



Office of the Secretary

Contact: Kate Masters
Phone: 02 9228 6321
Fax: 02 9228 6466
Email: kate.masters@planning.nsw.gov.au

Mr Richard Brown
Hydro Aluminium Kurri Kurri Pty Ltd
PO Box 1
Kurri Kurri NSW 2327

Dear Mr Brown

**State Significant Development – Environmental Assessment Requirements
Former Hydro Aluminium Smelter Kurri Kurri Waste Management Facility, Loxford
(SSD 6666)**

Thank you for your request for the Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an Environmental Impact Statement (EIS) for the above mentioned development proposal. I have attached a copy of these requirements.

These SEARs are based on the information you have provided to date and have been prepared in consultation with the relevant government authorities (see **Attachment 2**). Please note that the Department of Planning and Environment (the Department) may alter the SEARs at any time. 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 SEARs. The Department will review the EIS for the development carefully before publicly exhibiting it, and will require you to submit an amended EIS if it does not adequately address the SEARs.

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 engagement process must be undertaken during the preparation of the EIS. This process must ensure that the community is both informed of the proposal and actively engaged in issues of concern to them. Sufficient information must be provided to the community so it has a good understanding of what is proposed and any potential impacts.

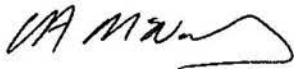
If the proposal is likely to have a significant impact on matters of National Environmental Significance, it will require an approval under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This approval would be in addition to any approvals required under NSW legislation and it is your responsibility to contact the Australian Department of the Environment to determine if an approval under the EPBC Act is required for your proposal (<http://www.environment.gov.au> or 02 6274 1111).

Please contact the Department at least two weeks before you propose to submit the development application and EIS for the development. This will enable the Department to:

- confirm the applicable fee (see Division 1AA, Part 15 of the *Environmental Planning and Assessment Regulation 2000*);
- identify the consultation and public exhibition arrangements that will apply; and
- determine the number of copies (hard-copy and CD-ROM) of the EIS that are required for review.

Should you have any further enquiries, please contact Kate Masters, Senior Planner – Industry, at the Department on (02) 9228 6321.

Yours sincerely



Carolyn McNally
Secretary

18.11.14

Secretary's Environmental Assessment Requirements

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

State Significant Development

Application Number	SSD 6666
Development	<p>The project includes the demolition of redundant smelter buildings and structures, remediation of the site and design, construction and operation of a waste management facility. The key components of the development include:</p> <ol style="list-style-type: none">1. Demolition of smelter buildings and structures within the project site including the removal of hazardous materials prior to and during demolition.2. Design, construction and long term operation and management of a purpose built waste containment cell that would encapsulate waste materials from the demolition and remediation activities.3. Remediation of contaminated soils located within the site, including materials within the capped waste stockpile (containing mixed smelter wastes) and contaminated soils around and below smelter structures.4. Treatment of leachate and leachate impacted groundwater from the capped waste stockpile.
Location	Hart Road, Loxford, NSW
Applicant	Hydro Aluminium Kurri Kurri Pty Ltd.
Date of Issue	
General Requirements	<p>The Environmental Impact Statement (EIS) must meet the minimum form and content requirements in clauses 6 and 7 of Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>.</p> <p>In addition, the EIS must include:</p> <ul style="list-style-type: none">• a clear description of the previous/existing operations carried out on the site and how the site operates lawfully under the <i>Environmental Planning and Assessment Act 1979</i> (EP&A Act) including any reliance on existing use rights and/or planning approvals;• detailed description of the development, including:<ul style="list-style-type: none">– need and justification for the proposed development– likely staging of the development.• consideration of all relevant guidelines and environmental planning instruments, including identification and justification of any inconsistencies with these instruments;• consideration of issues discussed in Attachment 2 (public authority responses to key issues);• risk assessment of any 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 the risk assessment, which includes:<ul style="list-style-type: none">– a description of the existing environment, using sufficient baseline data

	<ul style="list-style-type: none"> - an assessment of the potential impacts of all stages of the development, including any cumulative impacts, taking into consideration relevant guidelines, policies, plans and legislation - 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; • The EIS must also be accompanied by a report from a qualified quantity surveyor providing: <ul style="list-style-type: none"> - a detailed calculation of the Capital Investment Value (CIV) (as defined in clause 3 of the <i>Environmental Planning and Assessment Regulation 2000</i>) of the proposal, including details of all assumptions and components from which the CIV calculation is derived - a close estimate of the jobs that will be created by the development during the construction and operational phases of the development - certification that the information provided is accurate at the date of preparation.
<p>Key issues</p>	<p>The EIS must address the following specific matters including but not necessarily not limited to:</p> <p>1. Strategic and Statutory Context including:</p> <ul style="list-style-type: none"> • detailed justification for the proposal and suitability of the site for the proposed future land use; • demonstrate that the site is suitable for the proposed use in accordance with <i>State Environmental Planning Policy No 55 – Remediation of Land</i>; and • detail the nature and extent of the planning instruments that apply to the development and the projects compatibility with the objectives of the relevant zone(s). <p>2. Waste Containment Cell including:</p> <ul style="list-style-type: none"> • clearly explain and provide detailed justification for the preferred treatment technology; • demonstrate that the containment technology is capable of achieving the desired remediation and environmental outcomes; • clear details of the layout, design and technology of the cell, and proposed contents (including quantity of waste) and physio-chemical parameters of the proposed material; • detail the types of materials and management of those materials in the containment cell and consider any potential material incompatibilities and management measures to address any such incompatibilities; • detail how contaminated material from the existing containment cell will be transported to the new proposed cell including management measures to reduce groundwater, surface water, air quality and human health impacts; • detail the long term monitoring program for the contaminant cell and should the contaminant cell show signs of failure how this will be appropriately managed including any emergency procedures;

and

- detail the long term strategy for funding the maintenance of the waste treatment facility, and identify measures for ensuring appropriate security and access arrangements over the life of the project.

3. Contamination and Remediation including:

- a comprehensive assessment for the management of spent potlining (first cut and second cut) including options for treatment, export or disposal;
- a Remediation Action Plan (RAP) accompanied by a Site Audit Statement from an Environment Protection Authority (EPA) accredited site auditor prepared in accordance with the contaminated land planning guidelines under the EP&A Act and relevant guidelines produced or approved under the *Contaminated Land Management Act 1997*;
- the RAP must also:
 - characterise the nature and extent of contaminated material and any contaminated groundwater plumes;
 - detail the proposed remediation process, including treatment methodologies and processes
 - justify the proposed treatment and remediation criteria based on the conclusions of a Human Health Risk Assessment prepared in accordance with the Environmental Health Risk Assessment – Guidelines for Assessing Human Health Risk from Environmental Hazards
 - detail the proposed remediation management measures including the management of excavated material, stockpiles and wastewater
 - include a site validation plan
 - detail the final landform/use following remediation and the suitability of any fill material
 - identify any on-going management of the site following remediation works.

4. Occupational Health and Safety including:

- detail the measures to monitor and manage the exposure of workers to contaminants including the use of appropriate personal protective equipment, education and engineering controls at the facility to reduce exposure to contaminants; and
- detail how the requirements of the *Work Health and Safety Regulation 2011*.

5. Demolition Management including:

- A description of all demolition activities proposed during each stage of the development. This must:
 - provide details of the proposed demolition process and techniques, structures to be demolished, a program for the sequencing of demolition, and details of materials handling and management
 - confirmation that the demolition will be carried by a qualified and experienced demolition contractor
 - detail any hazardous materials or contaminants of concern contained within all structures proposed for demolition and how

these materials will be appropriately managed

- provide details of the exclusion zone to be applied during the demolition of any stacks and/or the water tower including clear plans, maps and aerial photographs of this zone
- identify any sensitive receivers that may occur within the exclusion zone and the proposed process and procedures for the evacuation of any private residence
- address contamination, human health, air quality, noise and vibration, traffic management, heritage, soil and water and waste impacts and how these impacts will be mitigated and managed
- include a community consultation strategy.

6. Waste including:

- detail the quantity and type of liquid and non-liquid waste generated, handled, stockpiled, processed or disposed of on and off site for all phases of the proposal;
- proposed measures for managing all waste generated over the life of the project;
- provide details of spoil disposal including the quantity, tracking, handling, stockpiling, reuse/recycling and proposed strategies for confirming that waste treatment and/or disposal facilities can lawfully accept waste generated; and
- provide details of any spoil to be imported to the site including the quantity and its waste classification.

7. Air and Odour including:

- a quantitative Air Quality Impact Assessment (AQIA) which assesses the air quality and odour impacts of all phases of the proposal including impacts on any surrounding receivers. The assessment must include:
 - details of all pollutants of concern
 - details of the air emission inputs and outputs
 - dispersion modelling, including adequate justification and validation (where appropriate) of all model inputs and outputs
 - a cumulative assessment of all existing and proposed emission sources
 - details of the proposed management and monitoring measures.

8. Noise and Vibration including:

- a quantitative noise and vibration assessment, including impacts on nearby sensitive receivers;
- cumulative impacts of other developments on and off-site; and
- details of the proposed noise management/mitigation and monitoring measures.

9. Soil and Water including:

- an assessment of the potential soil, groundwater and surface water and flooding impacts on all phases of the proposal;
- detailed baseline groundwater and surface water data and modelling of the potential surface water and groundwater impacts of the proposal;
- identification of any water licensing requirements or other

approvals under the *Water Act 1912* and/or the *Water Management Act 2000*;

- details of water supply;
- a detailed water balance (including quantity, quality and source(s)) for the development, outlining the measures to minimise water use and any potential for a sustainable water supply;
- erosion, sediment, stormwater and wastewater management and controls during all phases of the proposal;
- consideration of any watercourses and impacts on groundwater dependent ecosystems; and
- wastewater predictions, and the measures that would be implemented to treat, reuse and/or dispose of this water.

10. Hazards and Risks including:

- a Preliminary Hazard Analysis (PHA) must be prepared in accordance with Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis (DoP, 2011), and Multi-Level Risk Assessment (DoP, 2011). The PHA must:
 - provide details of all hazardous materials stored or handled on the premises during the demolition and remediation phases
 - identify the hazards associated with each material that will be stored or handled in the proposed development. Any safety measures to be implemented should also be clearly identified
 - estimate the risks from the proposed development
 - demonstrate that the potential offsite risk from the proposed development comply with the criteria set out in Hazardous Industry Planning Advisory Paper No 4 – Risk Criteria for Land Use Safety Planning
 - an evaluation of the impacts of the transport of dangerous goods to and from the site in the surrounding area.

11. Transport and Access including:

- accurate predictions of the traffic generated by all phases of the proposal;
- a detailed assessment of the potential impacts of the proposal on the capacity, efficiency and safety of the road network, including the truck routes and cumulative traffic generated;
- details of any required upgrades to road infrastructure; and
- site access, internal roads and vehicular parking required as a result of the development.

12. Heritage including:

- an Aboriginal cultural heritage assessment (including cultural and archaeological significance), which must demonstrate effective consultation with relevant Aboriginal community groups; and
- a non-Aboriginal cultural heritage assessment, (including both cultural and archaeological significance) which must outline any proposed management and mitigation measures.

13. Biodiversity including identification of species on site, and potential direct and indirect impacts on critical habitats, threatened species and populations, ecological communities, vegetation reserves, riparian vegetation and wetlands.

