

Appendix 1 – Officers Recommended Amendments to Noise Chapter

Note the below provisions represent the Section 42A Report Writing Officer's recommended amendments to the provisions of the Proposed District Plan, in response to submissions (with underline used for new text and ~~strikethrough~~ for deleted text). Recommendations made through the Reporting Officer's right of reply are shown in red underline for new text and red ~~strikethrough~~ for deleted text.

Overview

The Far North District is diverse with a range of rural and urban areas, made up of large tracts of rural land, small rural communities and towns. Noise emissions are an intrinsic part of the way we live and play a role in the operation and function of the district's economy. Noise can be the cause of annoyance, impacting community health, wellbeing, and the quality of living environments, and indigenous fauna¹. The level of noise annoyance can depend on the character, nature, duration and location that noise is being generated. The background noise level of different areas also contributes to the character and quality of a place and vary between rural and urban settings. Rural areas generally have lower background noise levels, but it is accepted that there may be times where machinery associated with primary production will be used. Urban environments can have higher background noise levels compared with rural environments and can influence what levels are acceptable across the district.

It is important that noise and noise-generating activities are managed to a level that is appropriate and of a level that is generally accepted across different environments. There is a tension between enabling noise-generating activities and those activities that are sensitive to noise. The noise controls and standards focus on noise limits that are appropriate for each zone and for specific activities. This includes standards for noise insulation for noise-sensitive activities in locations that may have elevated noise levels.

The noise rules and standards in this chapter provide the noise limits for each zone and for specific activities. The chapter also sets out where sound insulation is required for noise sensitive activities, and/or limits the location of noise sensitive activities relative to other activities which have elevated noise levels. Noise levels must be measured in accordance with NZS 6801:2008: ~~-~~ Acoustics Measurement of Environmental Sound and assessed in accordance with NZS 6802:2008: Acoustics ~~-~~² Environmental Noise except where expressed otherwise.

Council has responsibilities under the RMA to manage noise, however, it is important to note that some activities are exempt from the noise rules set out in this section as they are controlled by another Act or are controlled by section 16 and 17 of the RMA.

A Rail Alert Overlay has been applied which identifies the noise and vibration-sensitive area within 100 metres each side of the railway designation boundary as properties within this area may experience future rail noise and vibration effects. No specific district plan provisions apply in relation to noise and vibration controls as a result of this Rail Alert Area unless the rail line becomes an operational rail line in which case Noise S5 will apply. The Rail Alert Overlay informs property owners of the potential noise and vibration effects associated with the rail line should it become operative, while allowing property owners the discretion to determine an appropriate response.³

¹ S399.071

² Clause 16 correction

³ S416.038

| Objectives | |
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| NOISE-O1 | Activities generate noise effects that are compatible with the role, function and character of each zone and do not compromise community health, safety and wellbeing. |
| NOISE-O2 | New noise sensitive activities are designed and/or located to minimise conflict, and reverse sensitivity effects and to protect community health and wellbeing. ⁴ |
| NOISE-O3 | <u>Reverse sensitivity effects on existing noise generating activities are avoided.</u> ⁵ |
| Policies | |
| NOISE-P1 | Uphold the character and amenity of each zone by controlling the types of activities and noise levels that are permitted in each zone. |
| NOISE-P2 | Ensure noise sensitive activities proposing to locate within the Mixed Use <u>Zone</u> , Light Industrial <u>Zone</u> , <u>an</u> Air Noise Boundary; <u>or</u> on land near state highways ⁶ <u>or</u> railways; and <u>and</u> in close proximity of regionally significant infrastructure within these areas ⁷ are located, designed, constructed and operated in a way which will minimise adverse noise on community health, safety and wellbeing by having regard to: <ul style="list-style-type: none"> a. <u>Any reverse sensitivity risks to</u>⁸ existing noise generating activities and the level of noise that will be received within any noise sensitive building; b. the primary purpose and the frequency of use of the activity; and c. the ability to design and construct buildings accommodating noise sensitive activities with sound insulation and/or other mitigation measures to ensure the level of noise received within the building is minimised particularly at night. |
| NOISE-P3 | Ensure noise effects generated by an activity are of a type, scale and level that are appropriate for the predominant role, function and character of the receiving environment by having regard to: <ul style="list-style-type: none"> a. type, scale and location of the activity in relation to any noise sensitive activities; b. hours of operation and duration of activity; c. the temporary or permanent nature of any adverse effects; and d. the ability to internalise and/or minimise any conflict with adjacent activities. |
| Rules | |

