



Before

Independent Commissioners appointed by Tasman District Council

IN THE MATTER

of the Resource Management Act 1991

AND

IN THE MATTER

of an application by CJ Industries Ltd for land use consent RM200488 for gravel extraction and associated site rehabilitation and amenity planting and for land use consent RM200489 to establish and use vehicle access on an unformed legal road and erect associated signage, and discharge permit RM220578

**SUPPLEMENTARY EVIDENCE OF RHYS LEONARD HEGLEY
ON BEHALF OF CJ INDUSTRIES
(ACOUSTICS)**

1. INTRODUCTION

- 1.1 My full name is Rhys Leonard Hegley. I am a partner at Hegley Acoustic Consultants. My qualifications and experience are as set out in my Evidence in Chief (EIC).
- 1.2 The applicant has applied for resource consents authorising the extraction of gravel, stockpiling of topsoil, and reinstatement of quarried land, with associated amenity planting, signage and access formation at 134 Peach Island Road, Motueka:
 - (a) RM200488 land use consent for gravel extraction and associated site rehabilitation and amenity planting and
 - (b) RM200489 land use consent to establish and use vehicle access on an unformed legal road and erect associated signage
- 1.3 The applicant has also applied for a discharge permit authorising the discharge of contaminants to land, in circumstances where the contaminants may enter water (RM220578).

Purpose and Scope of Evidence

- 1.4 I provided evidence in chief dated 15 July 2022. The purpose of this supplementary evidence is to respond to some of the questions, comments and recommendations made in Council's Addendum s 42A report.

Code of Conduct

- 1.5 I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2014 and I agree to comply with it. My evidence is within my area of expertise, however where I make statements on issues that are not in my area of expertise, I will state whose evidence I have relied upon. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed in my evidence.

2. CORRECTED/ UNCORRECTED NOISE LEVELS

- 2.1 Condition 45 as proposed in Mr Taylor's evidence was:

45. The consent holder shall ensure that all other activities on site, including quarrying activities) are designed and conducted, and all equipment used on site is maintained, so that noise generated by activities on site does not exceed an uncorrected noise level of 55 dBA Leq (day) and 40dBA Leq and 70 dBA Lmax (night) measured at the notional boundary of any dwelling. Noise shall be measured and assessed in accordance with the provisions of NZS 6802:2008 - Acoustics - Environmental Noise.

- 2.2 This is now condition 54 of the s 42A addendum version of conditions. The s 42A addendum notes the reference to the noise level being uncorrected.
- 2.3 In hindsight, I intended to recommend that a corrected noise level be specified.
- 2.4 When the noise from an activity is measured, it is normal to correct it in accordance with NZS 68021 before reporting it. The two corrections available can be summarised as:
- (a) A reduction of the measured day time level that is calculated based on the average time that the activity actually produces noise over the day time

¹ NZS 6802:2008 Acoustics – Environmental noise

(referred to as “averaging”). Averaging is limited to 5dB (discussed at paragraph 3.30 of my EIC); and

- (b) A +5dB addition to the measured level for any sound considered to have a special audible characteristic (discussed at paragraph 3.31 of my EIC).

2.5 Considering the pros and cons of each correction, I do not believe averaging provides a benefit either to the applicant or the surrounding environment. It is simply a technical method of describing how the effects of noise are a function of both its level and duration. Put another way, a noise that is only present for say half the day would have the same effect as a slightly quieter level that was present for the whole day. The correction for special audible characteristics would potentially make compliance more onerous for the applicant as it penalises noises with strong tones or which are impulsive to better assess their effects.

2.6 My view is that noise from the proposal should be corrected in accordance with NZS 6802. The reasons are:

- (a) The corrections for averaging and special audible characteristics have been in NZS 6802 since its inception in 1977. My view is that they represent best practice and I see no reason that a different approach to best practice should be taken for this particular project;
- (b) With respect to averaging, Council’s noise specialist, Mr Winter, notes in Section 5 of the review he prepared for the s 42A Addendum (Specialist Review) that “... *fixing the noise limits at 55dB L_{Aeq} unadjusted [uncorrected] means that the limit is actually 5dB less if the strict provisions of NZS6802:2008 were applied*”. This appears to be a concern that that averaging will allow noise from the proposal to be up to 5dB above the numerical limit of the consent. I note that for this to be true, the duration of those activities would be greatly reduced (to less than 30% of the day). Essentially, the effect of the increased level is offset by the reduced duration. The point I make in my EIC is that averaging is the technical response to Council’s concern that “*noises associated with the gravel extraction would be different in ... duration from ‘typical rural noises’*”.² For activities such as this proposal,

