrusive criterion for each identified potentially affected receiver
  b) selection and justification of the appropriate amenity category for each identified potentially affected receiver
  c) determination of the amenity criterion for each receiver
  d) determination of the appropriate sleep disturbance limit.
- Maximum noise levels during night-time period (10pm-7am) should be assessed to analyse possible affects on sleep. Where LA1(1min) noise levels from the site are less than 15 dB above the background LA90 noise level, sleep disturbance impacts are unlikely. Where this is not the case, further analysis is required. Additional guidance is provided in Appendix B of the *NSW Environmental Criteria for Road Traffic Noise.*
- Determine expected noise level and noise character (eg tonality, impulsiveness, vibration, etc) likely to be generated from noise sources during:
  a) site establishment
  b) construction
  c) operational phases
  d) transport including traffic noise generated by the proposal
  e) other services.

  Note: The noise impact assessment report should include noise source data for each source in 1/1 or 1/3 octave band frequencies including methods for references used to determine noise source levels. Noise source levels and characteristics can be sourced from direct measurement of similar activities or from literature (if full references are provided).
- Determine the noise levels likely to be received at the most sensitive locations (these may vary for different activities at each phase of the development). Potential impacts should be determined for any identified significant adverse meteorological conditions. Predicted noise levels under calm conditions may also aid in quantifying the extent of impact where this is not the most adverse condition.
- The noise impact assessment report should include:
  a) a plan showing the assumed location of each noise source for each prediction scenario
  b) a list of the number and type of noise sources used in each prediction scenario to simulate all potential significant operating conditions on the site
  c) any assumptions made in the predictions in terms of source heights, directivity effects, shielding from topography, buildings or barriers, etc
  d) methods used to predict noise impacts including identification of any noise models used. Where modelling approaches other than the use of the ENM or SoundPlan computer models are adopted, the approach should be appropriately justified and validated
  e) an assessment of appropriate weather conditions for the noise predictions including reference to any weather data used to justify the assumed conditions

f) the predicted noise impacts from each noise source as well as the combined noise level for each prediction scenario under any identified significant adverse weather conditions as well as calm conditions where appropriate

g) for developments where a significant level of noise impact is likely to occur, noise contours for the key prediction scenarios should be derived

h) an assessment of the need to include modification factors as detailed in Section 4 of the *NSW Industrial Noise Policy*.

- Discuss the findings from the predictive modelling and, where relevant noise criteria have not been met, recommend additional mitigation measures.
- The noise impact assessment report should include details of any mitigation proposed including the attenuation that will be achieved and the revised noise impact predictions following mitigation.
- Where relevant noise/vibration criteria cannot be met after application of all feasible and cost effective mitigation measures the residual level of noise impact needs to be quantified by identifying:

  a) locations where the noise level exceeds the criteria and extent of exceedence

  b) numbers of people (or areas) affected

  c) times when criteria will be exceeded

  d) likely impact on activities (speech, sleep, relaxation, listening, etc)

  e) change on ambient conditions

  f) the result of any community consultation or negotiated agreement.

- For the assessment of existing and future traffic noise, details of data for the road should be included such as assumed traffic volume; percentage heavy vehicles by time of day; and details of the calculation process. These details should be consistent with any traffic study carried out in the EIS.

Describe management and mitigation measures

- Determine the most appropriate noise mitigation measures and expected noise reduction including both noise controls and management of impacts for both construction and operational noise. This will include selecting quiet equipment and construction methods, noise barriers or acoustic screens, location of stockpiles, temporary offices, compounds and vehicle routes, scheduling of activities, etc.
- For traffic noise impacts, provide a description of the ameliorative measures considered (if required), reasons for inclusion or exclusion, and procedures for calculation of noise levels including ameliorative measures. Also include, where necessary, a discussion of any potential problems associated with the proposed ameliorative measures, such as overshadowing effects from barriers. Appropriate ameliorative measures may include:

  a) use of alternative transportation modes, alternative routes, or other methods of avoiding the new road usage

