# **Before the Hearings Commissioners**

Under the Resource Management Act 1991 (**RMA**)

In the matter of a submission by KiwiRail Holdings Limited (Submitter

30 and Further Submission FS 71) on Plan Change 92

(PC92)

and in the matter of Operative Western Bay of Plenty District Plan (**ODP**)

Primary statement of evidence of Catherine Lynda Heppelthwaite for KiwiRail Holdings Limited regarding Plan Change 92 on the Western Bay of Plenty District Plan

Dated 25 August 2023

### 1 INTRODUCTION, QUALIFICATIONS AND EXPERIENCE

- 1.0 My full name is Catherine Lynda Heppelthwaite. I am a Principal Planner for Eclipse Group Limited. I am presenting this planning evidence on behalf of KiwiRail Holdings Limited (KiwiRail).
- 1.1 I hold a Bachelor Degree in Resource Studies obtained from Lincoln University in 1993. I am a full member of the New Zealand Planning Institute and a member of the Resource Management Law Association and the Acoustical Society of New Zealand. I have more than 25 years' experience within the planning and resource management field which has included work for local authorities, central government agencies, private companies and private individuals. Currently, I am practicing as an independent consultant planner, and have done so for the past 18 years.
- 1.2 I have extensive experience with preparing submissions and assessing district plans provisions in relation to noise and vibration, most recently in relation to the New Plymouth, Porirua and Whangarei District Plans where I assisted Waka Kotahi by providing specialist planning evidence on similar issues (noise and vibration).

### 2 CODE OF CONDUCT

2.0 I have read the Environment Court's Code of Conduct for Expert Witnesses (2023) and I agree to comply with it. My qualifications as an expert are set out above. I confirm that the issues addressed in this brief of evidence are within my areas of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

### 3 SCOPE OF EVIDENCE

- 3.0 My evidence will address the following:
  - a. The statutory and higher order planning framework; and
  - b. KiwiRail's submissions and further submissions in relation to building setbacks and noise and vibration controls;
  - c. Council's s42A recommendations; and
  - d. Amendments required to the ODP.

- 3.1 In preparing my evidence, I have considered the:
  - a. Introductory Section 42A Report Plan Change 92 Ōmokoroa and Te Puke Enabling Housing Supply and Other Supporting Matters¹ (Section 42A Introduction Report).
  - Section 4C Amenity prepared by Ms Anna Price (Section 42A Amenity Report).
  - c. Section 14A Ōmokoroa And Te Puke Medium Density Residential Part 2
     Definitions, Activity Lists & Activity Performance Standards prepared by
     Mr Tony Clow (Section 42A MDR Part 2 Report).
  - d. Section 14A Ōmokoroa And Te Puke Medium Density Residential Part 3
     Matters Of Control And Matters Of Discretion prepared by Mr Jeff
     Hextell (Section 42A MDR Part 3 Report).

### 4 THE STATUTORY AND HIGHER ORDER PLANNING FRAMEWORK

- 4.0 In preparing this evidence I have specifically considered the following:
  - a. The purpose and principles of the RMA (sections 5-8);
  - b. Provisions of the RMA relevant to plan-making and consenting;
  - c. National Policy Statement on Urban Development 2020 (NPS-UD);
  - d. Bay of Plenty Regional Policy Statement (RPS) with specific reference to:
    - Issues: 2.3.3 Regionally significant energy and infrastructure issues
       1 Reverse sensitivity effects on infrastructure
       Inappropriate subdivision, use and development can result in reverse
       sensitivity effects on existing or planned infrastructure, as well as the
       maintenance and upgrade of infrastructure necessary to support the
       sustainable growth of the region. [page 38]
    - ii. Objective 6 [page 22]

      Provide for the social, economic, cultural and environmental benefits of, and the use and development of nationally and regionally significant infrastructure and renewable energy.
    - Policy EI 3B: Protecting nationally and regionally significant infrastructure [page 129]
       Protect the ability to develop, maintain, operate and upgrade existing, consented and designated nationally and regionally significant

<sup>&</sup>lt;sup>1</sup> Prepared conjointly by Mr Tony Clow along with co-authors Mr Taunu Manihera, Mr Jeff Hextell, Ms Anna Price and Ms Abi Mark and dated 11 August 2023.

infrastructure from incompatible subdivision, use or development. Ensure that where potentially incompatible subdivision, use or development is proposed near regionally significant infrastructure, it should be designed and located to avoid potential reverse sensitivity effects.

- iv. Explanation extract: Protecting regionally significant infrastructure does not mean that all land uses or activities under, over, or adjacent are prevented.
- v. Method 17: Identify and manage potential effects on infrastructure corridors [see page 176]
  In consultation with relevant infrastructure owners and operators, identify infrastructure corridors (including associated buffers where appropriate) and establish objectives, policies and methods to manage potential effects on the long term planning of the maintenance, operation and upgrade of their infrastructure, as well as to encourage its efficient use.

