

BEFORE THE SOUTH WAIKATO DISTRICT COUNCIL

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of proposed Plan Change 1 ("**Plan Change**") to the South Waikato District Plan ("**Plan**")

**Evidence of Sheena McGuire, Access Provision Advisor
Submitter: KiwiRail Holdings Limited**

1. INTRODUCTION

- 1.1 My name is Sheena McGuire and I am the Access Provision Advisor for KiwiRail Holdings Limited ("**KiwiRail**"). I have over eight years Resource Management Act ("**RMA**") and planning experience.
- 1.2 This statement has been prepared on behalf of KiwiRail in connection with its function as a transport network utility operator in the South Waikato District and relates to the matters raised in the Plan Change.

2. KIWIRAIL IN THE SOUTH WAIKATO DISTRICT

- 2.1 KiwiRail is the State-Owned Enterprise responsible for the management and operation of the national railway. KiwiRail's activities include managing railway infrastructure and land, as well as rail freight and passenger services within New Zealand. KiwiRail is also the Requiring Authority for land designated for "Railway Purposes" (or similar) in District Plans throughout New Zealand. As a requiring authority with a broad discretion to designate land for rail purposes, KiwiRail places great importance on the role of its designations within the operation of its core business, which is the use of rail for freight and passenger services.

- 2.2 KiwiRail's Kinleith Branch Line and the Rotorua Branch Line pass through the South Waikato District and these lines are designated in the South Waikato District Plan. While the Rotorua Branch is currently not operational, the Kinleith Branch has regular train movements along it and therefore the rail network through South Waikato is of regional and national importance, supporting the movement of freight through the country via rail.

3. KIWI RAIL'S SUBMISSION ON THE PLAN CHANGES

- 3.1 KiwiRail's submission raises a number of issues that arise from the drafting of the proposed Plan Change as notified.

Points of agreement

- 3.2 KiwiRail accepts the reporting planner's recommendations in the section 42A report in relation to the majority of its submission points, irrespective of whether the recommendation is to accept or reject the submission point. The submission points which the reporting planner has accepted are not discussed further in this evidence, other than being noted where they support related submissions. In respect of the submissions that the reporting planner has recommended be rejected, KiwiRail agrees with those recommendations and has provided further explanation in response to questions and comments in the section 42A report, in the following sections.

Level Crossing Safety Impact Assessment (LCSIA)

- 3.3 KiwiRail sought a LCSIA to be prepared to ensure that as a result of the Plan Change, site access and transport flows over the Main Street crossing are acceptable or whether mitigation or upgrade works are required (submission point 4.1). Council commissioned the assessment and KiwiRail note that minor works have been recommended by Alisdair McGeachie, Stantec Consultants to improve the safety of the level crossing and pedestrian crossings. KiwiRail are satisfied that the recommended works are minor, and the existing level and pedestrian crossings can accommodate the growth envisaged by the Plan Change to achieve safe outcomes for the Putaruru community. KiwiRail request that Council include the recommended improvements in Council's programme of works.

Reverse sensitivity buffer line on Planning Maps

- 3.4 KiwiRail sought amendment to Reason 4.5, Rule 8.3.4(u)(iv) and Planning maps 18, 20, 21 and 22 (submission points 4.2, 4.4, 4.6 and 4.7). The intent behind these amendments was to address potential reverse sensitivity effects arising from sensitive land uses being located adjacent to an established rail line. As the Plan Change did not previously acknowledge or seek to mitigate reverse sensitivity effects on the rail corridor, one option identified by KiwiRail was to extend the reverse sensitivity buffer lines on the Planning Maps.

3.5 KiwiRail accept that, subject to confirmation of building setback and noise and vibration standards, reverse sensitivity effects on the rail corridor can be appropriately mitigated by other District Plan provisions.

