NSW GOVERNMENT | Office of Environment & Heritage

Your reference: SSD 6519
Our reference: DOC15/503547-2
Contact: Robert Gibson, 4927 3154

Mr Thomas Watt
Senior Planning Officer, Resource Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Mr Watt

RE: DOLWENDEE QUARRY PROJECT (SSD 6519) ENVIRONMENTAL IMPACT STATEMENT

I refer to your email dated 8 December 2015 seeking comments on the Environmental Impact Statement (EIS) for the Dolwendee Quarry Project. The Office of Environment and Heritage (OEH) understands that project is a State significant development (SSD 6519) located in the Muswellbrook local government area. The proposal includes establishing a new sandstone and conglomerate quarry that would extract and crush up to 250,000 tonnes of material per year out of a total estimated resource of 5.3 million tonnes over a period of 21 years, and the construction of a new haul road to the Golden Highway.

OEH has reviewed the EIS for this project in relation to Aboriginal cultural heritage and threatened biodiversity. From this review OEH identified that additional data on the geomorphology of the project site would have helped with refined predictions of archaeological potential for the project area. The biodiversity offset proposed meets OEH's expectations under the previous biodiversity offsetting policy. Further details and recommended conditions of approval are provided in **Attachment 1**.

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

Yours sincerely

1 FEB 2016

RICHARD BATH
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Enclosure: Attachment 1

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ATTACHMENT 1: REVIEW OF THE ENVIRONMENTAL IMPACT STATEMENT FOR THE DOLWENDEE QUARRY PROJECT (SSD 6519) WITH RECOMMENDED CONDITIONS OF APPROVAL

OEH has undertaken a review of the report 'Dolwendee Quarry project: Environmental Impact Statement: Upper Hunter Holdings Pty Ltd, 3 December 2015' (the EIS), prepared by KMH Environmental (2015). The review of the EIS was in relation to possible impacts of the proposed development on Aboriginal cultural heritage and threatened biodiversity. OEH's comments and recommended conditions of consent are provided below:

ABORIGINAL CULTURAL HERITAGE ASSESSMENT

OEH has reviewed the 'Aboriginal Heritage Impact Assessment – Dolwendee Quarry (AHIA), prepared by McCardle Cultural Heritage (MCH 2015), on behalf of KMH Environmental (KMH). The AHIA (MCH 2015) forms Appendix O of the KMH 2015 Dolwendee Quarry Project Environmental Impact Statement (EIS). OEH makes the following comments with regards to the AHIA and associated Aboriginal cultural heritage management recommendations:

- OEH acknowledges that the AHIA (MCH 2015) incorporates a desktop review of regional geomorphology (based primarily on broad scale mapping), however, it does not contain evidence of a geomorphological survey of the project area as requested in OEH's input to Director General Requirements (Document Ref: DOC14/74488-1). It is noted that a geomorphological survey of the project area undertaken by a suitably qualified individual could have refined predictions of archaeological potential (PAD) for the project area.
- OEH supports the development and implementation of management strategies such as an Aboriginal Cultural Heritage Management Plan.

OEH has no additional concerns with respect to Aboriginal cultural heritage for the project area. OEH recommends that if the proposed development is approved that the consent includes the following standard conditions for Aboriginal cultural heritage management:

Recommended Conditions of Approval for Aboriginal Cultural Heritage:

1. The proponent must consult with and involve all the registered local Aboriginal parties for the project, in the ongoing management of the Aboriginal cultural heritage values. Evidence of this consultation must be collated and provided to the consent authority upon request.
2. The proponent must develop an Aboriginal Cultural Heritage Management Plan (ACHMP) for the project area in consultation with the registered Aboriginal parties to detail procedures for managing all Aboriginal cultural heritage values associated with the project area. This process must be undertaken prior to commencing any ground disturbance or development works subject to the development. The ACHMP should address the likely impact of the project (vibration/blasting etc.) to visually significant areas of outcropping sandstone that border the project area.
3. In the event that ground disturbance locates previously unidentified Aboriginal object/s within the project area, all works must halt in the immediate area to prevent any further impacts to the object(s). A suitably qualified archaeologist and representatives of the local Aboriginal community must be contacted to determine the nature, extent and significance of the find. The site is to be registered in the Aboriginal Heritage Information Management System (AHIMS) and the management outcome for the site included in the information provided to AHIMS. The proponent must consult with representatives of the local Aboriginal community, and the archaeologist to develop an appropriate management strategy for all objects/sites which complies with the requirements of the *National Parks and Wildlife Act 1974*.
4. If any human remains are located, all works must halt in the immediate area to prevent any further impacts to the remains. The NSW Police are to be contacted immediately. No action is to be undertaken until the NSW Police provide written notification to the proponent. If the skeletal remains are identified as Aboriginal, the proponent must contact Environment Line on 131 555 and representatives of the local Aboriginal community. No works are to continue until OEH provides written notification to the proponent.
5. All Aboriginal sites impacted by the project must have an Aboriginal Site Impact Recording form completed and be submitted to OEH's AHIMS Register within three months of being impacted.