Implementation responsibility: Regional, city and district councils

- vi. Objective 7 [page 23]

  Provide for the appropriate management of:
  (a) any adverse environmental effects (including effects on existing lawfully established land uses) created by the development and use of infrastructure and associated resources;
  (b) any reverse sensitivity effects on established, consented or designated infrastructure.
- vii. Policy El 7B: Managing the effects of infrastructure development and use [page 130]

  Manage the development and use of infrastructure and associated resources so as to address actual or potential effects on existing lawfully established activities in the vicinity.
- viii. Explanation: The planning, development and operation of infrastructure and any associated resources need to be carefully managed to ensure that potential adverse effects (including reverse sensitivity effects) are appropriately avoided, remedied or mitigated
- ix. Method 3: Resource consents, notices of requirement and when changing, varying, reviewing or replacing plans Regional council, city and district councils see page 173]

  Policies [...], El 3B, [...], El 7B, [...] shall be given effect to when preparing, changing, varying or reviewing a regional plan or a district plan, and had regard to when considering a resource consent or notice of requirement. Implementation responsibility: Regional council, city and district councils.
- x. Method 17: Identify and manage potential effects on infrastructure corridors city and district councils see page 176] [see above]

- 4.1 **Proposed Change 6** to the RPS has been notified with hearings held in late June 2023. As decisions are yet to be released, limited weight should be given to PC6.
- 4.2 In addition, Council has described the relevant statutory documents in the Section 42A Introduction Report<sup>2</sup> with which I generally agree or accept and will not repeat here.
- 4.3 The Emissions Reduction Plan<sup>3</sup> is a matter to be had regard to by Council when preparing or changing its district plan. Of particular relevance within the Emissions Reduction Plan for rail is *Action 10.3.1: Support the decarbonisation of freight* which includes as a key initiative:
  - Continue to implement the New Zealand Rail Plan and support coastal shipping.
- 4.4 For completeness, the New Zealand Rail Plan (**NZRP**) lists as a strategic investment priority<sup>4</sup>:
  - Investing in the national rail network to restore rail freight and provide a platform for future investments for growth; and
- 4.5 While the Emissions Reduction Plan is to be had regard to, its support for the NZRP (among other things) illustrates a strategic forward plan to generally improve and increase train services over time. The designated corridor of the East Coast Main Trunk railway line passes through the Western Bay of Plenty District (including both the Ōmokoroa and Te Puke urban areas) and is a key part of the KiwiRail network nationally.

### 5 KIWIRAIL SUBMISSIONS AND FURTHER SUBMISSIONS

- 5.0 In summary, KiwiRail's primary submission seeks:
  - a. that rail be identified as a qualifying matter<sup>5</sup> pursuant to s77I(e) and s77O(e) of the RMA;

<sup>3</sup> RMA, section 74(2)(d).

<sup>&</sup>lt;sup>2</sup> Pages 9 to 17.

<sup>&</sup>lt;sup>4</sup> The New Zealand Rail Plan April 2021, Part B, pages 25 and 38 for key details.

<sup>&</sup>lt;sup>5</sup> Submission 30.1.

- a suite of provisions requiring acoustic insulation to be installed in new (or altered) sensitive uses within 100m of the railway corridor<sup>6</sup>;
- c. provisions requiring vibration controls for buildings containing new (or altered) sensitive uses within 60m of the railway corridor<sup>7</sup>;
- d. a new definition for "noise sensitive activity" to support the noise and vibration provisions;
- e. retention of 14A.4.1(d)(ii)(b) and 14A.4.1(d)(ii)(d) (relating to building setbacks)as notified<sup>9</sup>;
- f. inclusion of a new matter of discretion in 14A.7.4<sup>10</sup> addressing the location and design of the building or structure as it relates to the ability to safely use, access and maintain buildings without requiring access on, above or over the rail corridor; and
- g. all related and consequential amendments as required to achieve the relief sought above (not allocated a submission point number).
- 5.1 KiwiRail made further submissions in support of the Council's submissions seeking the inclusion of a definition of "qualifying matter" and retention of 14A2.1 Objective 1 and 14A Explanation as notified 12.
- 5.2 KiwiRail also made further submissions in support of Kāinga Ora's submissions<sup>13</sup> that sought to simplify and better integrate PC92 with the ODP, and to amend 14A2.1 Objective 8<sup>14</sup> and 14A2.2 Policy 17<sup>15</sup> to provide for better integration with surrounding land uses and higher density zoning in Te Puke. KiwiRail's support for these submissions was prefaced on it being consistent with its own primary relief. KiwiRail opposed Kāinga Ora's submission seeking the removal of the definition of "structure"<sup>16</sup> and to curtail Council's ability to determine full or limited as notification for infringements of

<sup>&</sup>lt;sup>6</sup> Submission 30.4.

<sup>&</sup>lt;sup>7</sup> Submission 30.5.

<sup>8</sup> Submission 30.6.

<sup>&</sup>lt;sup>9</sup> Submissions 30.1 and 30.2.

<sup>&</sup>lt;sup>10</sup> Submission 30.3.

<sup>&</sup>lt;sup>11</sup> FS71.1.

<sup>&</sup>lt;sup>12</sup> FS 7.13.

<sup>&</sup>lt;sup>13</sup> For example, FS71.3 and 71.4.

<sup>&</sup>lt;sup>14</sup> FS 71.6.

<sup>&</sup>lt;sup>15</sup> FS 71.7

<sup>&</sup>lt;sup>16</sup> FS71.8.