	<p>14. Fire and Incident Management including technical information on the environmental protection equipment to be installed on the premises such as air, water and noise controls, spill clean-up equipment and fire management and containment measures.</p> <p>15. Visual including an assessment of the visual impacts of the proposal including a detailed description (including plans and RLs) of how the site will be rehabilitated and landscaped.</p> <p>16. Ecologically Sustainable Development including an assessment of how the development will incorporate ESD principles in all phases of the development.</p> <p>17. Greenhouse Gas Emissions including a quantitative assessment of the potential scope 1 & 2 greenhouse gas emissions from the proposal, and a qualitative assessment of the potential impacts of these emissions on the environment.</p>
Plans and Documents	<p>The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the <i>Environmental Planning and Assessment Regulation 2000</i>. Those documents should be included as part of the EIS rather than as separate documents.</p>
Consultation	<p>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners.</p> <p>In particular you must consult with:</p> <ul style="list-style-type: none"> • Cessnock City Council; • Maitland City Council • Environment Protection Authority; • WorkCover NSW; • NSW Health; • Rural Fire Service; • Department of Primary Industries, including NSW Office of Water and Crown Lands; • Office of Environment and Heritage; and • Roads and Maritime Services. <p>The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to those issues. Where amendments have not been made to address an issue, a short explanation should be provided.</p>
Further consultation after 2 years	<p>If you do not lodge an EIS for the development within 2 years of the issue date of these SEARs, you must consult with the Secretary in relation to the requirements for lodgement.</p>
References	<p>The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. While not exhaustive, the following attachment contains a list of some of the guidelines, policies, and plans that may be relevant to the environmental assessment of this development.</p>

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.epa.nsw.gov.au/>

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

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

Policies, Guidelines and Plans

Aspect	Policy /Methodology
Contamination	<p><i>Contaminated Land Management Act 1997.</i></p> <p><i>State Environmental Planning Policy 55 – Remediation of Land</i></p> <p><i>Guidelines for Consultants Reporting on Contaminated Sites (EPA, 2000).</i></p> <p><i>Guidelines for the NSW Site Auditor Scheme - 2nd edition (DEC, 2006).</i></p> <p><i>Sampling Design Guidelines (EPA, 1995 and, National Environment Protection (Assessment of Site Contamination) Measure 1999 (April 2013).</i></p>
Human Health	<p><i>Work Health and Safety Regulation 2011 (WHS Regulation).</i></p> <p><i>Managing risks of hazardous chemicals in the workplace (Safe Work Australia, July 2014).</i></p> <p><i>Environmental Health Risk Assessment: Guidelines for assessing human health risk from environmental hazards (2012).</i></p>
Waste	<p><i>Waste Avoidance and Resource Recovery Strategy (Resource NSW).</i></p> <p><i>EPA's Waste Classification Guidelines.</i></p> <p><i>Protection of the Environment Operations (Waste) Regulations 2005.</i></p> <p><i>Resource Recovery Exemption.</i></p> <p><i>Technical guidelines: Bunding and Spill Management (DECC, 1997).</i></p>
Air Quality	<p><i>Protection of the Environment Operations (Clean Air) Regulation 2010.</i></p> <p><i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (DECC, 2005).</i></p> <p><i>Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (DECC, 2005).</i></p>
Odour	<p><i>Assessment and Management of Odour from Stationary Sources in NSW: Technical Framework (2006).</i></p> <p><i>Management of Odour from Stationary Sources in NSW: Technical Notes (2006).</i></p> <p><i>Protection of Environment Operations (Clean Air) Regulation 2010.</i></p>
Noise and Vibration	<p><i>Assessing Vibration: A technical guide (DEC, 2006).</i></p> <p><i>Australian and New Zealand Environment Council – Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration (ANZEC, 1990).</i></p> <p><i>NSW Industrial Noise Policy (EPA, 2000).</i></p> <p><i>Environmental Criteria for Road Traffic Noise (EPA, 1999).</i></p>

	Environmental Noise Control Manual (DECC).
	Interim Construction Noise Guideline (DECC, 2009).
Water	
	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, 2000).
	National Water Quality Management Strategy - Guidelines For Water Recycling: Managing Health And Environmental Risks (Phase1) (EPHC, NRMCC & AHMC).
	Managing Urban Stormwater: Council Handbook. Draft (EPA).
	Managing Urban Stormwater: Treatment Techniques (EPA).
	Managing Urban Stormwater: Source Control. Draft (EPA).
<i>Surface Water</i>	Managing Urban Stormwater: Soils & Construction vol.1 (Landcom, 2004) and vol.2 (E.Mines and Quarries, DECC 2008).
	Landslide risk management guidelines presented in Australian Geomechanics Society (2007).
	Site Investigation for Urban Salinity (DLWC, 2002).
	Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DEC, 2004).
	Local Salinity Initiative Booklets
	NSW Aquifer Interference Policy (NOW, 2012).
	Using the ANZECC Guideline and Water Quality Objectives in NSW (DEC).
	Floodplain Risk Management Guideline: Practical Consideration of Climate Change (DECC).
	National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC).
	NSW State Rivers and Estuary Policy (1993).
	NSW State Groundwater Policy Framework Document (1997).
	NSW State Groundwater Quality Protection Policy (1998).
<i>Groundwater</i>	The NSW State Groundwater Dependent Ecosystem Policy (2002).
	NSW Water Extraction Monitoring Policy (2007).
	Australian Groundwater Monitoring Guidelines (NWC, 2012).
	Department of Primary Industries Risk Assessment Guidelines for Groundwater Dependent Ecosystems (NOW, 2012).
	NSW Aquifer Interference Policy (NOW, 2012).
	National Water Quality Management Strategy - Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1) – (2006).
<i>Wastewater</i>	National Guidelines for Water Recycling – Managing Health and Environmental Risks – Impact Assessment.
Hazard and Risk	
	AS/NZS 4360:2004 Risk Management.
	HB 203:2006 Environmental Risk Management – Principals and Process.
	State Environmental Planning Policy No 33 – Hazardous and Offensive Development (SEPP 33)
	Planning Advisory Paper No. 6 – Guidelines for Hazardous Analysis (DUAP).
	Planning Advisory Paper No. 4 – Risk Criteria for Land Use Safety Planning (DUAP).
Transport	
	Roads Act 1993
	Guide to Traffic Generating Development (RMS)
	Guide to Traffic Management (Austroads)

RMS Traffic Control at Work Sites manual
Road Design Guide (RTA)

Heritage

Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH, 2011)
Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010)
Draft Guidelines for Aboriginal Cultural Impact Assessment and Community Consultation (Department of Planning, 2005)
Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW, 2010)

Biodiversity

Threatened Species Conservation Act 1995.
Environment Protection and Biodiversity Conservation Act 1999.
Fisheries Management Act 1994.
Marine Parks Act 1997.
National Parks and Wildlife Act 1974.
Guidelines for Threatened Species Assessment (Department of Planning, July 2005)
NSW OEH interim policy on assessing and offsetting biodiversity impacts of Part 3A, State Significant Development (SSD) and State Significant Infrastructure (SSI) projects (OEH, 2011).
The Threatened Species Assessment Guideline – The Assessment of Significance (DECC 2007).
Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water (DECCW 2010).
Threatened Biodiversity Survey and Assessment: Guidelines: Field Survey Methods for Fauna – Amphibians (DECC, 2009b)
Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities – Working Draft (DEC, 2004).
Biobanking Assessment Methodology and Credit Calculator Operational Manual (DECC 2009a).
Assessor's guide to using the Biobanking Credit Calculator (OEH, 2012).

Greenhouse Gas

National Greenhouse Accounts (NGA) Factors (Department of Environment)
The Greenhouse Gas Protocol: Corporate Standard, World Council for Sustainable Business Development and World Resources Institute.
National Greenhouse and Energy Reporting System, Technical Guidelines.
Australian Greenhouse Emissions Information System (AGEIS).

ATTACHMENT 2
Public Authority Responses to Request for Key Issues



Our reference: DOC14/191674-02, EF13/3122
Contact: Bill George; 4908 6821
Electronic correspondence to: hunter.region@epa.nsw.gov.au

Department of Planning & Infrastructure
GPO Box 39
Sydney 2001

Attention: Kate Masters

Email: kate.masters@planning.nsw.gov.au

Dear Ms Masters

Request for Secretary's Environmental Assessment Requirements - Proposed Demolition and Remediation of the former Hydro Aluminium Smelter (SSD6666)

I refer to your letter dated 1 September 2014 requesting the Environment Protection Authority's (EPA) requirements for an Environmental Impact Statement (EIS) for the proposed development.

The EPA has considered the details of the proposal and has identified the information it requires to assess the project (**Attachment 1**).

The key issues requiring assessment for the project are summarised below:

- The management, processing, storage and disposal of spent pot lining (SPL) and other potential contaminated materials;
- Options for re-processing SPL and other materials in Australia or off-shore;
- Impacts on water quality, including groundwater and site water management;
- Potential noise impacts during demolition, remediation and construction activities;
- Containment cell(s) design; and
- Impacts on air quality;

The proponent should ensure that the EIS is sufficiently comprehensive to enable the EPA to determine the extent of the impacts of the proposal.

In carrying out the assessment, the proponent should refer to the relevant guidelines as listed in **Attachment 2** and any relevant industry codes of practice and best practice management guidelines.

The proponent should be aware that any commitments made in the EIS may be formalised as approval and subsequently environment protection licence conditions. Pollution control measures should not be proposed if they are impractical, unrealistic or beyond the financial viability of the development. It is important that all conclusions are supported by adequate data.

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 **one hard copy of the EIS** for assessment. This document should be provided to Regional Manager - Hunter, Environment Protection Authority, PO Box 488G NEWCASTLE NSW 2300. The EPA also requests an electronic copy be sent to our referral mailbox – hunter.region@epa.nsw.gov.au

If you require any further information regarding this matter please contact me on (02) 4908 6821.

Yours sincerely



19.9.14

BILL GEORGE
A/Head Regional Operations Unit - Hunter
Environment Protection Authority

Encl: Attachment 1: EPA's Recommended Environmental Assessment Requirements
Attachment 2: General Guidance Material

ATTACHMENT 1

EPA's Recommended Environmental Assessment Requirements

1. Environmental impacts of the project

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

- Air Issues
- Noise and vibration
- Waste including hazardous materials
- Water and Soils
- Contaminated materials handling, containment and disposal

The Environmental Impact Statement (EIS) should address the specific requirements outlined under each heading below and assess impacts in accordance with the relevant guidelines mentioned. A full list of guidelines is provided at **Attachment 2**.

2. General

1. 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.

2. The Premises

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

- The location of the proposed facility and details of the surrounding environment;
- The proposed layout of the site;
- Appropriate landuse zoning;
- Ownership details of any residence and/or land likely to be affected by the proposed facility;
- Maps/diagrams showing the location of residences and properties likely to be affected and other industrial developments, conservation areas, wetlands, etc. in the locality that may be affected by the facility;
- All equipment proposed for use at the site;
- 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;
- Site rehabilitation following termination of the development

3. Licensing requirements

Should project approval be granted, the proponent may be required to make a separate licence variation application to the EPA for Environment Protection Licence (EPL 1548) to include additional environmental

management conditions and prior to commencing remediation and demolition activities. Additional information is available through the EPA's *Guide to Licensing* document:

<http://www.epa.nsw.gov.au/licensing/licenceguide.htm>

General information on licence requirements can also be obtained from EPA's Environment Line on 131 555 during office hours, or can be found at the EPA web site at: <http://www.epa.nsw.gov.au/licensing/>

4. Air issues

4.1 Air quality

The EIS should include a detailed air quality impact assessment (AQIA). The AQIA should:

1. Assess the risk associated with potential discharges of fugitive and point source emissions for all stages of the proposal. Assessment of risk relates to environmental harm, risk to human health and amenity.
2. Justify the level of assessment undertaken on the basis of risk factors, including but not limited to:
 - a. proposal location;
 - b. characteristics of the receiving environment; and
 - c. type and quantity of pollutants emitted.
3. Describe the receiving environment in detail. The proposal must be contextualised within the receiving environment (local, regional and inter-regional as appropriate). The description must include but need not be limited to:
 - a. meteorology and climate;
 - b. topography;
 - c. surrounding land-use; receptors; and
 - d. ambient air quality.
4. Include a detailed description of the proposal. All processes that could result in air emissions must be identified and described. Sufficient detail to accurately communicate the characteristics and quantity of all emissions must be provided.
5. Identification and location information of all fixed and mobile sources of dust/air emissions from the development. The EIS needs to identify all pollutants of concern and estimate emissions by quantity (and size for particles), source(s) and discharge point(s).

