



Office of  
Environment  
& Heritage

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SSD 7396

Ms Kelly McNicol  
Team Leader Waste, Industry Assessments  
Department of Planning and Environment  
Kelly.McNicol@planning.nsw.gov.au

Dear Ms McNicol


**Weston Aluminium Medical and Other Waste Thermal Processing Facility, Weston**

I refer to your letter dated 5 September 2016 seeking advice from the Office of Environment and Heritage (OEH) on the proposed Medical and Other Waste Thermal Processing Facility proposed at Weston (SSD 7396). OEH understands that the proposed thermal waste processing facility would have the capacity to process up to 8,000 tonnes per annum of medical, cytotoxic, quarantine and other schedule waste and security waste.

OEH has undertaken a review of the Environment Impact Statement (EIS) titled *Thermal Waste Processing Project Environmental Impact Statement – SSD 15 7396* (prepared for Weston Aluminium Pty Ltd by AECOM Australia Pty Ltd, dated 26 August 2016) in relation to threatened biodiversity, Aboriginal cultural heritage and flooding / floodplain issues. The EIS did not contain sufficient information on these matters for OEH to complete the assessment and provide recommended conditions of consent. OEH recommends that further information is obtained from the proponent. These matters are detailed in **Attachment A**.

If you require any further information regarding this matter please contact Robert Gibson, Regional Biodiversity Conservation Officer, on 4927 3154.

Yours sincerely



24 OCT 2016

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

Enclosure: Attachment A

## **ATTACHMENT A: OEH REVIEW OF PROPOSED THERMAL WASTE PROCESSING PROJECT, WESTON ALUMINIUM, WESTON (SSD 7396)**

The proponent prepared an Environmental Impact Statement (EIS) (AECOM Australia Pty Ltd, 2016) following the Department of Planning and Environment issuing the Secretary's Environmental Assessment Requirements (SEARs) on 16 December 2015. OEH has reviewed this report in relation to threatened biodiversity, Aboriginal cultural heritage and flooding / floodplain management against the SEARs, including OEH's recommended input to the SEARs. These elements are discussed below.

### **THREATENED BIODIVERSITY**

A specific requirement of the SEARs issued for this project is that biodiversity / threatened species aspects of the project are to be assessed under the NSW Biodiversity Offsets Policy for Major Projects. This includes the requirement to comply with the Framework for Biodiversity Assessment (FBA) (OEH 2014). As part of this process the EIS must include a Biodiversity Assessment Report (BAR), which assesses the impacts on threatened biodiversity. No such document exists within the EIS.

OEH acknowledges and concurs with the EIS that the site is disturbed and would provide limited habitat to threatened species, however, there is a specific process under the FBA which would halt further assessment. Section 3.3 of the FBA outlines when an assessment (based on a 'vegetation zone') does not require further assessment. However, under this pathway it does not preclude the provision of the BAR, as the inclusion of such a document in the EIS will show that due process has been followed and that an appropriate assessment has been undertaken following the FBA. This process will indicate if the subject site is devoid of biodiversity values. OEH acknowledges that the subject site likely provides minimal habitat to threatened species, however, there is still the potential for certain threatened species to utilise the site, particularly those known to utilise modified landscapes, such as the Green and Golden Bell Frog (which has been recorded nearby) and/or transient bird species. As such the appropriate assessment should have been undertaken in accordance with the FBA.

The FBA does not provide an exemption for removal of the BAR where projects are deemed to have no values due to current disturbance. OEH recommends the proponent conduct an assessment in accordance with the FBA and specifically provides a BAR. This assessment must be undertaken by an accredited person under section 142B(1)(c) of the *Threatened Species Conservation Act 1995*. OEH is unable to complete its assessment or provide any recommended conditions for consent for this project unless and until this additional information is provided.