  b) control of traffic (eg: limiting times of access or speed limitations)

  c) resurfacing of the road using a quiet surface

  d) use of (additional) noise barriers or bunds

  e) treatment of the façade to reduce internal noise levels buildings where the night-time criteria is a major concern

f) more stringent limits for noise emission from vehicles (i.e. using specially designed 'quite' trucks and/or trucks to use air bag suspension

g) driver education

h) appropriate truck routes

i) limit usage of exhaust breaks

j) use of premium muffles on trucks

k) reducing speed limits for trucks

l) ongoing community liaison and monitoring of complaints

m) phasing in the increased road use.

4. Water

Describe baseline conditions

- Describe existing surface and groundwater quality – an assessment needs to be undertaken for any water resource likely to be affected by the proposal and for all conditions (e.g. a wet weather sampling program is needed if runoff events may cause impacts).

  Note: Methods of sampling and analysis need to conform with an accepted standard (e.g. Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (EPA 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: www.environment.nsw.gov.au/ieo. The EIS should state the environmental values listed for the catchment and waterway type relevant to your proposal. NB: A consolidated and approved list of environmental values are not available for groundwater resources. Where groundwater may be affected the EIS should identify appropriate groundwater environmental values and justify the choice.
- State the indicators and associated trigger values or criteria for the identified environmental values. This information should be sourced from the ANZECC 2000 *Guidelines for Fresh and Marine Water Quality* (http://www.deh.gov.au/water/quality/nwqms/volume1.html)(Note that, as at 2004, the NSW Water Quality Objectives booklets and website contain technical criteria derived from the 1992 version of the ANZECC Guidelines. The Water Quality Objectives remain as Government Policy, reflecting the community's environmental values and long-term goals, but the technical criteria are replaced by the more recent ANZECC 2000 Guidelines). NB: While specific guidelines for groundwater are not available, the ANCECC 2000 Guidelines endorse the application of the trigger values and decision trees as a tool to assess risk to environmental values in groundwater.
- State any locally specific objectives, criteria or targets, which have been endorsed by the government e.g. the Healthy Rivers Commission Inquiries (www.hrc.nsw.gov.au) or the NSW Salinity Strategy (DLWC, 2000) (www.dlwc.nsw.gov.au/care/salinity/#Strategy).
- 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 DECCW on the approach and study design must be obtained.

- Describe the state of the receiving waters and relate this to the relevant Water Quality and River Flow Objectives (i.e. are Water Quality and River Flow Objectives being achieved?). Proponents are generally only expected to source available data and information. However, proponents of large or high risk developments may be required to collect some ambient water quality / river flow / groundwater data to enable a suitable level of impact assessment. Issues to include in the description of the receiving waters could include:
  a) lake or estuary flushing characteristics
  b) specific human uses (e.g. exact location of drinking water offtake)
  c) sensitive ecosystems or species conservation values
  d) a description of the condition of the local catchment e.g. erosion levels, soils, vegetation cover, etc
  e) an outline of baseline groundwater information, including, but not restricted to, depth to watertable, flow direction and gradient, groundwater quality, reliance on groundwater by surrounding users and by the environment
  f) historic river flow data where available for the catchment.

