

**NOISE CHAPTER (NGA ORO) - EXPERT WITNESS CONFERENCE AND
JOINT WITNESS STATEMENT**

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| IN THE MATTER | of the Resource Management Act 1991 (“ RMA ” or “ the Act ”) |
| AND | of the Proposed Te Tai o Poutini Plan |

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| Facilitator | n/a |
| Date | 20 September 2024 |
| Venue | Remotely via MS Teams |

| Expert | For |
|-----------------------------------|--|
| Mr Stephen Peakall (SJP) | West Coast Regional Council (WCRC) |
| Mr Rhys Hegley (RLH) | WMS Group, WMS Land Co., West Coast Bulk Logistics, TiGa Minerals and Metals Limited |
| Dr Stephen Chiles (SGC) | National Public Health Service (NPHS) New Zealand Transport Agency (NZTA) Kiwirail |

JOINT WITNESS STATEMENT

Introduction

In preparing this statement, the noise experts have read and understood the Code of Conduct for Expert Witnesses as included in the Environment Court of New Zealand Practice Note 2023.

The topics and issues outlined below have been taken from correspondence provided by the experts engaged by submitters, to cover the issues that were not fully resolved at the Noise Hearing 4th, 5th September 2024.

Some of the issues may therefore not be relevant to all experts. Where this is the case, this has been noted. The submitter experts agreed during their initial conversations to only be present during the matters of relevance for them.

Mr Hegley was present during discussions over items in Table 1. Dr Chiles was present during discussions over items in Tables 2-4 and was also present for the discussion carried out over item X, Table 1.

Mr Peakall was present for all discussions.

Table 1¹ – Submitter: WMS Group, WMS Land Co., West Coast Bulk Logistics, TiGa Minerals and Metals Limited

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| 1. | What interpretation do the acousticians have of the TTPP’s objectives for the rural zone noise rule? |
| | <i>Matters of Agreement</i> a) Mr Hegley and Mr Peakall have addressed this in items 3d and 3e below. |
| | <i>Matters of Disagreement</i> b) Not applicable |
| 2. | What measurement position should be used for the rural zone noise rule? |
| | <i>Matters of Agreement</i> a) Mr Hegley and Mr Peakall agree that this matter has been appropriately addressed in the latest provisions appended to the JWS. |
| | <i>Matters of Disagreement</i> b) Not applicable |
| 3. | Are limits of 55dB L_{Aeq} day time and 45dB L_{Aeq}/ 75dB L_{AFmax} night time appropriate as standard criteria for the Rural zone? |
| | <i>Matters of Agreement</i> a) Mr Hegley and Mr Peakall agree that for the Rural Zones standard criteria of 55 dB L _{Aeq} day time and 45 dB L _{Aeq} / 75dB L _{AFmax} night time are appropriate as a starting point. b) Mr Hegley and Mr Peakall agree that Rural zones are in essence “mixed-use” zones that cater for both noise sensitive activities (people living there) and noise generating activities, and overall should be enabling of noise generation without undue restrictions. c) Mr Hegley and Mr Peakall agree that a key consideration when determining appropriate noise limits and the times they apply are the objectives and policies of the Rural Zones. |
| | <i>Matters of Disagreement</i> d) Mr Hegley’s view is that if the objectives and policies are to be permissive of the rural production activities and mineral extraction activities to the extent limited by residential amenity, then 55 dB L _{Aeq} day time and 45 dB L _{Aeq} / 75dB L _{AFmax} night time is reasonable and could apply at all times. This level is considered the upper limit appropriate for residential amenity and would provide the rural production and mining activities with the maximum possible flexibility without undue restrictions. e) Mr Peakall’s view is that the objectives and policies enable rural production activities and mining activities to occur, which is reasonable. He notes that many rural production activities are exempt from the noise rules. Despite being enabling, he considers some degree of respite is appropriate. Because the noise limits are at the upper limit of acceptability, a lower limit on weekends provides this |

¹ Issues taken from [24042 Caucusing Agenda \(ttpp.nz\)](https://www.ti.govt.nz/24042-caucusing-agenda-ttpp-nz), dated 5 September 2024

