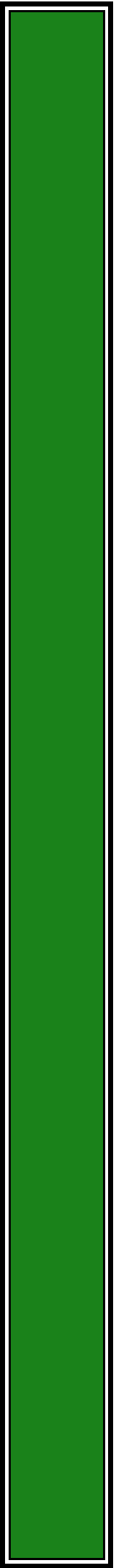


Appendix 9

Secretary's Environmental Assessment Requirements





Planning & Environment

Development Assessment Systems & Approvals Industry, Key Sites & Social Projects

Contact: David Mooney

Phone: (02) 9228 2040

Fax: (02) 9228 6566

Email: david.mooney@planning.nsw.gov.au

Mr Martin Hodgson
Hodgson Quarry Products
PO Box 1778
GOSFORD NSW 2250

Ref: SSD 6518

Dear Mr Hodgson

State Significant Development – Environmental Assessment Requirements Hodgsons Quarry Recycling Facility, Frazer Park (SSD 6518)

I have attached a copy of the Secretary's environmental assessment requirements (EARs) for the preparation of an Environmental Impact Statement (EIS) for the proposed recycling facility at Hodgson's Quarry, Frazer Park.

These requirements are based on the information you have provided to date and have been prepared in consultation with the relevant government agencies and Lake Macquarie City Council. The agency and Council comments, which you should address appropriately when preparing the EIS, are also attached (see **Attachment 2**). Please note that the department may alter these EARs 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 the EARs.

The proposed development may require a separate approval under the Commonwealth *Environment Protection Biodiversity Conservation Act 1999* (EPBC Act). If an EPBC Act approval is required, you should advise the department. The Commonwealth approval process may be integrated into the NSW approval process and in which case supplementary EARs may need to be issued.

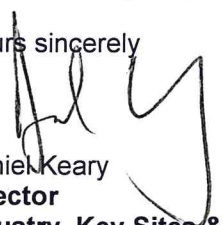
The department will review the EIS for the proposed development before placing it on public exhibition. If the department considers that the EIS does not adequately address the EARs, you may be required to submit an amended EIS.

I wish to emphasise the importance of effective and genuine community consultation and the need for a proactive approach to community concerns. A comprehensive, detailed and genuine community consultation process must be undertaken during preparation of the EIS. This process must ensure that the community is informed of the proposal and is actively engaged with the issues of concern to it. Sufficient and accurate information must be provided to the community so that it has a good understanding of the proposal and the potential impacts.

I would appreciate it if you would contact the department at least two weeks before you intend to submit the DA and EIS for the proposed development to determine the appropriate application fee and to make suitable arrangements for the review and subsequent public exhibition of the EIS.

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

Yours sincerely


17/6/14
Daniel Keary
Director
Industry, Key Sites & Social Projects
as the Secretary's nominee

Secretary's Environmental Assessment Requirements

Section 78A(8A) of the *Environmental Planning and Assessment Act 1979*

State Significant Development

Application Number	SSD 6518
Development	Proposed construction and demolition waste recycling facility
Location	800-900 Pacific Highway, Frazer Park
Applicant	Hodgson Quarry Products
Date of Issue	17 June 2014
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 <i>Environmental Planning and Assessment Regulation 2000</i>. In addition, the EIS must include a: • detailed description of the development, including: – need for the proposed development; – justification for the proposed development; – likely staging of the development; – likely interactions between the development and existing, approved and proposed operations in the vicinity of the site; and – plans of any proposed 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, <u>using sufficient baseline data</u>; – 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, mitigate and if necessary, offset the potential impacts of the development, including proposals for adaptive management and/or contingency plans to manage significant risks to the environment; and • consolidated summary of all the proposed environmental management and monitoring measures, highlighting commitments included in the EIS. The EIS must also be accompanied by a report from a qualified quantity surveyor providing: • a detailed calculation of the capital investment value (CIV) of the proposal as defined in clause 3 of the <i>Environmental Planning and Assessment Regulation 2000</i>, including details of all components of the CIV; and • 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.
Key Issues	The EIS must address the following specific matters: • strategic context – including: – detailed justification for the proposal and suitability of the site; and – demonstration that the proposal is generally consistent with all relevant planning strategies including the relevant <i>NSW Waste Avoidance and Resource Recovery Strategy</i>, environmental planning instruments, development control plans (DCPs), and justification for any inconsistencies.

- **waste management** – including:
 - identification and classification of waste streams that would be transported to and from, stored, handled, processed and disposed of at the facility;
 - description of proposed waste transport, storage, handling, processing; and disposal; and
 - description of potential impacts and impact mitigation associated with transporting, storing, handling, processing and disposing of waste.
- **soils and water** - including:
 - description of the water demands and a breakdown of water supplies including any water licensing requirements;
 - a detailed water balance;
 - description of the measures to minimise water use;
 - description of the construction erosion and sediment controls;
 - a description of the surface and stormwater management system, including on site detention, and measures to treat or reuse water;
 - an assessment of potential surface and groundwater impacts associated with the development, including impacts to flooding, groundwater dependent ecosystems, and potentially affected groundwater users;
 - details of impact mitigation, management and monitoring measures; and
 - an assessment of any potential existing soil contamination.
- **wastewater** – including:
 - a detailed description of the wastewater treatment process for the development including details of the volume of wastewater generated, treated, reused/recycled, or stored on site; and
 - details of the key pollutant concentrations of the wastewater before and after treatment with reference to relevant water quality guidelines.
- **air quality and odour** - including:
 - description of all potential air emission and odour sources;
 - a comprehensive air quality assessment of all potential air quality and odour impacts from the development, including an assessment of the cumulative impacts of any co-located premises, in accordance with relevant Environment Protection Authority guidelines; and
 - details of mitigation, management and monitoring measures for preventing and/or minimising both point and fugitive emissions.
- **noise and vibration** – including:
 - description of all potential noise and vibration sources such as construction, operational and traffic noise;
 - a comprehensive noise and vibration impact assessment including an assessment of the cumulative impacts of any co-located premises, in accordance with relevant Environment Protection Authority guidelines; and
 - details of noise mitigation, management and monitoring measures.
- **traffic and transport** – including:
 - details of all traffic and transport predictions for the development during construction and operation, including a description of haul routes;
 - details on access to the site from the road network including land ownership, intersection location, design and sight distance;
 - an assessment of predicted impacts on road safety and the capacity of the road network to accommodate the project;
 - plans of any road upgrades, rail and other infrastructure works or new roads required for the development; and
 - detailed plans of the proposed layout of the internal road network and parking on site in accordance with the relevant Australian standards.
- **hazards and risk** – including a risk screening and if necessary a Preliminary Hazard Analysis (PHA) in accordance with Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis and Multi-Level Risk Assessment.
- **flora and fauna** – including an assessment of the potential impacts to threatened species, populations and communities, and their habitat(s), and if required describe how the principles of “avoid, mitigate, offset” have been