Assess impacts

- No proposal should breach clause 120 of the *Protection of the Environment Operations Act* 1997 (i.e. pollution of waters is prohibited unless undertaken in accordance with relevant regulations).
- Identify and estimate the quantity of all pollutants that may be introduced into the water cycle by source and discharge point including residual discharges after mitigation measures are implemented.
- Include a rationale, along with relevant calculations, supporting the prediction of the discharges.
- Describe the effects and significance of any pollutant loads on the receiving environment. This should include impacts of residual discharges through modelling, monitoring or both, depending on the scale of the proposal. Determine changes to hydrology (including drainage patterns, surface runoff yield, flow regimes, wetland hydrologic regimes and groundwater).
- Describe water quality impacts resulting from changes to hydrologic flow regimes (such as nutrient enrichment or turbidity resulting from changes in frequency and magnitude of stream flow).
- Identify any potential impacts on quality or quantity of groundwater describing their source.
- Identify potential impacts associated with geomorphological activities with potential to increase surface water and sediment runoff or to reduce surface runoff and sediment transport. Also consider possible impacts such as bed lowering, bank lowering, instream siltation, floodplain erosion and floodplain siltation.
- Identify impacts associated with the disturbance of acid sulfate soils and potential acid sulfate soils.
- Containment of spills and leaks shall be in accordance with the technical guidelines section 'Bunding and Spill Management' of the *Authorised Officers Manual* (EPA, 1995) (http://www.environment.nsw.gov.au/mao/bundingspill.htm) and the most recent versions of the Australian Standards referred to in the Guidelines. Containment should be designed for no-discharge.
- 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 DECCW 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* (Landcom, 2004), *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* (DECCW 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.

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 DECCW).

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 2010.*

Describe management and mitigation measures

- Outline measures to minimise the consumption of natural resources.
- Outline measures to avoid the generation of waste and promote the re-use and recycling and reprocessing of any waste.
- Outline measures to support any approved regional or industry waste plans.

7. Cumulative impacts

- Identify the extent that the receiving environment is already stressed by existing development and background levels of emissions to which this proposal will contribute.
- Assess the impact of the proposal against the long term air, noise and water quality objectives for the area or region.
- Identify infrastructure requirements flowing from the proposal (eg water and sewerage services, transport infrastructure upgrades).
- Assess likely impacts from such additional infrastructure and measures reasonably available to the proponent to contain such requirements or mitigate their impacts (eg travel demand management strategies).

F. List of approvals and licences

- Identify all approvals and licences required under environment protection legislation including details of all scheduled activities, types of ancillary activities and types of discharges (to air, land, water).

G. Compilation of mitigation measures

- Outline how the proposal and its environmental protection measures would be implemented and managed in an integrated manner so as to demonstrate that the proposal is capable of complying with statutory obligations under DECCW licences or approvals (eg outline of an environmental management plan).
- The mitigation strategy should include the environmental management and cleaner production principles which would be followed when planning, designing, establishing and operating the proposal. It should include two sections, one setting out the program for managing the proposal and the other outlining the monitoring program with a feedback loop to the management program.

H. Justification for the Proposal

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

Department of Primary Industries
Office of Water

Contact Janne Grose
Phone 02 4729 8262
Fax 02 4729 8141
Email janne.grose@water.nsw.gov.au

Our ref ER21889
Your ref SSD-5300

Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Attention: Andrew Hartcher

Dear Andrew

Kembla Grange Resource Recovery Facility (SSD5300)

I refer to your letter of 8 May 2012 to the NSW Office of Water's (Office of Water) requesting input into the environmental assessment requirements for the preparation of the Environmental Impact Statement (EIS) for the above development proposal.

The Office of Water has reviewed the Supporting Information document and provides the following key issues to be addressed in the Environmental Impact Statement (EIS) including an expanded list of assessment requirements detailed in **Attachment A.**

Key issues to be addressed in the EIS for the proposal include:

- Compliance with the rules in any relevant Water Sharing Plan (WSP) and legislation.
- An assessment of the impact of the proposal on watercourses and riparian areas, groundwater sources and groundwater dependent ecosystems
- Adequate mitigating and monitoring requirements to address impacts to surface water and groundwater sources and dependent ecosystems.
- Construction of watercourse crossings and/or any works in or within 40m of a watercourse must demonstrate consistency with NSW Office of Water's Controlled Activity Guidelines. http://www.water.nsw.gov.au/Water-Licensing/Approvals/Controlled-activities/default.aspx

The Office of Water requests that all referrals from the Department of Planning and Infrastructure for this proposal include one (1) **hard copy** and one (1) **CD** copy of the EIS and any other accompanying documentation.

Should you require further information please contact Janne Grose, Planning and Assessment Coordinator on (02) 4729 8262 at the Penrith office.

