

BEFORE THE INDEPENDENT COMMISSIONERS

IN THE MATTER

of the Resource Management Act 1991
("RMA")

AND

IN THE MATTER

of a submission by KiwiRail Holdings
Limited ("**KiwiRail**") (submitter 187) on
Hearing F (Other District-wide Matters,
Hazards & Risks (Natural Hazards
only)) of the Timaru Proposed District
Plan ("**Proposed Plan**")

**STATEMENT OF EVIDENCE OF MICHELLE GRINLINTON-HANCOCK
ON BEHALF OF KIWIRAIL HOLDINGS LIMITED**

CORPORATE

1. INTRODUCTION

- 1.1 My name is Michelle Grinlinton-Hancock and I am the Manager of the RMA Team for KiwiRail. My qualifications and experience are set out in my earlier evidence for Hearing B1 (Rural Zones) and Hearing B2 (Urban Zones) of the Proposed Plan.¹
- 1.2 My evidence for Hearing B sets out KiwiRail's operations nationally, and activities within the Timaru district.² The designated rail corridor of the Main South Line ("**MSL**") passes through the district and is a key part of the national rail network. KiwiRail seeks to protect its ability to operate, maintain and upgrade the MSL now and into the future.
- 1.3 This statement has been prepared on behalf of KiwiRail and relates to the matters contained in the Noise chapter of the Proposed Plan, which KiwiRail submitted on. My evidence will outline the need for rail noise controls and a

¹ Evidence of Michelle Grinlinton-Hancock dated 5 July 2024 at [1.1] – [1.4].

² Evidence of Michelle Grinlinton-Hancock dated 5 July 2024 at [3.1] – [3.3].

vibration alert layer in the Proposed Plan and will address relevant aspects of the Section 42A report.

- 1.4 KiwiRail also submitted on the Signs, Earthworks, Temporary Activities, Natural Hazards, and Coastal Environment chapters of the Proposed Plan which are being addressed as part of Hearing F. Most of KiwiRail's submission points on those chapters have been wholly or partly accepted by the Reporting Officers. The submission points which have been partly accepted or rejected are addressed in Ms Heppelthwaite's evidence.³

2. MANAGING URBAN DEVELOPMENT NEAR THE RAIL CORRIDOR

- 2.1 Trains are large, travel at speed, and within the Timaru district most of the services are powered by diesel locomotives (except for some of the charter trains which use steam). These operations generate noise and vibration. I understand from Dr Chiles' evidence that diesel trains generate noise approximately 3.8m above track (at engine exhaust levels).⁴ I understand vibration is caused by the movements of all trains across the tracks and differs depending on a combination of track and ground conditions.⁵
- 2.2 KiwiRail is a responsible infrastructure operator and has an ongoing programme of upgrade and maintenance work to improve track conditions over time, which helps to minimise potential rail noise and vibration. However, as outlined in Dr Chiles' evidence, residual noise and vibration effects cannot be entirely internalised within the rail corridor and have the potential to cause ongoing disturbance and adverse health effects to communities surrounding the rail corridor.⁶
- 2.3 KiwiRail is supportive of urban development. However, it is critical that the Proposed Plan appropriately addresses these issues so that health and wellbeing impacts on neighbouring communities are minimised, and the ongoing operation and efficiency of the rail network is provided for now and in the future. Planning controls on adjacent land users are an appropriate tool to manage adverse effects of rail activities.
- 2.4 As well as ensuring the health and wellbeing of communities, KiwiRail is also concerned about the potential for reverse sensitivity effects to arise from new or intensified sensitive activities (eg dwellings) developing near the rail

³ Evidence of Catherine Heppelthwaite dated 9 April 2025 at [5.0] and [6.0].

⁴ Evidence of Dr Stephen Chiles dated 9 April 2025, Appendix A.

⁵ Evidence of Dr Stephen Chiles dated 9 April 2025 at [5.2] and Appendix A.