	used to minimise the impacts of the proposal on biodiversity. • heritage and Aboriginal cultural heritage; • socio-economic – including an analysis of the economic and social impacts of the development, demonstrating that it would have a net benefit for the community, and paying particular attention to the potential effects on waste minimisation and resource recovery in the region. • visual impacts – including: - an assessment of impacts (using photomontages) to views from public vantage points; and - a description of visual impact mitigation measures such as landscaping. • rehabilitation – including the details of proposed rehabilitation measures and any interactions with the rehabilitation of the existing quarry. • greenhouse gas – including: - a quantitative assessment of the potential Scope 1 and 2 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 measures that would be implemented on site to ensure that the development is energy efficient. • cumulative impacts – particularly in relation to air, noise and traffic associated with other nearby industrial or commercial operations.
Plans and Documents	The EIS must include all 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.
Consultation	During the preparation of the EIS, you should consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups or affected landowners. In particular you must consult with: • Environmental Protection Authority; • Office of Environment and Heritage; • Roads and Maritime Services; • Department of Primary Industries; • Lake Macquarie City Council; and • local community and other 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 EARs, you must consult with the Secretary 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
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)
	Action for Air (DECC)
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)
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)
Soil and Water	
<i>Soil</i>	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)
	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)
<i>Surface Water</i>	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)
	National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC)
<i>Groundwater</i>	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)
Noise	
	NSW Industrial Noise Policy (EPA, 2000) and Industrial Noise Policy Application Notes
	NSW Road Noise Policy (EPA, 2011)
	Environmental Noise Control Manual (DECC)
	Interim Construction Noise Guideline (DEDCC, 2009)
	Assessing Vibration: a Technical Guide (DEC, 2006)
	Interim Guidelines: Assessment of Noise from Rail Infrastructure Projects
	Rail Infrastructure Noise Guideline draft for Consultation
	Other Rail Noise: http://www.environment.nsw.gov.au/noise/railnoise.htm
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
Biodiversity	
	Principles for the use of Biodiversity Offsets in NSW (DECC 2008);
	OEH interim policy on assessing and offsetting biodiversity impacts of Part 3A, State Significant Development (SSD) and State Significant Infrastructure (SSI) projects
	State Environmental Planning Policy No 44 – Koala Habitat Protection (SEPP 44)
	Draft Guidelines for Threatened Species Assessment under Part 3A of the <i>Environmental Planning and Assessment Act 1979</i> (DEC)
	Policy & Guidelines - Aquatic Habitat Management and Fish Conservation (NSW Fisheries)
	The NSW State Groundwater Dependent Ecosystem Policy (DLWC)
Visual	
	Control of Obtrusive Effects of Outdoor Lighting (Standards Australia, AS 4282)
	State Environmental Planning Policy No 64 - Advertising and Signage

Greenhouse Gas	
	AGO Factors and Methods Workbook (AGO)
	Guidelines for Energy Savings Action Plans (DEUS, 2005)
Heritage	
<i>Aboriginal</i>	Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (DEC)
	NSW Heritage Manual (NSW Heritage Office & DUAP)
<i>Non- Aboriginal</i>	The Burra Charter (The Australia ICOMOS charter for places of cultural significance)

ATTACHMENT 2
Agency EIS Requirements

27th May 2014

David Mooney
Senior Planner – Industry, Key Sites & Social Projects
NSW Planning & Environment
GPO Box 39
Sydney NSW 2001

Your Reference:SSD 6518
Our Reference (TRIM):OUT14/15071

EMAILED david.mooney@planning.nsw.gov.au

Dear Mr Mooney

**Re: Request for Environmental Assessment Requirements (SSD 6518) –
Hodgson Quarry Resource Recovery Facility, Lake Macquarie Council Area**

Thank you for the opportunity to provide advice on the above matter. This is a response from the NSW Department of Trade & Investment (DTIRIS) – Mineral Resources Branch (MRB). The Department of Primary Industries, incorporating advice from Agriculture, Fisheries and Forests NSW may respond separately.

MRB understands the proposal by Hodgson Quarry Products for a resource recovery facility at the existing Frazer Park Quarry will not involve changes to the rate of extraction of conglomerate or sand from the site as per existing consent.

MRB supports co-existing development of this kind and encourages sustainable development through resource recovery and recycling. The key issue that the proponent needs to demonstrate is that the proposal does not sterilise or restrict access to any remaining resources within the quarry.

Geoscience Information Services

MRB has a range of online data available on line through the following website address:
<http://www.resources.nsw.gov.au/geological/online-services>

This site hosts a range of data to enable research into exploration, land use and general geoscience topics. Additionally, the location of exploration and mining titles in NSW may be accessed by the general public using the following online utilities:

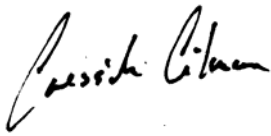
1. **MinView** allows on-line interactive display and query of exploration tenement information and geoscience data. It allows spatial selection, display and download of geological coverages, mineral deposits and mine locations, geophysical survey

boundaries, drillhole locations, historical and current exploration title boundaries and other spatial datasets of New South Wales. This online service is available at:
<http://www.resources.nsw.gov.au/geological/online-services/minview>

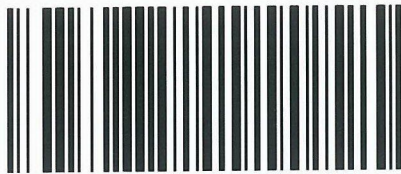
2. **NSW Titles** enables the public to access and view frequently updated titles mapping information across NSW. This online service is available at:
<http://nswtitles.minerals.nsw.gov.au/nswtitles/>

Queries regarding the above information, and future requests for advice in relation to this matter, should be directed to the MRB Land Use team at
landuse.minerals@industry.nsw.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Cressida Gilmore', written in a cursive style.

Cressida Gilmore
Team Leader – Land Use



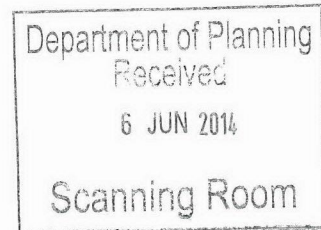
PCU53669



Transport
Roads & Maritime
Services

4 June 2014

SF2014/037201
CR2014/002621
MJ



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

Attention: Mr David Mooney

PACIFIC HIGHWAY (A43): PROPOSED HODGSON QUARRY RESOURCE RECOVERY FACILITY, LOTS 1 AND 2 DP 549905 AND LOT 465 DP 755266, 800 – 900 PACIFIC HIGHWAY, FRAZER PARK – REQUEST FOR INPUT FOR SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS – SSD 6518

Dear Mr Mooney

I refer to your email dated 20 May 2014 requesting the provision of key issues which Roads and Maritime Services believes should form part of the Secretary's environmental assessment requirements (SRs) for the subject proposal.

Roads and Maritime Responsibilities

Transport for NSW and Roads and Maritime's primary interests are in the road network, traffic and broader transport issues. In particular, the efficiency and safety of the classified road network, the security of property assets and the integration of land use and transport.

In accordance with the *Roads Act 1993*, Roads and Maritime has powers in relation to road works, traffic control facilities, connections to roads and other works on the classified road network. The Pacific Highway (A43) is a classified (State) road. Roads and Maritime concurrence is required for connections to the Pacific Highway with Council consent, under Section 138 of the Act. Council is the roads authority for the Pacific Highway and all other public roads in the area. Should road works be required on the classified (State) road, Roads and Maritime would exercise the functions of roads authority under Sections 64 and 71 of the Act.

