NSW GOVERNMENT | Office of Environment & Heritage

Your reference: DA231-10-99
Our reference: DOC14/148585-01
Contact: Steve Lewer, 4908 6814

Mr Thomas Watt
Planning Officer, Mining Projects
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Mr Watt

RE: REVIEW OF PROPOSED JANDRA QUARRY INTENSIFICATION PROJECT ENVIRONMENTAL ASSESSMENT (DA231-10-99)

I refer to your letter dated 28 July 2014 requesting comments on the proposed Jandra Quarry Intensification Project Environmental Assessment (EA) which represents a modification to the approved Holcim (Australia) Pty Limited 'Jandra Quarry' development consent (DA231-10-99), located at Possum Brush in the Greater Taree local government area. The Office of Environment and Heritage (OEH) understands that the proposed intensification involves the construction of a new heavy vehicle access road and expansion of the finished product stockpile area, both of which require the clearing of native vegetation and threatened species habitat. It is noted that the EA has been placed on public exhibition from 1 to 19 August 2014.

OEH has undertaken a review of the EA titled 'Jandra Quarry Intensification in Production' (including appendices A-H) prepared for Holcim (Australia) Pty Limited by Element Environment and dated 22 July 2014. OEH's detailed comments are provided in **Attachment A.**

In summary, OEH has concerns with some sections of the EA with respect to threatened species, namely survey effort and lack of compensatory habitat package. OEH requests that these concerns be appropriately addressed prior to recommended conditions of approval being provided.

If you require any further information regarding this matter please contact Steve Lewer, Regional Biodiversity Conservation Officer, on 4908 6814.

Yours sincerely

19 AUG 2014

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

Enclosure: Attachment A

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ATTACHMENT A: OEH REVIEW OF PROPOSED JANDRA QUARRY INTENSIFICATION PROJECT ENVIRONMENTAL ASSESSMENT (DA231-10-99)

THREATENED SPECIES

OEH has undertaken a review of Appendix F of the Environmental Assessment (EA) – *Flora and Fauna Impact Assessment*. The EA states that approximately 1.28 hectares (ha) of native vegetation will be cleared for the construction of a new heavy vehicle access road (0.25 ha) and the expansion of the finished product stockpile area (1.034 ha). The vegetation has been described as best matching OEH Plant Community Type HU 620 – 'Small-fruited Grey Gum – Tallowwood shrubby open forest on coastal foothills of the southern North Coast'. This plant community does not represent a threatened ecological community listed under the *Threatened Species Conservation Act 1995* (TSC Act).

Only the Grey-headed Flying Fox was recorded for the study area, though OEH notes that the 'Threatened Species Impact Assessments' (Appendix 2) for Appendix F indicates that the vegetation present represents suitable foraging and roosting habitat for a variety of predominantly highly mobile / transient fauna species, albeit not significant in relation to the total available amount of habitat in the local / Regional context or in part partly degraded.; ranging from raptors (Eastern Osprey, Little Eagle and Square-tailed Kite), large forest owls (Masked Owl, Powerful Owl and Sooty Owl), Glossy Black Cockatoo, Spotted-tailed Quoll, Squirrel Glider to a variety of threatened microchiropteran bats.

No threatened flora was recorded on the site, though the Underground Orchid (*Rhizanthella slateri*) was considered likely due to lack of uncertainty of the habitat requirements for this species. As such the EA concluded that until appropriate targeted surveys could be undertaken to determine if this species was absent from the study area, the removal of potential habitat could be significant based on the small number of known populations in NSW (i.e. 10) and that many of these populations only occupy small area. As such the proposal could lead to a long-term decrease in the size of the local population for this species. OEH notes that this species has been recorded to the south of the Study Area on Alum Mountain (near Bulahdelah), where it occurs in similar habitat, those beings dry sclerophyll forests. Current research being undertaken by CSIRO is investigating whether or not this species is linked to a host plant (tree or shrub) via mycorrhizal fungus. ANOS (1997) states that the Eastern Underground Orchid is saprophytic (i.e. has a symbiotic relationship with mycorrhizal fungus in order to gain nutrients) and, unlike most orchid species, it maintains this relationship for its entire lifecycle (Lewis 1997). As such the proposal may also impact on this aspect of the species life cycle.