⁶ Evidence of Dr Stephen Chiles dated 9 April 2025 at [5.2] – [5.3].

corridor. Reverse sensitivity is a well-recognised resource management concept which refers to the impact that locating new, sensitive activities adjacent to existing lawfully established effects-generating activities has on the ongoing operation of those existing activities. New developments, or redevelopment of existing sensitive uses, can result in greater numbers of individuals being subject to adverse noise and vibration effects. This can result in increased complaints and potential operational constraints on the rail network (such as limitations on operating hours), which in turn constrains the ongoing operation and future development of the rail corridor.

2.5 To address these effects, KiwiRail sought the following relief in its submission on the Proposed Plan:

- (a) the retention of NOISE-O2 relating to reverse sensitivity;⁷
- (b) amendments to the definition of "noise sensitive activity";⁸
- (c) the application of controls requiring acoustic insulation and ventilation to be installed in new or altered buildings containing sensitive uses within 100m of the rail corridor (rather than 40m in the notified version of NOISE-R9);
- (d) an amendment to permitted activity standard (1) in NOISE-R9 to include alterations to existing buildings;⁹
- (e) amendments to NOISE-S3 to require habitable rooms to be designed and constructed to achieve indoor noise levels not exceeding 35 dB LAeq(1h), or otherwise meet minimum construction requirements;¹⁰
- (f) alternative matters of discretion in NOISE-S4 where there is non-compliance with the acoustic insulation standards;¹¹
- (g) an amendment to NOISE-S4 to ensure ventilation systems provide controllable cooling and heating to maintain appropriate room temperatures;¹² and

⁷ The Reporting Officer recommends amending NOISE-O2 as follows: "*The Airport, Raceway, State Highway, railway lines and the Port and existing and anticipated activities located within commercial, mixed use and Industrial zones are not constrained by reverse sensitivity effects arising from noise sensitive activities.*" KiwiRail accepts this recommendation and will not pursue this relief further.

⁸ This relief is addressed in the evidence of Ms Heppelthwaite.

⁹ This relief is addressed in the evidence of Dr Chiles.

¹⁰ This relief is addressed in the evidence of Dr Chiles.

¹¹ This relief is addressed in the evidence of Ms Heppelthwaite.

¹² This relief is addressed in the evidence of Dr Chiles.

- (h) the inclusion of controls requiring new or altered buildings containing sensitive uses within 60m of the rail corridor to be constructed to manage the impacts of vibration (new NOISE-S7 and permitted activity standard (3) of NOISE-R9).¹³

2.6 The specific amendments sought by KiwiRail to the Proposed Plan are addressed in Ms Heppelthwaite's evidence and her recommended amendments to the provisions are set out in **Attachment A** to her evidence. I set out below the reasons why KiwiRail considers rail noise controls and a vibration alert layer are necessary.

3. PLANNING PROVISIONS TO MANAGE NOISE AND VIBRATION

Noise

3.1 KiwiRail acknowledges the Proposed Plan goes some way towards addressing potential rail noise effects by applying controls to 40m from the rail corridor in the notified version of NOISE-R9. However, KiwiRail considers these provisions should be strengthened to provide an appropriate level of protection for the rail network and the communities who live and work near it.

3.2 KiwiRail seeks that the acoustic insulation and ventilation requirements in NOISE-R9 (and associated standards in NOISE-S3 and NOISE-S4) extend to 100m from the rail corridor. Applying controls over this distance is supported by Dr Chiles' evidence which demonstrates that adverse noise effects are experienced 100m from the rail corridor.¹⁴ As Dr Chiles explains, the 100m distance reflects a reasonable compromise to capture the most affected sites without requiring assessment where building treatment is less likely to be required.¹⁵

Vibration

3.3 Dr Chiles' evidence demonstrates that rail vibration has a very real effect on neighbours (with the potential to result in reverse sensitivity effects on KiwiRail) that requires mitigation.¹⁶ He considers that vibration effects are experienced

¹³ KiwiRail no longer seeks the inclusion of new NOISE-S7 and permitted activity standard (3) of NOISE-R9 in the Proposed Plan. Instead, KiwiRail seeks the inclusion of a rail vibration alert layer for the reasons set out in my evidence below.

¹⁴ Evidence of Dr Stephen Chiles dated 9 April 2025 at [6.1] and Appendix A.