- a range of standard. It also opposed the New Zealand Housing Foundation submission seeking deletion of 14A.4.1(d) (building setbacks).
- 5.3 KiwiRail's further submissions have either been accepted, amendments made to provisions with which I am comfortable, or where rejected, I agree with the reasons. No further commentary is provided on the further submissions.

### **6 SECTION 42A ASSESSMENT**

- 6.0 The 42A Authors make the following recommendations:
  - a. Noise and vibration controls: Ms Price considers it is appropriate to give a level of protection to the rail corridor, but does not propose any changes to the ODP provisions regarding noise or the inclusion of vibration provisions.
  - b. **Qualifying matter:** Mr Clow<sup>17</sup> supports the Council's submission seeking the inclusion of a definition of qualifying matter. The proposed definition includes the railway corridor. I support the inclusion of the definition, subject to suggested changes detailed in Section 7 below.
  - c. **Building setbacks (14A.4.1(d)(ii)(b) and 14A.4.1(d)(ii)(d))**: Mr Clow<sup>18</sup> proposes to retain the 10m building setback as notified (supported by KiwiRail) to provide for building maintenance.
  - d. **Setback matter of discretion** (14A.7.4): Mr Hextell<sup>19</sup> does not consider a new matter of discretion is necessary in relation to building setbacks from the rail corridor.
- 6.1 I will address these matters further below.

### 7 QUALIFYING MATTERS

7.0 I support the retention of rail as a qualifying matter in relation to building setbacks for the reasons set out the s42A Report which states<sup>20</sup>:

Council's Section 32 Addendum Report identifies the rail corridor as an existing qualifying matter in the context of the 10m setback. This is

<sup>&</sup>lt;sup>17</sup> Section 42A - Section 14A -Omokoroa and Te Puke (Definitions, Activity Lists and Standards), prepared by Mr Clow, pages 6 and 7.

<sup>&</sup>lt;sup>18</sup> Section 42A MDR Part 2 Report, page 34.

<sup>&</sup>lt;sup>19</sup> Section 42A MDR Part 3 Report, page 27.

<sup>&</sup>lt;sup>20</sup> Section 42A MDR Part 2 Report, page 34.

deemed "a matter required for the purpose of the safe or efficient operation of nationally significant infrastructure" under Section 77I(e) of the RMA.

- 7.1 Mr Clow noted KiwiRail<sup>21</sup> (FS 71.1) support the definition and seek that it be accepted to the extent that it is consistent with the relief sought in their submission such as setbacks from the rail corridor and noise and vibration controls.
- 7.2 Noting KiwiRail supported the definition as notified, this support is limited to the extent it is consistent with its wider relief. The bracketed wording that is proposed to be included in the definition, is not, in my opinion, consistent with KiwiRail's wider relief. :

land within 10m of a railway corridor or designation for railway purposes (for sites created by way of an application for subdivision consent approved after 1 January 2010) (bold added)

7.3 In particular, the wording in brackets seems to mean that only sites that have been created by way of a subdivision consent after 1 January 2010 will be subject to the qualifying matter. The setback from the rail corridor is needed as a matter required for the purpose of the safe or efficient operation of nationally significant infrastructure. This applies to sites regardless of when they were created and this wording should be deleted. A consequential change deleting the bracketed wording is also required at 14C(d)(ii)(c)

### 8 BUILDING SETBACK

- 8.0 I rely on Mr Brown's evidence<sup>22</sup> which:
  - describes why a setback is necessary for maintaining buildings within the MDRZ;
  - describes the risk to persons both accessing the rail corridor to undertake adjoining property maintenance and rail corridor users (train operators and passengers); and

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<sup>&</sup>lt;sup>21</sup> FS71.1.

<sup>&</sup>lt;sup>22</sup> Evidence of Mr Michael Brown, 25 August 2023.

- c. confirms Mr Clow's view<sup>23</sup> that KiwiRail's submission on setbacks is not about managing noise and vibration but is instead to ensure that buildings and structures are able to be used and maintained without needing access on or over the rail corridor.
- 8.1 In addition to Mr Brown's evidence, it is not uncommon for district plans to include provisions which limit uses of land to protect the operation of infrastructure beyond the designation boundary and also to provide safe and healthy environments for people.
- 8.2 For example, Transpower has included in a range of district plans<sup>24</sup> a national grid corridor overlay which restricts activities within a specified spatial extent of its network (around both pylons and lines). Airports and ports are another common infrastructure type which restrict activities and / or require mitigation for certain activities on surrounding private land<sup>25</sup>.
- 8.3 For completeness, I have considered other methods (ie, no setback and extending existing designation widths) to provide for building maintenance and the safety of adjoining occupants. This is assessed in the format of Section 32AA and included as **Attachment B**. I conclude that a setback is the most efficient outcome as it retains land development potential (by way of resource consent) in the setback.

### 9 NOISE AND VIBRATION

- 9.0 Dr Chiles<sup>26</sup> has provided evidence which I accept and summarise the key findings as:
  - Research confirms that noise and vibration have adverse health and amenity effects on people<sup>27</sup>;
  - b. Based on his analysis, Dr Chiles concludes the appropriate provisions to manage noise and vibration effects apply from the edge of the rail designation boundary and are:
    - i. 100m for noise<sup>28</sup>; and

<sup>&</sup>lt;sup>23</sup> Section 42A MDR Part 2 Report, page 34.

