



Office of
Environment
& Heritage

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SSD_7396

Ms Emma Barnet
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Department of Planning and Environment
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Dear Ms Barnet

**Weston Aluminium Medical and Other Waste Thermal Processing Facility (SSD 7396) -
Response to Submissions July 2017 Cessnock LGA**

I refer to your email dated 4 July 2017 inviting the Office of Environment and Heritage (OEH) to review the revised Response to Submissions (RTS) report for the Weston Aluminium Medical and other Waste Thermal Processing Facility (SSD_7396). The revised RTS report includes additional information about Aboriginal cultural heritage, flood modelling and flood risk, and threatened biodiversity.

OEH reviewed the new information which addresses OEH's concerns in relation to Aboriginal cultural heritage and threatened biodiversity. The proponent also provided additional information for the flood risk for this site, and from this OEH recommends a number of conditions of approval. Further details are provided 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

19/7/2017

SHARON MOLLOY
Director Hunter Central Coast
Regional Operations

Enclosure: Attachment A

ATTACHMENT A: OEH REVIEW OF THE REVISED RESPONSE TO SUBMISSIONS REPORT FOR THE WESTON ALUMINIUM MEDICAL AND OTHER WASTE THERMAL PROCESSING FACILITY

OEH reviewed the revised Response to Submissions (RTS) Report (AECOM, 2017a) in relation to Aboriginal cultural heritage, flood risk and floodplain management, and threatened biodiversity. These are discussed below.

ABORIGINAL CULTURAL HERITAGE ASSESSMENT

OEH reviewed the Aboriginal Cultural Heritage assessment presented in RTS Report (AECOM, 2017b). Following this there are no residual issues for Aboriginal cultural heritage. OEH therefore has no additional recommended conditions of consent or further comment to make.

FLOODING AND FLOODPLAIN MANAGEMENT

The revised RTS Report (AECOM, 2017a) included three reports that deal with flood risk at the proposed waste processing facility: a Site Flood Risk Assessment (Advisian, 2017); a Preliminary Hazard Analysis (AECOM, 2017c); and a Flood Impact Assessment (Royal Haskoning DHV, 2017).

The facility comes under the provisions of *State Environmental Planning Policy No 33 — Hazardous and Offensive Development*. It follows that hazardous facilities, such as the one proposed, should be located outside of the floodplain; that is above the probable maximum flood (PMF) level. However, the Advisian (2017) report suggests that it is neither cost-effective nor feasible to require flood immunity for this development to PMF level.

The Advisian (2017) report includes additional flood analysis with respect to flood risk at the site. The flood analysis is considered reasonable and is consistent with flood analysis undertaken for the adjacent development and the results of the Swamp Creek Floodplain Risk Management Study (Worley Parsons, 2013). The flood analysis is however based on 2013 flood models and does not account for likely flood depths in a PMF event, which are affected by the construction of the Hunter Expressway. Recommendations are made in Section 4 of the Advisian report with respect to floor levels, dry flood proofing and structural stability.

Royal Haskoning DHV (2017) provides a flood impact assessment for the impact of the proposed fill and flood proofing within the facility on flood levels within the floodplain. This document indicates a maximum increase in flood levels of 12 mm; which is considered negligible. The analysis indicates that increases in flood levels do not extend beyond the site boundaries. This analysis has taken account of the restriction provided by the Hunter Expressway and indicates that higher flood levels will occur for floods larger than the 1% annual exceedance probability (AEP) flood than those predicted using the Advisian model. Therefore, OEH recommends that the Royal Haskoning DHV flood levels are used in final design of the facility.

AECOM (2017c) used the Advisian (2017) and Royal Haskoning DHV (2017) reports to inform a Preliminary Hazard Analysis (PHA). The PHA concludes that the floor levels and flood proofing recommended by Advisian will reduce risk to the environment from flooding to acceptable levels. Protection will be provided to the facility for floods up to the 0.05% annual exceedance probability (AEP) event with additional measures in place to reduce the mobilisation of materials in floods of rarer recurrence. OEH notes that the PHA is based on flood levels provided in the Advisian report rather than the higher levels noted in the Royal Haskoning DHV report. The proposed flood protection level of 14.0 m Australian Height datum (AHD) remains just above the 0.05% AEP event.

Finally, OEH notes that the dry flood proofing recommendations made by Advisian (2017) indicates that temporary flood barriers would be used to close off entries to buildings. The available flood warning is to be taken into account when assessing the feasibility of this measure as a risk management option and when selecting barriers for this purpose.

With the combination of structural measures and emergency management measures proposed in the PHA, and conditions recommended below OEH is satisfied that measures will be adequate to provide acceptable levels of flood risk management for the facility.