OEH notes the following concerns:

Adequacy of flora and fauna surveys

In general, OEH is unclear whether or not the baseline flora and fauna survey components undertaken for the proposal are adequate, and whether or not they have been conducted in accordance with OEH guidelines (DEC 2004 and DECC 2009a). OEH acknowledges that the proposal will only impact upon a small area of native vegetation / potential threatened species habitat (i.e. 1.28 ha), however, given the array of potential threatened species recorded in the locality, the Study Area could offer suitable habitat. With respect to fauna surveys OEH is concerned that only a limited amount of survey effort has been undertaken coupled with a restricted number of detection techniques. Nor does it appear that the study area has been stratified on the basis of habitat types present; and if so these details are unclear or not clearly explained / defined in the Field Methods section of Appendix F (Section 2.3).

Given that the Study Area was considered potential foraging / roosting habitat (under 'Threatened Species Impact Assessments' [Appendix 2]) for large forest owls, a variety of microchiropteran bats and a number of small mammals, OEH would have expected targeted surveys to determine their potential presence, such as owl call back, harp or Anabat surveys and/or small mammal trapping (e.g. hair sampling tubes or Elliot / small cage traps). No such techniques were undertaken. OEH expects that all appropriate survey methodologies be employed for all species considered likely and that surveys are done in accordance with OEH guidelines or adequate justification provide as to why such techniques or surveys were not

undertaken. No justification appears to have been given in Appendix F with respect to the lack of some fauna survey methodologies.

With respect to the flora surveys described under Section 2.3.1 of Appendix F, the EA states that only one OEH 'biometric plot' was undertaken. Not details have been provided on how this was determined to be an adequate representation of the Study Area, such as providing details on how the site was stratified. OEH notes that in Section 3.2 (flora results) that this Biometric Vegetation plot indicated the canopy consisted of *Eucalyptus microcorys*, *E. propinqua*, *E. siderophloia*, *E. acmenoides* and *Corymbia intermedia* with the vegetation surrounding this plot described as being variable, with the canopy being dominated by *Corymbia maculata*, *Eucalyptus propinqua* and *E. siderophloia*. However, the vegetation is described as representing one single Plant Community Type, that being 'HU 620 – Small-fruited Grey Gum – Tallowwood shrubby open forest on coastal foothills of the southern North Coast'. As a result, given the variability in canopy species OEH would expect some justification or explanation as to why only one Plant Community Type was chosen to describe the study area. Furthermore, there is no schematic representation of the vegetation community for the Study Area. OEH would typically expect a geo-referenced map showing the vegetation communities of the Study Area, along with plots and other techniques (i.e. random meanders) utilised.

Furthermore, it is unclear whether or not appropriate targeted searches have been undertaken. Table 2 of Appendix F indicates a number of threatened flora have been recorded within the locality of the Study Area. OEH is of the opinion a number of these species would require specific targeted searches, which would require targeted survey effort at different times due to flowering and/or fruiting material required for identification. OEH notes that the flora survey was undertaken on the 16 December 2013, with the targeted survey component consisting of 'random meanders'. No details of which species were targeted or which habitats were searched has been provided, nor does the EA indicate where the random meanders took place (i.e. no schematic representation). OEH notes at that a number of the more cryptic and smaller species on the above list would unlikely be detected in summer, nor would the random meander method be an adequate technique to suitably survey potential habitat for some of these species. OEH requests the proponent provide details of targeted searches undertaken, indicating how they meet OEH guidelines or provide justification for not surveying certain taxa.

