

14 February 2025
Job No: 1097998.0000

Westland District Council
Private Bag 704
Hokitika 7842

Attention: Kate Fleming

Dear Kate

Mananui Sand Mining Acoustic Technical Review

1 Introduction

Tonkin & Taylor Ltd (T+T) has previously provided a technical acoustic review (the “T+T review”) of the Mananui mineral sand project in November 2023, on behalf of West Coast Regional Council and Westland District Council (T+T ref 1092706). We understand that noise is now being assessed by Westland District Council and that a RFI was sent out to the applicant on 15 January 2024 including noise matters as raised in our original review. The applicant has subsequently provided a noise response prepared by Marshall Day Acoustics (MDA) (the “MDA response”).

This letter report presents our opinion as to whether the MDA response has addressed the acoustic matters, and if applicable, any outstanding issues that need to be addressed.

We have also viewed the updated AEE (dated December 2024) and proposed consent conditions as provided.

2 RFI issues

The following sections set out the issues raised in our previous technical acoustic review, and information subsequently provided in the MDA response.

2.1 Daytime noise limit

Our original concern was that the pTTPP noise limits are already more lenient than the ODP limits, allowing 55 dB LAeq(15min) 8 am to 8 pm on weekends and public holidays. (The ODP limits only permit 55 dB LA10 from 7 am to 6 pm on a Saturday, remaining at the night-time level of 45 dB LA10 all day on Sundays and public holidays.) The operating hours requested by the Applicant extend the permitted pTTPP limits by one hour in the morning and two hours in the evening, i.e. 7 am to 10 pm on both Saturdays and Sundays. We still consider that this may negatively impact on the residential noise amenity value of residents.

These noise limits are only likely to come into play when works are relatively close to dwellings. As works will be 24/7, and in a similar location as works progress slowly, the amenity of residents, including respite from the higher level of noise during the day, will remain important.

We have reviewed other similar projects on the West Coast. For example, the conditions proposed for the Westland mineral sand mining project (Buller District Council) are broadly similar to those proposed here, allowing for 55 dB LAeq(15min) between 8 am and 10 pm all days (noting that this is at the property boundary rather than the notional boundary). By contrast, the Environment Court decision 2024 NZEnvC 238 (for open cast mineral sands mining and processing on the Barrytown Flats, Grey District Council) does not permit mining activities other than processing plant outside daylight hours.

Given the general intent of the noise limits in the pTTPP, we raise no further objections to the proposed noise limits for the site. Although we note that if operations occur throughout the day, there will be no respite for residents as noise could be produced at a level of 55 dB LAeq (15min) every day of the week.

2.2 Setback distance

From the contour plots referenced in the MDA response, operating equipment other than the fixed processing plant is as follows:

Equipment operating both day and night:

- 1x dredge
- 1x field screening unit
- 1x diesel generator (with noise control)
- 1x 220 kW pump

Equipment operating daytime only:

- 2x excavator
- 1x dozer
- 1x grader
- 1x loader
- 2x dump trucks

We understand that the equipment that is operating both day and night is not readily moveable, and that it will progress (move) slowly as the area is mined. On this assumption, if the dredge, field screening unit etc are operating at 85 m from a dwelling during the day, they will need to continue running in the same location at night, as we assume that it cannot be relocated easily based on T+T's experience of similar projects. We do not see how the proposed setback distances of 85 m during the day and 115 m at night will work in practice.

We note that the MDA response considers that it is practicable to comply with the two set-back distances. On that basis, we agree that the 85 m and 115 m distances are appropriate for the day and night respectively.

We agree that setback distances can be reduced if monitoring shows that compliance can be achieved, which is incorporated into the conditions (condition is not numbered, between 17.4 and 17.5).

2.3 Truck noise

MDA has provided an assessment of truck noise in the MDA response. We agree that effects are likely to be reasonable and consistent with the existing traffic noise. We note that proposed Condition 15.3 controls air braking via the traffic management plan. The inclusion of this restriction is important when managing noise effects, especially at night.

If there are reasonable concerns from residents then a limit on night-time trucks could be applied (either movement limit or a curfew between certain hours), as was the case in the Barrytown Flats decision. However, based on the information provided we agree that the overall noise effects of additional traffic movements are likely to remain similar to the effects generated by existing traffic.

2.4 Avifauna

We have no additional concerns regarding avifauna. We note that no concerns regarding proximity of mining equipment are raised in the ecological report¹.

3 Proposed conditions

Table 3.1 sets out the Applicant's proposed conditions, together with T+T's comments.

Table 3.1: Proposed conditions and T+T comment

Condition #	Condition	T+T comment
12.0 Hours of Operation		
12.1	<p>The mining and processing activities must comply with the following hours of operation:</p> <ul style="list-style-type: none"> ○ Topsoil stripping and rehabilitation works – 0700-2200 7 days a week ○ Mining Activities – 24 hours a day / 7 days a week ○ Processing Plant Activities - 24 hours a day / 7 days a week ○ Heavy Mineral Concentrate Trucking Activities - 24 hours a day / 7 days a week <p><i>Advice Note: In addition to condition 12.1, further noise restrictions are contained in Condition 16.0 Noise.</i></p>	<p>Clarified in the RFI response: topsoil stripping and rehabilitation 7 am to 7 pm only.</p> <p>Otherwise 2 shifts: 7 am to 10 pm, 10 pm to 7 am</p>
15.0 Transport		
15.1	<p>Truck movements associated with removal of heavy mineral concentrate to and from the site are limited to 70 per day and 6 per hour (both averaged over a one week period).</p> <p><i>Advice Note: For the purposes of the Transport conditions, a movement is defined as being a movement either to or from the site. A truck and trailer unit entering and leaving the site is therefore 2 movements.</i></p>	Support
15.3	<p>The TMP must include details on the:</p> <ol style="list-style-type: none"> a) Roles and responsibilities of the project manager, mine manager, employees, contractors and visitors; b) Key hazards and management methods; c) Method of reporting crashes involving a vehicle associated with the activity and any other road user and road defects, to the Consent Authority and the relevant Road Controlling Authority (where this is not the Consent Authority); d) Method for the Consent Holder to record, investigate and advise truck and staff transport service drivers of any complaints received about driver behaviour, and to provide this record to the Consent Authority when requested; e) Methods to minimise amenity disturbance for residents, including but not limited to locations where use of air brakes must be avoided. <p><i>Advice Note: All Management Plans are required to adhere to the requirements in Conditions Error! Reference source not found.-Error! Reference source not found.</i></p>	Noted that use of air brakes is controlled via the TMP.