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| 4. | Would the rural zone noise rule benefit from periods of respite from the levels agreed on 2 above, such as during evenings and/or on weekends and public holidays? |
| | <p><i>Matters of Agreement</i></p> <p>a) Mr Hegley and Mr Peakall have addressed this in items 3d and 3e above.</p> |
| | <p><i>Matters of Disagreement</i></p> <p>b) Not applicable</p> |
| 5. | Is there merit in considering different noise rules for the different precincts within the rural zone (the General rural zone, the Rural Lifestyle zone and the Settlement zone)? |
| | <p><i>Matters of Agreement</i></p> <p>a) Mr Hegley's and Mr Peakall's understanding of the Objectives and Policies of the TTPP suggests the intention of different types of activity are intended within the different Rural zones.</p> <p>b) Mr Hegley and Mr Peakall therefore agree that there is merit in considering different noise rules for the different rural zones. Our views are that:</p> <ul style="list-style-type: none"> • For the GRUZ, we have set out our differences in item 3d and 3e above as to what noise limits should apply in this zone. • For the SETZ, we agree that the proposed wording of Rule RX is appropriate • For the RLZ, we consider that the rules that apply should be implicitly linked to the intent of zone, as enshrined in the Objectives and Policies. If there is a distinct difference intended between the GRUZ and RLZ in terms of the types of activity that are intended, then a difference in the noise rules could reflect this. We are unclear on the intended use of the RLZ and seek clarification from the planners to advise further. |
| | <p><i>Matters of Disagreement</i></p> <p>c) None</p> |
| 6. | With respect to the port, what is the purpose of R9 and is it appropriately worded? |
| | <p><i>Matters of Agreement</i></p> <p>a) Mr Hegley and Mr Peakall agree that the refined Port Zone noise Rule RX Clause 3, attached as Appendix 2 to Minute 44 is appropriate.</p> |
| | <p><i>Matters of Disagreement</i></p> <p>b) None</p> |

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| 7. | With respect to the port, what is the purpose of the port noise rule within RX3 and is it appropriately worded? |
| | <i>Matters of Agreement</i> a) Mr Hegley and Mr Peakall have addressed this in items 6a above |
| | <i>Matters of Disagreement</i> b) Not applicable |
| 8. | With respect to the mineral extraction zone, what is the purpose of the R11 and is it appropriately worded? |
| | <i>Matters of Agreement</i> a) Mr Hegley and Mr Peakall agree that the deletion of the BCZ and MEZ from noise Rule RX Clause 3, attached as Appendix 2 to Minute 44 is appropriate. |
| | <i>Matters of Disagreement</i> b) None |
| 9. | With respect to the mineral extraction zone, what is the purpose of the mineral extraction zone noise rule within RX3 and is it appropriately worded? |
| | <i>Matters of Agreement</i> a) Mr Hegley and Mr Peakall have addressed this in items 8a above |
| | <i>Matters of Disagreement</i> b) None |
| X. | Any other Outstanding Items - noise Rule RX Clause 4 |

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| | <p><i>Matters of Agreement</i></p> <ul style="list-style-type: none">a) Mr Hegley, Mr Peakall and Dr Chiles have discussed this matter collectively.b) We agree that Rule RX is intended to provide appropriate noise limits for each respective zone. Our interpretation of the intent of the rules is that sensitive activities should be encouraged to establish in zones with more restrictive noise rules. We also agree that noise generating activities should be facilitated and encouraged to establish in industrial (and similar 'working') zones.c) We consider that Rule RX Clause 4 has the potential to result in reverse sensitivity effects by way of a noise sensitive activity establishing in a working zone and being afforded protections equivalent to a residential zone.d) On this basis we agree that Rule RX Clause 4 should be deleted.e) Mr Peakall notes that the original intent of Clause 4 was to ensure any <i>existing</i> noise sensitive activity in these zones would have protection. Deleting the Clause would mean this protection is no longer there. Mr Hegley and Dr Chiles agree with this.f) However, as acoustic experts we are not clear on the extent of any such existing activity and if there is such activity whether it has already mitigated higher noise levels, but on balance, consider that the suggested deletion is acceptable. |
| | <p><i>Matters of Disagreement</i></p> <ul style="list-style-type: none">g) None |