Note: emissions can be classed as either:

- a. point (e.g. emissions from stack or vent), or
 - b. fugitive (from wind erosion, leakages or spillages associated with loading or unloading, crushing/screening, conveyors, storage facilities, plant and yard operation, vehicle movements [dust from road, exhausts, loss from load], land clearing and construction works).
6. Include a consideration of 'worst case' emission scenarios and impacts at proposed emission limits.
 7. Account for cumulative impacts associated with existing emission sources as well as any currently approved developments linked to the receiving environment.
 8. The Air Quality Impact Statement (AQIA) must be prepared in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (2005)*
<http://www.epa.nsw.gov.au/resources/air/ammodelling05361.pdf>
 9. The Air Quality Impact Assessment must also make appropriate reference to the Assessment and Management of Odour from Stationary Sources in NSW: Technical Framework (2006) and Management of Odour from Stationary Sources in NSW: Technical Notes (2006).

10. The key air quality issues for the proposal will depend on the methods used to manage and remediate any contaminated or potentially contaminated materials. Potential matters that must be covered in the AQIA must include, but need not be limited to the following:
 - The identification of the pollutants of concern, including individual toxic air pollutants, dust and odours;
 - The identification and assessment of all relevant fugitive and point source emissions;
 - Appropriate coverage of all aspects of the remediation, including the excavation, storage, transport and treatment of contaminated material; and
 - Proposed air quality management and monitoring procedures during remediation.
11. Demonstrate the proposal's ability to comply with the relevant regulatory framework, specifically the *Protection of the Environment Operations (POEO) Act (1997)* and the *POEO (Clean Air) Regulation (2010)*.
12. Detail emission control techniques/practices that will be employed by the proposal and demonstrate that these are best management practice
13. Provide an assessment of the project in terms of the priorities and targets adopted under the NSW State Plan 2010 and its implementation plan Action for Air.

4.2 Greenhouse gas

1. The EIS should include a comprehensive assessment of, and report on, the project's predicted greenhouse gas emissions (tCO₂e). Emissions should be reported broken down by:
 - a) direct emissions (scope 1 as defined by the Greenhouse Gas Protocol – see reference below),
 - b) indirect emissions from electricity (scope 2), and
 - c) upstream and downstream emissions (scope 3)

before and after implementation of the project, including annual emissions for each year of the project (construction, operation and decommissioning).
2. The EIS should include an estimate of the greenhouse emissions intensity (per unit of production). Emissions intensity should be compared with best practice if possible.
3. The emissions should be estimated using an appropriate methodology, in accordance with NSW, Australian and international guidelines (see below).
4. The proponent should also evaluate and report on the feasibility of measures to reduce greenhouse gas emissions associated with the project. This could include a consideration of energy efficiency opportunities or undertaking an energy use audit for the site.

Guidance Material

- The Greenhouse Gas Protocol: Corporate Standard, World Council for Sustainable Business Development & World Resources Institute <http://www.ghgprotocol.org/standards/corporate-standard>
- National Greenhouse Accounts (NGA) Factors, Australian Department of Climate Change (Latest release), <http://www.climatechange.gov.au/publications/greenhouse-acctg/national-greenhouse-factors.aspx>
- National Greenhouse and Energy Reporting System, Technical Guidelines (latest release) <http://www.climatechange.gov.au/climate-change/greenhouse-gas-measurement-and-reporting/company-emissions-measurement/technical>

- Australian Greenhouse Emissions Information System (AGEIS) <http://ageis.climatechange.gov.au/>

5. Noise and vibration

1. In relation to noise, the following matters should be addressed (where relevant) as part of the Environmental Assessment.

General

2. Construction noise associated with the proposed development should be assessed using the *Interim Construction Noise Guideline* (DECC, 2009). <http://www.epa.nsw.gov.au/resources/noise/09265cnq.pdf>
3. Vibration from all activities (including construction and operation) to be undertaken on the premises should be assessed using the guidelines contained in the *Assessing Vibration: a technical guideline* (DEC, 2006). <http://www.epa.nsw.gov.au/noise/vibrationguide.htm>

Industry

Operational noise from all industrial activities (including private haul roads and private railway lines) to be undertaken on the premises should be assessed using the guidelines contained in the *NSW Industrial Noise Policy* (EPA, 2000) and *Industrial Noise Policy Application Notes*.
<http://www.epa.nsw.gov.au/noise/industrial.htm>

Road

4. Noise on public roads from increased road traffic generated by land use developments should be assessed using the guidelines contained in the *Environmental Criteria for Road Traffic Noise* (EPA, 1999). <http://www.epa.nsw.gov.au/resources/noise/roadnoise.pdf>
5. Noise from new or upgraded public roads should be assessed using the *Environmental Criteria for Road Traffic Noise* (EPA, 1999). <http://www.epa.nsw.gov.au/resources/noise/roadnoise.pdf>

6. Contaminated Site Assessment, Waste, Chemicals and Hazardous Materials and radiation

1. The EIS must:
 - a) Include an assessment of the contaminated site that is conducted in accordance with the guidelines made or approved under section 105 of the *Contaminated Land Management Act 1997*, including: *Guidelines for Consultants Reporting on Contaminated Sites* (EPA, 2000), *Guidelines for the NSW Site Auditor Scheme - 2nd edition* (DEC, 2006), *Sampling Design Guidelines* (EPA, 1995 and, *National Environment Protection (Assessment of Site Contamination) Measure 1999* (April 2013).
 - b) Include a comprehensive options assessment for the management of the spent potlining (first cut and second cut) including treatment, export and/or disposal.
 - c) Provide the details on how the site contamination will be remediated and/or managed so that the site is, or can be, made suitable for the proposed use.
 - d) All reports should be prepared in accordance with the *Guidelines for Consultants Reporting on Contaminated Sites* (EPA, 2000).
 - e) Specify whether or not a site auditor, accredited under the *Contaminated Land Management Act 1997*, has been or will be engaged for the works. The auditor will be required to verify the adequacy of the site investigations, the proposed remedial strategy, the effectiveness of the remedial works in

preventing the migration of contamination from the site, and the suitability of the site for the proposed land use.

- f) Provide comprehensive options assessment for dealing with the hazardous SPL waste, currently regulated under a CCO with an EHC licence. The assessment must consider at least , but not necessarily be limited to:
- a. Local reprocessing and re-use in Australia or off-shore
 - b. Export for re-processing and re-use
 - c. Immobilisation for
 - i. Off-site disposal to approved landfill
 - ii. Placement to onsite containment cell
 - d. Review/assessment of International precedents in comparable jurisdictions
 - e. Regulatory perspective in comparable jurisdictions
 - f. A very robust defence of the preferred strategy
 - g. Independent review of options by an expert, nominated by the EPA
2. Include a detailed design for all containment material cell construction for SPL and other contaminated materials. The containment cell(s) must be designed according to best available national and/or international design and technology.
 3. Include a detailed plan for in-situ classification of any 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.
 4. 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*.
 5. 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*.
 6. 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*.
 7. 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 EIS should show the location of each measure to be implemented. The Proponent should consider measures such as:
 - Sediment traps

- Diversion banks
- Sediment fences
- Bunding
- 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.

8. 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.
9. 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.
10. Include a statement demonstrating that the Proponent is aware of EPA's requirements with respect to notification and tracking of waste.
11. 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.
12. 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.

7. Water and soils

7.1 Soil

The EIS should include:

1. An assessment of potential impacts on soil and land resources should be undertaken. The nature and extent of any significant impacts should be identified. Particular attention should be given to:
 - a. Soil erosion and sediment transport - in accordance with *Managing urban stormwater: soils and construction*, vol. 1 (Landcom 2004) and vol. 2 (E. Mines and quarries) (DECC 2008).
 - b. Mass movement (landslides) – in accordance with *Landslide risk management* guidelines presented in Australian Geomechanics Society (2007).
 - c. Urban and regional salinity – guidance given in the Local Government Salinity Initiative booklets which includes *Site Investigations for Urban Salinity* (DLWC, 2002).
2. A description of the mitigation and management options that will be used to prevent, control, abate or minimise identified soil and land resource impacts associated with the project. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.

7.2 Water

Describe Proposal

1. Describe the proposal including position of any intakes and discharges, volumes, water quality and frequency of all water discharges.
2. Demonstrate that all practical options to avoid discharge have been implemented and environmental impact minimised where discharge is necessary.
3. Where relevant include a water balance for the development including 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.

Background Conditions

4. Describe existing surface and groundwater quality. An assessment needs to be undertaken for any water resource likely to be affected by the proposal.
5. State the Water Quality Objectives for the receiving waters relevant to the proposal. These refer to the community's agreed environmental values and human uses endorsed by the NSW Government as goals for ambient waters (<http://www.environment.nsw.gov.au/ieo/index.htm>). Where groundwater may be impacted the assessment should identify appropriate groundwater environmental values.
6. State the indicators and associated trigger values or criteria for the identified environmental values. This information should be sourced from the ANZECC (2000) Guidelines for Fresh and Marine Water Quality <http://www.environment.gov.au/resource/australian-and-new-zealand-guidelines-fresh-and-marine-water-quality-volume-1-guidelines>
7. State any locally specific objectives, criteria or targets which have been endorsed by the NSW Government.
8. Include a water balance for the site, including 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.

Impact Assessment

9. Describe the nature and degree of impact that any proposed discharges will have on the receiving environment.
10. Assess impacts against the relevant ambient water quality outcomes. Demonstrate how the proposal will be designed and operated to:
 - o protect the Water Quality Objectives for receiving waters where they are currently being achieved; and
 - o contribute towards achievement of the Water Quality Objectives over time where they are not currently being achieved.
11. Where a discharge is proposed that includes a mixing zone, the proposal should demonstrate how wastewater discharged to waterways will ensure the ANZECC (2000) water quality criteria for relevant chemical and non-chemical parameters are met at the edge of the initial mixing zone of the discharge, and that any impacts in the initial mixing zone are demonstrated to be reversible.
12. Assess impacts on groundwater and groundwater dependent ecosystems.
13. Describe how stormwater will be managed both during and after construction.

14. Describe in detail any water storage ponds, or basins, proposed to be constructed for the site. Provide location of the proposed storage(s), estimated volume capacities and expected water quality.
15. Describe under exactly what circumstances, if any, these storages would be discharged or allowed to overflow, and what the receiving environment for any discharges would be.

Monitoring

16. Describe how predicted impacts will be monitored and assessed over time. Including a Trigger Action Response Plan, or similar response management plan, that will be implemented in response to any adverse impacts identified from the activity. This plan is to identify appropriate trigger values for the site and provide appropriate response actions to be implemented if adverse impacts are identified through the monitoring program.
17. Water quality monitoring should be undertaken in accordance with the *Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)*
<http://www.epa.nsw.gov.au/resources/legislation/approvedmethods-water.pdf>

8 Monitoring Programs

The EIS should include a detailed assessment of any noise, air quality, water quality or waste monitoring required during the construction/development phase and on-going operation of the site to ensure that the development achieves a satisfactory level of environmental performance. The evaluation should include a detailed description of the monitoring locations, sample analysis methods and the level of reporting proposed.