<sup>&</sup>lt;sup>24</sup> For example, Chapter D26 of the Auckland Unitary Plan.

<sup>&</sup>lt;sup>25</sup> For example, Chapters D24 Aircraft Noise Overlay and D25 City Centre Port Noise Overlay of the Auckland Unitary Plan.

<sup>&</sup>lt;sup>26</sup> Statement of Dr Chiles, 25 August 2023.

<sup>&</sup>lt;sup>27</sup> Statement of Dr Chiles, Section 4.

<sup>&</sup>lt;sup>28</sup> Statement of Dr Chiles, paragraph 7.4 to 7.6.

- ii. 60m for vibration effects to manage health and amenity effects. The control (60m) is designed to capture the worst of those likely effects, not all effects. The 60m distance balances the variability of vibration effects and with Dr Chiles' preference for 100m control<sup>29</sup>.
- 9.1 Dr Chiles provides technical evidence which demonstrates health and amenity effects will occur as a result of noise and vibration from the rail corridor. The implementation of the MDRS and policies 3 and 4 of the NPS-UD will result in more people living near the rail corridor. As a consequence, the provisions sought by KiwiRail are, in my opinion, required to ensure intensification can occur in a way that appropriately manages the interface between the rail corridor and noise sensitive activities.
- I have considered other methods (including a limited noise control and no vibration control) to address heath, amenity and reverse sensitivity effects.
  This is assessed in the format of Section 32AA and included as Attachment
  I conclude that a 'permitted activity' setback for noise is the most efficient outcome to provide for health and amenity along with consequentially reducing potential reverse sensitivity effects.
- 9.3 For rail vibration, I accept Dr Chiles' assessment that vibration can have adverse health and amenity effects on people that requires avoidance, remediation or mitigation under the RMA. I also understand that the exact design requirements to ensure compliance with appropriate vibration levels depend significantly on site-specific factors, including ground condition / soil type, topography or other environmental features. As a result of this, the level of controls required and the associated cost of implementing such controls can therefore differ significantly on a site-to-site basis.
- 9.4 I have provided (in my **Attachment A**) provisions which reflect my preferred outcome (a 60m vibration control) but also a (less preferred) alternative of a "Rail vibration alert overlay" (**Alert Overlay**) (further described in Mr Brown's evidence)<sup>30</sup>. The Alert Overlay would be included within the District Plan maps (100m from the rail designation boundary) along with an explanation in the introduction to the Noise Chapter. Its purpose is to ensure landowners and occupiers are aware that vibration effects may be present in this location.

 $<sup>^{\</sup>rm 29}$  Statement of Dr Chiles, paragraph 7.9 to 7.13.

<sup>&</sup>lt;sup>30</sup> Evidence of Mr Brown, 25 August 2023, paragraph 6.17.

- 9.5 There are no rules or other provisions associated with the Alert Overlay. Landowners can then make their own design and location decisions should they wish to mitigate such effects. This enables behaviour change and appropriate warning to landowners.
- 9.6 Proposed changes to the plan provisions for noise and vibration are included as Attachment A.

#### **RESPONSE TO S42A REPORTS** 10

### **Noise and Vibration**

- 10.0 Ms Price has accepted that noise from rail lines should be managed<sup>31</sup> but raised the following concerns<sup>32</sup> with adopting the noise and vibration controls proposed by KiwiRail:
  - a. Lack of justification of the distances proposed, in particular, whether the 100m and 60m distances are generic distances applied throughout New Zealand or if this is based on specific site analysis in relation to the line through Ōmokoroa and Te Puke (in particular, distance to dwellings / if the rail corridor is in a cutting).
  - b. Number of properties potentially affected by proposed new rules.
  - c. Whether KiwiRail has received noise or vibration complaints from the relevant sections of the line in Te Puke and Ōmokoroa (including where KiwiRail has given its written approval to landowners to establish dwellings within the 10m setback in Ōmokoroa).
  - d. Cost of specific foundation design, noise barriers and vibration certification.

### Distance

Dr Chiles' evidence<sup>33</sup> sets out the technical basis for the 100m and 60m 10.1 distances proposed for the acoustic and vibration controls.

S42A Report, Section 4C: Amenity, page 7.
 S42A Report, Section 4C: Amenity, pages 6 and 7.
 Evidence of Dr Chiles, paragraphs 7.4 to 7.6 and 8.3.

### **Property Numbers**

- 10.2 In relation to the number of properties impacted by the controls I note the controls proposed are not retrospective, they apply only to new or modified noise sensitive activities adjacent to the rail corridor. This means the total number of properties affected by the controls is not a relevant measure as only those sites with development potential (and a willing developer) will need to consider and implement the controls.
- 10.3 KiwiRail has provided two maps which overlay the proposed 60m vibration and 100m noise controls within the Ōmokoroa and Te Puke areas (see Attachment D). I have also made a high level review of aerial photographs and zone maps in the Ōmokoroa and Te Puke areas to assess the potential impact of the provisions.
- 10.4 In the Figures below I have shown in red circles large lots and lots containing older housing on more generous sites that one could assume are most likely to be developed first (as compared to smaller lots containing more modern housing). I consider the identified areas as those which are most likely to trigger KiwiRail's proposed controls within the life of the ODP.