Table 2 – Submitter: National Public Health Service (NPHS),

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| 1. | <p>NOISE-R2.12 – Appropriate parameters (non-acoustic) for exemption of aircraft movements, including consideration of separation distances from houses.</p> |
| | <p><i>Matters of Agreement</i></p> <p>a) Mr Peakall and Dr Chiles agree that restrictions on aircraft associated with rural production and conservation activities are necessary. However, we also both agree that numerical noise limits are not the best form of control in this case.</p> <p>b) Dr Chiles and Mr Peakall agree that the use of a restriction on the number of days where activity can occur is appropriate.</p> <p>c) Dr Chiles considers that an additional control using a setback distance is also required, and that 500m is generally appropriate, although the distance could be reduced if approach and departure flight paths do not pass over/near affected houses.</p> <p>d) Mr Peakall considers that based on the nature of the activity and likely occurrence and intensity of such activity that an additional setback distance is not entirely necessary, however he does acknowledge that the setback distance control would provide certainty that adverse noise effects are adequately managed.</p> <p>e) On this basis we agree that on balance a 250m setback is acceptable on the assumption that flight paths are away from houses. Should the panel agree, this could be reflected in the version of NOISE-R2.12 appended to Minute 44 with additional words along the lines of the underlined text: <i>“Aircraft take off and landing, including helicopter movements, associated with rural production activities and conservation activities, <u>at least 250 metres from any sensitive activity and</u> for no more than 30 days in any 12 month period per site.”</i></p> |
| | <p><i>Matters of Disagreement</i></p> <p>a) none</p> |
| 2. | <p>NOISE-RX – Noise limits for evening periods</p> |
| | <p><i>Matters of Agreement</i></p> <p>a) Mr Peakall and Dr Chiles are in general agreement that the structure of NOISE-RX and most of the noise limits in that table are appropriate.</p> |

Matters of Disagreement

- a) Mr Peakall and Dr Chiles have discussed the use of evening period noise limits, and we remain of the different opinions we have expressed in our respective evidence.
- b) Our disagreement only relates to the applicable noise limit in the weekday period between 7pm to 10pm, and only in relation to Rule NOISE-RX Clauses 1 and 2 attached as Appendix 2 to Minute 44.
- c) Mr Peakall considers the noise limits remain appropriate, and does not consider a separate more stringent evening period limit is required.
- d) Dr Chiles considers that a lower numerical noise limit of 50 dB L_{Aeq} should apply between 7pm and 10pm on weekdays. Should the Panel agree then Dr Chiles suggests this could be given effect by amending the table headers as shown with underline and strikethrough below, for NOISE-RX Clause 1 and Clause 2 attached as Appendix 2 to Minute 44.

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| <i>Daytime (Monday– Friday) 7:00am– 7:00pm</i> | <i>All days <u>7:00pm to 10:00pm, and</u> Saturdays, Sundays and Public Holidays 7:00 am – 10:00 pm</i> | <i>Night-time 10:00pm– 7:00am</i> |
| e) | | |

3. NOISE-RX – Proposed noise limits at notional boundaries of sensitive activities in generally non-sensitive zones

Matters of Agreement

- a) As set out above in Table 1, item X “Matters of agreement”