Note:

1. There may be rules in other District-Wide Matters and the underlying zone in Part 3 - Area Specific Matters that apply to a proposed activity, in addition to the rules in this chapter. These other rules may be more stringent than the rules in this chapter. Ensure that the underlying zone chapter and other relevant District-Wide Matters chapters are also referred to, in addition to this chapter, to determine whether resource consent is required under other rules in the District Plan. Refer to the *how the plan works*⁹ chapter to determine the activity status of a proposed activity where resource consent is required under multiple rules.

⁴ S356.106

⁵ S483.181

⁶ S356.107

⁷ S483.182

⁸ S483.182

⁹ Clause 16 correction to use italics

Noise shall be measured in accordance with NZS 6801:2008: Acoustics Measurement of Environmental Sound, and assessed in accordance with NZS 6802:2008: Acoustics Environmental Noise, unless otherwise specified elsewhere in the District Plan.

The noise rules and effects standards do not apply to noise generated by the following activities:

1. normal residential activity such as children's play, lawn mowing, house maintenance and entertainment;
2. aircraft being operated during flight;
3. vehicles being driven on a road (within the meaning of Section 2(1) of the Transport Act 1998), or within a site as part of, or compatible with, a normal residential activity;
4. trains on rail lines (public or private) and crossing bells within road reserve, including at railway yards, railway sidings or stations. However, this exemption does not apply to the testing (when stationary), maintenance, loading or unloading of trains;
5. agriculture, horticulture and pastoral farming activities undertaken for a limited duration, including using agricultural vehicles, machinery or equipment used on a seasonal or intermittent basis, ~~forestry planting and forestry harvesting~~¹⁴ in the Rural Production, Horticulture and Horticulture Processing zones;
6. motorcraft operating on the surface of waterbodies;
7. any warning device or siren used by emergency services for emergency purposes (and routine testing and maintenance);
8. the use of generators and mobile equipment (including vehicles) where they are operated by emergency services or lifeline utilities as defined in the Civil Defence Emergency Management Act 2002 for:
 - a. emergency purposes; *including*
 - b. testing and maintenance; *or*
 - c. the ongoing supply of electricity during planned maintenance on the electricity network
~~not exceeding 48 hours in duration, where they are operated by emergency services or lifeline utilities; provided that the use of generators for testing and maintenance purposes is limited to a cumulative time of 12 hours per year;~~¹²
9. activities at emergency service facilities associated with emergency response and emergency response training;
10. Emergency helicopter operation associated with Bay of Islands, Rawene or Kaitaia Hospital, or any other emergency helicopter activity that occurs away from a permanently established helicopter base, helicopters used for an emergency and as an air ambulance;¹³
11. impulsive sounds (such as hammering and bangs) and dog barking noise which are poorly assessed by reference to NZS 6802:2008: Acoustics Environmental Noise;
12. the control of crowd noise at a park or reserve;
13. unamplified noise from organised sporting events in the Open Space and Sport and Active Recreation zones where these occur for up to 20 hours per week between 7am and 7pm; or
14. unamplified noise from standard outdoor activities at schools where this occurs between 7.00 " to 7.00pm Monday to Sunday.
15. The use of firearms for hunting purposes. This exemption does not apply to rifle ranges, pistol clubs or other such permanently established firearms ranges;¹⁴
16. Noise and vibration associated with commercial forestry. This activity is controlled by the National Environmental Standards for Commercial Forestry 2017 (NES-CF) Regulation 98;¹⁵
17. Agricultural aviation if compliance can be achieved with TA-R#;¹⁶

