DOC16/352134; EF13/3101

Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Attention: Mr Thomas Watt

Dear Mr Watt

Response to Submissions
Dolwendee Sandstone and Gravel Quarry Project (SSD 6519)

I refer to the document titled "Dolwendee Quarry Project Response to Submissions Report Upper Hunter Holdings Pty Ltd" (the Report), prepared by KMH Environmental and dated 6 July 2016, received by the Environment Protection Authority (EPA) on 7 July 2016.

The EPA has reviewed the Report and provides the comments and updated recommended conditions of approval (at **Attachment 1**) based on this review.

If consent is granted the proponent will need to make a separate application to the EPA for an Environment Protection Licence (EPL) to authorise both scheduled development works and the operation of the proposed Dolwendee Quarry.

The EPA provides the following comment to the proponents response provided in the Report:

Wastewater

The EPA notes that the proponent has agreed to provide detailed information regarding the placement and design of the wastewater plant and effluent management system with the EPL application. This information will need to include details of the irrigation area including an assessment of the soils, a water balance, nutrient balances, details of appropriate application rates, and details of any proposed monitoring programs.

Air quality

It is noted that the best practice assessment required by the EPA's SEARS for this project will be undertaken prior to the submission of the required EPL application and that exposed area details will be submitted annually with the EPL Annual Return.

Surface water

The Report indicates that the site water balance shows a net water deficit. As such, it is intended to capture and reuse stormwater to the fullest extent possible. Further, no licensed discharge point is proposed to be established. The EPA advises that detailed information regarding sediment dam design must be submitted with the EPL application. This must demonstrate that the potential for discharge

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from sediment dams, as indicated in the Table 73 (pages 156 – 159) of the Environmental Impact Statement (EIS) for the project, is minimised.

Recommended Conditions of Approval

The list below identifies changes to the EPA's previous recommended conditions of approval provided for this project. The numbering in the list below is consistent with

- Condition 2.3 – The inadvertent inclusion of the word coal has been addressed. Term 'coal' removed from this condition.
- Condition 2.4 – The Best Practice Assessment must be undertaken prior to the commencement of operations and be submitted with the EPL application.
- Condition 3.1 – The requirement to establish an automated weather station is a standard requirement for all new quarries of this nature and size. Whilst Bureau of Meteorology weather stations are located within a reasonably short distance from the premises, the measurement of Sigma Theta is required for noise assessment purposes.
- Conditions 4.1-4.4 – The EPA believes automated monitoring of PM_{10} is appropriate requirement for a new quarry of this nature and size. Both upwind and downwind monitoring is considered appropriate.
- Conditions 5.1-13 – The EPA acknowledges that the site is proposed to be a nil discharge premises. As such conditions relating to discharges have been removed.
- Conditions 17-18 – The EPA notes the acceptance of noise monitoring requirements by the proponent.
- Conditions 19.1-19.9 – The EPA notes the acceptance of blast monitoring requirements by the proponent.
- Conditions 20.1-20.2 – The EPA notes the comments regarding onsite effluent disposal.

The EPA's recommended conditions of approval relate to the development as proposed in the EIS and the Report. In the event that the development is modified either by the applicant prior to the granting of consent or as a result of the conditions proposed to be attached to the consent, it will be necessary to consult with the EPA about the changes before the consent is issued. This will enable the EPA to determine whether the recommended conditions of approval need to be modified in light of the changes.

If you require any further information regarding this matter please contact Emma Paull on 4908 6828.

Yours sincerely

15/7/16

MICHAEL HOWAT
Acting Head Regional Operations Unit - Hunter
Environment Protection Authority

Encl: **ATTACHMENT 1** - Dolwendee Quarry: Recommended conditions of approval: July 2016

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ATTACHMENT 1

DOLWENDEE QUARRY (SSD 6519)
RECOMMENDED CONDITIONS OF APPROVAL

The conditions provided below are in response to the information detailed in the following reports:
(a) "Dolwendee Quarry Project Environmental Impact Statement Upper Hunter Holdings Pty Ltd' (EIS) prepared by KMH Environmental and dated 3 December 2015; and
(b) "Dolwendee Quarry Project Response to Submissions Report Upper Hunter Holdings Pty Ltd" (the Report), prepared by KMH Environmental and dated 6 July 2016.

General

1. Except as provided by these conditions of approval below, the works and activities must be undertaken in accordance with the EIS.

AIR CONDITIONS

2. General Dust Conditions

2.1 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

2.2 Activities occurring in or on the premises must be carried out in a manner that will minimise the generation, or emission from the premises, of wind-blown or traffic generated dust.