Roads and Maritime Response and Requirements

Roads and Maritime has reviewed the information provided and understand that the proposal is to import cemititious material on site from external civil contractors. It is also noted that apart from the existence of new stockpiles of imported materials within the quarry void, the proposed changes in the quarry operations would not affect the appearance of the site and the existing extraction rate pursuant to existing consents.

Roads & Maritime Services

The Environmental Assessment (EA) should refer to the following guidelines with regard to the traffic and transport impacts of the proposed development:

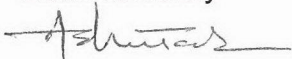
- Department of Planning EIS Guidelines
 - Road and Related Facilities
- RTA's *Guide to Traffic Generating Developments 2002*
 - Section 2 Traffic Impact Studies

A traffic and transport study shall be prepared in accordance with the RTA's *Guide to Traffic Generating Developments 2002* and should include (but not be limited to) the following:

- Assessment of all relevant vehicular traffic routes and the Pacific Highway / access road intersection.
- Current traffic counts for the Pacific Highway / access road intersection.
- The anticipated additional vehicular traffic likely to be generated as a result of the subject proposal.
- The distribution on the road network of the trips generated by the proposed development, including the number of right in / right out movements to and from the site. It is requested that the predicted traffic flows are shown diagrammatically to a level of detail sufficient for easy interpretation.
- Consideration of the traffic impacts on the Pacific Highway / access road intersection and the capacity of the intersection to safely and efficiently cater for the additional vehicular traffic generated by the proposed development. The traffic impact shall also include the cumulative traffic impact of other proposed developments in the area if any.
- Identify the necessary road network infrastructure upgrades that are required to maintain existing levels of service for the Pacific Highway / access road intersection. In this regard, preliminary concept drawings shall be submitted with the EA for any identified road infrastructure upgrades. However, it should be noted that any identified road infrastructure upgrades will need to be to the satisfaction of Roads and Maritime and Council.
- Traffic analysis of the Pacific Highway / access road intersection, using SIDRA or similar traffic model, including:
 - Current traffic counts and 10 year traffic growth projections
 - With and without development scenarios
 - 95th percentile back of queue lengths
 - Delays and level of service on all legs for the relevant intersection.
 - Electronic data for RMS review.

If you require any further advice please contact Ash Tamhane on (02) 4924 0688

Yours sincerely



Ash Tamhane
A / Manager Land Use
Hunter Region

Cc General Manager
Lake Macquarie City Council



**Office of
Environment
& Heritage**

Your reference: SSD 6518
Our reference: DOC14/84165-01; EF14/11059
Contact: Ziggy Andersons 4908 6820

Mr David Mooney
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Mr Mooney

**RE: REQUEST FOR SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS (SSD 6518) -
HODGSON QUARRY RESOURCE RECOVERY FACILITY, LAKE MACQUARIE COUNCIL AREA**

I refer to your email dated 20 May 2014 in which you requested input from the Office of Environment and Heritage (OEH) into the Secretary's Environmental Assessment Requirements (SEARs) for a proposed State Significant Development (SSD 6518).

OEH understands that the proposed application is for a resource recovery facility that will involve the importing of cemiticious materials which would:

- in some circumstances, be crushed and blended with the extractive materials won on the site to produce a more marketable product; or
- in other circumstances, include materials which could not be blending with quarry products but could be sorted and/or processed for recycling at other facilities not on the site.

It is estimated that the maximum amount of materials to be imported would be 200,000 tonnes per annum. Material would arrive at the quarry site and would be taken over the existing weighbridge. Material would be placed in product specific stockpiles using the front end loader already on the site. Stockpiles would be located in the immediate vicinity of the existing stockpiles on the site. Where appropriate, material would be processed into required sizes using the existing crushing and screening plant on the site. The request for SEARs states that 'apart from the existence of new stockpiles of imported materials within the quarry void, the appearance of the site would not change'.

The proposed development occurs within an existing quarry void that is covered by Development Consent No. 83/240. Therefore, OEH considers that whilst there may be a low risk to the development destroying Aboriginal cultural heritage or harming threatened species, populations or communities, these matters will still need to be appropriately considered in the EIS to ensure that all statutory requirements are met.

If you have any further questions in relation to this matter, please contact Ziggy Andersons, Regional Biodiversity Conservation Officer, on 4908 6820.

Yours sincerely

 30 MAY 2014

RICHARD BATH
Senior Team Leader Planning, Hunter Central Coast Region
Regional Operations

Enclosure: Attachment 1

ATTACHMENT 1

**OEH's RECOMMENDED ENVIRONMENTAL ASSESSMENT REQUIREMENTS FOR
PROPOSED HODGSON QUARRY RESOURCE RECOVERY FACILITY (SSD 6518)**

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1 Environmental impacts of the project

Impacts related to the following environmental issues need to be assessed, quantified and reported on:

- Aboriginal cultural heritage; and
- Biodiversity (including threatened species, populations ecological communities and their habitat)

The Environmental Impact Statement (EIS) should address the specific requirements outlined below and assess impacts in accordance with the relevant guidelines mentioned. A list of guidelines is provided in **Attachment A**.

2 The Proposal

The objectives of the proposal should be clearly stated and refer to:

- the size, scale and type of the activity / development;
- all anticipated environment impacts, both direct and indirect, including level of vegetation / habitat clearing;
- threatened species, populations, ecological communities and / or habitats impacted upon;
- the staging and timing of the proposal; and
- the proposal's relationship to any other proposal and/or developments.

SPECIFIC ISSUES

3 Aboriginal Cultural Heritage

The EIS report should contain:

1. The EIS must address and document the information requirements set out in the 'Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW' (Office of Environment and Heritage 2011). This document is available from Office of Environment and Heritage upon request or on OEH's website at: www.environment.nsw.gov.au/licences/investassessreport.htm
2. The EIS must include surveys by suitably qualified archaeological and geomorphological consultants in consultation with all of the local Aboriginal knowledge holders.
3. The EIS should identify the nature and extent of foreseeable impacts on Aboriginal cultural heritage values across the project area and clearly articulate strategies proposed to avoid/minimise these impacts. If impacts are proposed as part of the final development, clear justification for such impacts should be provided.
4. The EIS must assess and document the archaeological and Aboriginal significance of the project area's Aboriginal cultural heritage values.
5. Describe the actions that will be taken to avoid or mitigate impacts of the project on Aboriginal cultural heritage values. This must include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented. Any proposed methodology for Aboriginal cultural heritage investigation should reflect best practice standards recommended by OEH in the 'Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (2010)' and the 'Code of Practice for Archaeological Investigations of Objects in New South Wales (2010)'.

6. The EIS must provide documentary evidence to demonstrate that effective community consultation with Aboriginal communities has been undertaken in assessing impacts, developing protection and mitigation options and making final recommendations. OEH supports broad-based Aboriginal community consultation and as a guide OEH's 'Aboriginal cultural heritage consultation requirements for proponents 2010' provides a useful model to follow. This requirement is available on OEH's website at www.environment.nsw.gov.au/licences/consultation.htm.
7. If impacts on Aboriginal cultural heritage values are proposed as part of the final development, an assessment of the proposed impacts in the context of 'inter-generational equity' and cumulative impact must be undertaken. This assessment must examine both cultural and archaeological perspectives equally at both the local and regional levels, with consideration given to the site level and broader landscape level.