Yours sincerely

Mark Mignanelli
Manager Major Projects, Mines and Assessment
25 May 2012

Key Issues and Assessment Requirements
Kembla Grange Resource Recovery Facility (SSD5300)

Relevant Legislation
The Environmental Impact Statement (EIS) should take into account the objects and regulatory requirements of the *Water Act 1912* and *Water Management Act 2000* (WMA 2000), as applicable. Proposals and management plans should be consistent with the Objects (s.3) and Water Management Principles (s.5) of the *WMA*.

Water Sharing Plans
The proposal is within the area covered by the *Water Sharing Plan for the Greater Metropolitan Region Unregulated River Water Sources* and the *Water Sharing Plan for the Greater Metropolitan Region Groundwater sources*. The WSP prepared under the provisions of the WMA 2000 establishes the rules for access to, and the sharing of water between the environmental needs of the surface or groundwater source and water users. The EIS needs to:

- Demonstrate how the proposal is consistent with the relevant rules of the WSP 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, water quality and surface-groundwater connectivity.
- Provide a description of any site water use (amount of water 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.

Refer to: http://www.water.nsw.gov.au/Water-Management/Water-sharing/default.aspx .

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

- NSW State Rivers and Estuary Policy (1993);
- NSW State Groundwater Policy Framework Document (1997);
- NSW State Groundwater Quality Protection Policy (1998);
- NSW State Groundwater Dependent Ecosystems Policy (2002); and
- Office of Water Guidelines for Controlled Activities (2010/ 2011).

http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/default.aspx

Licensing Considerations
The EIS is required to provide:

- Details of the water supply source(s) for the proposal including any proposed surface water and groundwater extraction and all water supply works to take water.
- 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) and
- Details on all bores and excavations for the purpose of investigation, extraction, dewatering, testing and monitoring and an approval obtained from the Office of Water prior

to their installation. All predicted groundwater take must be accounted for through adequate licensing

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

Watercourses and Riparian land

The Pre-lodgement Notes of 2 April 2012 indicates the development would occur within 40 metres of the top of the bank of a watercourse. Aerial photography indicates a watercourse partly flows through the top north-west section of the site and another watercourse flows through the middle of the site. The EIS should address the potential impacts of the project on all watercourses affected by the project, existing riparian vegetation and the rehabilitation of riparian land.

It is recommended the EIS provides details on all watercourses located on the site and in the vicinity of the site, including:

- scaled plans showing the location of:
  - top of bank
  - riparian setbacks (measured from top of bank) to be protected and enhanced.
  - remnant riparian vegetation surrounding the watercourses (identify any areas to be protected and any native riparian vegetation proposed to be removed)
  - the site boundary, the footprint of the proposal in relation to the watercourses and riparian areas
- photographs of the watercourses
- Detailed description of all potential environmental impacts in terms of channel stability, riparian areas, sediment movement, water quality and hydraulic regime;
- Description of the design features and measures to be incorporated into the proposal to guard against long term actual and potential environmental disturbances, particularly in respect of maintaining the natural hydrological regime and sediment movement patterns and the identification of riparian buffers;
- Details of the impact on water quality and remedial measures proposed to address any possible adverse effects.

The EIS must demonstrate that any works in or within 40m of a watercourse are consistent with NSW Office of Water's Controlled Activity Guidelines. http://www.water.nsw.gov.au/Water-Licensing/Approvals/Controlled-activities/default.aspx

The Pre-lodgement Notes state that the development shall comply with Wollongong Development Control Plan 2009 (DCP). Chapter E23 of this DCP refers to riparian land management requirements, including the application of the Riverine Corridor Management Strategy (RCMS) (for a copy of the RCMS see Wollongong Council's website under planning and development; planning for the future; Wollongong planning studies; Riparian Corridor Management Study).

Riparian land should be protected and conserved, or revegetated with native plant species endemic to the vegetation community of this local area at a density that would occur naturally.