Matters of Disagreement

- b) none

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| 4. | NOISE-R10.2X – Appropriate controls for unplanned engine testing |
| | <p><i>Matters of Agreement</i></p> <p>a) Mr Peakall and Dr Chiles generally agree that rare, essential unplanned engine testing could be exempted from noise control with the use of Rule R10 Clause 2X.</p> <p>b) However Dr Chiles considers this is only the case if the exemption applies during daytime hours only, and that the exemption also only applies to a limited range of more significant “scheduled passenger services”.</p> <p>c) Mr Peakall agrees that the exemption is only intended to apply during daytime hours.</p> <p>d) Mr Peakall considers that it is not necessary to add further definition of what constitutes scheduled passenger services. However he considers that if deemed appropriate by the Panel, then the exemption could be further defined as “scheduled passenger services that are regular passenger transport services to and from other regions of New Zealand. For the avoidance of doubt the exemption does not apply to fixed wing aircraft with fewer than 8 passenger seats or helicopters”.</p> <p>e) Dr Chiles agrees that the wording proposed by Mr Peakall would appropriately limit potential application of the exemption to rare occasions.</p> <p>f) Should the panel agree, the clarifications discussed above could be reflected in the version of NOISE-R10.2X/2Y appended to the Section 42A report with additional words along the following lines. This suggested wording includes clarification/amalgamation of the application of 2X and 2Y.</p> <p><i>2X/2Y. Noise from aircraft engine testing is exempt from NOISE-R10.1 above, and:</i></p> <p>a) <i>Is not subject to a noise limit if it is essential unplanned testing occurring between 07:00am and 10:00pm, for regular scheduled passenger services to and from other regions with fixed wing aircraft with at least 8 passenger seats; and</i></p> <p>b) <i>For all other cases shall comply with the noise limits set out in NOISE-RX.</i></p> |
| | <p><i>Matters of Disagreement</i></p> <p>e) none</p> |
| 5. | <p><i>Potential Scope Issues Noted.</i></p> <p>NOISE-RX – increasing the noise limit from the notified rules by 10 dB in the 7pm to 10pm period</p> |
| | <p><i>Matters of Agreement</i></p> <p>a) No technical discussion was conducted in relation to this point. Mr Peakall observed that in his opinion scope to increase the noise limits was provided for in several submissions received.</p> |
| | <p><i>Matters of Disagreement</i></p> <p>b) not applicable</p> |

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| 6. | <p>Potential Scope Issues Noted.</p> <p>NOISE-R10.2X – exempting some engine testing from any noise controls where they were subject to noise limits in the notified rules.</p> |
| | <p>Matters of Agreement</p> <p>a) No technical discussion was conducted in relation to this point. Mr Peakall observed that in his opinion scope to refine the engine testing noise limits was provided for in submissions received.</p> |
| | <p>Matters of Disagreement</p> <p>b) not applicable</p> |
| X. | <p>Any other Outstanding Items</p> |
| | <p>Matters of Agreement</p> <p>a) not applicable</p> |
| | <p>Matters of Disagreement</p> <p>a) not applicable</p> |

Table 3 Submitter: New Zealand Transport Agency (NZTA),

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| 1. | NOISE-R3.1.b.ii – Inclusion of a 3 dB allowance in predictions/measurements |
| | <p><i>Matters of Agreement</i></p> <p>a) Mr Peakall and Dr Chiles are in general agreement about the intent of Rule NOISE-R3, and the methods adopted within it, and agree in principle about how the rule should work.</p> <p>b) Dr Chiles considers that some slight rule amendments are necessary.</p> <p>c) To represent an area potentially exposed to road-traffic noise of 57 dB $L_{Aeq(24h)}$ or above, the Road Noise Overlay proposed by NZTA is based on a modelled contour of 54 dB $L_{Aeq(24h)}$ hence providing an allowance of 3 dB for uncertainty in the computer modelling. We agree this is appropriate to ensure the spatial extent of the overlay covers most areas that might be exposed above 57 dB $L_{Aeq(24h)}$ in reality. For plan users, these origins of the overlay would not be relevant, and once operative, the overlay will simply define whether NOISE-R3 applies or not, depending on whether a building is inside or outside the overlay. No decibel value is attached to the overlay in the use of the plan.</p> <p>d) When a new or altered building is inside the overlay and NOISE-R3 applies, a site specific assessment would be undertaken with measurement or prediction of existing road-traffic noise at the building. We agree that these measurements or predictions are also subject to uncertainty and it is appropriate to require an allowance to be made for that uncertainty. This would be consistent with the allowance for uncertainty used when generating the overlay, but would be applying to a new measurement or prediction, so would not be additive with or duplicate the uncertainty previously applied when generating the overlay.</p> <p>e) We agree that an appropriate tolerance relates primarily to inherent measurement and prediction accuracy, with future traffic growth being a lesser component. We agree the notified text was not sufficiently clear on this matter.</p> <p>f) We agree that NOISE-R3.1 should include a clause requiring an allowance for both some uncertainty in road noise measurements/predictions and to accommodate some future growth as follows: <i>“Compliance with (xxx) above must be achieved based on existing measured or predicted external road-traffic noise levels with the addition of 3 dB.”</i></p> <p>g) Based on the above explanation, Mr Peakall now also considers that a suitable outcome can be achieved by adding this text in place of the deleted Rule R3 Clause 1 b ii.</p> |
| | <p><i>Matters of Disagreement</i></p> <p>i) none</p> |