With respect to general baseline and targeted surveys, OEH must be satisfied that the following issues have been adequately addressed with respect to survey effort:

- a suitable survey design was adopted
- appropriate survey methodologies were utilised (as specified in the guidelines) and applied at a scale commensurate to detect the target species or guild
- targeted surveys were adequate and the subject species chosen were appropriate
- all surveys were conducted at the appropriate time with respect to seasonality and weather conditions (e.g. flower phenology)
- all surveys / methodologies adequately cover the study area, including all vegetation / habitat types and indirect impact areas.

To ensure that the flora and fauna surveys are compliant with OEH guidelines, OEH believes that further clarification of the sampling stratification units is required. Specifically, how they were determined and how the survey design was applied to these units would lend greater support to the baseline survey effort conducted to date. This will also help alleviate any future concerns regarding lack of sampling effort for some units. OEH acknowledges that Section 2 of Appendix F provides some detail on the survey process, but this does indicate how the surveying achieves the appropriate survey effort per stratification unit and incorporates all applicable survey methods.

OEH suggests that the proponent provide a table that details sampling methods and survey effort per stratification unit, including size of each unit, timing of surveys (not just the survey, but each specific component), prevailing climatic conditions at time of survey, and how they meet the minimum requirements in OEH survey guidelines (DEC, 2004). A map overlaying the survey details over the stratification units / vegetation types must also be included in any future versions of the EA. This will also help determine the adequacy with respect to sampling techniques, methodologies utilised, and whether the minimum effort has

been applied. A separate map for both flora and fauna is recommended. Additionally, all threatened species should be schematically shown. If such details reveal that certain aspects of the surveying have not been adequately addressed, then further sampling may be required and/or justification as to why the current surveys are adequate for the proposal. OEH also acknowledges that parts of our guidelines (DEC 2004) may be out-dated and as such will support justified and explained deviations in methodologies and/or effort suggested.

Threatened species assessment

OEH has not completed a detailed review of the threatened species assessment section of the EA, as there are concerns about some of the surveying. Once this information is provided in future correspondence, OEH will be in a position to provide an adequate appraisal of any threatened species section, including the assessment of any compensatory conservation measures. Nevertheless, OEH acknowledges that the EA has provided a detailed assessment on threatened species and their habitat. OEH concurs that in general the proposal is unlikely to have a significant impact on these given that the proposal impact area is only small (i.e. 1/28 ha). Nevertheless the 'Threatened Species Impact Assessments' (Appendix 2) for Appendix F indicates that the vegetation present represents suitable foraging and roosting habitat for a variety of predominantly highly mobile / transient fauna species, albeit not significant in relation to the total available amount of habitat in the local / Regional context or in part partly degraded.; ranging from raptors (Eastern Osprey, Little Eagle and Square-tailed Kite), large forest owls (Masked Owl, Powerful Owl and Sooty Owl), Glossy Black Cockatoo, Spotted-tailed Quoll, Squirrel Glider to a variety of threatened microchiropteran bats. Furthermore, this assessment concluded that the proposal could lead to a significant impact on the Underground Orchid (*Rhizanthella slateri*) due to lack of uncertainty of the habitat requirements for this species (as described above).

In light of the above described impacts to threatened species habitat, OEH is of the opinion appropriate compensatory habitat should be provided to offset the proposal. The EA and Appendix F provides no details of compensatory habitat or any justification as to why it was not considered. Typically, if the proposal involves the removal of threatened species habitat (i.e. through clearing of vegetation), OEH would expect the details of compensatory habitat to be provided. As such OEH is of the opinion that appropriate offset measures should be applied to areas and/or habitat that cannot be mitigated or avoided. In these instances an offset package should:

a. Meet either:

- **(i)** the requirements of the BioBanking Assessment Methodology (DECC 2008) utilising the 'BioBanking Assessment Methodology and Credit Calculator Operational Manual' (DECC 2009b) www.environment.nsw.gov.au/resources/biobanking/09181bioopsman.pdf), the Assessors' guide to using the BioBanking Credit Calculator v.2 (OEH 2012) www.environment.nsw.gov.au/resources/biobanking/120182AssessGdeBBCC.pdf), and OEH's 2011 policy, '*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);

OR

- **(ii)** OEH's *NSW offset* principles *for major projects (state significant development and state significant infrastructure)*, which are available at: www.environment.nsw.gov.au/biocertification/offsets.htm

b. Identify the conservation mechanisms to be used to ensure the long term protection and management of the offset sites.

c. Include 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 any 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*
- the dedication of land under the NPW Act
- a Trust Agreement under the *Nature Conservation Trust Act 2001*
- a Planning Agreement under s93F of the EP&A Act.