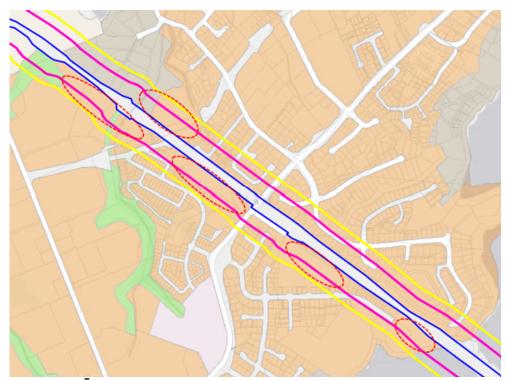


Figure 1: Ōmokoroa – Areas more likely to trigger noise and vibration controls (red circles)



Figure 2: Te Puke– Areas more likely to trigger noise and vibration controls (red circles)

Overall, when viewed in the context of the PC92 areas, and considering the benefits to health the controls would bring, there will be only a limited area likely to be impacted by the controls.

### Complaints

- 10.5 Mr Brown has confirmed that KiwiRail receives complaints in relation to its activities. However, I agree with Mr Brown that the number of complaints should not be the focus<sup>34</sup>. The intent of the acoustic standards is to minimise the need for complaints. In Dr Chiles' opinion, in terms of adverse health effects, existing complaints are irrelevant and complaints are not reliable indicators of health effects<sup>35</sup>.
- 10.6 Ms Price identified<sup>36</sup> that KiwiRail has given approval for activities in the existing 10m setback and that "Council officers are also not aware of any complaints in relation to noise and vibration from this reduced setback"<sup>37</sup>.
- 10.7 Firstly, the primary purpose of the 10m yard setback is to provide for building maintenance to be undertaken in a safe manner, not to protect occupiers from noise or vibration effects. Dr Chiles<sup>38</sup> has confirmed that a 10m setback does not control most of the potential adverse rail noise and vibration effects. Accordingly, approvals for a reduced setback are not an appropriate data set for noise and vibration effects.

 $<sup>^{34}</sup>$  Evidence of Mr Brown, paragraphs 6.11-6.12.

<sup>&</sup>lt;sup>35</sup> Evidence of Dr Chiles, paragraphs 8.4.

<sup>&</sup>lt;sup>36</sup> S42A Report, Section 4C: Amenity, pages 6 and 7.

<sup>&</sup>lt;sup>37</sup> S42A Report, Section 4C: Amenity, pages 6 and 7.

<sup>38</sup> Evidence of Dr Chiles, paragraph 8.2.

- 10.8 In relation to circumstances where KiwiRail has provided affected party approval for buildings within the 10m setback, I have been provided with copies of nine written approvals that KiwiRail has given in the district since 2015. Two were for garages in the required yard and the remaining seven were for residential activities. Of the seven residential approvals provided, all were required to maintain a setback from the corridor (from approximately 2.8m 6m) and, with the exception of one, also provided noise and/or vibration mitigation, as well as no complaints covenants in some cases.
- 10.9 I respectfully suggest, that, in addition to the points raised by Dr Chiles and the purpose of the 10m yard setback being to provide for building maintenance, the lack of complaints arising from the properties KiwiRail granted approval to is more likely a result of:
  - a. the provision of mitigation; and/or
  - b. the entering into of no-complaints covenants.

### Existing Plan Rule 4C.1.3.2(c)

- 10.10 Finally, Ms Price<sup>39</sup> considers existing rule 4C.1.3.2(c) already acts to protect noise sensitive activities in all zones, which would include protection from rail noise. While I agree with the intent of the rule, I consider 4C.1.3.2(c) has the following shortcomings:
  - a. The spatial extent of the rule is not specified (ie, how would a plan user know if they were near a high noise generator and triggered the rule?).
  - b. The source of the noise for which the activity is to be protected is not specified (so there is no certainty that rail would be identified).
  - e. The rule uses discretionary language / examples in its wording (eg. "such as") and is therefore uncertain.
  - f. Some activities listed in the text of the rule do not all have commensurate noise levels in the companion table (ie. veterinary facilities, medical or scientific facilities do not have specified day or night time noise levels and therefore appear not to be subject to any control).

<sup>&</sup>lt;sup>39</sup> S42A Report, Section 4C: Amenity, page 7.