3.6 The requested amendment to Reason 4.5 wording to replace 'adjoining sites' with 'adjacent sites' was to ensure that any reverse mitigation measures effects from future occupants in Growth Cell 1 also applied to the rail corridor which does not immediately adjoin the growth cell. The use of the term 'adjacent' was proposed as KiwiRail believe this would ensure that the rail corridor on the other side of State Highway 1 would be considered in the assessment of reverse sensitivity effects.

Building setback policy framework

3.7 KiwiRail sought the inclusion of a suite of provisions requiring a building setback from the rail corridor for future development in Growth Cell 4, including a specific policy framework to support assessment of consent applications breaching the proposed permitted standard. KiwiRail accept the section 42A report assessment that the operative District Plan already provides appropriate policy framework for the matters of discretion and building setback rule sought in submissions 4.10 and 4.11.

Points of difference

3.8 KiwiRail sought the inclusion of permitted activity performance standards in Chapter 15 for new or altered buildings containing noise sensitive activities within a 100m buffer area of the rail corridor. The section 42A report recommends accepting KiwiRail's submission in part, subject to resolution of matters raised Council's acoustic advisor, Mr Ellerton.

3.9 The outstanding matters and points of difference are discussed in the following sections.

4. RAIL NOISE AND VIBRATION

Overview of issue

4.1 KiwiRail seeks to ensure that future development in Growth Cell 1 and Growth Cell 4 does not adversely affect the operation of its rail corridor, as an important physical resource and strategic transport infrastructure. A particular concern for KiwiRail is that the location of sensitive land uses (e.g. dwellings) near the rail corridor will have potential reverse sensitivity effects on KiwiRail's activities. As part of its operations, KiwiRail requires the ability to operate trains as required to meet demand. This can also result in upgrades to the network that can provide passing opportunities for trains, or other associated rail improvements.

- 4.2 Trains are large, travel at speed, and are, in the main, powered by diesel locomotives. As such, they create noise and vibration effects in and around the rail corridor. These effects can lead to reverse sensitivity effects on KiwiRail if nearby sensitive uses are not appropriately managed. While the level of noise and vibration from trains does not typically change, with new development adjacent to the rail corridor, the public expectation can be that effects are the responsibility of KiwiRail to mitigate.
- 4.3 KiwiRail understands our duties under the RMA to use the best practicable option to ensure that noise and vibration from its activities does not exceed a reasonable level, and to avoid, remedy, or mitigate adverse effects on the environment. While KiwiRail continues to act responsibly and undertake necessary tasks in an attempt to mitigate effects on adjacent landowners (e.g. through repair and maintenance of track and associated structures), it is critical that plan provisions recognise, provide for and appropriately address these reverse sensitivity issues.
- 4.4 **Response to Section 42A Report**
- Network maintenance**
- 4.5 The section 42A report contains the view that the responsibility of a new sensitive receiver must be balanced with the noise and vibration generator in mitigating potential noise and vibration effects. This view is shared by Mr Ellerton in that the balance is a two-way proposition rather than being solely the responsibility of one party.
- 4.6 KiwiRail expends considerable time and cost in keeping its track and infrastructure in appropriate condition to mitigate noise and vibration emissions and fulfil its duties under Section 16 and 17 of the RMA. I refer to Dr Stephen Chiles' letter which is appended to this statement of evidence and the paragraph titled 'Network Movement' which also addresses this issue.
- 4.7 KiwiRail acknowledges that developing and intensifying land near transport corridors is good planning practice and initiatives to create sustainable and liveable urban development in accordance with national policy documents is fully supported. However, this can bring new occupants (or existing occupants) closer to existing noise and vibration effects areas. I believe that it is appropriate that the weight of responsibility to address the effects of incompatible activities locating near lawfully established infrastructure must lie with the new development, which is coming to the source and exacerbating these effects. Existing railway corridors represent a significant social and economic investment in a region or district and are not easily relocated.