9 Long Term Management Strategies

The EIS must also include detailed management strategies that address:

- a. Funding;
- b. Ownership
- c. Liability
- d. Financial security/assurances/guarantee

ATTACHMENT 2**Guidance Material**

Title	Web address
<u>Relevant Legislation</u>	
<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
<u>Licensing</u>	
Guide to Licensing	http://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.epa.nsw.gov.au/resources/air/ammodelling05361.pdf
POEO (Clean Air) Regulation 2010	http://www.legislation.nsw.gov.au/maintop/view/inforce/subordleg+428+2010+cd+0+N
Greenhouse Gas	
The Greenhouse Gas Protocol: Corporate Standard, World Council for Sustainable Business Development & World Resources Institute	http://www.ghgprotocol.org/standards/corporate-standard
National Greenhouse Accounts (NGA) Factors, Australian Department of Climate Change (Latest release),	http://www.climatechange.gov.au/publications/greenhouse-acctg/national-greenhouse-factors.aspx
National Greenhouse and Energy Reporting System, Technical Guidelines (latest release)	http://www.climatechange.gov.au/climate-change/greenhouse-gas-measurement-and-reporting/company-emissions-measurement/technical
Australian Greenhouse Emissions Information System (AGEIS)	http://ageis.climatechange.gov.au/
<u>Noise and Vibration</u>	
Interim Construction Noise Guideline (DECC, 2009)	http://www.epa.nsw.gov.au/resources/noise/09265cng.pdf
Assessing Vibration: a technical guideline (DEC, 2006)	http://www.epa.nsw.gov.au/noise/vibrationguide.htm
Australian and New Zealand Environment Council – Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration (ANZEC, 1990)	http://www.epa.nsw.gov.au/resources/noise/ANZECBlasting.pdf
Industrial Noise Policy Application Notes	http://www.epa.nsw.gov.au/noise/industrial.htm
Environmental Criteria for Road Traffic Noise (EPA, 1999)	http://www.epa.nsw.gov.au/resources/noise/roadnoise.pdf

Title	Web address
Rail Infrastructure Noise Guideline (EPA, 2013)	http://www.epa.nsw.gov.au/resources/noise/20130018eparinq.pdf
Environmental assessment requirements for rail traffic-generating developments	http://www.epa.nsw.gov.au/noise/railnoise.htm
<u>Waste, Chemicals and Hazardous Materials and Radiation</u>	
Waste	
Waste Classification Guidelines (DECC, 2008)	http://www.epa.nsw.gov.au/waste/classification.htm
Resource recovery exemption	http://www.epa.nsw.gov.au/waste/RRecoveryExemptions.htm
<u>Water and Soils</u>	
Soils	
Managing urban stormwater: soils and construction, vol. 1 (Landcom 2004) and vol. 2 (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
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	http://www.environment.gov.au/resource/australian-and-new-zealand-guidelines-fresh-and-marine-water-quality-volume-1-guidelines
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.epa.nsw.gov.au/resources/legislation/approvedmethods-water.pdf



12 September 2014

Mr Chris Ritchie
Manager Industry, Key Sites and Social
Projects
NSW Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Contact: Peter Giannopoulos
Our Ref: 20335 / AD2014/031165
Your Ref: SSD 6666

Dear Chris

Preliminary Environmental Assessment on Behalf of Hydro Aluminium Kurri Kurri Pty Ltd for the Proposed Demolition, Remediation and Management of Derived Wastes at the Former Hydro Aluminium Kurri Kurri Smelter at Loxford.

I refer to your letter dated 1 September 2014, requesting Council's requirements for the preparation of the Environmental Impact Statement (EIS) in relation to the above project, and the invitation to attend the Planning Focus Meeting (PFM) which was held on 10 September 2014.

Thank you for the opportunity to participate in respect to the assessment of this proposal. Having attended the PFM and the associated site inspection and with the benefit of referring to the Preliminary Environmental Assessment (PEA), Council staff have prepared the following comments in respect to the proposal.

It is acknowledged that there is evidence of environmental impacts stemming from stored waste on the site and that remediation is the only prospect of arresting the situation, accordingly it is evident that there are significant environmental benefits that can stem from the remediation of the site and the management of waste associated with the smelter demolition. In respect to the demolition of the buildings, Council will favour reuse, where possible over demolition, and in the situation where demolition is necessary, the reuse of salvageable safe materials.

Where possible, controls should be provided for the safe and careful handling of dangerous or polluting goods and materials.

Alternative Options

As advised at the PFM, Council is supportive of further evidence and reasoning being provided regarding alternative methods of remediation. An independent, peer review of the consideration of alternatives should be provided.

Permissibility

The subject site is situated in multiple zones under Cessnock Local Environmental Plan 2011 (CLEP), with the location of the proposed development on land zoned RU2 Rural Landscape. The proposed development is appropriately described in the PEA as *waste disposal facility*, this being a type of a *'waste resource management facility'*. The definitions being:

waste disposal facility means a building or place used for the disposal of waste by landfill, incineration or other means, including such works or activities as recycling, resource recovery and other resource management activities, energy generation from gases, leachate management, odour control and the winning of extractive material to generate a void for disposal of waste or to cover waste after its disposal.

Note. Waste disposal facilities are a type of waste or resource management facility—see the definition of that term in this Dictionary.

waste or resource management facility means any of the following:

- (a) a resource recovery facility,
- (b) a waste disposal facility,
- (c) a waste or resource transfer station,
- (d) a building or place that is a combination of any of the things referred to in paragraphs (a)–(c).

Whilst the CLEP permits the development of a building or place for the purpose of a *'waste disposal facility'* as a type of a *'waste resource management facility'*, they are uses that do not fit comfortably with the objectives of the RU2 Rural Landscape zone which are:

Zone RU2 Rural Landscape

1 Objectives of zone

To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.

- *To maintain the rural landscape character of the land.*
- *To provide for a range of compatible land uses, including extensive agriculture.*
- *To enable other forms of development that are associated with rural activity and require an isolated location or support tourism and recreation.*
- *To ensure that the type and intensity of development is appropriate in relation to the rural capability and suitability of the land, the preservation of the agricultural, mineral and extractive production potential of the land, the rural environment (including scenic resources) and the costs of providing services and*

Of note, is clause 2.3(2) of the CLEP that requires due consideration of the zone objectives:

2.3 Zone objectives and Land Use Table

(2) The consent authority must have regard to the objectives for development in a zone when determining a development application in respect of land within the zone.

The compatibility of the development with the objectives of the relevant zone(s), is a matter that should be suitably addressed by the applicant as well as the determining authority. Council notes that the property selected for the proposed waste disposal facility has been used for the purpose of a clay pit, a use that is compatible with the RU2 zone objectives. Council also notes that the proposed development is consistent with the masterplan provided in support of the rezoning of the site and should be referred to in this context.

Environmental Impacts

The environmental impacts listed in the preliminary risk assessment is suitable for the proposed development, these being:

- Ecology
- Noise and vibration
- Air quality
- Aboriginal heritage
- Soils and contamination
- Waste management
- Hydrology and water quality
- Social impacts
- Traffic and access
- Visual and aesthetics
- Carbon and energy
- Non-indigenous heritage
- Cumulative impacts

Of concern are the ecological impacts, noise and vibration, air, soil and water quality, traffic impacts, retention of non-indigenous heritage and the compounding impacts, that is, cumulative impacts and synergies.

Council agrees that the above impacts are the main issues that should be considered and addressed in the EIS. It is important however, not to only focus on the on-site impacts, rather, there should also be a suitable focus of off-site impacts.

Contamination

Remediation of the site should be to the highest possible standard. As the proponent plans to use part of the site for future employment land, rural and residential development, remediation should be to the level required for future land uses throughout the site. Council considered the issue of proposed contamination and remediation at its ordinary meeting of the 3 September 2014 and resolved:

RESOLVED

1. *That Cessnock Council write to Norsk Hydro expressing deep concern over plans to store 350,000 tonnes of waste (including a considerable quantity of toxic spent potlining) in a containment cell on the Kurri Kurri Hydro Aluminium site, and calling on them to instead reprocess the toxic material into a Government regulated facility.*

2. *That Council invite Norsk Hydro to brief Council regularly on the issue.*

Council has written to the proponent advising of its position and awaits a response.

Noise

The following should be noted in preparing requirements for the EIS:

- Any acoustic assessment should identify activities that could be undertaken within the project outside standard construction hours without resulting in noise impacts on sensitive receivers.
- Any acoustic assessment should identify all noise sources that could impact on the surrounding residential area.
- Establishing individual noise sources as it is important for monitoring and compliance in the event that Council receives nuisance complaints.
- Depending on the location of the residents, they may be affected by noise emissions from two or more sources. Therefore multiple noise sources need to be identified, including those sources which may potentially impact on sensitive receptors (people particularly susceptible to illness from environmental pollution, such as the elderly, children, or the immunocompromised) in the supporting information.
- Multiple noise sources should be identified so that in the event there is a nuisance impact from the activity, compliance for each source can then be assessed against its recorded noise level.
- Any non-compliance can then be directly attributed to the offending noise source and abatement measures can be implemented.

Non-indigenous Heritage

Although not recognised in a heritage study, the subject site has a significant cultural and social significance that is threatened by the redevelopment of the site. The EIS should provide a thorough examination of the heritage significance of the site and provide details about the manner of retaining some of the social fabric that the smelter represents.

Community Consultation

Given that the site is significant and relatively large, it is considered that the exhibition of the development be conducted in a manner where it will have widespread coverage with a suitable period of time to enable submissions to be prepared and submitted. The proponent should be encouraged to undertake additional pre-lodgement community consultation to enable comments to be considered in the preparation of the documents associated with the development.

Should you have any further enquiries please contact Council's Team Leader Development Services, Peter Giannopoulos of Council's Planning and Environment Department on (02) 4993 4112 or via email peter.giannopoulos@cessnock.nsw.gov.au.

Yours faithfully



Gareth Curtis
Director Planning and Environment

From: Doris Yau
Sent: Wednesday, 3 September 2014 9:40 AM
To: Kate Masters
Cc: Ramez Aziz
Subject: Input to DGR for Former Kurri Kurri Aluminium Smelter

Hi Kate,

I have reviewed the Preliminary EA for Former Kurri Kurri Aluminium Smelter. It is noted that the proposed development will handle spent potlining (DG class 4.3) for a total of 80,000 tonnes. This exceeds the threshold of 1 tonne listed in *Applying SEPP 33*. It is also noted that the proponent will remove and manage other hazardous material during the demolition phase. The detail of hazardous materials to be removed is not provided in the document. In addition, demolition by explosion or other applicable methodology of key large structures may be employed in the large scale demolition. It is unclear in the document if they will store explosives during the demolition phase. Hence, we would suggest the SEAR to be general and include the following:

1. Hazards and risks – the assessment must include:

- A Preliminary Hazard Analysis (PHA) must be prepared in accordance with *Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis* (DoP, 2011), and *Multi-Level Risk Assessment* (DoP, 2011). The PHA must:
 - Provide details of all hazardous materials stored or handled on the premises during the demolition and remediation phases.
 - Identify the hazards associated with each material that will be stored or handled in the proposed development. Any safety measures to be implemented should also be clearly identified;
 - Estimate the risks from the proposed development;
 - Demonstrate that the potential offsite risk from the proposed development comply with the criteria set out in *Hazardous Industry Planning Advisory Paper No 4 – Risk Criteria for Land Use Safety Planning*.
- An evaluation of the impacts of the transport of Dangerous Goods to and from the site in the surrounding area.

Should you have any questions, please let me know.

Cheers,
Doris



Office of
Environment
& Heritage

Our reference: DOC14/183915-01
Contact: Ziggy Andersons, 4908 6820

Ms Kate Masters
A/Senior Planner
Industry, Key Sites & Social Projects
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Ms Masters

RE: ENVIRONMENTAL ASSESSMENT REQUIREMENTS FOR HYDRO ALUMINIUM REMEDIATION PROJECT – CESSNOCK AND MAITLAND LOCAL GOVERNMENT AREAS


I refer to your e-mail dated 25 August 2014 requesting that the Office of Environment and Heritage (OEH) provide Secretary's Environmental Assessment Requirements for the above proposal.

OEH understands that the proposal involves the remediation of the Hydro Aluminium smelter and associated infrastructure which will result in the removal of approximately seven hectares of remnant vegetation. It is understood that this vegetation is comprised of a number of Endangered Ecological Communities (EEC), that a number of threatened species have been recorded from within the project site, and that there is a high potential that Aboriginal cultural heritage items will also be present.