Note: If the EIS is relying on past surveys it is critical to confirm that the surveys are consistent with the requirements of the above State Significant Development project application guidelines. Further, whilst there may be no requirement for obtaining an Aboriginal Heritage Impact Permit (AHIP) under Part 6 of the *National Parks and Wildlife Act 1974* (NPW Act) for state significant development projects approved under the provisions of the *Environmental Planning and Assessment Act 1979*, there are other sections of the NPW Act which remain valid. This includes the requirement to obtain a Care Agreement for salvaged objects (Section 85) and reporting to OEH on the status of new or impacted Aboriginal sites (Section 89A).

4 Threatened Biodiversity

OEH notes that the proposed Hodgson Quarry Resource Recovery Facility occurs in a highly modified local environment which is unlikely to support a large number of threatened species or provide key habitat and resources for them. However, OEH still requires that the proponent considers the proposed development's likely impacts on threatened species, populations, communities and their habitats, as described below:

1. The EIS should include a detailed biodiversity assessment, including assessment of impacts on threatened biodiversity, native vegetation and habitat. This assessment should address the matters included in the following sections.
2. A field survey of the site should be conducted and documented in accordance with relevant guidelines, including:
 - [Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft](#) (DEC, 2004),
 - [Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna - Amphibians](#) (DECCW, 2009b), and
 - Threatened species survey and assessment guideline information on www.environment.nsw.gov.au/threatenedspecies/surveyassessmentgdlns.htm.

If a proposed survey methodology is likely to vary significantly from the above methods, the proponent should discuss the proposed methodology with OEH prior to undertaking the EIS, to determine whether OEH considers that it is appropriate.

Recent (less than five years old) surveys and assessments may be used. However, previous surveys should not be used if they have:

- been undertaken in seasons, weather conditions or following extensive disturbance events when the subject species are unlikely to be detected or present, or
- utilised methodologies, survey sampling intensities, timeframes or baits that are not the most appropriate for detecting the target subject species,

Unless these differences can be clearly demonstrated to have had an insignificant impact upon the outcomes of the surveys. If a previous survey is used, any additional species listed under the TSC Act since the previous survey took place, must be surveyed for.

Determining the list of potential threatened species for the site must be done in accordance with the *Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft* (DEC, 2004) and the *Guidelines for Threatened Species Assessment* (Department of Planning, July 2005). The OEH Threatened Species website www.environment.nsw.gov.au/threatenedspecies/ and the *Atlas of NSW Wildlife* database must be the primary information sources for the list of threatened species present. The BioBanking Threatened Species Database, the Vegetation Types databases (available on the OEH website at www.environment.nsw.gov.au/BioBanking/vegtypedatabase.htm, respectively) and other data sources (e.g. PlantNET [<http://plantnet.rbgsyd.nsw.gov.au/floraonline.htm>], Online Zoological Collections of Australian Museums [www.ozcam.org/Australian-Museum-Collection-Search]), previous or nearby surveys etc.) may also be used to compile the list.

3. OEH notes the following known and/or predicted threatened species, populations and ecological communities (based on OEH *Atlas of NSW Wildlife* database, vegetation mapping and potential habitat) which have broad habitat matches to that of the site occur on or areas nearby (approx. 10 km radius) to the proposal. These should be targeted during surveying (but not be limited to just these):

FLORA (13)

<i>Rutidosis heterogama</i>	Heath Wrinklewort
<i>Tetradlea juncea</i>	Black-eyed Susan
<i>Pultenaea maritima</i>	Coast Headland Pea
<i>Angophora inopina</i>	Charmhaven Apple
<i>Callistemon linearifolius</i>	Netted Bottle Brush
<i>Eucalyptus camfieldii</i>	Camfield's Stringybark
<i>Eucalyptus parramattensis</i> subsp. <i>decadens</i>	
<i>Eucalyptus parramattensis</i> subsp. <i>parramattensis</i>	
<i>Syzygium paniculatum</i>	Magenta Lilly Pilly
<i>Caladenia tessellata</i>	Thick Lip Spider Orchid
<i>Cryptostylis hunteriana</i>	Leafless Tongue Orchid
<i>Diuris praecox</i>	Rough Doubletail
<i>Genoplesium insignis</i>	Variable Midge Orchid

FAUNA (33)

Amphibians (2)

<i>Crinia tinnula</i>	Wallum Froglet
<i>Litoria aurea</i>	Green and Golden Bell Frog*

Birds (21):

<i>Ptilinopus regina</i>	Rose-crowned Fruit-Dove
<i>Thalassarche melanophrys</i>	Black-browed Albatross*
<i>Ardenna carneipes</i>	Flesh-footed Shearwater
<i>Macronectes giganteus</i>	Southern Giant Petrel*
<i>Puffinus assimilis</i>	Little Shearwater
<i>Ephippiorhynchus asiaticus</i>	Black-necked Stork
<i>Ixobrychus flavicollis</i>	Black Bittern
<i>Pandion cristatus</i>	Eastern Osprey
<i>Haematopus fuliginosus</i>	Sooty Oystercatcher
<i>Haematopus longirostris</i>	Pied Oystercatcher
<i>Charadrius mongolus</i>	Lesser Sand-plover
<i>Sternula albifrons</i>	Little Tern

<i>Calyptorhynchus lathamii</i>	Glossy Black-Cockatoo
<i>Glossopsitta pusilla</i>	Little Lorikeet
<i>Lathamus discolor</i>	Swift Parrot*
<i>Ninox connivens</i>	Barking Owl
<i>Ninox strenua</i>	Powerful Owl
<i>Tyto novaehollandiae</i>	Masked Owl
<i>Epthianura albifrons</i>	White-fronted Chat
<i>Pomatostomus temporalis temporalis</i>	Grey-crowned Babbler (eastern subspecies)
<i>Daphoenositta chrysoptera</i>	Varied Sittella

Mammals (10):

<i>Dasyurus maculatus</i>	Spotted-tailed Quoll*
<i>Phascogale carolinensis</i>	Koala*
<i>Cercartetus nanus</i>	Eastern Pygmy-possum
<i>Petaurus norfolcensis</i>	Squirrel Glider
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox*
<i>Mormopterus norfolkensis</i>	Eastern Freetail-bat
<i>Miniopterus australis</i>	Little Bentwing-bat
<i>Miniopterus schreibersii oceanensis</i>	Eastern Bentwing-bat
<i>Myotis macropus</i>	Southern Myotis
<i>Scoteanax rueppellii</i>	Greater Broad-nosed Bat

* indicates species that are listed on the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Endangered Populations (1):

- *Eucalyptus parramattensis* C. Hall. subsp. *parramattensis* in Wyong and Lake Macquarie local government areas

Endangered ecological communities (7):

- Coastal Saltmarsh in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions
- Coastal Upland Swamp in the Sydney Basin Bioregion
- Freshwater Wetlands on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions
- Hunter Lowland Redgum Forest in the Sydney Basin and New South Wales North Coast Bioregions
- Kincumber Scribbly Gum Forest in the Sydney Basin Bioregion
- Littoral Rainforest in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions
- Low woodland with heathland on indurated sand at Norah Head
- Lower Hunter Spotted Gum-Ironbark Forest in the Sydney Basin Bioregion
- Lowland Rainforest in the NSW North Coast and Sydney Basin Bioregions
- Quorrobolong Scribbly Gum Woodland in the Sydney Basin Bioregion
- River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions
- Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions
- Swamp Sclerophyll Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions
- Sydney Freshwater Wetlands in the Sydney Basin Bioregion
- Themeda grassland on seacliffs and coastal headlands in the NSW North Coast, Sydney Basin and South East Corner Bioregions
- Umina Coastal Sandplain Woodland in the Sydney Basin Bioregion