The EIS should also provide details on the proposed location of any Asset Protection Zone (APZ) requirements in relation to the riparian land. Any APZs should be located outside the riparian areas but may be located adjacent to but outside the vegetated buffer.

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 including:

- the predicted highest groundwater table at the site.
- any 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.
- a description of the flow directions and rates and physical and chemical characteristics of the groundwater source.
- 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 the quality of the groundwater for the local groundwater catchment
- an assessment of groundwater contamination (considering both the impacts of the proposal on groundwater contamination and the impacts of contamination on the proposal).
- how the proposed development will not potentially diminish the current quality of groundwater, 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 should provide details on the presence and distribution of Groundwater Dependent Ecosystems (GDEs) in the vicinity of the site and:

- demonstrate that the proposed development would maintain natural patterns of groundwater flow and not disrupt groundwater levels that are critical to GDEs;

- 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;
  - the effect on the function of GDEs (habitat, groundwater levels, connectivity); and
- provide safeguard measures for any GDEs.

GDEs are ecosystems which have their species composition and natural ecological processes wholly or partially determined by groundwater. GDEs represent a vital component of the natural environment and can vary in how they depend on groundwater, from having occasional or no apparent dependence through to being entirely dependent. GDEs occur across both the surface and subsurface landscapes ranging in area from a few metres to many kilometres. Surface and groundwaters are often interlinked and aquatic ecosystems may have a dependence on both.

End Attachment A
25 May 2012

Our Ref: STH09/02554
Contact: Andrea Boes 4221 2771
Your Ref: SSD 5300

Transport Roads & Maritime Services

Department of Planning & Infrastructure
GPO Box 39
Sydney NSW 2001

Attention: Andrew Hartcher

WOLLONGONG CITY COUNCIL – STATE SIGNIFICANT DEVELOPMENT – KEMBLA GRANGE RESOURCE RECOVERY FACILITY – DIRECTOR GENERAL'S REQUIREMENTS

Dear Sir

Reference is made to your letter dated 8 May 2012 regarding the subject State Significant Development application forwarded to Roads and Maritime Services (RMS) for consideration.

RMS has reviewed the information provided and considers that the following information should be addressed in the Environmental Impact Statement (EIS):

- A Traffic Impact Study is required. As a guide Table 2.1 of the RMS' Guide to Traffic Generating Developments outlines the key issues that may be considered in preparing a Traffic Impact Study.
- The applicant should identify suitable infrastructure required to ameliorate any traffic impacts and safety impacts associated with the development. This should include identification of pedestrian, cyclists and public transport infrastructure.
- RMS strongly recommends that the developer considers the environmental impacts of any proposed roadworks as part of the Statement of Environmental Effects. If these impacts are not considered, then the RMS would require the applicant to provide a separate environmental impact assessment, a 'Review of Environmental Factors' prior to commencing any works that were conditioned as requirements of the development

RMS will commence its detailed assessment once the aforementioned information is provided to its satisfaction. Should you require any clarification on this matter please call Andrea Boes on 4221 2771.

Yours faithfully

29 MAY 2012

Brian Lefoe
Road Safety and Traffic Manager
Network Management, Southern Region
Cc – The General Manager, Wollongong City Council (via email)

WOLLONGONG CITY COUNCIL

Address 41 Burelli Street Wollongong Post Locked Bag 8821 Wollongong DC NSW 2500
Phone (02) 4227 7111 Ÿ Fax (02) 4227 7277 Email council@wollongong.nsw.gov.au
Web www.wollongong.nsw.gov.au ABN 63 139 525 939 Ÿ GST Registered

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Department of Planning & Infrastructure
GPO BOX 39
SYDNEY NSW 2001

APPLICATION	DE-2012/84
Date	25 May 2012

ATTN: Mr Andrew Hartcher

Dear Mr Hartcher

RE: Kembla Grange Resource Recovery Facility (SSD 5300)

I refer to your correspondence dated 8 May 2012 regarding the above matter and advise that Council has reviewed the adequacy of the proponent's State Significant Development application as relates to the Director –General's environmental assessment requirements (DGR's).