- g. Some of the listed noise sensitive activities can themselves be sources of noise (eg animals at veterinary facilities).
- h. Inclusion of the defined term *places of assembly* (which includes within its definition ...clubrooms, taverns, restaurants, art galleries, theatres, sports fields, facilities for recreation activities and tourist facilities) is likely to lead to some unusual outcomes, for example, the definition includes both noise sensitive activities and noise generating activities (this issue could be avoided by use of a specific definition of *noise sensitive activities*).
- i. It should be clear that it applies to additions to existing noise sensitive activities or new noise sensitive activities.
- 10.11 Dr Chiles<sup>40</sup> also identified the following technical limitations of existing rule 4C.1.3.2(c):
  - a. The table in rule 4C.1.3.2(c)(i) sets internal noise limits without specifying the basis for external noise exposure to be used in the design.
  - b. The noise limits in rule 4C.1.3.2(c)(i) apply to the 'L<sub>Aeq</sub>' metric, and in accordance with the assessment standard specified in 4C.1.3.4, this would use a 15-minute averaging period. This would result in noise limits being relatively stringent for short-duration rail noise events.
  - c. The ventilation rule in 4C.1.3.2(c)(ii) does not include air change or temperature parameters specified beyond the Building Code minima; windows might need to be opened for occupants to be comfortable, which would compromise the sound insulation.
  - d. The ODP does not include any explicit controls for new and altered buildings affected by railway vibration.
- 10.12 Noting these issues, I do not consider existing rule 4C.1.3.2(c) adequately addresses noise effects from rail. I therefore support the inclusion of the provisions proposed by KiwiRail as these will provide a more certain approach to ensuring health effects are managed in locations where increased intensity is proposed and growth is likely.

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<sup>&</sup>lt;sup>40</sup> Evidence of Dr Chiles, paragraphs 6.3 to 6.6.

10.13 I agree with Ms Price<sup>41</sup> that KiwiRail's proposed provisions can only apply to the spatial area within PC92 and appreciate that the KiwiRail provisions would need to sit alongside 4C.1.3.2(c) (which would continue to apply elsewhere). A plan wide approach can be considered at the time that a full plan review is undertaken. I have made recommended amendments as set out in Attachment A.

Cost

10.14 Dr Chiles' evidence addresses<sup>42</sup> cost and I have also assessed this in my s32AA assessment.

# **Definition of Noise Sensitive Activity**

10.15 As identified in sections 10.10 (g) and (h), there are some limitations with the description of noise sensitive activities. I prefer a specific definition of noise sensitive activities so that it may be targeted at the most sensitive uses; reliance on existing plan definitions may lack the finesse needed. For example, my preferred wording to capture places of assembly is more focused on the specific activity which is actually sensitive to noise being congregation within any place of worship.

### Matter of Discretion 14A.7.4

10.16 KiwiRail proposed a new matter of discretion for activities that do not comply with the new permitted activity standard requiring buildings and structures to be setback from the rail corridor:

> f. The location and design of the building or structure as it relates to the ability to safely use, access and maintain buildings without requiring access on, above or over the rail corridor

10.17 Mr Hextell has rejected this as<sup>43</sup>:

The setbacks only relate to internal property boundaries and the proposed matter appears to relate to people not accessing the railway corridor which affects land beyond a properties boundary and accordingly is beyond the ambit of the performance standard. From a resource consent

<sup>&</sup>lt;sup>41</sup> S42A Report, Section 4C: Amenity, page 6.

Evidence of Dr Chiles, paragraph 8.6.
 Section 42A MDR Part 3 Report, pages 26 and 27.

processing perspective KiwiRail is likely to be recognised as an affected party in situations where there is non-compliance with the setback and accordingly would have the opportunity to assess the specific proposal.

10.18 Rule 14.4.1(d)(iii) requires that:

Where any yard adjoins [...] A railway corridor or designation for railway purposes, it shall be a minimum of 10m.

- 10.19 I do not agree with Mr Hextell that "the setbacks only relate to internal property boundaries". Rule 14.4.1(d)(iii) is very clear that it applies to any yard adjoining a rail corridor/designation. In forming this view I have also considered the Explanatory Note which is part of rule 14.4.1(d). This allows that where subdivision is proposed, the yard requirement applies to the existing certificate of title boundary "base land" only, not "proposed" internal / new subdivision boundaries.
- 10.20 In my opinion, an internal boundary is a new lot boundary separating a subdivided property, ie, one lot is separated into two lots and the boundary between the two newly created lots is the internal boundary of the subdivision. This new boundary does not affect the existing certificate of title boundary which already adjoins the rail designation.
- 10.21 I would be most concerned if this rule was interpreted by Council as meaning that setback provisions did not apply to subdivided lots.
- 10.22 I would also like to respond to Mr Hextell's comment that the matter of discretion "appears to relate to people not accessing the railway corridor". The matter of discretion is designed to direct the Council, when assessing an application to reduce the setback, to consider whether or not there remains sufficient space within the site to undertake maintenance (ie. not on KiwiRail land). Given this has caused confusion, I recommend a minor amendment (shown blue below).

f. Whether tThe location and design of the building or structure provides for as it relates to the ability to safely use, access and maintain buildings without requiring access on, above or over the rail corridor.

10.23 Finally, I agree KiwiRail may be considered an affected party (as evidenced by Table 1 above), however this test is discretionary and KiwiRail may not always be notified.

### 11 CONCLUSION

### 11.0 In conclusion:

### a. **Building Setback**:

- a. A 10 metre setback from the railway corridor has been accepted by the s42A Author as a qualifying matter. I support the inclusion of the rail setback in the proposed qualifying matter definition; however, the proposed wording contains an unnecessary caveat relating to timing of subdivision consent which should be removed.
- b. I support the retention of the 10 metre setback from the railway corridor.
- c. In my view a suitable matter of discretion needs to be included to ensure that the purpose of the setback control (being provision for safe on-site building maintenance) is considered during consent applications.