² First s 42A report, paragraph 6.8

where the activity will occur for the majority of the day, averaging plays very little part in the analysis. By way of example, in the noise assessment I prepared for the original consent, I noted that the effect of averaging was so small that was not adopted for the assessment. In summary, I see no reason to remove averaging from this project as it is a valid and well understood tool for assessing effects;

- (c) Throughout their discussion on the permitted baseline, Council note³ that the duration of the proposal differs from that what could be expected in the Rural zone. It therefore makes little sense to remove from the assessment process the one tool that is intended to account for duration;
- (d) In his discussion on special audible characteristics Mr Winter notes⁴ that such noises are unlikely to occur. With respect to the usual source (tonal reversing signals) he is correct as specific conditions are proposed that would preclude tonal reversing alarms on site. However, I believe that ability to assess potential future activities that may include a special audible characteristic should remain, to ensure a robust suite of conditions. For example, tracks from the likes of excavators can develop a squeal. Other activities, such as dewatering pumps (not currently anticipated or provided for) can have a tone. If adjusting is not provided for, the increased noise impact of such special audible characteristics would not be accounted for. Removing the ability to accurately assess all potential noise from site is, in my view, both unnecessary and potentially undesirable.

3. NUMERICAL NOISE LIMIT

- 3.1 Council's proposed condition 54 also suggests a noise limit of 51dB L_{Aeq} . Part of the justification provided by Council seems somewhat cyclic in that while Mr Winter supports the condition proposed by the planner⁵, the planning report⁶ (which presumably forms the basis of the condition) takes its support from Mr Winter.

³ Specialist Review, section 2

⁴ Specialist Review section 5

⁵ Specialist Review, bottom of page 75 of the agenda

⁶ Planner's report, paragraph 7.7

- 3.2 In his discussion on this topic, Mr Winter refers⁴ to the conclusion I offer in my EIC that the predicted levels of noise from the proposal are reasonable and appropriate (noting that the suggested 51dB L_{Aeq} equals the uppermost level of noise predicted to any of the neighbouring sites). My view is that adopting the predicted level of noise from an activity as the limit for that activity does not provide for an effects based assessment.
- 3.3 Near the top of page 74 of the agenda, Mr Winter provides the factors that should be considered when assessing noise from the proposal which, together, can be summarised as the permitted baseline, plus the existing noise environment. I set out my assessment of the proposal against the permitted baseline in paragraphs 3.28 to 3.32 of my EIC where I conclude that the permitted baseline can adequately be described using the rural zone noise rule of the Tasman Resource Management Plan. In the following paragraphs 3.33 to 3.46 I go on to address the existing sound environment, which supports these findings. In this manner I have first sought to develop appropriate criteria for the proposal and then assess against those. My view is that the logical result of this process should be conditions reflecting the developed criteria rather than the levels that were assessed against them. For this reason, I consider that the adopted noise limit for the proposal should be 55dB L_{Aeq} rather than 51dB L_{Aeq} .
- 3.4 For completeness, my suggested condition 54 is as follows. Other than the changes I describe above, I have also identified the current (2008) version of NZS 6801:

54. The consent hold shall ensure that all other activities on site, except construction work, are designed and constructed, and all equipment used on site is maintained, so that noise generated by activities on site does not exceed a noise level of 55dBA L_{eq} (day) when measured at the notional boundary of any dwelling.

All noise shall be measured and assessed in accordance with the provisions of NZS 6801:2008 Acoustics-Measurement of environmental sound and NZS6802:2008 Acoustics – Environmental noise.

4. CONCLUSIONS

- 4.1 My view is that proposed noise condition 54 should be consistent with NZS 6802 and allow for both averaging and special audible characteristics. Further, I believe the noise limit should be 55dB L_{Aeq} rather than 51dB L_{Aeq} .