Council notes that the proponent has only provided a brief statement of supporting information to accompany the SSD application. No information has been provided with regard to the location of the proposed development, layout, plans or detailed processes. On the basis of the limited information, Council provides the following general comments for your consideration:

Planning

The subject site, 50 Wyllie Road, Kembla Grange identified as Lot 10 DP 878167 is zoned part IN2 Light Industrial and part RE2 Private Recreation pursuant to Wollongong Local Environmental Plan (West Dapto) 2010. No information has been provided in regard to the location and siting of the proposed development within the site and specifically with regards to the zoning of the site.

Permissibility of the proposed development will be required to be considered. Under WLEP (West Dapto) 2010 "waste or resource management facilities" are permitted within consent in IN2 zone however, prohibited in RE2. The IN2 zoned portion of the land located within the south western corner of the site has a maximum allowable floor space ratio of 0.5:1 and the RE2 portion of the site has no applicable floor space ratio. The entire site has a maximum allowable building height of 9m.

Council has knowledge of the site history with the consideration of a development application DA-2009/1153. This application granted consent for a building material storage and recycling facility for a processing capacity of up to 20,000 tonnes per year. The facility proposed to manage products sourced from building demolition sites including timber, metal, brick/masonry and concrete. Consent for DA-2009/1153 was granted subject to condition on 29 April 2010 as Integrated Development under the Water Management Act 2000. Council is currently assessing a modification application, DA-2009/1153/A to increase the annual tonnage of this facility for up to 29,999 tonnes including the processing of green waste which has yet to be determined.

Consideration is required of Clause 6.2 (Development control plan) of WLEP (West Dapto) 2010 in conjunction with Chapter D16 (West Dapto Release Area) of the Wollongong DCP 2009 which requires the proponent to submit a Neighbourhood Plan in consultation with adjacent landowners. Defined Neighbourhoods are shown in Figure 5.1 of Chapter D16. A Neighbourhood Plan enables adjacent landowners to jointly consider common constraints and design issues and will be exhibited as an

amendment to the West Dapto Masterplan whereby the Plan is to be in place prior to the determination of a development application.

A watercourse traverses the site and the site is affected by a riparian corridor. The requirements of clause 7.6 of WLEP (West Dapto) 2010 are to be addressed to ensure the development does not adversely impact on riparian lands.

Council records identify the site to be bushfire affected. The proponent should provide bushfire assessment report and the assessment will need to take into consideration NSW Rural Fire Service "Planning for Bushfire Protection 2006".

Council records indicate that the site has the potential to be affected by contaminated land. The proponent and assessment will need to consider the requirements of State Environmental Planning Policy No. 55 – Remediation of Land and such that the proposed use is suitable for the land.

The site is also identified to be potentially affected by acid sulfate soils. Consideration should be given to Clause 7.1 of WLEP (West Dapto) 2010 such that the proposed development does not cause environmental damage and identify whether the proposal requires an acid sulfate soils management plan.

Traffic

The proposal is listed in Column 2 of Schedule 3 of SEPP Infrastructure as Traffic Generating Development which requires consideration by NSW Roads and Maritime Services. Accordingly the applicant needs to provide a Traffic Impact Assessment (TIA) in accordance with the RTA Guide to Traffic Generating Development. The assessment will need to consider the future road network, existing and future background traffic with and without the development. The assessment should provide a multi-modal analysis of the traffic generation to/from the site and thorough consideration of safety/capacity implications on local and State Roads.

The proponent and consent authority should refer to Wollongong DCP 2009 Chapters E3, B5 and D16 and the Australian Standard series, in particular AS2890.1, AS2890.2, and AS2890.6.

A key consideration of the Neighbourhood Plan as required by Clause 6.2 of WLEP (West Dapto) 2010 and TIA is the future upgrade of Wyllie Road which will become part of the proposed Northcliffe Drive Extension; a 4 lane major collector road with a significant intersection treatment (roundabout) midway along the site. Given the future functional classification of Wyllie Road, the applicant should provide one centralised access point from the proposed roundabout. It is noted that Council's Traffic Section would not support additional accesses from a major collector.

