



Your reference:

Our reference: DOC12/48807, LIC08/1532-02

Contact: Kyle Finlay; 0249086827

Department of Planning and Infrastructure  
PO Box 39  
SYDNEY NSW 2001

Attention: Mr Paul Freeman

Dear Mr Freeman,

**ENVIRONMENTAL ASSESSMENT – MACKA'S SAND PTY LTD  
MODIFICATIONS TO MACKA'S SAND EXTRACTION OPERATIONS ON  
LOT 218 AND 220 SALT ASH, NSW**

Reference is made to your email, dated 22 November 2012, to the Environment Protection Authority (EPA) seeking EPA's comments on the Environmental Assessment report provided by Umwelt (Australia) Pty Limited titled '*Environmental Assessment: Modifications to Mackas Sand Extraction Operations on Lot 218 & 220 Salt Ash, NSW; October 2012*' (EA).

The modification includes:

- Modifying the alignment of the approved access road to Lot 218 DP 1044648;
- Extending the hours for transport of sand to 24 hours a day 7 days a week for Lot 218; and
- Increasing the depth of extraction at Lot 218 DP 1044608 and Lot 220 DP 1049608.

The existing Macka's Sand Extraction Operations is a scheduled activity under the *Protection of the Environment Operations Act 1997* and has been issued with Environment Protection Licence No. 13218.

EPA has reviewed and assessed the Environmental Assessment (EA) and proposed modifications. While the EPA believes there are aspects of the proposal that need to be clarified in relation to noise, in general the EPA supports the implementation of the proposed access route as detailed in the EA. The EPA's comments and recommended conditions of approval are provided in **Attachment A**. If the Department grants approval to the modification these conditions should be incorporated into the consent.

Please note that this response does not cover biodiversity or Aboriginal cultural heritage issues, which are the responsibility of the Office of Environment and Heritage.

If you require any information regarding this matter please contact Kyle Finlay on (02) 4908 6827.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'P. Jamieson', followed by the date '27-11-12'.

**PETER JAMIESON**

**Head Regional Operations Unit – Hunter  
Environment Protection Authority**

Att: Attachment A – Comments and Recommended Conditions of Approval

PO Box 488G Newcastle NSW 2300  
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](http://www.epa.nsw.gov.au)

## ATTACHMENT A

### ENVIRONMENT PROTECTION AUTHORITY COMMENTS AND RECOMMENDED CONDITIONS OF APPROVAL MODIFICATIONS TO MACKAS SAND EXTRACTION OPERATIONS LOT 218 AND LOT 220, SALT ASH, NSW

Except as provided by these conditions of approval below, the works and activities must be undertaken in accordance with Environment Protection Authority (EPA) conditions detailed in the letter *"Environment Assessment – Mackas sands proposed sand extraction operations Lot 218 DP 1044608 and Lot 220 DP 1049608, Salt Ash"* dated 5 June 2009.

#### Noise

The EPA has reviewed the Environmental Assessment (EA) dated October 2012 regarding noise. The EA makes reference to the EA of April 2009 prepared by Umwelt (Australia) Pty Limited (Umwelt) identifying that no additional noise impacts are predicted apart from those set out in the 2009 EA. The modification proposal is for an entirely new private access road, which will pass in the vicinity of residences that were not assessed in the 2009 EA. The report does not provide any comment or noise assessment in relation to the residences within the vicinity of the proposed new intersection on Nelson Bay Road. EPA requests that a noise assessment be undertaken to determine project specific noise levels and impacts for these residences (and any possible future residences).

The EA proposes to extend the hours to transport sand to 24 hours a day 7 days a week for Lot 218 DP 1044608. No noise assessment has been undertaken to identify the impacts this will have on the surrounding area. The EPA requests that an assessment be undertaken to address if increasing transport of sand to 24 hours a day 7 days a week will be acceptable.

Prior to giving the issue of noise impacts further consideration EPA considers it would be prudent for a quantitative noise impact assessment to be undertaken to demonstrate if the noise impacts are acceptable for the residences within the vicinity of the proposed access road. Noise impact assessments should be conducted as per the requirements of EPA's Industrial Noise Policy.

#### Air Quality

The EPA has reviewed the EA dated October 2012 in relation to Air Quality and finds the assessment and methods of control proposed by Umwelt in 2009 EA to be suitable. EPA recommends the following conditions of consent:

1. The private access road southward of Nelson Bay Road must be sealed for a distance of 200 metres and maintained in good condition so as to limit noise impacts and minimise the generation of traffic generated dust;
2. Any section of access route that is within 100 metres of a residence must be sealed;
3. The haul roads must be maintained in a condition which minimises or prevents the emission of dust;
4. Trucks entering and leaving the premises that are carrying loads of dust generating materials must have their loads covered at all times, except during loading and unloading; and



5. Vehicles leaving the premises must be treated as is necessary to prevent drag out of mud, dust and other debris onto public roads.

### **Groundwater**

A limit has been traditionally been imposed on the depth of extraction for quarrying in the area as previous quarrying, mining and pumping activities have allowed the introduction of air into the soil profile, which has resulted in the oxidation of sulphites in the soil. Mobilisation of iron and other metals (manganese, arsenic and to a lesser extent chromium, cobalt and zinc) has been observed in the groundwater in situations where soils have been overexposed.

EPA has considered the modification to increase the depth of extraction at both Lot 218 and Lot 220 to 0.7 metres above the maximum predicted groundwater height. EPA is of the understanding that the NSW Office of Water (NOW) policy is that the extraction limit is 1 metre above the maximum predicted groundwater level and that rehabilitation is to be undertaken progressively. NOW will consider increasing the depth of extraction on a case by case basis if it will be beneficial to the efficiency of the operations.

EPA understanding is that activities on Lot 220 involve extraction and rehabilitation of a stable dune system and therefore extraction to 0.7 metres above the maximum predicted groundwater level may be appropriate provided the site is promptly backfilled with topsoil and rehabilitated so as to maintain a one metre buffer to the maximum predicted groundwater level.

EPA understands that extraction on Lot 218 will be different. The dune on Lot 218 is mobile and is moving towards existing vegetation at a rate of about 5 metres per year. The method of sand extraction on Lot 218 is to extract along the interface of the dune and existing vegetation. Part of the reasons for approving sand extraction on Lot 218 was as a means of halting the destruction of vegetation by the migrating dune. EPA understands sand extraction on Lot 218 may continue for many years at the same location as the sand moves towards and replenishes the extraction face. Hence extracting down to 0.7 metres above the maximum predicted groundwater level may not be appropriate as the extraction area is unlikely to be rehabilitated to one metre above the maximum predicted groundwater level shortly after extraction. Therefore keeping the limit on the depth of extraction at one metre above the maximum predicted groundwater level would appear to be the appropriate course of action for Lot 218.

To provide certainty to the consent, the proponent and regulatory authorities EPA suggests Department of Planning and Infrastructure condition any modified consent to stipule the maximum Reduced Level (RL) Australian Height Datum (AHD) that may be extracted down to for both Lot 218 and Lot 220.

**Environment Protection Authority  
November 2012**