Noise

- 4.8 The section 42A report and Mr Ellerton conclude that requested standard 1(b) related to installing a noise barrier on the receiver's property should be deleted from the performance standards as blocking line of sight from building openings 3.8m above rail tracks is impractical and would detract from amenity.
- 4.9 The inclusion of compliance pathways to mitigate noise impacts, including building setbacks and noise barriers, is intended to assist developers and the Council in achieving compliance without requiring expert noise input into design. The standards seek to provide options for developers to protect future noise sensitive activities from noise associated with the rail corridor. In some instances, the track level and adjoining site ground level is different due to the topography of land and the 3.8m height may be a viable option to appropriately mitigate noise effects from the corridor.
- 4.10 Notwithstanding the above, KiwiRail accept that parts 1(a) and 1(b) of the performance standards sought in submission point 4.5 both serve to provide a level of mitigation that is acceptable to KiwiRail and 1(a) alone can be supported. I refer to the paragraph titled 'Compliance pathways' in Dr Chiles' letter which supports the reporting planner's recommendation.

Vibration

- 4.11 The section 42A report and Mr Ellerton recommend that the requested standard 3(a) is reworded to refer to the Norwegian Standard NS8176:2017. No objection is raised to this amendment as the amended wording is not considered to change the intent of the provision or how it is applied.
- 4.12 The section 42A report recommends the deletion of alternative compliance pathway 3(b) related to the size, floor slab, vibration isolation and connections between the building and the ground.
- 4.13 As outlined in paragraph 4.9 above, the inclusion of compliance pathways is intended to assist developers and the Council in achieving compliance without always requiring expert input into design. The standards seek to provide options for developers to protect future noise sensitive activities from vibration associated with the rail corridor. KiwiRail accept that parts 3(a) and 3(b) of the performance standards sought in submission point 4.5 both serve to provide a level of mitigation that is acceptable to KiwiRail, and 3(a) alone, as amended, can be supported. I refer to the paragraph titled 'Compliance pathways' in Dr Chiles' letter which supports the reporting planner's recommendation.

Design report

- 4.14 The section 42A report recommends minor alterations to the wording of performance standard 4 and 4(a) as requested by KiwiRail. The amended wording is supported.
- 4.15 Mr Ellerton and the reporting planner have recommended that new provisions 4(b), (c) and (d) are included in Chapter 15.
- 4.16 Following review of the section 42A report and rationale for a railway noise spectrum to be included, there is agreement that source noise levels should be specified. KiwiRail has engaged Dr Chiles to review and provide a representative spectrum to be included in provision 4(b). This spectrum is not yet available and is to be provided to Council and the Hearing Panel prior to the Hearing scheduled for 13 and 14 October 2020.
- 4.17 Mr Ellerton and the reporting planner have recommended the inclusion of performance standard 4(c). This is not considered appropriate as the representation of intermittent train noise is already accounted for in performance standard 4(b) as addressed by Dr Chiles under the heading 'Assumed source levels' in the appended letter. In my view provision 4(c) as recommended in the section 42A report should be deleted.
- 4.18 Standard 4(d) has been recommended by Mr Ellerton and supported by the reporting planner. The reason provided for the inclusion of this provision is *"the prediction of ground borne vibration is more complicated than for sound, and requires a case by case analysis, but it can be done."*

The ground borne vibration received at a dwelling can be predicted once the vibration level of the train, information about the intervening soil type, and the building foundation type is known."

- 4.19 I acknowledge that there are factors that contribute to ground borne vibration and the effects felt by adjacent properties, and it is difficult to apply a 'one size fits all' standard. However, in my opinion it is not reasonable or practical to require KiwiRail to undertake site specific assessments for all proposed adjacent developments, particularly recognising the rail corridor is a national asset extending over 4000km, for the following reasons and provision 4(d) as recommended in the section 42A report should be deleted:

- (a) KiwiRail undertake regular inspections, renewals and maintenance in managing noise and vibration emissions and take a proactive approach to surveying and maintaining the condition of the track. KiwiRail therefore actively and continuously work to reduce noise and vibration emissions.