Note: OEH no longer supports public positive covenant under s88E of the *Conveyancing Act 1919* or Conservation Agreements under the *National Parks and Wildlife Act 1974* as appropriate conservation mechanisms to secure and/or manage biodiversity offsets.

Development of a Management Plan

To appropriately manage any proposed compensatory offsets, any retained habitat enhancement features within the development footprint and/or impact mitigation measures (including proposed rehabilitation and/or monitoring programs); OEH is of the opinion that an appropriate Management Plan (such as vegetation or habitat) must be developed as a key amelioration measure. These plans should be prepared prior to any potential approval of the development. OEH acknowledges that the EA indicates that the current 'Jandra Quarry Draft Environmental Management Plan' will be continued, but the details on how it will be revised are not provided.

Given that OEH is of the opinion that a biodiversity offset should be provided, the management plan will need to be amended to cover (where applicable), but not be limited to, the following issues:

- weed management (both control and suppression) and monitoring
- management of retained native vegetation and habitat (including buffer zones)
- feral animal control
- fire management (including asset protection zones)
- public access (including restriction of, increased traffic, and associated impacts, such as increased refuse and pets)
- size and management of buffer zones
- minimisation of edge effects and fragmentation
- stormwater control and changes to hydrology (including stormwater / runoff control and sediment / erosion control measures)
- management of specific habitat enhancement measures (e.g. hollow / habitat trees, animal fencing to facilitate movement, artificial hollows and nest boxes etc.)
- fauna displacement and if appropriate translocation (including any licence requirements)
- proposed surveys, such as pre-extraction baseline, pre-clearance and rehabilitation surveys
- details of long-term monitoring (including proposed timing)
- details of any rehabilitation program, including details of timing (including proposed staging details), rehabilitation measures (including details of proposed revegetation and species mix), and post-rehabilitation monitoring
- measures to ensure conservation in perpetuity (e.g. transfer to OEH [NPWS] estate, conservation agreements or covenants)
- funding details of long-term financial commitment to any proposed conservation measures, including any mechanisms to be implemented to achieve this.

References

Australasian Native Orchid Society (1997) Discovery of *Rhizanthella slateri* (the Eastern Underground Orchid). www.anos.org.au/groups/warringah/warringahframe.html.

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

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

DECC (2009b) *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/09181bioopsman.pdf.

Lewis, M. (1997) Elusive underground orchid unearthed. *Australian Geographic* **46**: pg. 19.

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.

ABORIGINAL CULTURAL HERITAGE ASSESSMENT

OEH has reviewed the '*Aboriginal Heritage Due Diligence Assessment - Jandra Quarry Intensification Project, Greater Taree Council, June 2014, by Niche Environmental and Heritage*', for the proposed Intensification Modification (DA 231-10-99 MOD 5). This due diligence assessment concluded that there was a low potential for Aboriginal sites or objects to occur within the proposed disturbance footprint and there was no requirement for any additional archaeological investigation prior to the commencement of works. A site inspection was undertaken on 7 February 2014, by an archaeologist from Niche Environment and Heritage and a representative of the Purflett-Taree Local Aboriginal Land Council. They did not locate any Aboriginal sites or objects and it was further confirmed that there was a low potential for the subject area to contain any additional sites or objects. The subject area is located within 200 metres of a water course, the steep mid-slope and prior disturbance of the lower-slope means that it is unlikely that any Aboriginal objects would still be present. OEH concurs with the due diligence assessment and notes that there are no further Aboriginal cultural heritage constraints associated with the proposed intensification modification proceeding.

OEH – AUGUST 2014