¹⁵ Evidence of Dr Stephen Chiles dated 9 April 2025 at [6.2].

¹⁶ Evidence of Dr Stephen Chiles dated 9 April 2025 at [4.1].

more than 100m from the rail corridor, but that a control to 60m would manage the worst of vibration effects.¹⁷

- 3.4 Dr Chiles' evidence is that vibration controls are appropriate to mitigate effects.¹⁸ Ms Heppelthwaite also supports vibration controls.¹⁹ However, KiwiRail has revised its position on vibration since lodging its submission in December 2022. It now seeks the inclusion of a rail vibration "alert overlay" in the Proposed Plan on a pragmatic basis, consistent with its approach in other parts of New Zealand. This layer would apply to all properties located within 60m of the rail corridor, but would be for information purposes only (ie there are no land use controls or district plan provisions applying within the area).
- 3.5 A vibration alert layer is an information layer to signal to property owners that higher levels of vibration may be experienced in the area due to its proximity to the rail corridor. Although there are no rules or other provisions associated with the alert layer, these layers still provide some management of vibration effects, as landowners (particularly for sensitive activities) may be prompted when building new dwellings to consider incorporating vibration attenuation measures of their own accord or to locate new buildings outside the alert layer.
- 3.6 While each plan needs to be considered in light of the particular context, a vibration alert layer has recently been included in the Waikato District Plan, Whangārei District Plan and in the Precinct provisions relating to the Drury area in the Auckland Unitary Plan.

4. RESPONSE TO SECTION 42A REPORT

NOISE-R9

- 4.1 The Reporting Officer (Ms White) relies on Mr Hunt's views in making a recommendation to reject KiwiRail's submission seeking to extend the noise controls from 40m to 100m.²⁰ Dr Chiles addresses the technical aspects of Mr Hunt's advice to retain NOISE-R9 as notified.
- 4.2 One of the reasons provided by Ms White and Mr Hunt for rejecting this relief is their view that the MSL "is not a busy line with few movements per day".²¹

¹⁷ Evidence of Dr Stephen Chiles dated 9 April 2025 at [6.7] – [6.8].

¹⁸ Evidence of Dr Stephen Chiles dated 9 April 2025 at [6.9].

¹⁹ Evidence of Catherine Heppelthwaite dated 9 April 2025 at [7.8].

²⁰ Section 42A Report: Light and Noise prepared by Liz White dated 26 March 2025 at [8.13.17].

²¹ Section 42A Report: Light and Noise prepared by Liz White dated 26 March 2025 at [8.13.17]; *Proposed District Plan Noise Chapter – Response to Technical Noise Issues Raised* prepared by Malcolm Hunt Associates dated 24 March 2025, page 6.

- 4.3 The number of train movements on this line is not low. The MSL is used multiple times a day, seven days per week, with a greater volume of traffic on weekdays. The following numbers of scheduled freight trains currently pass through the Timaru district when travelling between Christchurch and Dunedin:
- (a) 7 daily trains on Monday;²²
 - (b) 8 daily trains between Tuesday to Friday;²³
 - (c) 1 daily train on Saturday; and
 - (d) 2 daily trains on Sunday.²⁴
- 4.4 In terms of train movements within the Timaru district:
- (a) 6 daily freight trains run between Timaru and Washdyke between Monday to Friday; and
 - (b) 2 daily freight trains run between Timaru Port and Pareroa between Monday to Friday.
- 4.5 I understand that a significant proportion of these freight trains run through the Timaru district in the evening and during nighttime. In addition to these scheduled services, the MSL is frequently used for local shunts, work trains, testing new units, survey trains, and charter trains.
- 4.6 As illustrated by these current traffic volumes, the MSL is a busy line, and it has the potential to get busier over the life of the Proposed Plan as demand for rail grows. It is important that we are proactively planning for the future by including planning provisions that take into account the current and future operations on the rail network. This is necessary to ensure the ongoing operation and future development of the rail corridor and protect the communities living near it.
- 4.7 Given these volumes, and based on the evidence of Dr Chiles, I do not agree with Ms White's and Mr Hunt's views that the number of daily rail movements through the Timaru district do not justify extending the application of NOISE-R9 from 40m to 100m from the rail corridor.