- (b) KiwiRail have sought to provide developers and the Council options by way of compliance pathways to accommodate conditions and contexts of different sites adjacent to the rail corridor whilst achieving the same level of mitigation and amenity for future occupants.
- (c) Provision 3 and 3(a) as recommended in the section 42A report are considered to provide adequate assessment of vibration levels at the time of development design.

5. RELEVANT NATIONAL AND REGIONAL PLANNING PROVISIONS

Waikato Regional Policy Statement ("WRPS")

- 5.1 There is a statutory obligation for district plan changes to give effect to the relevant regional policy statement. As such, it is necessary to consider the provisions of the WRPS.
- 5.2 The WRPS seeks to protect regionally significant infrastructure by setting out issues of regional significance including management of the built environment. This issue is addressed by the following objective and policy:
 - (a) Objective 3.12 "Built environment" addresses the need to recognise and protect the value and long-term benefits of regionally significant infrastructure. Regionally significant infrastructure is defined as including (g) significant transport corridors including rail. In addition, Objective 3.12 addresses the need to minimise land use conflicts, including minimising potential for reverse sensitivity.
 - (b) WRPS Policy 6.1 lends further support to the need to minimise land use conflicts by requiring a planned and coordinated approach to subdivision, use and development of the built environment, including transport.
- 5.3 Objective 3.12 and Policy 6.1 acknowledge the place and function of rail within the Region as an integral part of the Region's transport infrastructure and place emphasis on the need to plan a coordinated approach to new development to minimise land use conflicts. In my view, this clearly supports a similar approach being adopted in the District Plan.

District Plan objectives and policies

- 5.4 In addition to the relevant provisions of the WRPS, the following objectives of the District Plan are relevant to KiwiRail's submission.

- 5.5 Networks that supply, distribute or transmit transportation are included in the definition of "Network Utilities and Infrastructure" and therefore are afforded protection from the adverse effects of development under Objective 7.2.3, which seeks *"To provide for the sustainable, secure and efficient use and development of infrastructure within the District, while seeking to avoid, remedy or mitigate adverse effects on the environment recognising the technical, locational and operational requirements and constraints of the infrastructure concerned"*.
- 5.6 Objective 7.2.5 also seeks *"To provide for the important industrial sites and infrastructure, including strategic transport networks, in the District and for Tokoroa Airport, and safeguard them from the reverse sensitivity effects of inappropriate subdivision, use and development."* Both objectives relate specifically to the WRPS.
- 5.7 In my view, objectives 7.2.3 and 7.2.5 clearly anticipate the need to address the noise and vibration, and associated reverse sensitivity effects from the rail corridor. The objectives also support the use of various management approaches to avoid or minimise potential adverse effects.

6. RMA – PART 2

- 6.1 Although reference to Part 2 is required in assessing the appropriateness of the Plan Change, this is required to a scale reflecting the detail and scale of the Plan Change. Therefore, for completeness, I consider that without the amendments sought by KiwiRail the recommendations in the section 42A report will result in an outcome that is inconsistent with the sustainable management purpose of the RMA, in particular in relation to amenity and public health, safety and wellbeing.

7. SUMMARY

- 7.1 I support the section 42A report recommendations in relation to each of the KiwiRail submission points listed at paragraph 3.2 to 3.6 above.
- 7.2 In relation to the submission points where the section 42A report recommendations are not accepted by KiwiRail, I request that the provisions of the Plan be amended as requested in paragraph 4.15 to 4.19 above to manage the noise and vibration effects associated with the use of the railway corridor;

Sheena McGuire

Access Provision Advisor

30 September 2020

APPENDIX A: DR STEPHEN CHILES ACOUSTICS COMMENTS

Chiles Ltd

28 September 2020

Ref: 130410

KiwiRail
Wellington Railway Station
Bunny Street
Wellington 6011

Attention: Sheena McGuire

Dear Sheena

Subject: South Waikato District Plan: Plan Change 1 – Acoustics comments

Introduction

KiwiRail Holdings Ltd (KiwiRail) made a submission on proposed Plan Change 1 (PC1) to the South Waikato District Plan. The submission sought for controls to be imposed on new noise and vibration sensitive activities, that would be enabled by PC1, near to the existing designated railway corridor. KiwiRail makes similar submissions on district plan changes and reviews throughout the country and equivalent controls are included in many district plans.