¹ BlueGreen Ecology Limited 2024. Mananui Garnet Mine: Ecological Assessment. Report prepared by BlueGreen Ecology Limited for Westland Mineral Sands Co. Ltd.

Condition #	Condition	T+T comment
17.0 Noise		
17.1	<p>The Consent Holder must prepare a Noise Management Plan (NMP) to management day-to-day noise emissions from the Site.</p> <p>At a minimum, the NMP and their contact details:</p> <ol style="list-style-type: none"> Person responsible for implementing the NMP; Applicable noise conditions relating to noise; Training of staff relating to how to minimise noise and vibration; Maintenance schedule for site access road surfaces to avoid excessive noise and vibration; Activity risk analysis for noise generation; and Method for handling complaints; and Noise monitoring methodology, including frequency, and location. <p><i>Advice Note: All Management Plans are required to adhere to the requirements of Condition 6.1-6.10.</i></p>	<p>The final NMP should be submitted to Council for certification.</p> <p>We agree that the scope of the NMP is acceptable.</p>
17.2	<p>Mining activities shall be conducted such that the following noise limits are not exceeded within the notional boundary of any dwelling existing at the date consent is granted:</p> <ul style="list-style-type: none"> Daytime: 55 dB $L_{Aeq(15\text{ min})}$ Night-time: 45 dB $L_{Aeq(15\text{ min})}$ and 75 dB L_{AFmax} <p>“Notional boundary” means a line 20 metres from the façade of any building used for residential activity, or the legal boundary of the site on which the building is located where the boundary is closer to the building than 20 metres.</p> <p>Noise shall be measured and assessed using New Zealand Standard NZS 6801:2008 “Acoustics - Measurement of environmental sound” and NZS 6802:2008 “Acoustics - Environmental Noise”, respectively.</p>	<p>Hours for daytime and night-time are not defined. These need including in this condition.</p>
17.3	<p>The consent holder shall undertake compliance noise monitoring within 30 days of mining and processing operations occurring.</p> <p>All noise monitoring shall be made available to the West Coas Regional Council within two weeks of completion of each monitoring visit.</p>	<p>Ongoing noise monitoring should be undertaken regularly, especially when works are at their closest point to neighbours. We suggest annual monitoring during operation.</p>
17.4	<p>Construction activities such as the formation of site roads, building structures and earth bunds for noise control purposes shall be planned and managed in accordance with New Zealand Standard NZS 6803:1999 “Acoustics - Construction Noise”.</p>	<p>No comment</p>
#	<p>Mining activities (excluding construction activities) must not occur within the following setback distances from the notional boundaries of 669, 677 and 694 Ruatapu Road at the following times:</p> <ul style="list-style-type: none"> 85 metres between 0700 and 2200 hrs, and 115 metres between 2200 and 0700hrs. <p>If compliance monitoring carried out under condition 17.3 above confirms that the noise limits in condition 17.2 can still be achieved, the setbacks may be reduced to a point where the compliance limit is reached. The revised setback distances must be confirmed in the compliance monitoring report prepared by a suitably qualified acoustic professional and supplied to Council prior to the setbacks being reduced.</p>	<p>See discussion above.</p> <p>Revising setback distances following monitoring results is standard practice – no further comment.</p>
17.5	<p>3 metre high noise control bunds shall be constructed for the minimum extent shown in Schedule 3.</p>	<p>Support</p>
17.6	<p>Mining operations shall utilise the best practicable option to minimise noise at all times. This includes regular replacement of worn parts, maintenance of mufflers, lubrication of all moving parts to avoid speaks and squeals, and appropriate operation of all equipment.</p>	<p>Support</p>
17.7	<p>Site vehicles shall not be fitted with tonal or beeper reversing alarms.</p>	<p>Support</p>

4 Summary

We have provided comment on the MDA response to the queries arising from our initial acoustic technical review. We have residual concerns over the amenity for residents due to the 55 dB LAeq (15min) daytime noise limit extending until 10 pm at weekends and public holidays, but there is precedent for this at Barrytown Flats and appears to be the intent of the pTTPP so we raise no further comments.

We still do not fully understand how the proposed setbacks will work in practice . However, the MDA response considers that it is practicable to comply with the two distances. No further comment is required.

The assessment of truck noise demonstrates that noise effects are expected to be reasonable.

We have no additional concerns regarding avifauna.

We have provided our comments on the proposed conditions for the project.

5 Applicability

This report has been prepared for the exclusive use of our client Westland District Council, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

We understand and agree that this report will be used by Westland District Council in undertaking its regulatory functions in connection with the Mananui Sand Mining project.

Tonkin & Taylor Ltd

Report prepared by:



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Lindsay Leitch
Acoustics/Noise Specialist

Authorised for Tonkin & Taylor Ltd by:



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Darran Humpheson
Project Director

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