2.3 All trafficable areas, storage areas and vehicle manoeuvring areas in or on the premises must be maintained, at all times, in a condition that will minimise the generation, or emission from the premises, of wind-blown or traffic generated dust.

2.4 The proponent must undertake a Best Practice Assessment in accordance with the 'Coal Mine Particulate Matter Control Best Practice Site-specific determination guideline' (EPA, 2011) prior to any commencement of scheduled development works at the premises. This assessment must be provided with the Environment Protection Licence application.

2.5 All haul roads must be constructed and maintained so that a minimum 80% control efficiency of haul road dust is achieved.

2.6 If an Environment Protection Licence is granted the proponent must provide with the Annual Return for each reporting period a report detailing the actual area of exposed (disturbed) land against the predictions made in the EIS.

3. Requirement to monitor weather

3.1 The licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.

Weather monitor

Parameter	Units of measure	Frequency	Averaging Period	Sampling Method
Rainfall	mm	continuous	1 hour	AM-4
Sigma theta	degrees	continuous	10 minute	AM-2 and AM-4
Siting				AM-1
Air Temperature	°C	continuous	10 minute	AM-4

Wind Direction at 10 metres	degrees	continuous	15 minute	AM-2 and AM-4
Wind Speed at 10 metres	metres per second	continuous	15 minute	AM-2 and AM-4

3.2 Monitoring of all parameters listed in Condition 3.1 Column 1 must commence prior to any earth moving activities being undertaken at the premises.

4. Requirement to monitor ambient particulate matter

4.1 The licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.

Air Quality Monitor(s)

Parameter	Units of measure	Frequency	Averaging Period	Method
PM_{10}	Micrograms per cubic metre	continuous	1-hour	AS 3580.9.8 - 2008

4.2 The number and location of PM_{10} monitors must be approved by the EPA prior to the installation of the monitoring equipment.

4.3 As a minimum continuous PM_{10} monitors must be placed in locations that provide upwind and downwind results adjacent to quarrying operations.

4.4 Monitoring of all parameters listed in Condition 4.1 Column 1 must commence prior to any earth moving activities being undertaken at the premises.

NOISE CONDITIONS

5. Construction Noise

5.1 All construction work at the premises must be conducted between 7am to 6pm Monday to Friday and between 8am to 1pm Saturdays and at no time on Sundays and public holidays. This condition does not apply in the event of a direction from police or other relevant authority for safety or emergency reasons.

Note: 'safety or emergency reasons' refers to emergency works which may need to be undertaken to avoid loss of life, property loss and/or to prevent environmental harm.

6. Operational Noise

6.1 All quarrying operations, including extraction, processing and loadings / transport must be conducted between 7am to 6pm Monday to Friday and 7am to 1pm Saturdays and at no time on Sundays and public holidays.

7. Limit Conditions

7.1 Noise generated at the premises must not exceed 35dB(A) $LA_{eq\ (15\ minute)}$ at any noise sensitive receiver.

7.2 The noise limits set out in condition 7.1 apply under all meteorological conditions except for the following:

a) Wind speeds greater than 3 metres/second at 10 metres above ground level; or

b) Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or
c) Stability category G temperature inversion conditions.

7.3 To determine compliance:

a) with the $L_{eq(15\ minute)}$ noise limit specified above, the noise measurement equipment must be located:
- approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or
- within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable
- within approximately 50 metres of the boundary of a National Park or a Nature Reserve.

b) with the noise limits specified above, the noise measurement equipment must be located:
- at the most affected point at a location where there is no dwelling at the location; or
- at the most affected point within an area at a location prescribed by sections (a) or (b) of this condition.

7.4 A non-compliance of the noise limits specified above will still occur where noise generated from the premises in excess of the appropriate limit is measured:
- at a location other than an area prescribed by condition 7.3 (a) and 7 (b) above; and/or
- at a point other than the most affected point at a location.

7.5 For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.

7.6 For the purposes of condition 7.3:

a) Data recorded by the meteorological station identified as EPA Identification Point (Point number to be specified in the Environment Protection Licence) must be used to determine meteorological conditions; and
b) Temperature inversion conditions (determined using the Sigma Theta method) are to be determined by consistent with Part E4 of Appendix E to the NSW Industrial Noise Policy.

8. Requirement to Monitor Noise

8.1 To assess compliance with Condition 7.1, attended noise monitoring must be undertaken in accordance with Conditions 7.3 and:

a) At, or at a location representative of, the most-affected sensitive receiver(s);
b) occur quarterly in a reporting period;
c) occur 1.5 hours during operating hours
d) occur for three consecutive operating days.