¹⁰ Clause 16 correction

¹¹ S516.066

¹² S483.183

¹³ S243.105 and others

¹⁴ S436.041 and others

¹⁵ S148.040 and others

¹⁶ S143.009 and others

| NOISE-R1 Emission of noise (not otherwise provided for in this chapter) | | |
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| All zones | <p>Activity status: Permitted</p> <p>Where:</p> <p>PER-1 Noise generated from any activity on a site complies with standard: NOISE-S1 General noise rules applying to noise emitted from all zones and overlays (unless provided for by a specific standard elsewhere)¹⁷ Maximum noise levels.</p> | <p>Activity status where compliance not achieved with PER-1: Restricted Discretionary</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> any relevant matter of discretion in the infringed standard; and the extent and effect of non-compliance with the relevant noise standard. |
| NOISE-R2 New buildings, alterations and/or additions to an existing building for a noise sensitive activity | | |
| All zones | <p>Activity status: Permitted</p> <p>Where:</p> <p>PER-1 All habitable rooms comply with the noise insulation for noise sensitive activities effect standards which are relevant to the underlying zone or specific area identified: NOISE-S5 Noise insulation.</p> | <p>Activity status where compliance not achieved with PER-1: Restricted Discretionary</p> <p>Matters over which discretion is restricted:</p> <ol style="list-style-type: none"> any relevant matter in the infringed standard. |
| NOISE-R3 Noise from temporary activity | | |
| All zones | <p>Activity status: Permitted</p> <p>Where:</p> <p>PER-1 The noise generated complies with standard: NOISE-S2 Temporary events standards.</p> | <p>Activity status where compliance not achieved with PER -1: Restricted Discretionary</p> <p>Matters over which discretion is restricted:</p> <ol style="list-style-type: none"> any relevant matter of discretion in the infringed standard; and the extent and effect of non-compliance with the relevant noise standard. |
| NOISE-R4 Construction noise | | |
| All zones | <p>Activity status: Permitted</p> <p>Where:</p> <p>PER-1 The noise from construction activities undertaken on a site complies with the guidelines and recommendations of the New Zealand Standard NZS 6803:1999: Acoustics Construction Noise.</p> | <p>Activity status where compliance no achieved with PER-1: Restricted Discretionary</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> the level, hours of operation, duration and nature of the noise; proximity and nature of nearby activities and the adverse effects |

¹⁷ Consequential amendment due to change in title of NOISE-S1

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| | | <p>they may experience from the noise;</p> <p>c. the existing noise environment;</p> <p>d. effects on character and amenity values on the surrounding environment;</p> <p>e. effects on the health and wellbeing of people;</p> <p>f. any noise reduction measures; and</p> <p>g. potential building damage effects.</p> |
| NOISE-R5 | Noise from temporary military training activity | |
| All zones | <p>Activity status: Permitted</p> <p>Where:</p> <p>PER-1 Noise generated from fixed (stationary) noise sources complies with standard: NOISE-S3 Temporary military training;</p> <p>PER-2 Noise generated from mobile noise sources must comply with the noise limits set in Tables 2 and 3 of NZS 6803:1999: Acoustics Construction Noise.</p> <p>PER-3 <u>Temporary military training helicopter activity that complies with the guidelines of NZS6807:1994 Noise Management and Land Use Planning for Helicopter Landing Areas.</u>¹⁸</p> | <p>Activity status where compliance not achieved with PER-1: Restricted Discretionary</p> <p>Matters of discretion are restricted to:</p> <p>a. the matters of any infringed standard.</p> <hr/> <p>Activity status where compliance not¹⁹ achieved with PER-2 or PER-3: Restricted Discretionary</p> <p>Matters of discretion are restricted to:</p> <p>a. the level, hours of operation, duration and nature of the noise;</p> <p>b. proximity and nature of nearby activities and the adverse effects they may experience from the noise;</p> <p>c. the existing noise environment;</p> <p>d. effects on character and amenity values on the surrounding environment;</p> <p>e. effects on the health and wellbeing of people; and</p> <p>f. any noise reduction measures.</p> |
| NOISE-R6 | Noise from a temporary military training activity involving weapons firing and/or the use of explosives | |
| Rural Production zone-All zones ²⁰ | <p>Activity status: Permitted</p> <p>Where:</p> <p>PER-1</p> | Activity status where compliance not achieved with PER-1, PER-2 or PER-3: Discretionary |