OEH has reviewed the project information provided and has prepared input to Secretary's Environmental Assessment Requirements for the proposed project which are provided in **Attachment 1**. When assessing the final application, OEH will require one hard and one electronic (CD) copy of the EA for assessment.

If you have any questions concerning this advice, please contact Ziggy Andersons, Regional Biodiversity Conservation Officer, on 4908 6820.

Yours sincerely

 29 AUG 2014

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

Enclosure: Attachment 1

ATTACHMENT 1

OEH RECOMMENDED SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS
FOR HYDRO ALUMINIUM REMEDIATION PROJECT – CESSNOCK AND MAITLAND LGA

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Environmental impacts of the project

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

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

The Environmental Assessment (EA) should address the specific requirements outlined below and assess impacts in accordance with the relevant guidelines mentioned. A full list of guidelines is at **Appendix 1**.

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

Flooding

The EA should include an assessment of the following (where applicable) referring to the guidelines in Appendix 1:

Assessment of existing flood behaviour and impact of Sea Level Rise and Climate Change

Provide an assessment of all flood risks on the site (for the full range of floods including events greater than the 1 in 100 year design flood up to the probable maximum flood) from all the flood mechanisms acting singly or in combination and having consideration of any relevant provisions of the NSW Floodplain Development Manual 2005. The assessment should include the flood levels, velocities, the hydraulic categories and flood hazards. Tidal inundation, hazard and hydraulic category mapping should be provided. The assessment should be undertaken under current sea level conditions and with a projected sea level rise (SLR) of 0.90m. A sensitivity assessment to assess the impact of an increase in rainfall intensity of 10%, 20% and 30% due to climate change for the 1 in 100 year event with the projected SLR should be undertaken.

Assessment of potential impacts of the proposed development

The EA needs to provide full details of the flood assessment and modelling undertaken in determining any design flood levels (if applicable), including the 1 in 100 year flood levels. As such the EA must provide an assessment to determine the potential impacts of the proposed development (including fill) on the flood behaviour at the site and any impacts on adjacent land (for the full range of floods including events greater than the 1 in 100 year design flood up to the probable maximum flood) based on the current sea level and with a projected SLR of 0.9m. This shall include any impacts on drainage (at the site and on adjacent land)

and redirection of flow, velocities, flood levels, hazards and hydraulic categories. A sensitivity assessment should be undertaken to assess the impact of the development with an increase in rainfall intensity of 10%, 20% and 30% due to climate change and with SLR for the 1 in 100 year flood event.

The potential impacts of the development on flooding should take into consideration any potential ecological changes/ impacts on adjacent areas.

Emergency management measures and evacuation

Address emergency management, evacuation and access, including contingency measures for floods greater than the 1 in 100 year flood event. These matters are to be discussed with and have concurrence of Council and the SES. Additionally, the assessment will need to indicate whether the proposal is likely to result in unsustainable social and economic costs to the community as a consequence of flooding.

Sea Level Rise and Ecosystem Migration

Having regard to the existing and proposed topography of the land, assess the impact of the proposed development on the capacity for ecosystem migration for mean sea levels of up to 0.9m above 1990 levels.

Additional Information

The assessment will also need to address:

1. Whether the proposal is consistent with any floodplain risk management plans.
2. Whether the proposal is compatible with the flood hazard of the land.
3. Whether the proposal will significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.

1 Aboriginal Cultural Heritage

OEH recommends that the following Aboriginal cultural heritage issues be addressed by the proponent in preparing the EA.

Existing Aboriginal cultural heritage values

OEH acknowledges the existence of numerous registered Aboriginal sites in the regional locality. These include burials, isolated finds, camp sites, artefact scatters and potential artefact deposits. It is also acknowledged that the project area contains landforms which have yielded a significant volume of evidence of Aboriginal occupation. It is therefore recommended that the proponent consider any potential impacts of the proposal on these known Aboriginal sites/objects, the sensitivity and significance of these sites to the traditional Aboriginal knowledge holders and any relationship that may exist between these sites and any Aboriginal cultural heritage values of the project area.

Potential impacts of the project on Aboriginal cultural heritage values

Standard requirements:

1. The EA 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 EA must include surveys by suitably qualified archaeological and geomorphological consultants in consultation with all of the local Aboriginal knowledge holders.
3. The EA 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 EA 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 EA 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 EA 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* (EP&A Act), 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).

In addressing these requirements, the applicant must refer to the following documents:

- i. Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (Department of Planning, 2005). These guidelines identify the factors to be considered in Aboriginal cultural heritage assessments for development proposals under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act).
- ii. Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (OEH, 2010) www.environment.nsw.gov.au/resources/cultureheritage/ddcop/10798ddcop.pdf.
- iii. These guidelines identify the factors to be considered in Aboriginal cultural heritage assessments for development proposals under Part 4 of the (EP&A Act).
- iv. Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (OEH, 2010) - www.environment.nsw.gov.au/licences/consultation.htm. This link further explains the consultation requirements that are set out in clause 80C of the National Parks and Wildlife Regulation 2009. The process set out in this document must be followed and documented in the EA.

- v. Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (OEH, 2010) - www.environment.nsw.gov.au/licences/archinvestigations.htm. The process described in this Code should be followed and documented where the assessment of Aboriginal cultural heritage requires an archaeological investigation to be undertaken.

Note:

1. An Aboriginal Site Impact Recording Form must be completed and submitted to the Aboriginal Heritage Information Management System (AHIMS) Registrar, for each AHIMS site that is harmed through archaeological investigations required or permitted through these environmental assessment requirements.
(www.environment.nsw.gov.au/licences/DECCAHMSSiteRecordingForm.htm)
2. Under Section 89A of the National Parks and Wildlife Act 1974, it is an offence for a person not to notify OEH of the location of any Aboriginal object the person becomes aware of, not already recorded on the AHIMS. An AHIMS Site Recording Form should be completed and submitted to the AHIMS Registrar (www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm) for each Aboriginal site found during investigations.

Biodiversity

OEH's requirements on assessing the biodiversity at the development site and how to appropriately offset harm to threatened biota are provided below.

Biodiversity impacts can be assessed using either the BioBanking Assessment Methodology (scenario 1) or a detailed biodiversity assessment (scenario 2). The requirements for each of these approaches are detailed below.

The BioBanking Assessment Methodology can be used either to obtain a BioBanking statement, or to assess impacts of a proposal and to determine required offsets without obtaining a statement. In the latter instances, if the required credits are not available for offsetting, appropriate alternative options may be developed in consultation with the OEH and in accordance with OEH policy.

Scenario 1 - Where a proposal is assessed using the BioBanking Assessment Methodology (BBAM DECC 2008):

1. Where a BioBanking Statement is being sought under Part 7A of the *Threatened Species Conservation Act 1995* (TSC Act), the assessment must be undertaken by an accredited BioBanking assessor (as specified under Section 142B (1)(c) of the TSC Act) and done in accordance with the BioBanking Assessment Methodology (DECC 2008) utilising both the (i) '*BioBanking Assessment Methodology and Credit Calculator Operational Manual*' (DECC 2009a; located at: www.environment.nsw.gov.au/resources/biobanking/09181bioopsman.pdf), and (ii) '*Assessors' guide to using the BioBanking Credit Calculator v.2*' (OEH 2012; located at www.environment.nsw.gov.au/resources/biobanking/120182AssessGdeBBCC.pdf). To qualify for a BioBanking Statement a proposal must meet the 'improve or maintain standard'.
- 1a. The EA should include a specific Statement of Commitments that reflects all requirements of the BioBanking Statement including the number of credits required and any Director General (DG) approved variations to impact on Red Flags.
2. Where the BioBanking Assessment Methodology is being used to assess impacts of a proposal and to determine required offsets, and a BioBanking Statement is not being obtained, the EA should contain a detailed biodiversity assessment and all components of the assessment must be undertaken in accordance with the *BioBanking Assessment Methodology and Credit Calculator Operational Manual* (DECC 2009a) and the *Assessors' guide to using the BioBanking Credit Calculator v.* (OEH 2012).

2a. The EA should include a specific Statement of Commitments which:

- is informed by the outcomes of the proposed BioBanking assessment offset package;
 - sets out the ecosystem and species credits required by the BioBanking Assessment Methodology and how these ecosystem and/or species credits will be secured and obtained;
 - if the ecosystem or species credits cannot be obtained, provides appropriate alternative options to offset expected impacts, noting that an appropriate alternative option may be developed in consultation with OEH officers and in accordance with OEH policy;
 - demonstrates how all options have been explored to avoid red flag areas;
 - submission of credit calculator files for both the development and biobank sites as outlined in Appendix 2,
 - all appropriate BioBanking assessment files (including all reports, underlying assumptions [particularly in the selection of vegetation types from the vegetation types database, placement of assessment circles, connectivity assessment etc], associated maps, field sheets etc), and any relevant expert reports (if applicable). Appendix 2 is a checklist of information required when utilising the BioBanking Assessment Methodology and can be used as a guide to the relevant information required,
 - all appropriate GIS shape files (e.g. maps, plots and transects, assessment circles, species polygons, vegetation communities),
 - geo-referenced map(s) showing the locality of the offset lands, relevant vegetation zones and management areas (if applicable),
 - legible copies of all field plot / transect data sheets for all plots entered into the credit calculator. This is the primary source of information OEH utilises to assess biometric vegetation types chosen, habitat preferences and site condition, and
 - with respect to the use of the offset policy (OEH 2011, as described below), the level or tier of offset achieved must be clearly stated and explained, and any credit variation rules which have been applied must be justified.
3. Where the 'NSW OEH interim policy on assessing and offsetting biodiversity impacts of Part 3A, State significant development (SSD) and State significant infrastructure (SSI) projects' (OEH 2011) is being used then the proponent must stipulate which level(s) of offset is being offered. In accordance with the interim policy, justification must be provided as to why it is appropriate to apply the Tier 2 ('no net loss') or Tier 3 ('mitigated net loss') outcomes. In considering whether the mitigated net loss standard is appropriate, justification must be provided on: (i) whether the credits required by the calculator are available on the market; (ii) whether alternative offset sites (other than credits) are available on the market; and (iii) the overall cost of the offsets and whether these costs are reasonable given the circumstances'. This must be to satisfaction of and in consultation with OEH. Tier 2 and Tier 3 offset proposals will likely require a larger area of remnant vegetation to be offered in the offset package than if Tier 1 ('improve or maintain') had been met.
4. Where appropriate, likely impacts (both direct and indirect) on any adjoining and/or nearby OEH estate reserved under the NPW Act or any marine and estuarine protected areas under the *Fisheries Management Act 1994* or the *Marine Parks Act 1997* should be considered. Please refer to the *Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water* (DECCW 2010). OEH notes Talawahl Nature Reserve occurs within the near vicinity (i.e. 250m) of the western boundary of the proposal, and as such any direct or indirect impacts need to be documented and assessed.
5. With regard to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, the assessment should identify and assess any relevant Matters of National Environmental Significance and whether the proposal has been referred to the Commonwealth or already determined to be a controlled action.

Scenario 2 - Where a proposal is assessed outside the BioBanking Assessment Methodology:

1. The EA 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 EA, 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, populations and ecological communities 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, populations and ecological communities present. The BioBanking Threatened Species Database, the Vegetation Types databases (available on DECCW 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. The EA 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 EA.
 - 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 at point 6 below).
 - k. Provision of specific Statement of Commitments relating to biodiversity.
4. 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
5. Where an offsets package is proposed by a proponent for impacts to biodiversity (and a BioBanking Statement has not been sought) this package must be developed in accordance with the *NSW offset principles for major projects (state significant development and infrastructure)* – available at: www.environment.nsw.gov.au/resources/biodiversity/1480bioffspol.pdf (OEH, 2014a), which may be guided by the *NSW OEH interim policy on assessing and offsetting biodiversity impacts of Part 3A, State significant development (SSD) and State significant infrastructure (SSI) projects'* (OEH 2011).

