Our reference: SF17/8656; DOC19/858671-2

Department of Planning, Industry and Environment
GPO Box 39
SYDNEY NSW

Attention: Mr Anthony Barnes, Senior Environmental Assessment Officer

15 October 2019

Dear Mr Barnes,

WALLERAWANG QUARRY DA344-11-2001 SSD MOD 3

I refer to the response to submissions report (Umwelt, 30 September 2019; the Report) received from the Department of Planning, Industry and Environment on 3 October 2019 in relation to the Wallerawang Quarry Modification 3 (the Proposal). The quarry is located alongside the Coxs River, which is within Sydney's drinking water catchment. The quarry is licensed by the Environment Protection Authority (EPA) under environment protection licence no. 13172 (the licence).

The EPA provided initial recommended conditions of consent in a letter dated 16 August 2019. The EPA has reviewed the additional information provided in the Report and updated its recommended conditions of consent, which are included as **Appendix A**. An overview is provided below.

Surface water impacts

The EPA notes the commitments provided in section 3.2.2 of the Report and believes that these can be addressed by a revision to the Soil and Water Management Plan and/or through the statutory five-year review of the licence which is due in 2019.

Groundwater impacts (staged approval)

The Report does not contradict the EPA's understanding that the water table is inferred between 900 and 870 metres AHD, and that extraction of product below the water table is proposed to commence around 2035. The Report shows, consistent with EPA experience, that naturally-occurring dissolved metal concentrations in the local groundwater are often higher than the 95% species protection default guideline values for freshwater aquatic ecosystems (ANZG, 2018). The Report acknowledges the EPA's concerns about discharges of untreated site runoff and groundwater to the Coxs River by including in section 3.4.7 a "preliminary assessment" of alternatives to a free-draining final quarry void. This assessment predicts water within the void would become hypersaline and would stabilise between 875 and 870 metres AHD, with the predicted spill elevation at 885 metres AHD.

Based on the data provided, the EPA maintains its position that the extraction of product below the water table, which is proposed for some fifteen years into the future, should be the subject of a separate contemporaneous environmental assessment and approval process at a later stage. As such, the EPA recommends that, should the Proposal be approved, the approved extraction depth is maintained above the water table, plus a suitable buffer.

PO Box 1388 Bathurst NSW 2795
Level 102, 346 Panorama Avenue Bathurst NSW 2795
Tel: (02) 63 333800
ABN 30 841 387 271
www.epa.nsw.gov.au

Noise limits

The noise limits recommended by the EPA in its letter dated 16 August 2019 are consistent with the project noise trigger levels provided in the Statement of Environment Effects, Appendix 10, Noise and vibration impact assessment (Muller Acoustic Consulting, May 2019). Based on the existing permissible operating hours and the noise and vibration impact assessment provided, the EPA considers that the proponent can readily comply with the proposed limits.

Should you have any further enquiries in relation to this matter, please contact the Central West (Bathurst) Office of the EPA by telephoning (02) 6333 3800 or by emailing central.west@epa.nsw.gov.au

Yours sincerely

SHERIDAN LEDGER
Unit Head Central West Region
Environment Protection Authority

Attachment A: EPA recommended conditions of consent

Surface water

The existing consent includes as condition 18 the requirement to prepare and implement a Soil and Water Management Plan in consultation with government agencies.

Recommended condition

1. For condition 18.(c), replace “Modification 1” with “Modification 3”.

Groundwater (quarrying operations)

The existing consent includes as condition 6 a limit on the depth of quarrying operations. That limit is at least thirty metres above the inferred level of the water table in the Statement of Environment which is between 900 and 870m AHD. The EPA maintains its position that quarrying below the water table, which is proposed for some fifteen years into the future, should be the subject of a separate contemporaneous environmental assessment and approval process.

Recommended condition

1. For condition 6, replace “930 m AHD” with “XXX m AHD”, where XXX is to be determined by the consent authority as the level of the water table plus a suitable buffer.

Noise

1. Noise generated at the premises must not exceed the noise limits in the Table below.

Location	Lot and DP number	NOISE LIMITS dB(A)		
		Day $L_{Aeq\ (15\ minute)}$	Evening $L_{Aeq\ (15\ minute)}$	Night $L_{Aeq\ (15\ minute)}$
987 Great Western Highway Marrangaroo	Lot 7, DP872230	43	39	35
3 Cypress Place Wallerawang	Lot 20, DP874020	43	39	35
2 Beacroft Place Wallerawang	Lot 15, DP874020	43	39	35
20 Rocky Waterhole Drive Wallerawang	Lot 105, DP1085560	43	39	35

- Noise – ‘sound pressure levels’.
- Noise Policy for Industry - the document entitled “Noise Policy for Industry” published by the Environment Protection Authority in October 2017.”
- Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays,
- Evening is defined as the period from 6pm to 10pm all days,
- Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays
- These noise limits apply under the following meteorological conditions:

Assessment Period	Meteorological Conditions
Day	Stability Categories A, B, C and D with wind speeds up to and including 3m/s at 10m AGL
Evening	
Night	Stability Categories A, B, C and D with wind speeds up to and including 3m/s at 10m AGL; and / or Stability Category F with wind speeds up to and including 2m/s

- The noise limits applicable during conditions not stipulated in the meteorological conditions table are the limits in the noise limits table positively adjusted by 5dB.
- The meteorological conditions are to be determined from meteorological data obtained from the meteorological weather station at Marrangaroo (Defence), or an alternative nominated by the proponent and agreed by the EPA and the consent authority; and
- Stability Category shall be determined by the sigma-theta method referred to in Fact Sheet D of the Noise Policy for Industry.

2. To determine compliance:
   a) with the noise limits, 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 condition L6.6(a).
      - 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) A non-compliance will still occur where noise generated from the premises in excess of the appropriate limit is measured at a location other than the area prescribed above and/or at a point other than the most affected point at a location.
   c) Compliance measurements should not be undertaken during rain or where wind speed at microphone level will affect the acquisition of valid sound pressure level measurements.
   d) The modification factors in Fact Sheet C of the Noise Policy for Industry must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.

3. Where directed by the EPA, a noise compliance assessment report must be submitted within 60 days. The assessment must be prepared by a suitably qualified and experienced acoustical consultant and include:
   a) attended noise monitoring at the locations and for the time period specified by the EPA;
   b) an assessment of compliance with noise limits; and
   c) an outline of any management actions taken within the monitoring period to address any exceedances of the noise limits.

Air

1. The proponent must maintain the premises in a condition which prevents or minimises the emission of air pollutants, including dust, from the premises.
2. The proponent must conduct all activities on the premises by such practical means to prevent or minimise the emission of air pollutants, including dust.
3. The proponent must implement all reasonable and feasible $PM_{2.5}$ emission controls, including evaluation and adoption of best practice diesel emission controls.
4. The proponent must implement a robust air quality management system which incorporates all measures necessary to prevent or minimise air pollution, including dust, from the premises. The management system should include as a minimum;
   a) Proactive and reactive management strategies, including contingency plans and alternative practices for when water is not available.
   b) Monitoring network that is fit for purpose and suitably time-resolved to inform adequate reactive mitigation
   c) Key performance indicators, that are consistent with the objective of preventing and/or minimising air pollution
   d) Monitoring method(s)

e) Location, frequency and duration of monitoring
f) Record keeping;
g) Response mechanisms
h) Compliance reporting.