Landscape

A landscape plan for the proposed development would be required to address the further expansion of the site and consideration to Chapter E6 Landscaping of Wollongong DCP 2009.

Stormwater

A flood study should be carried out by a suitably qualified consulting civil engineer for the watercourse traversing the site to determine the development potential of this property strictly in accordance with the requirements of Chapters E13 and E14 of Wollongong DCP 2009 and the NSW Governments' Floodplain Development Manual 2005.

In preparing the flood study "Climate Change" impacts should also be considered by increasing rainfall intensities as recommended by The Office of Environment and Heritage within the Department of Premier and Cabinet.

In connection with the above all floodplain and stormwater management aspects of this development should be designed strictly in accordance with Chapters E13 and E14 of Council's Wollongong DCP 2009, the Institute of Engineers Australia's AR & R. and the NSW Government's Floodplain Development Manual 2005.

In relation to the abovementioned matters consideration should also be given to the Mullet and Brooks Creeks Floodplain Risk Management Study and Plan dated February 2010, Mullet Creek, West Dapto Extension of Model dated December 2011 and Chapter D16 (West Dapto Release Area) in Council's Wollongong DCP 2009.

It is recommended that a green corridor be established along the Category 2 watercourse traversing the site by defining the "Riparian" extents (Council's Environment Section) and the "Probable Maximum Flood (PMF)" extents (Flood Study) and establishing the greater of the two as being a "Green Corridor" or "Environmental Corridor". In this respect in determining the development potential of the site Council's Riparian Corridor Management Study should also be considered. The above principle will ensure the preservation of riparian habitat for aquatic based flora and fauna in addition to providing a "green belt" and environmental corridor through this development.

Geotechnical

A geotechnical report should be submitted as per Chapter E12 of Wollongong DCP 2009 as Council records list the land to be identified as potentially unstable land. Geotechnical implications of the proposed development will be required to be considered with regard the geotechnical constraints of the site.

Environmental

The proponent has identified the potential environmental impacts such dust, noise, odour and water quality and will be addressed in Environmental Impact Statement (EIS). The EIS submitted should assess both the direct and indirect ecological impacts associated with the site.

A flora and fauna assessment undertaken by a suitably qualified ecologist is required to be included in the EIS. The assessment must be undertaken in accordance with the provisions of Chapter E18: Threatened Species Impact Assessment" of Wollongong DCP 2009. Of particular reference to the subject site are the potential indirect impacts associated with the development proposed given that the development would likely be contained within the cleared portion of the site and therefore would require minimal vegetation removal. Any trees requiring removal within this section should be searched for habitat components (eg. Hollows).

An assessment of the impacts on the riparian area running through the property is also required. The development would need to be designed in order to meet the riparian corridor objectives outlined in Chapter 23 Riparian Land Management of Wollongong DCP 2009.

A Vegetation Management Plan (VMP) would need to be submitted which outlines the management of existing vegetation on the site and for the management of the required riparian corridor. The VMP should include clear objectives, responsibilities and timelines.

A dust assessment and management report should be provided to ensure the dust generated from the proposed development is acceptable and can be appropriately managed such that are not adverse impacts on the surrounding area in particular the residences of Farmborough Heights.

An acoustic assessment report should be provided to ensure that the noise generated from the activities associated with the proposed use is acceptable and will not adversely impact the nearby residents in particularly the residential area of Farmborough Heights to the north, north east of the site.

On site stormwater management is should be detailed to ensure the water quality of the watercourse is not affected. As it is envisaged that the proposed development will generate nutrient rich runoff that will require appropriate controls prior to discharge into natural watercourse.

Should you require any further assistance with regard to this matter please contact John Wood – City Wide Development Manager direct on (02) 4227 7365.

Yours faithfully

David Farmer
General Manager
Wollongong City Council
Direct Line (02) 4227 7010