The seven principles of the new Offsets Policy for Major Projects are:

- a. Before offsets are considered, impacts must first be avoided and unavoidable impacts minimised through mitigation measures. Only then should offsets be considered for the remaining impacts.
- b. Offset requirements should be based on a reliable and transparent assessment of losses and gains.
- c. Offsets must be targeted to the biodiversity values being lost or to higher conservation priorities.
- d. Offsets must be additional to other legal requirements.
- e. Offsets must be enduring, enforceable and auditable.
- f. Supplementary measures can be used in lieu of offsets.
- g. Offsets can be discounted where significant social and economic benefits accrue to NSW as a consequence of the proposal.

Application of this policy requires, as per Principle 2, the use of an established assessment tool to reliably and transparently measure losses and gains for terrestrial biodiversity of the development site and any offset measures, such as:

- BioBanking Assessment Methodology (DECC 2008) utilising the (A) 'BioBanking Assessment Methodology and Credit Calculator Operational Manual' (DECC 2009a; located at: www.environment.nsw.gov.au/resources/biobanking/09181bioopsman.pdf), and (B) 'Assessors' guide to using the BioBanking Credit Calculator v.2' (OEH 2012; located at www.environment.nsw.gov.au/resources/biobanking/120182AssessGdeBBCC.pdf).

The Framework for Biodiversity Assessment (FBA) tool (OEH, 2014b) is proposed to be the main assessment tool for the offsetting principles for Major Projects, but it is not yet available.

Where the BioBanking Assessment Methodology is being used to assess impacts of a proposal and to determine required offsets and a BioBanking Statement is not being obtained, the proponent must provide a detailed biodiversity assessment to OEH and all components of the assessment must be undertaken in accordance with in accordance with the *BioBanking Assessment Methodology and Credit Calculator Operational Manual* (DECC 2009a), the *Assessors' guide to using the BioBanking Credit Calculator v.2'* (OEH 2012) (see Appendix 2). Currently (until the FBA is finalised), the *NSW OEH interim policy on assessing and offsetting biodiversity impacts of Part 3A, State significant development (SSD) and State significant infrastructure (SSI) projects* (OEH 2011) may be used to guide this process.

For land-based offsets there will be the need to identify conservation mechanisms to be used to ensure the long term protection and management of the offset sites and the provision of an appropriate Management Plan (such as vegetation or habitat) that has been developed as a key amelioration measure to ensure any proposed compensatory offsets, retained habitat enhancement features within the development footprint and/or impact mitigation measures (including proposed rehabilitation and/or monitoring programs) are appropriately managed and funded.

With respect to managing and conserving a proposed offset in perpetuity, OEH considers and supports the following as appropriate conservation mechanisms:

- the establishment of BioBanking sites with BioBanking agreements under the *Threatened Species Conservation Act 1995* (TSC Act);
- the dedication of land under the *National Parks and Wildlife Act 1974* (NPW Act), providing prior consultation with the National Parks and Wildlife Service;
- a Trust Agreement under the *Nature Conservation Trust Act 2001*; or
- a Planning Agreement under s93F of the *Environmental Planning and Assessment Act 1979*.

Note:

- OEH no longer supports public positive covenant under s88E of the *Conveyancing Act 1919* as an appropriate conservation mechanism to secure and/or manage biodiversity offsets.
- OEH has previously supported the use of conservation agreements under the NPW Act as one of the acceptable offsetting mechanisms. However, it should be noted that OEH's position on the use of conservation agreements for State Significant Projects is currently under review and this approach may no longer be an acceptable conservation outcome for this project. The Conservation Partners Program section of OEH administer the use of conservation agreements and have recently advised that for commercial developments, the preferred method of securing an offset is under the BioBanking provisions of the *Threatened Species Conservation Act 1995* (i.e. a registered BioBanking Agreement site). This is consistent with the recently revised NSW offset principles for major projects (state significant development and state significant infrastructure - www.environment.nsw.gov.au/biocertification/offsets.htm), in particular Offset Principle 5 which states 'for terrestrial offsets, a BioBanking Agreement or addition to the NSW national parks system are the preferred mechanisms for securing an offset site'. OEH recommends that the proponent either consider the use of a BioBanking Agreement or contact OEH's Conservation Partners Program group to determine whether or not the use of a conservation agreement for the proposed biodiversity offset area would be supported.

The NSW offset principles for major projects also allows for supplementary measures to be used if appropriate land-based offset site cannot be achieved. These may include rehabilitation of post-mined land (OEH, 2014c) or the provision of funds for biodiversity research, recovery of threatened species or

community education programs, as considered appropriate by OEH. All reasonable attempts must be made to locate appropriate offset sites before supplementary measures can be undertaken, as offset sites covered by BioBanking agreements achieve a more clearly measurable conservation gain.

The EA must demonstrate how any Offset Strategy developed for this project meets the requirements of, and is consistent with the Government's seven principles for offsetting for major projects.

6. Where appropriate, likely impacts (both direct and indirect) on any adjoining and/or nearby National Parks and Wildlife Service estate reserved under the *National Parks and Wildlife Act 1974* or any marine and estuarine protected areas under the *Fisheries Management Act 1994* or the *Marine Parks Act 1997* should be considered. Refer to the *Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water* (DECCW 2010). OEH notes Talawahl Nature Reserve occurs within the near vicinity (i.e. 250m) of the western boundary of the proposal, and as such any direct or indirect impacts need to be documented and assessed.
7. With regard to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, the assessment should identify any relevant Matters of National Environmental Significance and whether the proposal has been referred to the Commonwealth or already determined to be a controlled action.

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).

DECC (2008) *BioBanking Assessment Methodology*. Department of Environment and Climate Change NSW, detailed at: www.environment.nsw.gov.au/biobanking/index.htm.

DECC (2009a) *BioBanking Assessment Methodology and Credit Calculator Operational Manual*. DECC 2009/181, Department of Environment and Climate Change (NSW), Goulburn Street, Sydney, available at: www.environment.nsw.gov.au/resources/biobanking/09181biobankman.pdf.

DECC (2009b) *Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna – Amphibians*. April 2009. Department of Environment and Climate Change (NSW), Goulburn Street, Sydney.

DECCW (2010) *Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water*. DECCW, Sydney.

DoP (2005) *Guidelines for Threatened Species Assessment*. Department of Planning, Sydney, July 2005.

OEH (2011) *NSW OEH interim policy on assessing and offsetting biodiversity impacts of Part 3A, State significant development (SSD) and State significant infrastructure (SSI) projects*. NSW Office of Environment and Heritage, Sydney, June 2011.

OEH (2012) *Assessors' Guide to Using The BioBanking Credit Calculator V2*. Office of Environment and Heritage NSW, Sydney; April 2012, available at: www.environment.nsw.gov.au/resources/biobanking/120182AssessGdeBBCC.pdf.

OEH (2014a) *Draft NSW Biodiversity Offsets Policy for major Projects*. March 2014. OEH Office of Environment and Heritage, Sydney www.environment.nsw.gov.au/resources/biodiversity/1480biooffspol.pdf.

OEH (2014b) *Fact sheet: How the Framework for Biodiversity Assessment assesses loss and gain: NSW Biodiversity Offset Policy for Major Projects*. March 2014. NSW Office of Environment and Heritage, Sydney www.environment.nsw.gov.au/resources/biodiversity/1498fbafs.pdf.

OEH (2014c) *Fact sheet: Mine site rehabilitation. NSW Biodiversity Offsets Policy for Major Projects*. March 2014. NSW Office of Environment and Heritage, Sydney www.environment.nsw.gov.au/resources/biodiversity/14100minerehab.pdf.

APPENDIX 1 – 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 Department of Planning and Environment.
Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW	www.environment.nsw.gov.au/resources/cultureheritage/ddcop/10798ddcop.pdf
Aboriginal Cultural Heritage Consultation Requirements for Proponents	www.environment.nsw.gov.au/licences/consultation.htm
Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales	www.environment.nsw.gov.au/licences/archinvestigations.htm
Aboriginal Site Impact Recording Form	www.environment.nsw.gov.au/licences/DECCAHIMSSiteRecordingForm.htm
Aboriginal Heritage Information Management System (AHIMS) Registrar	www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm
<u>Biodiversity</u>	
Guidelines for Threatened Species Assessment (Department of Planning, July 2005)	Available from the Department of Planning and Environment
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
Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna -Amphibians (DECC, 2009b)	www.environment.nsw.gov.au/resources/Threatenedspecies/09213amphibians.pdf
Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft (DEC 2004)	www.environment.nsw.gov.au/resources/nature/TBSAGuidelinesDraft.pdf
OEH Threatened Species website	www.environment.nsw.gov.au/Threatenedspecies/

Title	Web address
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 (DECC 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/biodivoffsets/biooffsetspol.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
OEH Revocation of Land Policy	www.environment.nsw.gov.au/policies/RevocationOfLandPolicy.htm
Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water (DECCW 2010)	www.environment.nsw.gov.au/resources/protectedareas/10509devadjdeccw.pdf

APPENDIX 2 – BIOBANKING INFORMATION CHECKLIST

Checklist of information required when utilising the BioBanking Assessment Methodology and Submitting BioBanking assessments to Office of Environment and Heritage using the BioBanking Credit Calculator v.2.0

The 'Assessors' Guide to Using the BioBanking Credit Calculator v.2.0' has been finalised and it is now available for download from the Office of Environment and Heritage (OEH) website www.environment.nsw.gov.au/resources/biobanking/120182AssessGdeBBCC.pdf. The guide provides information on the operation and use of the web-based BioBanking Credit Calculator v.2.0.

To submit your assessment to OEH, open your assessment in *Edit* mode. Navigate to the *Assessment details* page and select the *Submit* button in the top right hand corner. A *Submit the assessment for approval* box will appear (Figure 1), where you can confirm submission (*OK* button) or cancel submission (*Cancel* button). Once a case has been submitted to OEH, the status of the case will change in your *My work* tab from *Work in progress (WIP)* to *submitted*. Please note that you cannot make any edits to an assessment that has been submitted, although you will be able to view the assessment.

Submit the assessment for approval

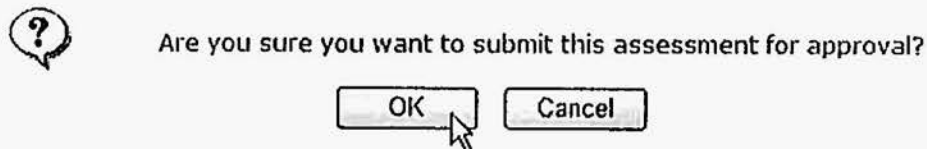


Figure 1: Submitting an assessment

The following documentation must be submitted with your Environmental Impact Statement or Environmental Assessment report (in hard copy and soft copy):

- BioBanking Assessment Report including a list of dominant indigenous species for overstorey, mid-storey and ground cover for each vegetation type and, where required:
 - local benchmark data,
 - request for increase in gain of site value,
 - a description of the proposed development,
 - measures to avoid and mitigate the impacts of development,
 - an assessment of indirect impacts,
 - a statement of onsite measures,
 - a description of the application of the BioBanking Assessment Methodology, including details of and assumptions made in utilising the methodology, such as (but not limited to) placement of assessment circles, remnant value, connectivity and reasoning behind selection of vegetation types in the Biometric Vegetation Type database,
 - plot and transect values including a list of the indigenous plant species identified in each of the plots,
 - a description of targeted threatened flora and fauna surveys, and any general baseline surveys (incl. vegetation specific surveys). These should be also be provided schematically, and

Where required, the BioBanking Assessment Report should also include:

- expert reports,
- an application for a determination on red flag areas,
- more appropriate use of local data for vegetation types, benchmarks or threatened species,
- environmental contributions accompanied by a BioBanking Agreement Credit Report (if applicable), and

- application for deferred retirement arrangements (if applicable).
- Copies of completed field data sheets, and updated with correct plant taxonomy in instances where field names have been used.
- Maps (soft copy as A4 jpgs) of:
 - offset site / BioBanking Agreement boundary or development footprint
 - vegetation zones
 - management zones
 - and where required:
 - o existing waste
 - o existing erosion
 - o existing structures (in waterways)
- Separate shape files should be supplied for all the maps mentioned above plus:
 - plots and transects
 - assessment circles
 - species polygons
 - polygons for adjacent remnant area
 - the location or habitat area of sensitive species, and the management area related to that sensitive species (as this information cannot be displayed publicly).
- All maps must include:
 - a title (as per the names above)
 - the site's name, location and lot/DP numbers
 - the scale
 - the date it was prepared
 - a clear and unambiguous legend.