### **ABORIGINAL CULTURAL HERITAGE**

OEH has reviewed the Aboriginal cultural heritage desktop assessment contained in EIS. Based on this review OEH has identified the following concerns which need to be addressed prior to issuing recommended conditions of consent for Aboriginal cultural heritage management:

- Section 19 of the EIS contains a significant discrepancy on the site's assessed potential to contain potential archaeological deposits (PAD). The EIS notes the requirement for earthworks and states that the Weston Aluminium site is heavily disturbed or modified (AECOM 2016: pg. 141). In contrast, the EIS also states that earthworks are proposed "... *partially within an area not previously subject to significant modifications...*" and "... *therefore some residual potential for the Project to impact on unknown Aboriginal cultural heritage...items in this area...*" (AECOM 2016: pg. viii).

OEH requires an adequate assessment of the area of PAD be undertaken for this project and requests that the cursory due diligence assessment (provided) be escalated to a more robust Aboriginal Cultural Heritage Assessment (ACHA) that will identify the nature and extent of the identified area of PAD, and if relevant, a determination on the significance of any objects contained within it. The ACHA must be undertaken in accordance with the following Codes and Guidelines:



- *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011). OEH recommends following these requirements wherever there is any uncertainty a proposed activity could potentially harm any Aboriginal objects or places and the proponent is required to undertake a cultural heritage assessment.  
[www.environment.nsw.gov.au/resources/cultureheritage/20110263ACHguide.pdf](http://www.environment.nsw.gov.au/resources/cultureheritage/20110263ACHguide.pdf)
- *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (OEH 2010). This document 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 EIS.  
[www.environment.nsw.gov.au/licences/consultation.htm](http://www.environment.nsw.gov.au/licences/consultation.htm).
- *Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW, 2010). 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.  
[www.environment.nsw.gov.au/licences/archinvestigations.htm](http://www.environment.nsw.gov.au/licences/archinvestigations.htm)

## **FLOODING AND FLOODPLAIN MANAGEMENT**

Based on the information presented in the EIS the proposed development is designed for the purpose of hazardous waste facilities that transfer, store or dispose of solid or liquid waste classified in the Australian Dangerous Goods Code or medical, cytotoxic or quarantine waste that handles more than 1,000 tonnes per year of waste. These materials are considered too hazardous to dispose of to landfill and the facility would come under the provisions of SEPP 33 – Hazardous and Offensive Industries. The EIS highlights that the facility is needed because the wastes pose a hazard to human health and to the environment.

The project site is located 129 Mitchell Street Kurri Kurri. This site is affected by the 1% AEP (annual exceedance probability) flood event. (Swamp Creek Floodplain Risk Management Study and Plan, Worley Parsons, 2013) The existing building and site for the proposed building extension are below the 0.5% AEP and the whole of the operational area of the site is below the probable maximum flood (PMF). There is approximately five metres difference in level between a 1%AEP flood and a PMF flood in this location (approximately 0.8m difference in level between a 1%AEP and 0.5% AEP). Floods in excess of the 1% AEP flood have occurred in parts of this local government area in the recent past (2007 and 2015). There is no specific flood warning system for Swamp Creek and the peak flood is noted to occur in Abermain as little as six to nine hours after water starts to rise. This gives very limited time for emergency response procedures to be implemented on site.

Flood levels nominated in the Swamp Creek Floodplain Risk Management Study and Plan are as follows: 1% AEP 11.8m AHD, 0.5% AEP 12.6m AHD, PMF 16.8m AHD. Please note the 2000 year recurrence interval flood estimated for the adjacent development of battery recycling plant (SSD 7520) at approximately 13.8m AHD.

The EIS makes limited mention of flooding considerations simply stating that the development is an industrial development and is located above the flood planning level (1% AEP plus 500mm), therefore, will not be likely to suffer damage. Flood planning levels based on the 1% AEP are considered to be the appropriate planning level to apply for residential developments where other issues such as emergency egress can be addressed. Higher flood standards should apply for hazardous or offensive industries. The proposed storage facility comprises a metal shed located on a fill platform to achieve a floor level above the flood planning level of 1% AEP plus 500mm. Floor levels nominated for the facility are 12.55m AHD and 13.0m AHD respectively.