6. An Aboriginal Cultural Education Induction Program must be developed for the induction of all personnel and contractors involved in the construction activities on site. Records are to be kept of which staff/contractors were inducted and when for the duration of the project. The program should be developed and implemented in collaboration with the registered Aboriginal parties.

THREATENED BIODIVERSITY ASSESSMENT

OEH has reviewed the EIS in relation likely impacts on threatened biodiversity by this project, particularly the flora and fauna assessment which were presented in Appendix K of the EIS (Umwelt (Australia) Pty Limited 2015). OEH provided recommended input for Director Generals Requirements (DGRs) in 2014 and notes that DGRs were initially issued by the Department on 5 May 2014. Secretary's Environmental Assessment Requirements (SEARs) were then issued on 22 April 2015. Given that SEARs were issued before the *NSW biodiversity offsetting policy for major projects* (OEH, 2014a) was implemented, on 1 October 2014, this project is a 'transitional project' under the current offsetting policy. OEH met with the proponent on 14 January 2015 and provided advice that day to the Department (via e-mail) on an acceptable environmental assessment pathway for this project.

According to the EIS, the proposed development would clear about 22.2 hectares (ha) of native vegetation, which includes seven plants of the vulnerable Pine Donkey Orchid (*Diuris tricolor*), 7.4 ha of Central Hunter Grey Gum – Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions Endangered Ecological Community (EEC) vegetation, and 7.4 ha of habitat for the vulnerable Speckled Warbler (*Chthonicola sagittata*). Due to the projected impact on threatened biodiversity the proponent has proposed an on-site offset just under one kilometre north-east of the proposed quarry site. Following biodiversity survey of the offset site the reported biodiversity values for the 15.9 ha offset include 13 ha of Central Hunter Grey Gum – Ironbark Woodland EEC, 1.6 ha of White Box – Yellow Box – Blakely's Red Gum Woodland EEC, 247 plants of *Diuris tricolor* and about 14.7 ha of Speckled Warbler habitat.

The proposed offset provides just under twice (1.8:1) the Central Hunter Grey Gum – Ironbark Woodland EEC planned to be cleared, 35 times as many *Diuris tricolor* plants as those in the development footprint, almost twice the area of Speckled Warbler habitat as that to be cleared, and also provides 1.6 ha of a different EEC vegetation type (White Box Grassy Woodland) not found in the development area. To provide information on the biodiversity values of the proposed development site and the proposed offset site, OEH ran data from the EIS through the BioBanking Credit Calculator (OEH, 2014b) to obtain an estimation on the credit yield of both components. The results are summarised in **Table 1** and **Table 2** (below).

Table 1. BioBank Credit Calculator 2014 ecosystem credit yield for the proposed development & offset sites.

Plant Community Type (PCT)	Vegetation Community	Vegetation Condition*	Development Area (ha) [credit yield]	Offset Area (ha) [credit yield]
HU905	Narrow-leaved Ironbark - Grey Box grassy woodland of the central and upper Hunter	Low	14.8 [809]	0 [0]
HU905		Moderate/Good	7.4 [752]	13.0 [11]
HU730	White Box x Grey Box - Red Gum - Rough-barked Apple grassy woodland on rich soils on hills in the upper Hunter Valley	Low	0 [0]	1.3 [13]
HU730		Moderate/Good	0 [0]	1.6 [71]
TOTAL			**22.2 [1,561]**	**15.9 [95]**

* In the EIS all Derived Native Grassland occurrences of the two local woody vegetation communities were ascribed to being in 'low' condition (see below).

Table 2. BioBank Credit Calculator 2014 species credit yield for the proposed development & offset sites.

Threatened Species (with unit of measure)	Development Measure [credit yield]	Offset Measure [credit yield]
Pine Donkey Orchid (*Diuris tricolor*) (individual plants)	7 [91]	247 [1,754]
Speckled Warbler (*Chthonicola sagittata*) (extent of suitable habitat)	7.4 ha [192]	14.7 ha [104]

SEARs were initially issued for this project when the current offsetting policy was in draft form, when no single approved biodiversity assessment methodology was stipulated for use in such environmental assessments. The new set of SEARs was issued just over six months after the current biodiversity offsetting policy was commenced, in which the Framework for Biodiversity Assessment (FBA) (OEH, 2014c) is stipulated as the way to assess new projects. The FBA uses the BioBanking Credit Calculator (OEH, 2014b) to measure ecosystem and species credit yields.