Boundaries and zones must be confirmed on the site using a GPS. This information should be digitised onto an ortho-rectified aerial photo or SPOT-5 image. Maps must be easily readable and submitted to OEH as a Geographic Information System (GIS) file that is ESRI compatible. Shape files must use GDA94 datum. Name each shape file as: 'biobank site name_descriptor'. For example, 'Hill Farm_photo points' or 'Hill Farm_management zones'.

Photo points should be named A, B, C, D, E, F, G, etc. Photo points should be located in areas where change is expected (i.e. where replanting, natural regeneration, intensive weeding or other active management actions are to be carried out). As a rough guide, include at least one photo point in each management zone where active management actions will be undertaken. Boundaries and zones must be confirmed on the site using a GPS. This information should be digitised onto an ortho-rectified aerial photo or SPOT-5 image. Maps must be easily readable and submitted to OEH as a Geographic Information System (GIS) file that is ESRI compatible.

Shape files must use GDA94 datum. Name each shape file as: 'biobank/development site name_descriptor'. For example, 'Hill Farm_photo points' or 'Hill Farm_management zones'.

Additional requirements for offset sites that may be required (based on liaison with OEH):

- completed BioBanking agreement management action template (provided in Word format), and
- Biodiversity Credits Pricing Spreadsheet

Once the case has been received OEH will review the data entered, and any supporting documentation. For State Significant Development (SSD), State Significant Infrastructure and residual Part 3A (under the *Environmental Planning and Assessment Act 1979*) this review will take place during the assessment of the Environmental Impact Statement or Environmental Assessment report (for Part 3A matters).

12 September 2014

Kate Masters
A/Senior Planner
Industry, Key Sites & Social Projects
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Dear Ms Masters

SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS - FORMER KURRI KURRI SMELTER

I refer to the Preliminary Environmental Assessment Requirements (EAR's) exhibited on the NSW Department of Planning & Environment web site in relation to the Former Kurri Kurri Aluminium Smelter, SSD 6666.

It is recommended that the Secretary's Environmental Assessment Requirements include the requirement of a human health risk assessment that considers the potential adverse effects from human exposure to project related environmental hazards. The assessment should be conducted in accordance with the enHealth document *Environmental Health Risk Assessment: Guidelines for assessing human health risk from environmental hazards (2012)* and be submitted as part of the Environmental Impact Statement.

The assessment should include, but not be limited to:

- Assessment of the risks with human exposure to acute and cumulative impact of noise
- Air quality (particulates and cumulative impact of particulates) and
- The risk of contamination of drinking water including ground water, surface water and rain water tanks.

It is recommended that the proponent seeks additional specialist advice in relation to ensuring robust community engagement and consultation processes. The assessment should address additional issues identified during community consultation.

When assessing health risks, both incremental changes in exposure from existing background pollutant levels and the cumulative impacts of specific and existing pollutant levels should be addressed at the location of receptors. Exposure should be assessed at the location of the most affected receptors and also for the other sensitive receptors such as childcare centres, hospitals and aged care facilities. Consideration should also be given to the size of the population exposed to environmental hazards.

Hunter New England Local Health District
ABN 63 598 010 203

Hunter New England Population Health
Locked Bag 10
Wallsend NSW 2287
Phone (02) 4924 6477 Fax (02) 4924 6490
Email HNELHD-PHEnquiries@hnehealth.nsw.gov.au
www.hnehealth.nsw.gov.au/hneph

2

Kate Masters
11 September 2014

If you require any further information please feel free to contact Nichole Ansell, Environmental Health Officer on 49246477.

Yours sincerely

A handwritten signature in black ink, consisting of a large, stylized 'T' followed by a horizontal line extending to the right.

Dr Tony Merritt
Acting Service Director - Health Protection
Hunter New England Population Health
Hunter New England Local Health District

15 September 2014

SF2014/070280
CR2014/004662
KM

NSW Department of Planning & Infrastructure
Mining and Industry Projects
GPO Box 39
SYDNEY NSW 2001

Attention: Ms Kate Masters

HUNTER EXPRESSWAY (M15): PROPOSED DEMOLITION AND REMEDIATION OF THE FORMER HYDRO ALUMINIUM SMELTER, HART ROAD, LOXFORD – REQUEST FOR INPUT ON SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENT (SSD6666)

Dear Ms Masters

I refer to your letter dated 1 September 2014 requesting the provision of key issues which Roads and Maritime Services believes should form part of the Secretary's Environmental Assessment Requirements (EARs) 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 Hunter Expressway (M15) is a classified State road and part of the National Land Transport Network, while Hart Road is an unclassified (local) road. Roads and Maritime concurrence is required for connections to this road with Council consent, under Section 138 of the Act. Council is the roads authority for this road, while RMS is the roads authority for the Hunter Expressway.

Roads and Maritime Response and Requirements

Roads and Maritime has reviewed the information provided and would require the applicant to undertake a comprehensive Traffic Impact Study to identify the likely impacts and any subsequent traffic management requirements, for the construction and operational phases of the project. The study shall be prepared in accordance with the RMS' *Guide to Traffic Generating Developments* and is to include, but not be limited to, the following:

- Identify all relevant vehicular traffic routes and intersections for any accesses to / from the sites for each stage of the construction process.

- Current traffic counts for the above traffic routes and intersections.
- Estimated light and heavy vehicular traffic generation and distribution for each stage of the construction process.
- Traffic analysis of any major / relevant intersections impacted, using SIDRA or similar traffic model, including:
 - Current traffic counts
 - 95th percentile back of queue lengths on all legs.
 - Delays and level of service on all legs.
 - Use of SIDRA or similar traffic model.
 - Electronic input / output data files for RMS review.
- Any other impacts upon the regional and state road network and bridges, including consideration of pedestrian, cyclist and public transport facilities shall be addressed.
- A comprehensive Construction Traffic Management Plan (CTMP) shall be prepared to identify measures to minimise the impacts of construction traffic on the road network. The CTMP shall include:
 - A risk assessment to identify hazards to traffic control associated with the site, the level of risk posed and control measures to be implemented.
 - A Vehicle Movement Plan for the management of construction traffic.
 - A Traffic Control Plan in accordance with the RMS' Traffic Control at Work Sites manual

Comment: Roads and Maritime reserves the right to review the CTMP at any stage and make changes in the interest of maintaining road safety and network efficiency.

Roads and Maritime encourages the proponent to discuss the above issues early in the EIS process, with Roads and Maritime, Cessnock Council and other relevant authorities. Further details and requirements will be provided on receipt of the above information.

Should you require any further information please do not hesitate to contact me on (02) 4924 0688.

Kind Regards



Kellee McGilvray
A/Manager Land Use
Hunter Region

Cc General Manager
Cessnock Council

From: Wayne Jones <wayne.jones@dpi.nsw.gov.au>
Sent: Friday, 12 September 2014 2:22 PM
To: Kate Masters
Subject: Kurri Kurri Aluminium Smelter Project

Hi Kate

Please see following draft DPI comments on the above project. Formal Response should follow shortly.

Regards
Wayne

Wayne Jones | Land Use Planning Coordinating Officer
Department of Primary Industries
Level 48, MLC Centre, 19 Martin Place Sydney NSW 2000
T:02 9338 6708 | E: wayne.jones@dpi.nsw.gov.au

OUT14/30094

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

Kate.Masters@planning.nsw.gov.au

Dear Ms Masters,

Kurri Kurri Aluminium Smelter Project
Request for input into Secretary's Environmental Assessment Requirements

I refer to your email dated 25 August 2014 to the Department of Primary Industries in respect to the above matter.

Comment by Crown Lands

Crown Lands advise that the Hydro land identified within the red boundary of Figure 1 within the "Former Kurri Kurri Aluminium Smelter Preliminary Environmental Assessment" (PEA) contains several Crown Roads as identified on the attached map (Attachment A). Crown roads are public roads administered by Crown Lands under *the Roads Act 1993*.

The PEA does not satisfactorily identify the location and managing authority of public roads (formed and unformed) within in the project site or on the Hydro land. It is noted that the PEA has identified the use and upgrade of roads and haulage routes that are situated on Crown roads but no reference is made to the *Roads Act 1993* in relation to how the proposed use and upgrade of these roads will be approved or managed. Crown Lands is not a road constructing authority resourced in the specialised fields of road design, maintenance and traffic management and consequently will not be in a position to approve any proposed upgrades to Crown roads contained within the project site.

In regard to this, Crown Lands requests that the Department of Planning give consideration to the following issues:

- Hydro Aluminium is advised to undertake a paid search to identify and confirm all Crown roads within the project site and the identified Hydro Land (the map provided in Attachment A is only indicative and should not be relied upon for determining the accurate location or number of Crown roads within the Hydro lands).
- In determining the legislation applicable to this proposal, reference to the *Roads Act 1993* must be provided for the purpose of providing the legislative context within which roads are to be managed and used consistent with achieving long-term strategic management outcomes. Dependant on the identification of the long-term strategic use of these roads, management outcomes should be road closures and purchase by Hydro Aluminium or road transfer to Local Government.

- It is the preference of Crown Lands that all Crown roads within the project site that are not required for public access should be closed and purchased by Hydro Aluminium Kurri Kurri Pty Ltd. This will require consultation with Crown Lands regarding the appropriate protocols and fees associated with the closure and purchasing of Crown roads. As part of this process it is also recommended that all roads not required for public access within the wider Hydro Lands, outside of the project site, be included in a single application to streamline processes, minimise cost and allow more flexibility on future land use options.
- If Crown roads located within the Hydro Lands are required for public access then the only appropriate means to facilitate access in accordance with development approval is for these Crown roads to be transferred to Council (pursuant to *Section 151 of the Roads Act 1993*) prior to the commencement of any works.

Crown Lands' records also indicate that Lot 15 DP 1082775, situated within the Hydro Land, is held by Hydro Aluminium Pty Ltd as a perpetual lease but is currently subject to freehold conversion following the purchase of this land by Hydro Aluminium. Prior to development approval, Hydro Aluminium should finalise this matter by submitting the Certificate of Title for this land to Crown Lands Dubbo Office (PO Box 865 Dubbo NSW 2830) so the title for this land may be transferred to Hydro Aluminium by NSW Land & Property Information.

For further information please contact Peter Draper, Natural Resource Management Project Officer, (Maitland East Office) on 4937 9311 or at peter.draper@crownland.nsw.gov.au.

Comment by NSW Office of Water

The NSW Office of Water (Office of Water) has reviewed the Preliminary Environmental Assessment (PEA) documentation accompanying the request for Secretary's Environmental Assessment Requirements (SEARs) and provides the following comments below, and further detail in Attachment B.

It is recommended that the EIS be required to include:

- 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.
- A detailed and consolidated site water balance.
- 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 Alison Collaros Senior Water Regulation Officer (Newcastle Office) on 4904 2527 or at Alison.collaros@water.nsw.gov.au.

Attachment A

**Kurri Kurri Aluminium Smelter Project
Request for Input into Secretary's Environmental Assessment Requirements
See Comments by Crown Lands**



End Attachment A

Attachment B

Kurri Kurri Aluminium Smelter Project 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.