The EIS has not considered the impact on the facility or the environment for floods in excess of the 1% AEP flood. Reference to the Swamp Creek Floodplain Risk Management Study and Plan (Worley Parsons, 2013) indicates that flood waters will enter the proposed storage and processing facility in flood events between the 0.5% and 0.2% event. This means that for a service life of the order of 50 years the facility has approximately a 25% chance of experiencing floods at floor level or deeper. A



flood of 1 in 2000 year recurrence interval is likely to cause significant structural damage to the proposed facility together with significant mobilisation of stored goods. These risk factors are considered to be too high a risk without mitigation and have not been considered in the preliminary hazard assessment.

Fill is also proposed to be placed in the floodplain to enable the construction of the new sections of the facility. Fill in flood storage areas has the potential to increase flood levels in the vicinity of the proposed development. No assessment has been made in the EIS of the impact of this fill.

The facility uses Mitchell Avenue and Government Road as prime access routes to the Hunter Expressway. Bridges in both of these locations are closed by floods in excess of the 5% AEP flood. Alternative access routes would need to be considered during flood events. Access routes towards Government Road will be closed by flooding well before the facility is affected by flooding.

The goods proposed to be stored and processed within the facility are considered to be hazardous to human health and to the environment. No consideration has been provided within the EIS to mitigate the risk to the community posed by mobilisation of stored dangerous goods during a flood event in excess of the 1% AEP event. The large differential between the 1% level and the PMF level means that it is unlikely that adequate storage outside of/above the flood extent can be accommodated on site. Ash formed by the incineration process may also be mobilised by flood events.

The SEARs for the development required the following items to be addressed in the EIS:

1. A quantitative assessment of existing flooding on the site, potential impacts to and as a result of the development and proposed mitigation measures.
2. A preliminary risk screening undertaken in accordance with State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33) and applying SEPP 33, including consideration of likelihood and consequences of exposure of the facility to flood events and if necessary a Preliminary Hazard Analysis (PHA).

OEH considers that the EIS does not adequately address the above requirements. Therefore, OEH cannot recommend conditions of consent. The following flooding matters need to be addressed before OEH can complete its review of this project:

- the impact of any changes to the existing site topography including cut, fill and building construction is to be assessed by flood modelling for events up to and including the PMF. The site currently contains areas of flood storage which if filled may have off site impacts. The development must demonstrate that it will have no impact on flood levels outside of the site boundary
- the EIS must demonstrate how the risk of mobilisation of stored dangerous/hazardous goods will be managed in a flood event, up to and including the PMF event
- the EIS must demonstrate how the risk of contamination of waterways will be managed in the event of inundation of the site during flood events up to and including the PMF. This assessment must include both the dangerous/hazardous goods and the waste ash product
- under SEPP 33 requirements, hazard assessments are required. Hazard assessment should be undertaken in accordance with the Hazardous Industry Planning Advisory Paper guidelines provided by the NSW Department of Planning for Multi-Level Risk Assessment ([www.planning.nsw.gov.au/Policy-and-Legislation/Hazards](http://www.planning.nsw.gov.au/Policy-and-Legislation/Hazards)). Likelihood and consequences of exposure of the facility to flood events including the 1% AEP, 0.5% AEP, and PMF events must be considered. Risks to the facility (economic damages), risks to human health, the bio-physical environment and the downstream waterway must be considered.

**References:**

AECOM Australia Pty Ltd (2016) 'Thermal Waste Processing Project: Environmental Impact Statement – SSD\_15\_7396. Prepared for Weston Aluminium Pty Ltd. 26 August 2016.' AECOM Australia Pty Ltd, Warrabrook. [http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=7396](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7396)

DECCW (2010) Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales. NSW Office of Environment and Heritage, Sydney. [www.environment.nsw.gov.au/licences/archinvestigations.htm](http://www.environment.nsw.gov.au/licences/archinvestigations.htm)

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Worley Parsons, (2013) *Swamp/Fishery Creek Floodplain Risk Management Study*. Worley Parsons Services Pty Ltd, North Sydney. [www.cessnock.nsw.gov.au/resources/file/OnExhibition/2013/Swamp-Fishery%20Creek%20FRM%20Report.pdf](http://www.cessnock.nsw.gov.au/resources/file/OnExhibition/2013/Swamp-Fishery%20Creek%20FRM%20Report.pdf)

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