Recommended Conditions of Approval for Flooding and Floodplain Management

OEH recommends that any consent issued for this project includes the following conditions of approval:

1. That finished floor levels for the waste storage, waste handling facility must be a minimum of 13.0 m AHD. Additional dry flood proofing, including suitable barriers for all door entries, must be provided to 14.0 m AHD. Both must be in accordance with the recommendations in the Advisian (2017) report and the Preliminary Hazard Assessment (AECOM, 2017c).
2. A flood protection wall with suitable flood barriers across entry ways must be provided to a minimum of 13.0 m AHD for the ash handling facility. This is in accordance with the recommendations in the Advisian (2017) report and the Preliminary Hazard Assessment (AECOM, 2017c).
3. Emergency procedures must be developed for deployment and periodic testing of flood barriers. Training must be provided to staff for all proposed shifts within the 24 hour, 7day operating program. Should the facility not be occupied at any time, alternative procedures must be developed which do not require the presence of staff to activate flood barriers.
4. Equipment and storage containment areas must be bolted down to prevent floatation in floods larger than the design flood in accordance with the Advisian (2017) recommendations.
5. Structural and geotechnical engineers design of fill batters and scour protection must consider flood forces from a Probable Maximum Flood (PMF) event.
6. Structural engineer's certification must be provided for adequacy of dry flood proofing, wall and flood barriers to resist flood depths and forces for floods up to and including the 0.05% AEP flood. Impact of floods up to the PMF on the structure must be considered.
7. No waste for processing, or waste products can be stored outside of the flood protected buildings.
8. The quantity of waste for processing stored at any one time must be minimised to reduce the impact of mobilisation in extreme flood events.
9. Project infrastructure that is external to the Project building must be designed to withstand velocities and depths associated with a 0.05% Annual Exceedance Probability (AEP) flood event. The impact of floods up to the PMF on the structure must be considered.
10. Suitable containment must be provided to minimise the chance of mobilisation of hazardous stored goods in floods between the 0.05% AEP flood and the PMF.

THREATENED SPECIES

The RTS Report includes a Biodiversity Assessment Report (BAR) prepared by AECOM (2017d). OEH checked the BAR against the Framework for Biodiversity Assessment (FBA) Requirements (OEH, 2014b) and found that the development will impact about 0.01 ha of vegetation that matches 'Parramatta Red Gum – Narrow-leaved Apple – Prickle-leaved Paperbark shrubby woodland in the Cessnock – Kurri Kurri area (HU847)'. This vegetation zone has a site value score of 22, and is thus in 'Moderate/Good' condition rather than 'low' condition. Such vegetation would normally therefore require to be offset. However, in this case the credit score for the vegetation zone is 0.2 which the biobank credit report rounded down to zero. Therefore, no offset is required for the vegetation cleared.

Similarly, no threatened species were identified on the site, so no offset is required.

Given that the proponent has now prepared a BAR for the development footprint, and have run the FBA correctly OEH has no residual issues for this project in relation to threatened biodiversity.

References

Advisian (2017) *Weston Aluminium -Proposed Medical and Other Waste Thermal Processing Facility- Site Flood Risk Assessment*, 7 February 2017. Advisian. [In AECOM (2017a) as Appendix H]

AECOM (2017a) *Response to Submissions Report. SSD 15_7396 Thermal Waste Processing Project. 03 July 2017.* AECOM, Warrabrook, NSW.

AECOM (2017b) *Aboriginal cultural heritage response to submissions. June 2017.* AECOM, Warrabrook, NSW. [In AECOM (2017a) as Appendix G]

AECOM (2017c) *Weston Aluminium Thermal Waste Processing Project - Preliminary Hazard Analysis by AECOM. 30 June 2017.* AECOM, Warrabrook, NSW. [In AECOM (2017a) as Appendix K]

AECOM (2017d) *Biodiversity Assessment Report: Weston Thermal Waste Processing Facility, 129 Mitchell Avenue, Kurri Kurri. 25 January 2017.* AECOM, Warrabrook, NSW [In AECOM (2017a) as Appendix F]

OEH (2014) *BioBanking Assessment Methodology.* Office of Environment and Heritage, detailed at: www.environment.nsw.gov.au/biobanking/bbreview.htm.

OEH (2014a) *Framework for Biodiversity Assessment. NSW Biodiversity Offsets Policy for Major Projects. September 2014.* NSW Office of Environment and Heritage, Sydney. <http://www.environment.nsw.gov.au/resources/biodiversity/140675fba.pdf>

OEH (2014b) *NSW Biodiversity Offsets Policy for Major Projects. September 2016.* NSW Office of Environment and Heritage, Sydney. <http://www.environment.nsw.gov.au/resources/biodiversity/140672biopolicy.pdf>

Royal Haskoning DHV (2017) *Medical Waste Processing Facility– Flood Impact Assessment. June 2017.* Royal Haskoning DHV, North Sydney. [In AECOM (2017a) as Appendix I]

Worley Parsons (2013) *Swamp/Fishery Creek Floodplain Risk Management Plan. 31 July 2013.* Worley Parsons, Warrabrook, NSW. <http://www.cessnock.nsw.gov.au/resources/file/OnExhibition/2013/Swamp-Fishery%20Creek%20FRM%20Plan.pdf>

OEH – JULY 2017