4. The EIS should contain the following information as a minimum:
 - a. The requirements set out in the *Guidelines for Threatened Species Assessment* (Department of Planning, July 2005).
 - b. Description and geo-referenced mapping of study area (and spatial data files), e.g. overlays on topographic maps, satellite images and /or aerial photos, including details of map datum, projection and zone, all survey locations, all vegetation communities, key habitat features and reported locations of threatened species, populations and ecological communities present in the subject site and study area.
 - c. Description of survey methodologies used, including timing, location and weather conditions.
 - d. Details, including qualifications and experience of all staff undertaking the surveys, mapping and assessment of impacts as part of the EIS.
 - e. Detailed description of all vegetation communities (both forested and non-woody [e.g. derived grasslands], including classification and methodology used to classify) and including all plot data. Plot data should be supplied to the OEH in electronic format (e.g. MS-Excel) and organised by vegetation community. Copies of all plot data (quadrat / transect) sheets should also be provided.
 - f. Identification of national and state listed threatened biota known or likely to occur in the study area and their conservation status.
 - g. Description of the likely impacts of the proposal on biodiversity and wildlife corridors, including direct and indirect and construction and operation impacts. Wherever possible, quantify these impacts such as the amount of each vegetation community or species habitat to be cleared or impacted, or any fragmentation of a wildlife corridor.
 - h. The proposal should provide an assessment of the cumulative impacts of the proposal in relation to other nearby developments.
 - i. Identification of the avoidance, mitigation and management measures that will be put in place as part of the proposal to avoid or minimise impacts, including details about alternative options considered and how long term management arrangements will be guaranteed.
 - j. Description of the residual impacts of the proposal. If the proposal cannot adequately avoid or mitigate impacts on biodiversity, then a biodiversity offset package is expected (see the requirements for this in section 6, below).
 - k. Provision of specific Statement of Commitments relating to biodiversity.
5. An assessment of the significance of direct and indirect impacts of the proposal must be undertaken for threatened biodiversity known or considered likely to occur in the study area based on the presence of suitable habitat. This assessment must take into account:
 - a. the factors identified in s.5A of the EP&A Act, and
 - b. the guidance provided by *The Threatened Species Assessment Guideline – The Assessment of Significance* (DECC 2007) which is available at:
www.environment.nsw.gov.au/resources/threatenedspecies/tsaguide07393.pdf
6. With regard to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, the assessment should identify any relevant Matters of National Environmental Significance and whether the proposal has been referred to the Commonwealth or already determined to be a controlled action.

References

- DEC (2004) *Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities*. Draft, Department of Environment and Conservation, Hurstville; available at: www.environment.nsw.gov.au/resources/nature/TBSAGuidelinesDraft.pdf
- DECC (2007) *Threatened Species Assessment Guidelines: The Assessment of Significance*. August 2007. Department of Environment and Climate Change (NSW).
- DoP (2005) *Guidelines for Threatened Species Assessment*. Department of Planning, Sydney, July 2005.
- OEH (2014) Draft NSW Biodiversity Offsets Policy for major Projects. March 2014. OEH Office of Environment and Heritage, Sydney www.environment.nsw.gov.au/resources/biodiversity/1480bioffspol.pdf

ATTACHMENT A – GUIDANCE MATERIAL

Title	Web address
<u>Relevant Legislation</u>	
<i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>	www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/
<i>Environmental Planning and Assessment Act 1979</i>	www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
<i>National Parks and Wildlife Act 1974</i>	www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N
<i>Threatened Species Conservation Act 1995</i>	www.legislation.nsw.gov.au/maintop/view/inforce/act+101+1995+cd+0+N
<u>Aboriginal Cultural Heritage</u>	
Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (2005)	Available from the Department of Planning & Environment
Aboriginal Cultural Heritage Consultation Requirements for Proponents (EPA, 2010)	www.environment.nsw.gov.au/licences/consultation.htm
Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (EPA, 2010)	www.environment.nsw.gov.au/licences/archinvestigations.htm
Aboriginal Site Impact Recording Form	www.environment.nsw.gov.au/licences/DECCAHISSiteRecordingForm.htm
Aboriginal Heritage Information Management System (AHIMS) Registrar	www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm
<u>Biodiversity</u>	
NSW offsetting principles for Major Projects	www.environment.nsw.gov.au/biodivoffsets/
BioBanking Assessment Methodology (DECC, 2008)	www.environment.nsw.gov.au/BioBanking/index.htm
BioBanking Assessment Methodology and Credit Calculator Operation Manual (DECC, 2009a)	www.environment.nsw.gov.au/resources/BioBanking/09181bioopsman.pdf
Assessors' Guide To Using The BioBanking Credit Calculator V2 (OEH, 2012)	www.environment.nsw.gov.au/resources/BioBanking/120182AssessGdeBBCC.pdf
Biodiversity Certification Assessment Methodology (DECCW, 2011)	www.environment.nsw.gov.au/resources/biocertification/110170biocertassessmeth.pdf
Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna -Amphibians (EPA, 2009)	www.environment.nsw.gov.au/resources/Threatenedspecies/09213amphibians.pdf
Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working	www.environment.nsw.gov.au/resources/nature/TBSAGuidelinesDraft.pdf

Title	Web address
Draft (DEC, 2004)	
Guidelines for Threatened Species Assessment (Department of Planning, July 2005)	Draft available from the Department of Planning and Environment
OEH Threatened Species website	www.environment.nsw.gov.au/Threatenedspecies/
Atlas of NSW Wildlife	www.environment.nsw.gov.au/wildlifeatlas/about.htm
BioBanking Threatened Species Database	www.environment.nsw.gov.au/BioBanking/vegtypedatabase.htm
Vegetation Types databases	www.environment.nsw.gov.au/BioBanking/vegtypedatabase.htm
PlantNET	http://plantnet.rbgsyd.nsw.gov.au/floraonline.htm
Online Zoological Collections of Australian Museums	www.ozcam.org/Australian-Museum-Collection-Search
Threatened Species Assessment Guideline - The Assessment of Significance (EPA, 2007)	www.environment.nsw.gov.au/resources/Threatenedspecies/tsaguide07393.pdf
NSW offset principles for major projects (state significant development and state significant infrastructure)	www.environment.nsw.gov.au/biocertification/offsets.htm
<u>OEH Estate</u>	
Land reserved or acquired under the NPW Act	
List of national parks	www.environment.nsw.gov.au/NationalParks/parksearchatoz.aspx
Guidelines for developments adjoining land and water managed by the Office of Environment and Heritage (DECCW, 2010)	www.environment.nsw.gov.au/resources/protectedareas/10509devadjdeccw.pdf



Your reference: SSD 6518
Our reference: DOC14/78916-01 EF13/3975
Contact: Genevieve Lorang, (02) 4908 6869
Electronic correspondence to: hunter.region@epa.nsw.gov.au

Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Emailed to: David.Mooney@planning.nsw.gov.au

Dear Mr Mooney

ENVIRONMENTAL ASSESSMENT REQUIREMENTS FOR A STATE SIGNIFICANT DEVELOPMENT APPLICATION FOR PROPOSED RESOURCE RECOVERY FACILITY ON LOTS 1 & 2 DP549905 AND LOT 465 DP755266 - 800-900 PACIFIC HIGHWAY, FRAZER PARK, NSW (SSD 6518)

Reference is made to your email to the Environment Protection Authority (EPA) on 20 May 2014 regarding the above proposed development and request to provide Environmental Assessment Requirements (EARs) for a State Significant Development Application (SSD 6518) for the proposed resource recovery facility on Lots 1 & 2 DP549905 and Lot 465 DP755266, 800-900 Pacific Highway, Frazer Park.

