



9 August 2022

Hauraki District Council
1 William Street
PAEROA 3600

For the attention of Leigh Robcke

Dear Leigh

**WAIHI NORTH APPLICATION
OCEANA GOLD NZ LTD
IDENTIFICATION OF FURTHER NOISE INFORMATION**

You have asked Acousafe to review the completeness of the application and the associated noise assessment from Marshall Day Acoustics (**MDA**) report number Rp 001 RO 20210601 dated 17 June 2022 (**The Report**), together with the proposed HDC conditions of consent.

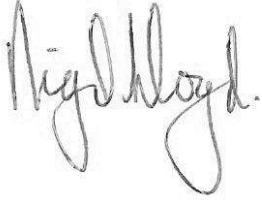
The further information we seek is:

1. Draft Condition 14 simply refers to NZS 6803:1999. Section 7.3 of NZS 6803:1999 requires that resource consent conditions should specify the actual numerical noise limits and the time periods for which the limits apply. To assist with which standards apply please state the duration of the construction works for each area (1-7) to allow the correct limits to be selected.
2. Please identify in which areas (1-7) construction work will be undertaken at night (see shaded areas in Table 2 of NZS 6803:1999 for night-time).
3. Where construction work is to be undertaken at night, please identify whether the construction noise limits will be exceeded.
4. Where construction noise limits are exceeded, please undertake an assessment of construction noise effects, and recommend what measures are required to manage noise levels.
5. Please identify what operations will be undertaken in which areas (1-7) at times when the 40 dB L_{Aeq} limit applies (in draft condition 18).
6. Where operations are to be undertaken at night, please identify whether the noise limits will be exceeded.
7. Where noise limits are exceeded, please undertake an assessment of noise effects and recommend what measures are required to manage noise levels.
8. On page 28 of The Report comparisons are made between predicted WNP noise levels and "*existing noise environment*". Please confirm that the existing noise environment levels are the daytime levels.
9. If night-time construction and/or operation activity is proposed, then shouldn't the predicted WNP noise levels be compared to existing night-time environment sound levels.

10. If the answer is yes, shouldn't these be the levels at the quieter times rather than the arithmetic average of the L_{A90} and L_{Aeq} ? If the answer is no, then how should the night-time assessment be undertaken where night-time noise limits are predicted to be exceeded?
11. A straight visual comparison of 2023 vs 2024 data (page 28 of the Noise Report) shows several properties with an average noise increase of 10dB, some increasing by 15dB. This is a substantial change in noise levels for these properties. Can the noise assessment please outline what a change in 15dB above background sound levels might be like for a property?
For some properties (Table 12 page 28), operational noise is projected to be non-compliant, but it is unclear what the approach to this non-compliance will be. Please clarify the following points in this respect:
 - a. The yellow shading in Table 12 indicates the *potential reduction by further mitigation*. How realistic is this potential?
 - b. The dwellings that are identified in Table 12 are surrounded by many other dwellings that might also be included if noise levels were to increase even slightly. What is the uncertainty in the modelling and how likely is it that greater (or fewer) dwellings will likely be exposed to noise levels over 50 dB L_{Aeq} ?
12. The noise assessment describes mitigation of cladding and ventilation systems. Will the retrospective installation of such mitigation succeed in the older housing of the type in Waihi? What options are there if such retrospective installation proves to be impossible and how would this be reflected in a condition?
13. There is no mention of noise insulation of dwellings in the draft conditions. Please advise on a draft form of noise insulation standard and ventilation requirement setting out how the design and installation will be undertaken, and who is responsible (physically and financially) for undertaking this work. What would the time-frames be for this process?
14. Paragraph 11.2 of The Report states that there are no significant night-time noise emissions of concern for affected dwellings. If this is the case, then do there need to be conditions restricting specific night-time activities?
15. Further regarding the uncertainty of noise modelling, Figure 13 of the Report models noise contours for the Gladstone Hill construction activities and there is some significant noise screening provided from the hillside edges. If construction equipment were to work at different locations on the hill, then could nearby residents experience greater increases in noise levels than depicted by Figure 13 and, if so, by how much?
16. The recreation and tourism assessment identifies that the Wharekirauponga to Golden Cross Track is located within the same section of road reserve where up to four vent raisers and associated easē will be installed. It is understood that at least one of the proposed vent sites is proposed to be located within 5 metres of the track. Can a condition be provided for maximum noise levels from the ventilation raises that represent the best practicable option to control noise?
17. Can noise attenuators be installed in the ventilation raises and would this represent the best practicable option?

Yours faithfully

ACOUSAPE CONSULTING & ENGINEERING LTD

A handwritten signature in black ink, appearing to read 'Nigel Lloyd'.

Nigel Lloyd

Director of Acoustic Services

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