### b. Noise and Vibration:

- a. The RPS anticipates significant infrastructure will have effects (which may include noise) and that infrastructure needs to be protected from reverse sensitivity effects arising from incompatible activities (including by rules and policies within district plans). Dr Chiles has provided evidence that noise and vibration have adverse health effects; the S42A Author generally agrees it is appropriate to give a level of protection to the rail corridor.
- b. KiwiRail is proposing an updated noise rule applying 100m from the rail corridor These changes manage the adverse effects of rail activities on adjacent land users. It is critical that PC92 appropriately address these issues so that the health and wellbeing impacts on neighbouring communities are minimised and the ongoing operation and efficiency of the rail network can be maintained.

- c. With respect to vibration, I prefer a 60m vibration control, but at a minimum, understand KiwiRail would accept the (less preferred) alternative of a "Rail vibration alert overlay".
- d. Consequential changes including matters of discretion and a new definition of "noise sensitive activity" are also proposed.
- c. In my view the amended provisions are necessary to appropriately mitigate the effects identified by Dr Chiles and to implement the RPS and District Plan policy framework.

Cath Heppelthwaite 25 August 2023

### **Attachment A: Proposed Changes**

Base text is taken from Appendix A – Planner's recommendation with changes accepted. All changes are in red text. New text is <u>underlined</u> and proposed deletions in <u>strike through</u>.

### **District Plan Maps**

Insert mapping overlay which identifies a 100m buffer on each side of the railway designation boundary called "Rail Vibration Alert Overlay".

### 14A.7.4 Matters of Discretion

**Restricted Discretionary Activities** 

Non-Compliance with Setbacks In considering an application that does not comply with Activity Performance Standard 14A.4.1(d) Setbacks, Council shall consider the following:

Front yard

a.[..]

Side and rear yards

d. [...]

e. [...]

f. Whether the location and design of the building or structure provides for the ability to safely use, access and maintain buildings without requiring access on, above or over the rail corridor.

# 4C.1 Noise and Vibration Explanatory Statement

[...]

Vibration from activities has not been an issue in the District. In many cases Council can manage vibration effects through the management of noise emissions or through the provisions of the Health Act. Specific standards to manage vibration are therefore not proposed. However, a Rail Vibration Alert Overlay has been applied which identifies the vibration-sensitive area within 100 metres each side of the railway designation boundary as properties within this area may experience rail vibration effects. No specific district plan provisions apply in relation to vibration controls as a result of this Rail Vibration Alert Area. The Rail Vibration Alert Overlay is to advise property owners of the potential vibration effects but leaves with the site owner to determine an appropriate response.

[...]

### 4C.1.3.2 Noise Limits

a. [...]

b. [...]

c. Noise sensitivity [...]

### ca. Indoor railway noise

Activity status: Permitted

(a) Any new building or alteration to an existing building or structure for a noise sensitive activity within 100m of the railway designation boundary.

Activity-specific standards:

- 1. Any new building or alteration to an existing building that contains a noise sensitive activity where the building or alteration:
  - (a) is designed, constructed and maintained to achieve indoor design noise levels resulting from the railway not exceeding the maximum values in Table X; or
  - (b) is at least 50 metres from any railway network, and is designed so that a noise barrier completely blocks line-of-sight from all parts of doors and windows, to all points 3.8 metres above railway tracks

### Table X

Building type	Occupancy/activity	Maximum railway noise level L <sub>Aeq(1h)</sub>
Residential	Sleeping spaces	35 dB
	All other habitable rooms	40 dB
Education	Lecture rooms/theatres, music studios, assembly halls	35 dB
	Teaching areas, conference rooms, drama studios, sleeping areas	40 dB
	Library	45 dB
<u>Health</u>	Overnight medical care, wards	40 dB
	Clinics, consulting rooms, theatres, nurses' stations	<u>45 dB</u>
<u>Cultural</u>	Places of worship, marae	<u>35 dB</u>

Activity status where compliance not achieved: Restricted Discretionary

# <u>4C.1.4.3 Restricted Discretionary Activity – Rail Noise</u>

Council's discretion is restricted to the following matters:

- (a) location of the building:
- (b) the effects of any non-compliance with the activity specific standards;
- (c) special topographical, building features or ground conditions which will mitigate noise impacts;
- (d) the outcome of any consultation with KiwiRail.

### cb. Indoor railway vibration

- 1. Any new buildings or alterations to existing buildings containing a noise sensitive activity, within 60 metres of the railway designation boundary.
- 2. Compliance with standard 1 above shall be achieved by a report submitted to the council demonstrating compliance with the following matters:
  - (a) the new building or alteration or an existing building is designed, constructed and maintained to achieve rail vibration levels not exceeding 0.3 mm/s vw,95 or

(b) the new building or alteration to an existing building is a single storey framed residential building with:

i. a constant level floor slab on a full-surface vibration isolation bearing with natural frequency not exceeding 10 Hz, installed in accordance with the supplier's instructions and recommendations; and

<u>ii. vibration isolation separating the sides of the floor slab from the ground; and iii. no rigid connections between the building and the ground.</u>

### 4C.1.4.4 Restricted Discretionary Activity – Rail Vibration

Matters of discretion

(a) location of the building;

(b) the effects of any non-compliance with the activity specific standards;

(c) special topographical, building features or ground conditions which will mitigate vibration impacts;

(d) the outcome of any consultation with KiwiRail.