¹⁸ S217.011 and others

¹⁹ Clause 16 correction

²⁰ S217.014

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| | <p>At least 5 working days prior to the commencement of the activity, notify the Council <u>is notified</u>²¹ of the activity, including details of the nature, duration and scale of activity, and any consultation that has been undertaken;</p> <p>PER-2 The activity complies with the following:</p> <ol style="list-style-type: none"> 1. occurs between the hours of 7.00am to 7.00pm, and achieves either a 500m minimum separation distance to, or peak sound pressure level of 95 dB LCpeak dBC when measured within²² the notional boundary of any noise sensitive activity: and/or 2. occurs between 7.00pm to 7.00am, an achieves either a 1250m minimum separation distance to, or peak sound pressure level of 85 dB LCpeak dBC²³ when measured within, the notional boundary of any noise sensitive activity; <p>PER-3 The activity complies with standard: NOISE-S6 Explosives (<u>excluding airblast limits</u>)²⁴.</p> | |
| NOISE-R7 | Helicopter landing areas | |

²¹ Clause 16 correction

²² Clause 16 correction

²³ S516.067

²⁴ S217.016

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| All zones | <p>Activity status: Permitted</p> <p>Where:</p> <p>PER-1 Flight movements are for emergency purposes such as medical emergencies, search and rescue or firefighting purposes;²⁵</p> <p>PER-2 PER-1 The helicopter landing site complies with standard: <u>Noise generated from the operation of helicopters using the helicopter landing area complies with standard:</u> NOISE-S4 Helicopter landing areas.</p> <p>PER-2</p> <p><u>Noise generated from the operation of helicopters complies with the following noise limit when assessed in accordance with NZS 6807:1994: Noise Management and Land Use Planning for Helicopter Landing Areas and measured at any point within any General Residential, Rural Residential, Hospital and Māori Purpose-Urban zones, or within the notional boundary in the Rural Production, Rural Lifestyle, Settlement, Horticulture, Carrington Estate, Kororareka Russell Township, Moturoa Island, Kauri Cliffs, Ngawha Innovation and</u></p> | <p>Activity status where compliance not achieved with PER-1 or PER-2: Discretionary Restricted <u>Discretionary Activity</u></p> <p>a. <u>the matters of discretion of any infringed standard</u></p> |
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²⁵ S167.087 and others

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| | <p><u>Enterprise Park, Quail Ridge or Māori Purpose – Rural zones:</u></p> <p><u>1. 50 dB Ldn</u></p> <p><u>In all other zones, noise generated shall comply with the guidelines of NZS6807:1994 for the underlying use of the zone.²⁶</u></p> <p>This standard does not apply to:</p> <ul style="list-style-type: none"> i. Emergency or rescue helicopter operation occurring to or from Bay of Islands, Rawene or Kaitaia Hospital (excludes established helicopter bases on hospital land); ii. Emergency or rescue helicopter landings, departures, overflights or activity during operations that occur away from the permanently established helicopter base; or iii. Cropping, top dressing, and spraying for the purpose of farming or conservation carried out in the Rural Production, Horticulture zones, or within Significant Natural Area on a seasonal, temporary, or intermittent basis for a period up to 30 days in any 12 month period.²⁷ | <p><u>Activity status where compliance not achieved with PER-2: Discretionary</u></p> |
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| <p>NOISE-R8 Audible bird scaring devices</p> | | |
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| <p>Rural Production zone</p> <p>Horticulture zone</p> <p>Ngawha Innovation and Enterprise Park zone</p> | <p>Activity status: Permitted</p> <p>Where:</p> <p>PER-1 Audible Bbird scaring devices must only be used between <u>from half an hour before sunrise and until half an hour after sunset</u> 7.00am and 7.00pm on any calendar year;²⁸</p> <p>PER-2 Bird scaring events from any device shall operate at:</p> | <p>Activity status where compliance not achieved with PER-1 or PER-2: Restricted Discretionary</p> <p>Matters of discretion are restricted to:</p> <ul style="list-style-type: none"> a. the level, hours of operation, duration and nature of the noise; b. proximity and nature of nearby activities and the adverse effects they may experience from the noise; c. the existing noise environment; |