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

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 Sharing Plans

The proposal is located within the area covered by the Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources. 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.

It is noted that the Draft Water Sharing Plan for the North Coast Fractured and Porous Rock Groundwater Sources is under development (due for release in 2015), hence the groundwater sources at the site are currently regulated under the *Water Act 1912*. Upon commencement of the Water Sharing Plan, the groundwater source will be regulated under the *Water Management Act 2000*.

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)

- NSW Water Extraction Monitoring Policy (2007)

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>

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.

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.
-

End Attachment B

Regards
Wayne

Wayne Jones | Land Use Planning Coordinating Officer
Department of Primary Industries
Level 48, MLC Centre, 19 Martin Place Sydney NSW 2000
T:02 9338 6708 | E: wayne.jones@dpi.nsw.gov.au

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File Copy
MP 3/9/2014

103/164 (1043687)

4934 9700
Mark Roser

03 September 2014

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

ATT: Kate Masters

RE: Preliminary Environmental Assessment (PEA) for Hydro Aluminium Kurri Kurri Pty Ltd - Request for Secretary's Environmental Assessment Requirements for the Proposed Demolition, Remediation and Waste Management Activities

I refer to your correspondence dated 27 August 2014 regarding the above, requesting Maitland Council's requirements for the preparation of an Environmental Impact Statement for the proposed activities on the Hydro Aluminium Kurri Kurri smelter site.

A review of the PEA identifies the Project Site as that area immediately surrounding the smelter buildings. The activities and works associated with the proposal do not therefore lie within the Maitland Local Government Area. Only a small portion of the Hydro land lies within the Maitland LGA at Gillieston Heights. Council currently has notification of Category 2 Remediation Works for this part of Hydro land being 464 Cessnock Rd Gillieston Heights. These activities are separate from the above proposal.

Council has no specific requirements for the preparation of the EIS, however, as the Project Site drains into the adjoining wetland system, protection of this sensitive environment and ongoing monitoring of leachates would be expected. The PEA for the remediation of the Project Site raises these issues together with relevant applicable legislative requirements and governing state bodies. Council is satisfied with the methodology outlined in the PEA

Council requests to be kept fully informed of the EIS preparation process including notification of the public consultation period.

Thank you for the opportunity to provide comments on this process.

Yours faithfully

MARK ROSER
Senior Strategic Planner

Kate Masters

From: Mahinda Seneviratne <Mahinda.Seneviratne@workcover.nsw.gov.au>
Sent: Tuesday, 16 September 2014 4:03 PM
To: Kate Masters
Cc: Aklesh Nand
Subject: RE: Hydro Aluminium Kurri Kurri - Secretary's Environmental Assessment Requirements - Cessnock and Maitland LGA

Security Classification:UNCLASSIFIED

Dear Kate,

Thank you for the invitation for WorkCover to attend the PFM in Kurri Kurri last Wednesday.

The meeting and site visit was useful for me and particularly for my colleagues from the local Operations North Team to be better informed on the proposed demolition and remediation of the former smelter site.

Work Health and Safety (WHS) requirements are an important area to address at demolition and remediation sites. There are opportunities in the program proposed by Hydro Aluminium to consider potential WHS issues at an early stage. WorkCover suggests the following WHS considerations in the EIS preparation.

Hydro Aluminium Kurri Kurri Pty Ltd (the Proponent) demonstrates how it will systematically manage Work Health and Safety (WHS) in the demolition and remediation activity and address requirements under the *Work Health and Safety Regulation 2011* (WHS Regulation). Attention should be drawn in particular to requirements outlined in Part 4.6 Demolition Work, Chapter 7 Hazardous Chemicals and Chapter 8 Asbestos in the WHS Regulation 2011.

WHS management of the proposed activity should involve reasonably practicable control measures to prevent exposure of workers to key pollutants that have been identified in contaminated material streams. These include asbestos, polycyclic aromatic hydrocarbons (PAH), total petroleum hydrocarbons (TPH), cyanide and fluorides.

It is recommended that Human Health Risk Assessments be undertaken for identified hazardous materials to assess potential health risks to workers undertaking remediation activity.

Additional information on worker health and safety considerations may be sourced from the guidance document that is currently being drafted for the *National Framework for Remediation and Management of Contaminated Sites*.

If you need further details or clarifications, you can contact me on the numbers below.

Kind regards,

Mahinda Seneviratne
State Inspector I Hygiene & Toxicology
Hazardous Chemical Services Team
WHS Division

WorkCover NSW
Level 10, Centennial Plaza, Building C, 300 Elizabeth Street SURRY HILLS NSW 2010
Phone: 02 8260 5820 OR 0401 991 904

WORK SAFE ► HOME SAFE

From: Kate Masters [mailto:Kate.Masters@planning.nsw.gov.au]
Sent: Monday, 25 August 2014 3:04 PM
To: Kate Masters
Cc: Rebecca Sommer
Subject: Hydro Aluminium Kurri Kurri - Secretary's Environmental Assessment Requirements - Cessnock and Maitland LGA

Dear Sir/Madam

The Department has received a Preliminary Environmental Assessment (PEA) prepared by Environ Australia Pty Ltd on behalf of the Hydro Aluminium Kurri Kurri Pty Ltd (the Proponent) for the demolition of smelter buildings and structures, remediation of contaminated soils, design and construction of a waste management facility and treatment of leachate. The PEA is attached.

The Proponent has requested the Secretary's Environmental Assessment Requirements for the proposed development. To assist with issuing these requirements, I would appreciate it if you could send me your agency's requirements for the preparation of the Environmental Impact Statement. It would be appreciated if you could send these to me no later than close of business on Friday 12 September 2014.

As you may already be aware, the Department will be holding a Planning Focus Meeting (PFM) on Wednesday 10 September 2014 to discuss the proposal and potential environmental issues. Should you wish to attend the PFM or have any other questions in relation to the proposal, please do not hesitate to contact me on 02 9228 6321.

Kind Regards
Kate Masters
A/Senior Planner

Industry, Key Sites & Social Projects
Department of Planning & Environment
| GPO Box 39 | SYDNEY NSW 2001| T 02 9228 6321 F 02 9228 6540
Kate.Masters@planning.nsw.gov.au

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From: Doris Yau
Sent: Wednesday, 3 September 2014 9:40 AM
To: Kate Masters
Cc: Ramez Aziz
Subject: Input to DGR for Former Kurri Kurri Aluminium Smelter

Hi Kate,

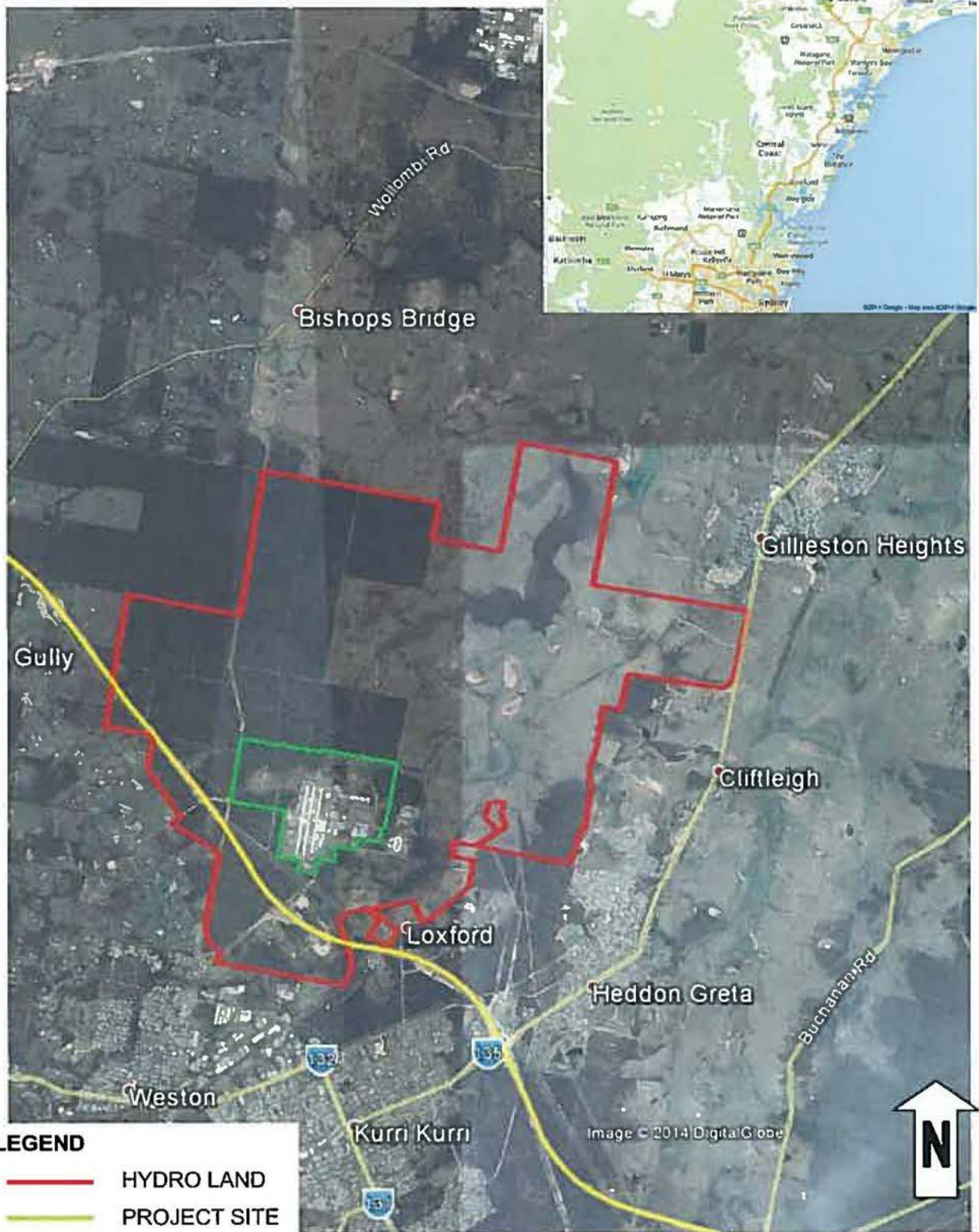
I have reviewed the Preliminary EA for Former Kurri Kurri Aluminium Smelter. It is noted that the proposed development will handle spent potlining (DG class 4.3) for a total of 80,000 tonnes. This exceeds the threshold of 1 tonne listed in *Applying SEPP 33*. It is also noted that the proponent will remove and manage other hazardous material during the demolition phase. The detail of hazardous materials to be removed is not provided in the document. In addition, demolition by explosion or other applicable methodology of key large structures may be employed in the large scale demolition. It is unclear in the document if they will store explosives during the demolition phase. Hence, we would suggest the SEAR to be general and include the following:

1. Hazards and risks – the assessment must include:

- A Preliminary Hazard Analysis (PHA) must be prepared in accordance with *Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis (DoP, 2011)*, and *Multi-Level Risk Assessment (DoP, 2011)*. The PHA must:
 - Provide details of all hazardous materials stored or handled on the premises during the demolition and remediation phases.
 - Identify the hazards associated with each material that will be stored or handled in the proposed development. Any safety measures to be implemented should also be clearly identified;
 - Estimate the risks from the proposed development;
 - Demonstrate that the potential offsite risk from the proposed development comply with the criteria set out in *Hazardous Industry Planning Advisory Paper No 4 – Risk Criteria for Land Use Safety Planning*.
- An evaluation of the impacts of the transport of Dangerous Goods to and from the site in the surrounding area.

Should you have any questions, please let me know.

Cheers,
Doris



HYDRO ALMUNUM KURRI KURRI PTY LTD
 PRELIMINARY ENVIRONMENTAL
 ASSESSMENT

PROJECT SITE LOCATION

(Source: Google, 2014)

Figures