The Section 42A report by Mr McHardy recommends accepting this part of KiwiRail's submission in part, subject to resolution of various matters raised by the Council's acoustics advisor, Mr Ellerton.

This letter provides responses to key issues raised by Mr Ellerton and summarises outstanding matters. The author has had an initial conversation with Mr Ellerton about these matters and will continue to work with Mr Ellerton as required to progress the drafting of these rules. In terms of technical issues, there do not appear to be any fundamental differences of opinion and the residual issues primarily relate to the mechanics of implementation.

Network management

A question has been raised about how KiwiRail meets its obligations to maintain the rail tracks in the South Waikato District to an appropriate standard to manage noise and vibration emissions. KiwiRail has provided detailed maintenance logs and a summary showing the expenditure on the existing rail infrastructure in the district over the last seven years, including minor renewals, capital renewals, corrective maintenance, emergency maintenance, inspection and preventative maintenance. The annual total has ranged between \$1.3M and \$1.9M each year.

The regular inspections, renewals and maintenance will be contributing to the management of noise and vibration emissions. In particular, KiwiRail operates a specialised rail survey vehicle (EM80) that proactively identifies any sections of the track alignment that exceed specification. The maintenance logs show exceedances identified by routine EM80 surveys have been regularly addressed in the South Waikato District.

Compliance pathways

The submission by KiwiRail included internal noise and vibration limits as performance standards, and also included alternative compliance pathways. The alternative pathways were based on a line-of-sight requirement for noise and a building isolation requirement for vibration. These alternatives were included in the submission based on feedback during plan development in other districts, about the desire to provide options for people building houses.

Mr Ellerton has proposed omitting the alternative compliance pathways from PC1 and just specifying noise and vibration limits. This approach should adequately control noise and vibration effects.

Noise and vibration criteria

There appears to be full agreement on appropriate rail noise and vibration limits that should apply inside new buildings. Mr Ellerton has proposed adjusting one of the noise limits in the KiwiRail submission (35 dB for teaching areas, conference rooms, drama studios, sleeping areas), which is appropriate. Mr Ellerton has adjusted the way in which the vibration criterion is described, but it relates to exactly the same requirement, so should be acceptable.

Assumed source levels

The only residual matter relates to the assumed noise and vibration source levels. These are used by acoustics specialists implementing the rules as an input for a calculation to determine compliance with the noise and/or vibration limits inside specific buildings.

There is agreement that source noise levels should be specified. Mr Ellerton has sought for additional details to be added to the level specified in the KiwiRail submission. Mr Ellerton recommends inclusion of a frequency spectrum and it is agreed this could be a useful addition. Further work is needed to determine a representative spectrum, and this should be practical to add before the drafting is finalised. Mr Ellerton has also proposed specifying an 'on time' of 5 minutes per hour. The intent of that addition is to represent intermittent train noise. However, that intermittency is already accounted for in the one-hour average value proposed in the KiwiRail submission and therefore the addition is not appropriate.

There is agreement that external vibration levels cannot be specified without site specific assessment (including measurements), as vibration generation and propagation can vary substantially on a localised basis. Mr Ellerton has suggested this could be measured and assessed in this specific area by KiwiRail in advance of development; as opposed to the KiwiRail submission that puts the responsibility on the future developers of the land. While there is agreement on the technical requirements, there is not an agreed position as to who should make the vibration assessment.

Yours sincerely

Chiles Ltd



Dr Stephen Chiles

stephen@chiles.co.nz, 027 519 1555