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| 2. | NOISE-R3.1.f.v – Measurement position for ventilation noise |
| | <p><i>Matters of Agreement</i></p> <p>a) Mr Peakall and Dr Chiles agree that a location at which noise compliance measurement occurs needs to be defined, and that this is inherently linked to where people are exposed to ventilation system noise.</p> <p>b) Mr Peakall considers that using a standard distance of 1m may lead to some situations where compliance is required at locations where there is no relevant noise exposure for people and is overly stringent. Dr Chiles generally agrees with this.</p> <p>c) We agree that to address this concern the rule could be adjusted to read:</p> <p><i>“v. Does not generate more than 35 dB L_{Aeq}(30s) when measured at any point where a person associated with a sensitive activity could be located, and no less than 1m away from any grille or diffuser”</i></p> |
| | <p><i>Matters of Disagreement</i></p> <p>f) none</p> |
| X. | Any other Outstanding Items |
| | <p><i>Matters of Agreement</i></p> <p>a) none</p> |
| | <p><i>Matters of Disagreement</i></p> <p>b) none</p> |


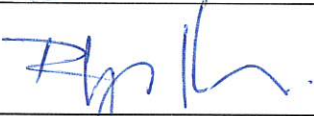

Table 4– Submitter: KiwiRail

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| 1. | Definition of habitable space / sensitive activities and how these would capture the full suite of activities which are sensitive to noise |
| | <p><i>Matters of Agreement</i></p> <p>a) Mr Peakall and Dr Chiles agree that all sensitive activities do need to be covered but generally speaking the definition of sensitive activity is also inherently a matter for planning experts.</p> |
| | <p><i>Matters of Disagreement</i></p> <p>b) none</p> |
| 2. | 1m measurement of noise from ventilation units |
| | <p><i>Matters of Agreement</i></p> <p>a) Mr Peakall and Dr Chiles have set out their respective positions regarding this in Table 3, item 2 as above.</p> |
| | <p><i>Matters of Disagreement</i></p> <p>b) not applicable</p> |
| 3. | Use of the Rail Noise Overlay, and/or Alert Overlay in lieu of a 100m setback, and whether that should apply at the Designation Boundary or the track edge |
| | <p><i>Matters of Agreement</i></p> <p>a) Mr Peakall and Dr Chiles agree that the use of Rail Noise Overlays are acceptable in principle. We further agree that any noise effect occurs relative to the track (i.e. noise source). We acknowledge that tracks could be moved within the Designation.</p> <p>b) We agree that the noise rules should refer to the track when defining the noise source level assumption.</p> <p>c) We agree the use of an 'Alert Overlay' for the Hokitika line is appropriate, because it is understood it is likely to carry minimal traffic in the foreseeable future.</p> |

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| | Matters of Disagreement b) none |
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| X. | Any other Outstanding Items |
| | Matters of Agreement a) |
| | Matters of Disagreement b) |

Signed: 4 October 2024

| Witness | Signature | Date |
|--------------------|---|----------------|
| Mr Stephen Peakall |  | 4 October 2024 |
| Mr Rhys Hegley |  | 4 October 2024 |
| Dr Stephen Chiles |  | 4 October 2024 |