The EPA understands that the proposal relates to the importation of cementitious materials, and construction and demolition materials for sorting, stockpiling and resource recovery activities.

The EPA has considered the details of the proposal as provided in the application and attached diagrams and has identified the information it requires to be addressed in the Environmental Impact Statement (EIS) to make a reliable appraisal of the impacts of the proposal. The main issues of interest to the EPA are:

- impacts on water quality and site water management;
- potential noise impacts due to plant operation; and
- impacts on air quality, particularly from dust.

Attachment A presents a more detailed explanation of EPA's main issues regarding the proposed development. Please note that the issuing of EARs is a statutory requirement for EPA and should not be construed as support or endorsement of the proposed development.

Attachment B provides links to numerous references materials that may assist the proponent to prepare an adequate EIS.

The proponent should be aware that any commitments made in the EIS may be formalised into EPA's suggested approval conditions for the proposal and the Environment Protection Licence. Accordingly, pollution control measures should not be proposed if they are impractical, unrealistic, or beyond the financial viability of the development.

PO Box 488G Newcastle NSW 2300
Email: hunter.region@epa.nsw.gov.au
117 Bull Street, Newcastle West NSW 2302
Tel: (02) 4908 6800 Fax: (02) 4908 6810
ABN 43 692 285 758
www.epa.nsw.gov.au

The EPA requests that the applicant provide **one printed copy and one electronic copy** of the EIS and any supporting or background reports when lodging the application with the EPA. These documents should be lodged with the EPA's Regional Manager – Hunter at PO Box 488G, Newcastle NSW 2300.

If you require any further information or wish to discuss the matter please contact Ms Genevieve Lorang on (02) 4908 6869.

Yours sincerely



3 JUN 2014

MARK HARTWELL
Head Regional Operations Unit – Hunter
Environment Protection Authority

ATTACHMENT A

ENVIRONMENT PROTECTION AUTHORITY- REQUEST FOR ENVIRONMENTAL ASSESSMENT REQUIREMENTS FOR A STATE SIGNIFICANT DEVELOPMENT (SSD 6518)

APPLICATION FOR PROPOSED RESOURCE RECOVERY FACILITY ON LOTS 1 & 2 IN DP 549905, AND LOT 465, DP 755266 - NOS. 800-900 PACIFIC HIGHWAY, FRAZER PARK, NSW

GENERAL INFORMATION

The following information must be provided in the Environmental Impact Statement (EIS) to enable EPA to accurately assess the environmental implications of the proposed activity. The EIS must adequately describe the development proposal and the existing environment including air, noise, waters and soils.

THE PROPOSAL

The objectives of the proposal should be clearly stated and refer to:

- The size and type of the operation,
- The nature of the processes and the products, by-products and wastes produced;
- The use or disposal of products;
- The anticipated level of performance in meeting required environmental standards and cleaner production principles;
- The staging and timing of the proposal; and
- The proposal's relationship to any other industry or facility.

THE PREMISES

The EIS will need to fully identify all of the processes and activities intended for the site and during the life of the project. This will include details of:

- a site plan prepared by a registered surveyor clearly showing the boundaries of any proposed premises that will be subject to an Environment Protection Licence (EPL) and the proposed locations of any discharge points that would require licensing under an EPL;
- ownership and/or land use details of any premises and land likely to be affected by the proposed development including lot and DP numbers;
- maps and/or aerial photographs, showing:
 - The location of the proposed facility and details of the surrounding environment;
 - The proposed layout of the site;
 - All equipment proposed for use at the site;
 - Appropriate land use zoning;
 - Topography, vegetation, location of utilities and services;
 - The location of residences and properties that may be impacted by the operation;
 - The location of any environmentally sensitive areas such as conservation areas, wetlands, creeks or streams, watercourses and stormwater systems;
 - Surface water management systems;
 - Chemicals, including fuel, used on the site and proposed methods for their transportation, storage, use and emergency management;
 - Waste generation and disposal;
 - Methods to mitigate any expected environmental impacts of the development;

WATER MANAGEMENT

The EIS must provide sufficient information to demonstrate that the proposed development can be operated whilst complying with the *Protection of the Environment Operations Act 1997*, in particular, the protection of water quality during operation of the facility.

The methodology, data and assumptions used to design any pollution control works and assess the potential impact of the proposal on water quality (ground and surface waters), must be fully documented and justified.

The EIS must include an adequacy assessment of stormwater controls. This assessment must determine sediment basins are adequately sized based on relevant guidelines and must detail any additional water treatment necessary to achieve a total suspended solids discharge limit of 40 mg/L.

The EIS must identify any fuel or chemical storage areas to be established on the site and describe the measures proposed to minimise the potential for leakage or the migration of pollutants into the soil/waters or from the site.

The EIS should also describe the sewage treatment and effluent management processes used on site including the proposed workforce using the premises.

NOISE AND VIBRATION IMPACTS

The EIS must include a noise assessment of the existing environment, potential impacts and proposed noise amelioration measures. EPA's "*New South Wales Industrial Noise Policy*" (EPA, 2000) provides a guide to the methodology and assessment criteria used by EPA to determine noise planning levels.

The evaluation should take into account the ground-based operational phases of the development over the "operating" hours proposed and take into account adverse weather conditions including temperature inversions. Sound power levels measured or estimated for all plant and equipment should be clearly stated and justified.

The EIS should include an assessment of cumulative noise impacts, having regard to existing developments and developments which have received development consent in the area but which have not commenced.

The EIS must identify the transport route(s) to be used, the hours of operation and quantify the noise impacts. The EPA's publication '*NSW Road Noise Policy*' describes the methods generally used by EPA to determine noise planning levels for road traffic noise in locations of varying sensitivity.

AIR QUALITY

The EIS must include an Air Quality Impact Assessment (AQIA). The AQIA must identify and describe in detail all possible sources of air pollution and activities/processes with the potential to cause air pollutants including odours and fugitive dust emissions beyond the boundary of any premises proposed to be licenced by an EPL. This should cover both the construction and operational phases of the development. The AQIA should include cumulative impacts associated with existing developments and any developments having been granted development consent but which have not commenced.

The EIS should demonstrate that the facility will operate within EPA's objectives which are to minimise adverse effects on the amenity of local residents and sensitive land uses and to limit the effects of emissions on local, regional and inter-regional air quality.

The EIS must describe in detail the measures proposed to mitigate the impacts and quantify the extent to which the mitigation measures are likely to be effective in achieving the relevant environmental outcomes.

The AQIA must be prepared in accordance with the EPA's "*Approved Methods and Guidance for the Modelling & Assessment of Air Pollutants in NSW*". The AQIA must describe the methodology used and any assumptions made to predict the impacts. Air pollutant emission rates, ambient air quality data and meteorological data used in the assessment must be clearly stated and justified.