(Note that if four rounds of quarterly monitoring show compliance with the noise limits in this licence the licensee may apply to the EPA to have the monitoring frequency reduced.)

9. Reporting Conditions

9.1 Noise Monitoring Report

A noise compliance assessment report must be submitted to the EPA with each Annual Return. The assessment must be prepared by a suitably qualified and experienced acoustical consultant and include:

a) an assessment of compliance with noise limit presented in Condition 7.1;
b) measurement and reporting of C-weighted noise levels; and
c) an outline of any management actions taken within the monitoring period to address any exceedences of the limits contained in Condition 7.1.

Additions to Definition of Terms of the licence

- NSW Industrial Noise Policy - the document entitled "New South Wales Industrial Noise Policy published by the Environment Protection Authority in January 2000."

10. Blasting and Vibration

10.1 Blasting activities at the premises may only be conducted under the following conditions:
a) Between the hours of 9am to 5pm Monday to Friday. No blasting is permitted Saturdays, Sundays or public holidays;
b) Blasting is not permitted simultaneous with adjacent quarry(s); and
c) Blasting outside of the hours specified above can only take place with the written approval of the EPA.

10.2 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.

10.3 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.

10.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.

10.5 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.

10.6 The airblast overpressure and ground vibration levels in the conditions above do not apply at noise sensitive locations that are owned by the licensee or subject to a private agreement, relating to airblast overpressure and ground vibration levels, between the licensee and land owner.

10.7 The proponent must monitor all blasts carried out in or on the premises at or near the nearest residence or noise sensitive location (such as a school or hospital) that is likely to be most affected by the blast and that is not owned by the licensee or subject of a private agreement between the owner of the residence or noise sensitive location and the licensee relating to alternative blasting limits. Details of the blast monitoring locations must be provided with the EPL application.

10.8 The proponent must report any exceedence of the blasting limits to the EPA's Newcastle office as soon as practicable after the exceedence becomes known to the licensee or to one of the licensee's employees or agents.

10.9 If an Environment Protection Licence is granted the proponent must supply annually a Blast Monitoring Report with the Annual Return, which must include the following information relating to each blast carried out within the premises during the respective reporting period:

a) the date and time of the blast;
b) the location of the blast on the premises;
c) the blast monitoring results at each blast monitoring station; and
d) an explanation for any missing blast monitoring results.

11. Wastewater Management

Effluent application to land

11.1 The proponent must submit with the Environment Protection Licence application details of the proposed sewage treatment and effluent management/disposal system. This must include detailed design drawings, site plans showing the position and layout of the facilities on site and a land capability assessment where land irrigation of treated effluent is proposed.

11.2 The proponent must demonstrate to the EPA that the proposed treatment and disposal of effluent on site is in accordance with the EPA's 'Environmental Guidelines Use of Effluent by Irrigation' (2004).

11.3 The quantity of effluent/solids applied to the utilisation area must not exceed the capacity of the area to effectively utilise the effluent/solids.

For the purposes of this condition, 'effectively utilise' includes the use of the effluent/solids for pasture or crop production, as well as the ability of the soil to absorb the nutrient, salt, hydraulic load and organic material.

11.4 Effluent application to the utilisation area(s) must not occur in a manner that causes surface run-off from the utilisation area(s).

11.5 Spray from effluent application to the utilisation area(s) must not drift beyond the boundary of the utilisation area(s) to which it has been applied.

12. Sediment and erosion controls

12.1 The licensee must, before undertaking any earthmoving or vegetation removal works, implement erosion and sediment control measures to prevent pollution of waters in accordance with Soils and Construction: Managing Urban Stormwater 2004 (Landcom, 2004).

12.2 Stormwater from the premises which has the potential to mobilise sediments and must be controlled and diverted through the appropriate sediment and erosion control and/or pollution control measures/structures, so as not to cause, permit or allow water pollution to occur.

13. Bunding

13.1 All above ground tanks containing material that is likely to cause environmental harm must be bunded or have an alternative spill containment system in place.

13.2 Bunds must:
a) have walls and floors constructed of impervious materials;
b) be of sufficient capacity to contain 110% of the volume of the tank (or 110% volume of the largest tank where a group of tanks are installed);
c) have floors graded to a collection sump; and

d) not have a drain valve incorporated in the bund structure,
or be constructed and operated in a manner that achieves the same environmental outcome.

14. Waste

14.1 The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by a licence.

14.2 The condition above only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if those activities require an environment protection licence.

Environment Protection Authority
July 2016