²² Of these services, 2 daily freight trains travel between Christchurch and Timaru only, and 1 daily freight train carries on from Dunedin to Invercargill.

²³ Of these services, 2 daily freight trains travel between Christchurch and Timaru only, and 1 daily freight train carries on from Dunedin to Invercargill.

²⁴ Of these services, 1 daily freight train carries on from Dunedin to Invercargill. That service is scheduled to accommodate speed restricted wagons.

Matters of discretion in NOISE-S4

- 4.8 Ms White continues to prefer the notified matters of discretion in NOISE-S4 on the basis that they "provide greater detail to assist an applicant and processing planner in what matters are to be considered" where acoustic insulation requirements are not complied with.²⁵ Ms White therefore recommends rejecting KiwiRail's submission.²⁶
- 4.9 KiwiRail maintains its position in its submission and seeks the inclusion of alternative matters of discretion in NOISE-S4.²⁷ In particular, "The outcome of any consultation with KiwiRail" is an important matter of discretion to ensure that KiwiRail's views are sought on any application to infringe this noise standard. Further, Ms Heppelthwaite's evidence is that retaining the notified matters of discretion is likely to add ambiguity to the standard, rather than aiding the assessment of applications where the standard is infringed.²⁸

Vibration

- 4.10 Ms White relies on Hunt's advice that the application of the vibration controls sought in KiwiRail's submission is likely to have significant costs and could result in land adjoining the rail corridor being too costly to develop (and therefore recommends rejecting that relief).²⁹ As I have noted above, KiwiRail now seeks the inclusion of a vibration alert layer in lieu of controls, in recognition of the practicalities and costs associated with implementing vibration attenuation.
- 4.11 The *Standard Railway Noise and Vibration Reverse Sensitivity Provisions and Section 32 Report* prepared by Taylor Planning (included as **Attachment B** to Ms Heppelthwaite's evidence) confirms the benefits of this alert layer, in that it enables behaviour change and appropriate notice to landowners while avoiding uncertain costs of vibration controls.

²⁵ The notified matters of discretion in NOISE-S4 include: "1. effects on the ability of existing or permitted activities to operate or establish without undue constraint; and 2. any legal instrument proposed; and 3. mitigation of noise achieved through other means; and 4. the amenity of present and future residents of the site.

²⁶ Section 42A Report: Light and Noise prepared by Liz White dated 26 March 2025 at [8.16.11].

²⁷ The alternative matters of discretion sought in KiwiRail's submission include: 1. Whether the activity sensitive to noise could be located further from the railway network. 2. The extent to which the noise criteria are achieved and the effects of any non-compliance. 3. The character of, and degree of, amenity provided by the existing environment and proposed activity. 4. The outcome of any consultation with KiwiRail.

²⁸ Evidence of Catherine Heppelthwaite dated 9 April 2025 at [7.15].

²⁹ Section 42A Report: Light and Noise prepared by Liz White dated 26 March 2025 at [8.15.4].

- 4.12 Mr Hunt raises a number of technical points with the vibration controls sought in KiwiRail's submission, which are addressed in Dr Chiles' evidence.³⁰ Dr Chiles has also provided evidence on the adverse effects of rail vibration on sensitive activities in the Timaru district (which Mr Hunt suggested KiwiRail had not provided with its submission),³¹ which supports the need for a vibration alert layer in the Proposed Plan.

5. CONCLUSION

- 5.1 For the reasons set out in the evidence of Dr Chiles, Ms Heppelthwaite and above, the amendments to the noise and vibration provisions sought by KiwiRail are appropriate and necessary for the ongoing safe and efficient operation of the rail network in the Timaru district.

Michelle Grinlinton-Hancock

9 April 2025

³⁰ *Proposed District Plan Noise Chapter – Response to Technical Noise Issues Raised* prepared by Malcolm Hunt Associates dated 24 March 2025, page 12.

³¹ *Proposed District Plan Noise Chapter – Response to Technical Noise Issues Raised* prepared by Malcolm Hunt Associates dated 24 March 2025, page 12.