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Mrs Genevieve Seed
Planning Officer
NSW Department of Planning & Environment
Level 3, Room 305, 23-33 Bridge Street

SYDNEY NSW 2000

Attention: Mrs Genevieve Seed

Dear Mrs Seed

EPA comments on Calga Sand Quarry - Modification 3 (DA 94-4-2004)

The NSW Environment Protection Authority (**EPA**) has been invited to comment on a proposal to modify the consent for the Calga Sand Quarry at 1215 Peats Ridge Road (the **Premises**). Hanson Construction Materials Pty Ltd (**Hanson**) hold Environment Protection Licence (**EPL**) 11295 which regulates the Land-Based extractive activity at the Premises.

The modification proposal before the Department of Planning & Environment (**DPE**) proposes modifying the consent to permit the installation and operation of a crushing system and variation of noise criteria for the project.

Hanson has submitted an Environmental Assessment (**EA**) accompanying the proposal dated August 2016. This EA is accompanied by a Noise Impact Assessment (**NIA**) dated December 2015.

The EPA has the following comments regarding the modification proposal, specifically the NIA.

Predicted Noise Level Modelling Methodology – Modelled scenario

Table 1 of the 2015 NIA presents 'Daytime Predicted Noise Levels' for 9 identified receivers. The NIA explains that the existing environmental noise model that was used as part of the 2009 NIA for the southern extension was used for the modelling.

The NIA explains that the predicted noise levels have been modelled based on the '*worst-case season during the daytime period 7.00am-6.00pm in relation to Stage 3 activities when levels are predicted to be higher than 35dBA.*'

The EPA considers that the NIA does not provide sufficient information regarding what scenario was modelled, including what quarrying activities were modelled, what meteorological conditions were modelled and which extraction areas in Stage 3 were assessed during the modelled scenario. This information needs to be provided for the EPA to make a determination on the adequacy of the assessment.

Predicted Noise Level Modelling Methodology - Setting Appropriate Noise Limits

The EPA notes that the predicted modelling and the associated predicted noise levels shown in Table 1 of the NIA presents *'calculated noise level exceeded 10% of 15-minute periods during the worst-case season during the daytime period'*.

If approved, the EPA would expect to develop noise limits based on the modelled predicted noise levels. Noise limits for the project would apply at all times, except during certain meteorological conditions, specifically wind speeds greater than 3m/second.

Prior to approval, the EPA requests the proponent to confirm that the proposed activity will comply with the proposed Noise Limits, at all receivers at all times, except during wind speeds greater than 3m/second.

Attended Noise Monitoring

The NIA explains that noise impacts from a mobile crushing plant was tested during a trial of the mobile crushing system at the quarry on 4 March 2013. The NIA explains that attended monitoring was undertaken at receivers CN1 and CN2 to establish whether noise generated by the crusher would be audible amongst the rest of the operations. The NIA notes that the additional noise impact of the crusher was not audible among other operations. The NIA does not however detail the noise results recorded during the attended noise monitoring, what activities were occurring at the quarry during the attended noise monitoring or the meteorological conditions experienced during the attended noise monitoring. This information needs to be provided for the EPA to make a determination on the adequacy of the assessment.

Predicted Noise Level Calculation of Crushing System Alone

Table 2 of the NIA presents the *"10th percentile calculated noise levels due to the crushing system alone at two of the receiver locations where compliance monitoring is undertaken"*. Table 2 presents the calculated L_{Aeq} noise levels of the crushing plant alone at 31dBA at Receiver CN1 and 29 dBA at Receiver CN2. Based on this calculated noise level and observations made during attended noise monitoring the consultant has estimated the noise level contribution of the crusher alone to be approximately 30dBA.

It is not clearly articulated in the NIA how the Predicted Noise Levels at CN1 and CN2 have been calculated. This information needs to be provided for the EPA to make a determination on the adequacy of the assessment.

Amendment of Noise Criteria based on updated Rating Background Levels

The modification proposal requests an amendment to current noise criteria.

The current environment protection licence includes limits for three residences close to the quarry and a "catch all" for "all other residences". It is thought this "all other residences" would have been applied to provide a limit for other residences not specifically mentioned but also close to the quarry.

The proponent has requested that the Rating Background Level's (**RBL's**) should consider monitoring undertaken during 2009, 2010 and 2013. The accompanying EA explains that the RBL's for receivers to the south of the quarry (CN6, CN7, CN8, CN9) are higher than the current limits (these properties are currently considered as 'all other residences' with noise limits of 35dB, however the proponent states this is not an appropriate limit for these receivers due to background traffic noise from the M1 Motorway and Peats Ridge Road).

The EPA notes that limits for these premises were reviewed by the EPA and approved by the Planning and Assessment Commission when assessing the earlier proposal, which is now not going ahead. The EPA has considered this issue and inspected the general area a number of times and

considers it appropriate to specify noise limits for residences south of the Quarry based on RBL's established in the 2009 Noise Impact Assessment.

Aboriginal Cultural Heritage Site Nearby – is it a “Sensitive Receiver”?

The NIA does not identify the Aboriginal Women's Site located to the south of the quarry as a sensitive receiver.

The EPA has been advised, by a party that attended Land and Environment Court Hearing in 2014, that this issue was raised during court proceedings with respect to the 2009 NIA that accompanied that proposal. Specifically the EPA has been advised that during the hearing the Commissioner, Susan Dixon, put questions to the then consultant acting on behalf of Rocla Pty Limited, Mr Steven Cooper, regarding the Aboriginal Women's site and whether it should have been identified as a sensitive receiver in the 2009 NIA. Specifically Mr Cooper was allegedly asked if the site could be considered a 'Place of Worship' or 'Place of Learning' in accordance with the relevant criteria in the *NSW Industrial Noise Policy (INP)*.

The EPA was not at the 2014 Land and Environment Court Hearing. The EPA can find no reference to the above questions in the judgement following the 2014 hearing.

The EPA is not expert in Aboriginal cultural heritage and will not be in a position to make a judgement as to the cultural significance of the Aboriginal Women's Site and whether it should have been identified as a 'Place of Worship' in accordance with the INP.

As DPE was party to the 2014 Land and Environment Court Hearing and may have been provided with sensitive cultural information regarding the Aboriginal site's significance the EPA wonders whether DPE might be able to make a determination as to whether the site should be regarded as a 'Place of Worship' in accordance with the INP. To assist DPE in making any such assessment the EPA has consulted its internal noise experts and advise that we are not aware of any Aboriginal site being previously classified as a 'Place of Worship' in accordance with the INP. Also for DPEs consideration the EPA highlights that based on the information currently available to us the Aboriginal Women's Site is likely currently the subject of noise from the already approved operation. The EPA further notes that the proponents have stated that the life of the Quarry is 4 to 5 years based on the available resource remaining.

Depending on the above, the EPA considers it might be appropriate to request that the proponent provide noise contours for the premises (or modelled results for the Aboriginal site) that are reflective of the predicted noise levels modelled in the 2015 NIA. Any assessment in this regard should compare predicted levels with the crusher (as proposed) to predicted levels in the absence of the crusher (status quo).

If you have any further questions please contact Alexander Beavis in our Newcastle office on (02) 4908 6804.

Yours sincerely



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