DANGEROUS GOODS and CHEMICAL TRANSPORT, STORAGE and HANDLING

The EIS must outline all details regarding the transport, handling, storage and use of dangerous goods, chemicals and products, including fuel, both on site and with ancillary activities and describe the measures proposed to minimise the potential for leakage or the migration of pollutants into the air, land or waters from the site.

MONITORING PROGRAMS

The EIS should include a detailed assessment of any noise, air quality, water quality or waste monitoring required during the on-going operation of the facility to ensure that the development achieves a satisfactory level of environmental performance and to demonstrate that any activity licenced by an EPL is carried out in an environmental satisfactory manner. The evaluation should include a detailed description of the monitoring locations, sample analysis methods and the level of reporting proposed.

WASTE

The EIS should include:

1. Details of the layout of the waste facility, the treatment process and the environmental controls at the facility.
2. Details of the quantity and type of liquid and/or non-liquid waste(s) generated, handled, processed or disposed of at the premises. Waste must be classified according to EPA's *Waste Classification Guidelines 2008*.
3. Details of liquid waste and non-liquid waste management at the facility, including:
 - the transportation, assessment and handling of waste arriving at or generated at the site;
 - any stockpiling of wastes or recovered materials at the site;
 - any waste processing related to the facility, including reuse, recycling, reprocessing or treatment both on- and off-site;
 - the method for disposing of all wastes or recovered materials at the facility;
 - the emissions arising from the handling, storage, processing and reprocessing of waste at the facility;
 - the proposed controls for managing the environmental impacts of these activities.
4. Details of procedures for the assessment, handling, storage, transport and disposal of all **hazardous waste** used, stored, processed or disposed of at the site, in addition to the requirements for liquid and non-liquid wastes.

5. Details of the quantity, type and specifications for all **output products** proposed to be produced from the facility. The description should include the physical, chemical and biological characteristics (including contaminant concentrations) of those output products as well as relevant accredited standards against which the products would comply. In documenting or describing the composition of output products and/or wastes generated from the proposed facility reference should be made to the relevant EPA *resource recovery exemption* (<http://www.epa.nsw.gov.au/waste/RRecoveryExemptions.htm>) or the *Waste Classification Guidelines 2008* (<http://www.epa.nsw.gov.au/waste/envguidlns/index.htm>).
6. Details of intended (or potential) end uses for output products from the facility and the relevant product standards which would be used to assess those products against.
7. Details of the type and quantity of any chemical substances (including hydrocarbon (oils and fuels), explosives etc.) to be used or stored and describe arrangements for their safe use and storage.

GENERAL WASTE

The EIS should:

1. Include a detailed plan for in-situ classification of waste material, including the sampling locations and sampling regime that will be employed to classify the waste, particularly with regards to the identification of contamination hotspots.
2. Identify, characterise and classify all waste that will be generated onsite through excavation, demolition or construction activities, including proposed quantities of the waste.
Note: All waste must be classified in accordance with EPA's *Waste Classification Guidelines*.
3. Identify, characterise and classify all waste that is proposed to be disposed of to an offsite location, including proposed quantities of the waste and the disposal locations for the waste. This includes waste that is intended for re-use or recycling.
Note: All waste must be classified in accordance with EPA's *Classification Guidelines*.
4. Include a commitment to retaining all sampling and classification results for the life of the project to demonstrate compliance with EPA's *Waste Classification Guidelines*.
5. Provide details of how waste will be handled and managed onsite to minimise pollution, including:
 - a) Stockpile location and management
 - Labelling of stockpiles for identification, ensuring that all waste is clearly identified and stockpiled separately from other types of material (especially the separation of any contaminated and non-contaminated waste).
 - Proposed height limits for all waste to reduce the potential for dust and odour.
 - Procedures for minimising the movement of waste around the site and double handling.
 - Measures to minimise leaching from stockpiles into the surrounding environment, such as sediment fencing, geofabric liners etc.
 - b) Erosion, sediment and leachate control including measures to be implemented to minimise erosion, leachate and sediment mobilisation at the site during works. The EA should show the location of each measure to be implemented. The Proponent should consider measures such as:
 - Sediment traps
 - Diversion banks

- Sediment fences
- Bunds (earth, hay, mulch)
- Geofabric liners
- Other control measures as appropriate

The Proponent should also provide details of:

- how leachate from stockpiled waste material will be kept separate from stormwater runoff;
- treatment of leachate through a wastewater treatment plant (if applicable); and
- any proposed transport and disposal of leachate off-site.

6. Provide details of how the waste will be handled and managed during transport to a lawful facility. If the waste possesses hazardous characteristics, the Proponent must provide details of how the waste will be treated or immobilised to render it suitable for transport and disposal.
7. Include details of all procedures and protocols to be implemented to ensure that any waste leaving the site is transported and disposed of lawfully and does not pose a risk to human health or the environment.
8. Include a statement demonstrating that the Proponent is aware of EPA's requirements with respect to notification and tracking of waste.
9. Include a statement demonstrating that the Proponent is aware of the relevant legislative requirements for disposal of the waste, including any relevant Resource Recovery Exemptions, as gazetted by EPA from time to time.
10. Outline contingency plans for any event that affects operations at the site that may result in environmental harm, including: excessive stockpiling of waste, volume of leachate generated exceeds the storage capacity available on-site etc.

EPA STATUTORY REQUIREMENTS

The EIS should confirm that the proposed activity is listed in Schedule 1 of the Protection of the Environment Operations Act 1997 (POEO Act) and will therefore require an Environment Protection Licence from EPA.

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.

Attachment B – Guidance Material

Title	Web address
<u>Relevant Legislation</u>	
<i>Contaminated Land Management Act 1997</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+140+1997+cd+0+N
<i>Environmentally Hazardous Chemicals Act 1985</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+14+1985+cd+0+N
<i>Environmental Planning and Assessment Act 1979</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
<i>Protection of the Environment Operations Act 1997</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N
<i>Water Management Act 2000</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N
<u>Licensing</u>	
Guide to Licensing	www.epa.nsw.gov.au/licensing/licenceguide.htm
<u>Air Issues</u>	
Air Quality	
Approved methods for modelling and assessment of air pollutants in NSW (2005)	http://www.environment.nsw.gov.au/resources/air/ammodelling05361.pdf
POEO (Clean Air) Regulation 2010	http://www.legislation.nsw.gov.au/maintop/view/inforce/subordleg+428+2010+cd+0+N
<u>Noise and Vibration</u>	
Interim Construction Noise Guideline (DECC, 2009)	http://www.environment.nsw.gov.au/noise/constructnoise.htm
Assessing Vibration: a technical guideline (DEC, 2006)	http://www.environment.nsw.gov.au/noise/vibrationguide.htm
Industrial Noise Policy Application Notes	http://www.environment.nsw.gov.au/noise/traffic.htm
Environmental Criteria for Road Traffic Noise (EPA, 1999)	http://www.environment.nsw.gov.au/noise/traffic.htm
<u>Waste, Chemicals and Hazardous Materials and Radiation</u>	
Waste	
Environmental Guidelines: Solid Waste Landfills (EPA, 1996)	http://www.environment.nsw.gov.au/resources/waste/envguidlns/solidlandfill.pdf
Waste Classification Guidelines (DECC,	http://www.environment.nsw.gov.au/waste/envguidlns/index.htm