The current offsetting policy has a 'transitional period' that runs for 18 months from the start of its full implementation. During this period 'the consent authority *"...may vary the application of the policy..."* to prevent perverse outcomes from the application of this policy. In this case the current SEARs made reference to OEH's contribution to the earlier DGRs in which a greater range of biodiversity assessment options was available for this project.

The proponent applied the seven biodiversity offsetting principles available under the draft version of the current offsetting policy. They provided a qualitative assessment of the biodiversity values of both the development site and the proposed offset, rather than using any OEH calculator, and the offset package was then compared against the (then) seven offset principles of the draft state-wide biodiversity offsetting policy.

For this project, considering the above, OEH notes that the biodiversity offset contains about twice the area of EEC vegetation as the development site, more than twice the habitat for the Speckled Warbler, and many times more known plants of *Diuris tricolor*. In addition is contains an area of a second EEC not within the proposed development footprint. On balance this appears to be an appropriate offset for the proposed development under the draft state-wide biodiversity offsetting policy framework. Thus OEH supports this proposal, particularly where the offset is secured by a BioBanking agreement. OEH notes that under full implementation of the current biodiversity offsetting policy a larger offset would likely be required based on BioBanking ecosystem credit yield (See Table 1, above), which is far more prescriptive than a negotiated outcome can be.

Condition of Derived Native Grasslands

The EIS makes reference to the two derived native grassland types in the study area being in 'low' condition. From vegetation descriptions in Chapter 4 of Appendix K of the EIS this appears to be based on the greatly reduced or absent tree canopy layer, mid-storey layer and shrub layer and shrub layer, and the moderate abundance of exotic species in the groundcover in those partially cleared vegetation communities.

In the context of BioBanking and the FBA vegetation condition is based on where the ten site attribute scores fall in relation to where the range of values occurs in relation to where the benchmark parameters are set. As per the BioBanking Assessment Methodology (OEH 2014b. p. 68) woody vegetation where the woody over storey cover is 25% or less of the of the lower benchmark value, and where either less than 50% of ground cover vegetation is indigenous or more than 90% of the ground cover has been cleared is considered to be in 'low' condition. Native vegetation that is not in low condition is, by default considered to be in 'moderate to good' condition. The lower benchmark for native over-storey projected foliage cover for Narrow-leaved Ironbark – Grey Box – grassy woodland of the central and upper Hunter (HU 905) and White Box - Grey Box (hybrid) - Red Gum - Rough-barked Apple grassy woodland on rich soils on hills in the upper Hunter Valley (HU 730) are both set at 15% respectively. The groundcover described for both vegetation communities appears to contain a high diversity of native species, including tussock grasses. The exotic species recorded are largely annual to short-lived perennial species that would largely occur between tussocks of native grasses. Based on the cover of component species in quadrats (Appendix B of Appendix K of the EIS) and the diversity and type of native and exotic species described in the groundlayer of both vegetation communities it is not clear how they meet the 'low' condition class ascribed to them in the context of BioBanking calculation. OEH acknowledges that BioBanking was not formally used for this project, but simply suggests that terms like 'low condition' which have a formal and precise meaning is many biodiversity assessments are either not used if they are not required, or they are used in their formal sense with a supportive argument as to why that term has been used. Adopting either option, as appropriate would help reduce ambiguity in the assessment report.

Recommended Conditions of Approval for Threatened Biodiversity:

1. That the proponent provide a biodiversity offset package as described in Appendix K (Ecological Assessment) of the Environmental Impact Statement (Umwelt (Australia) Pty Limited, 2015); and
2. That the biodiversity offset land as described in the Environmental Impact Statement for the Dolwendee Quarry must be secured by an appropriate conservation mechanism, such as a Conservation Agreement under Part 4, Division 12 of the *National Parks and Wildlife Act 1974*, a BioBanking Agreement under Part 7A of the *Threatened Species Conservation Act 1995* or other appropriate mechanism as listed in section 126L of the *Threatened Species Conservation Act 1995* within 12 months of any consent being granted.

References:

KMH Environmental (2015) *Dolwendee Quarry project: Environmental Impact Statement: Upper Hunter Holdings Pty ltd, 3 December 2015. KMH Environmental, Newcastle.* http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=6519

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

OEH (2014b) *BioBanking Assessment Methodology 2014.* September 2014. NSW Office of Environment and Heritage, Sydney. www.environment.nsw.gov.au/resources/biobanking/140661BBAM.pdf

OEH (2014c) *Framework for Biodiversity Assessment.* September 2014. NSW Office of Environment and Heritage, Sydney. www.environment.nsw.gov.au/resources/biodiversity/140675fba.pdf

Umwelt (Australia) Pty Limited (2015) *Appendix K to the EIS: Upper Hunter Holdings Pty Ltd: Ecological Assessment: Dolwendee Quarry: Final. September 2015. Umwelt (Australia) Pty Limited, Teralba* http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=6519

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