### **Definitions**

### Amend the definition of "Qualifying Matter"

"Qualifying matter" means one or more of the following:

• Ecological features listed in Appendix 1 (Schedule of Identified Significant Ecological Features) and identified on the District Plan Maps.

[...]

• Land within 10m of a railway corridor or designation for railway purposes (for sites created by way of an application for subdivision consent approved after 1 January 2010).

• [...]

# **Consequential Change 14A.4 Activity Performance Standards**

d. Setbacks

[...]

ii. This standard does not apply to:

 $[\dots]$ 

b. site boundaries with a railway corridor or designation for railway purposes (for sites created by way of an application for subdivision consent approved after 1 January 2010) in which case all yards shall be 10m.

### **New Definition**

Noise sensitive activity means any lawfully established:

a) residential activity, including activity in visitor accommodation or retirement accommodation, including boarding houses, residential visitor accommodation and papakāinga;

b) educational activity;

c) health care activity, including hospitals;

d) congregation within any place of worship; and

e) activity at a marae.

### Attachment B: S32AA Assessment of Building Setback

Having regard to section 32AA, the following is noted:

### **Effectiveness and efficiency**

- The proposed rail setback will be more efficient and effective than other methods (such as widening the rail designation to provide a setback) as it provides flexibility of use by resource consent allowing for situations where building within the setback is acceptable. Applying a wider designation means land will not be available for use at all, the setback yard by contrast could enable future use by way of resource consent
- Providing no setback or a minimal setback will not support an efficient outcome generally as incursions can lead to disruption to the rail network / inefficient operation and endanger safety.

#### Costs/Benefits

- The recommended amendments will limit building in some locations (cost). However, the impact on overall development capacity is marginal and resource consent can be sought to infringe the setback standard.
- The benefits are providing for a safer and more efficient rail network which supports passenger transport (being itself a significant supporting factor for residential intensification).
- The setback will enable greater certainty, and safety, for homeowners and occupiers to undertake maintenance to their dwellings.

# Risk of acting or not acting

• Evidence has been provided of the risks to public safety and network efficiency if there is action taken to remove the setback or significantly reduce it. These actions could result in an inefficient operation of nationally significant infrastructure due to unexpected shutdowns. This would also increase the risk to the health and safety of adjoining residents.

### Decision about most appropriate option

• Retention of the proposed setback as set out in my evidence is therefore considered to be more appropriate in achieving the purpose of the RMA rather than the notified provisions.

### Attachment C: S32AA Assessment of Noise and Vibration Controls

Having regard to section 32AA, the following is noted:

### **Effectiveness and efficiency**

- The proposed changes will be more efficient and effective at balancing infrastructure and health and amenity resulting from intensification than other methods (such as the existing noise rule)
- Retaining the existing noise rule and the lack of vibration controls will not support an efficient outcome as effects on health and amenity on residents will not be addressed and new reverse sensitivity effects could arise (which could lead to inefficient operation of nationally significant infrastructure), in particular arising from the greater intensification of the area.
- Option adopts a 'prevention is better than cure approach'.

### Costs/Benefits

- The recommended amendments may require additional assessments for some buildings and activities in some locations.
- Where standards are infringed, there will be costs to applicants in seeking resource consent. In practice, this is generally not anticipated or experienced elsewhere as there are standard engineering solutions that can be implemented to achieve compliance. However, where there is an infringement, the extent of those costs will vary depending on whether a developer already requires consent for subdivision or to infringe other standards in the plan. the benefits are however improved health and amenity and reduced risk of reverse sensitivity effects (benefits). The rail network provides passenger transport which is a significant supporting factor for residential intensification proposed.

Where standards cannot be met, there is a consenting pathway for development of noise sensitive activities.

- The changes will enable greater certainty for homeowners as to their ability to live comfortably and free from the most significant health and amenity impacts when in close proximity to infrastructure (benefits). Compared to the status quo of the existing noise rule, the changes will also provide greater certainty around when an acoustic assessment will be required.
- Dr Chiles' evidence is that rail vibration can routinely be experienced at over 100m from the railway corridor. In applying the provisions only out to 60m (due to the volume of traffic on the line), the provisions are a pragmatic response in that they address health and amenity effects at sites most affected by rail vibration.
- The provisions are an integrated response to planning in that it allows development of sensitive activities to occur near the rail corridor in a way that appropriately manages the effects of, and on, the ongoing use and operation of the rail corridor.
- The noise and vibration provisions do not apply to existing activities so there are no additional constraints on developed sites where redevelopment is not anticipated.

### Risk of acting or not acting

- Heath and amenity effects will occur if no action is taken.
- Potential for reverse sensitivity effects on the operation of the rail network

# Decision about most appropriate option

• Based on the evidence of Dr Chiles, the recommended amendments as set out in my evidence are therefore considered to be more appropriate in achieving the purpose of the RMA rather than the notified provisions.

Attachment D: Proposed 100m noise and 60m vibration control