Title	Web address
2008)	
Resource recovery exemption	http://www.environment.nsw.gov.au/waste/RRecoveryExemptions.htm
Chemicals subject to Chemical Control Orders	
Chemical Control Orders (regulated through the EHC Act)	http://www.environment.nsw.gov.au/pesticides/CCOs.htm
National Protocol - Approval/Licensing of Trials of Technologies for the Treatment/Disposal of Schedule X Wastes - July 1994	Available in libraries
National Protocol for Approval/Licensing of Commercial Scale Facilities for the Treatment/Disposal of Schedule X Wastes - July 1994	Available in libraries
Water and Soils	
Acid sulphate soils	
Acid Sulfate Soils Planning Maps	http://canri.nsw.gov.au/download/
Acid Sulfate Soils Manual (Stone et al. 1998)	Manual available for purchase from: http://www.landcom.com.au/whats-new/the-blue-book.aspx Chapters 1 and 2 are on DP&I's Guidelines Register at: Chapter 1 Acid Sulfate Soils Planning Guidelines: http://www.planning.nsw.gov.au/rdaguidelines/documents/NSW%20Acid%20Sulfate%20Soils%20Planning%20Guidelines.pdf Chapter 2 Acid Sulfate Soils Assessment Guidelines: http://www.planning.nsw.gov.au/rdaguidelines/documents/NSW%20Acid%20Sulfate%20Soils%20Assessment%20Guidelines.pdf
Acid Sulfate Soils Laboratory Methods Guidelines (Ahern et al. 2004)	http://www.derm.qld.gov.au/land/ass/pdfs/lmg.pdf This replaces Chapter 4 of the Acid Sulfate Soils Manual above.
Soils – general	
Soil and Landscape Issues in Environmental Impact Assessment (DLWC 2000)	http://www.dnr.nsw.gov.au/care/soil/soil_pubs/pdfs/tech_rep_34_new.pdf
Managing urban stormwater: soils and construction, vol. 1 (Landcom 2004) and vol. 2 (A. Installation of services; B Waste landfills; C. Unsealed roads; D. Main Roads; E. Mines and quarries) (DECC 2008)	Vol 1 - Available for purchase at http://www.landcom.com.au/whats-new/publications-reports/the-blue-book.aspx Vol 2 - http://www.environment.nsw.gov.au/stormwater/publications.htm
Landslide risk management guidelines	http://www.australiangeomechanics.org/resources/downloads/
Site Investigations for Urban Salinity (DLWC, 2002)	http://www.environment.nsw.gov.au/resources/salinity/booklet3siteinvestigationsforurbansalinity.pdf
Local Government Salinity Initiative Booklets	http://www.environment.nsw.gov.au/salinity/solutions/urban.htm
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm

Title	Web address
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	http://www.mincos.gov.au/publications/australian_and_new_zealand_guidelines_for_fresh_and_marine_water_quality
Applying Goals for Ambient Water Quality Guidance for Operations Officers – Mixing Zones	http://deccnet/water/resources/AWQGuidance7.pdf
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf



Department of Primary Industries

OUT14/16209

Mr David Mooney
Industry, Key Sites and Social projects
NSW Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

10 JUN 2014

David.Mooney@planning.nsw.gov.au

Dear Mr Mooney,

**Hodgson Quarry Resource Recovery Facility [SSD_6518]
Request for input into Secretary's Environmental Assessment Requirements**

I refer to your email dated 20 May 2014 to the Department of Primary Industries in respect to the above matter.

Comment by NSW Office of Water

The NSW Office of Water has reviewed the Preliminary Environmental Assessment for the proposed Hodgson Quarry Resource Recovery Facility and provides the following key issues, and general assessment requirements in Attachment A.

It is recommended that the EIS be required to include:

- A detailed assessment against the NSW Aquifer Interference Policy (2012) using the NSW Office of Water's assessment framework.
- Details of water proposed to be taken (including through inflow and seepage) from each surface and groundwater source as defined by the relevant water sharing plan.
- Assessment of any 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.
- 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.

- Proposed surface and groundwater monitoring activities and methodologies.
- Full technical details and data of all surface and groundwater modelling, and an independent peer review.
- A detailed and consolidated site water balance.
- Proposed management and disposal of produced or incidental water.
- Details surrounding the final landform of the site, including final void management (where relevant) and rehabilitation measures.
- 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).

For further information please contact Rohan Macdonald, Water Regulation Officer, Major Projects (Newcastle Office) on 4904 2642 or at rohan.macdonald@water.nsw.gov.au.

Agriculture NSW and Fisheries NSW advise no issues.

Yours sincerely



Kristian Holz
Director Policy, Legislation and Innovation

Attachment A

Hodgson Quarry Resource Recovery Facility [SSD_6518] Request for Input into Secretary's Environmental Assessment Requirements Additional Comment by NSW Office of Water

For further information visit the NSW Office of Water website, 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 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

The proposed project is located within the South Lake Macquarie Water Source under the *Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources 2009*, which applies to surface waters and alluvial groundwater within the plan area. The EIS is required to demonstrate how the proposed project is consistent with the rules in this plan.

Groundwater contained within the hard rock (porous and fractured rock) aquifers within the project area is currently regulated under the Water Act 1912. A water sharing plan covering the porous and fractured rock groundwater within the project area is currently under development. Upon commencement of the plan groundwater on site would be regulated under the Water Management Act 2000.

It is recommended that the proponents liaise with the Office of Water throughout the planning process to ensure the proposal is developed in accordance with the appropriate regulatory framework.

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 State Groundwater Policy Framework Document (1997).
- NSW State Groundwater Quality Protection Policy (1998).
- NSW State Groundwater Dependent Ecosystems Policy (2002).
- Groundwater Monitoring and Modelling Plans - Information for prospective mining and petroleum exploration activities (NOW, 2014).

Office of 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 visit:

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

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 sources including watercourses and wetlands transected by or adjacent to the proposed project.

- 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.
- Assessment of predicted impacts on the following:
 - flow of surface water, sediment movement, channel stability, and hydraulic regime,
 - water quality,
 - 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 including:

- The 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 (Office of Water "GW" registration numbers and licence/approval numbers should be supplied).
- A description of the 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 the quality of the groundwater for the local groundwater catchment.
- 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.

Watercourse 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:
 - 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.
- A detailed description of all potential impacts on the watercourses/riparian land.
- 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.

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 for further information.

Drill Pad, Well and Access Road Construction

- Any construction activity within 40m of a watercourse, should be designed by a suitably qualified person, consistent with the NSW Guidelines for Controlled Activities (July 2012).
- Construction of all wells must be undertaken by a driller holding a water drillers' licence valid in New South Wales.
- The length of time that a core hole is maintained as an open hole should be minimised.

For open cut projects:

Landform rehabilitation or final void management

The Environmental Impact Statement report should include:

- Justification of the proposed final landform with regard to its impact on local and regional groundwater systems;
- A detailed description of how the site would be progressively rehabilitated and integrated into the surrounding landscape;
- Detailed modelling of potential groundwater volume, flow and quality impacts of the presence of an inundated final void on identified receptors specifically considering those environmental systems that are likely to be groundwater dependent;
- A detailed description of the measures to be put in place to ensure that sufficient resources are available to implement the proposed rehabilitation; and
- The measures that would be established for the long-term protection of local and regional aquifer systems and for the ongoing management of the site following the cessation of the project.

End Attachment A