²⁶ S167.087 and others

²⁷ S182.021 and others

²⁸ S159.089

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| | <p>i. Not more than 6 events per hour where an event includes clusters of up to three shots from percussing type devices or three individual shots from a firearm in quick succession;²⁹ and</p> <p>ii. A maximum noise level frequency of 65 dB LAE within the notional boundary of any noise sensitive activity not owned by the operator of the device;</p> <p>PER-3 The audible bird scaring device complies with standard: NOISE S1 Maximum Noise Levels.³⁰</p> <p>This standard does not apply to: <u>audible</u> bird scaring devices that generate a noise level less than 55 dB LAE within the notional boundary of any noise sensitive activity not owned by the operator of the device.</p> | <p>d. effects on character and amenity values on the surrounding environment;</p> <p>e. effects on the health and wellbeing of people; and</p> <p>f. any noise reduction measures.</p> |
| <p>Activity status where compliance not achieved with PER-3: Non-complying³¹</p> | | |
| <p>NOISE-R9 Noise from frost fans and horticultural wind machines</p> | | |
| <p>Rural Production zone</p> <p>Horticulture zone</p> <p>Ngawha Innovation and Enterprise Park</p> | <p>Activity status: Permitted</p> <p>Where:</p> <p>PER-1 The use is for the protection of crops from frost only;</p> <p>PER-2 Maintenance on frost fans and horticultural wind machines is undertaken during daylight hours, that is, from 7am to 10pm;</p> <p>PER-3 The maximum noise generated by a single or multiple frost fans shall not exceed 55 dB LAeq(15min) at any time when assessed within the notional boundary of any noise sensitive activity on another site, <u>with no adjustment applied</u> for any special audible characteristics <u>applied</u>.³²</p> <p>Note: The noise limit includes a correction for the special audible characteristics of frost fans.³³</p> | <p>Activity status where compliance not achieved with PER-1, PER-2 or PER-3: Restricted Discretionary</p> <p>Matters of discretion are restricted to:</p> <p>a. the level, hours of operation, duration and nature of the noise;</p> <p>b. proximity and nature of nearby activities and the adverse effects they may experience from the noise;</p> <p>c. the existing noise environment;</p> <p>d. effects on character and amenity values on the surrounding environment;</p> <p>e. effects on the health and wellbeing of people; and</p> <p>f. any noise reduction measures.</p> |
| <p>NOISE-R10 Mineral extraction activity</p> | | |

²⁹ S159.089
³⁰ FS354.181
³¹ FS354.181
³² S516.070
³³ S516.070

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| Rural Production zone | Activity status: Permitted Where: PER-1 The activity complies with standards: NOISE- S1 <u>Maximum noise levels General noise rules applying to noise emitted from all zones and overlays (unless provided for by a specific standard elsewhere)</u> ³⁴ ; and NOISE - S6 Explosives. | Activity status where compliance not achieved: Discretionary under NOISE- R11 |
| NOISE- R11 | Noise from blasting | |
| All zones | Activity status: Discretionary | Activity status where compliance not achieved: Not applicable |
| Standards | | |
| NOISE- S1³⁵ | Maximum noise levels – zone specific <u>General noise rules applying to noise emitted from all zones and overlays (unless provided for by a specific standard elsewhere)</u> | |

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| <u>Receiving zone</u> | <u>Noise rule</u> | Matters of discretion if compliance not achieved: |
| General Residential zone | Noise generated by any activity shall not exceed the following noise limits at any point within any other site in the General Residential, Kororāreka Russell Township zone or Rural Residential zone: | a. ambient noise levels and any special character noise from any existing activities, the nature and character of any changes to the sound received at any receiving site and the degree to which such sounds are compatible with the surrounding activities; |
| <u>Māori Purpose -</u> | a) Noise generated in all zones, other than the zones <u>and sites</u> in b) and c) below: | b. type, scale and location of the activity in relation to any noise sensitive activities; |
| <u>Urban</u> | 1. Noise shall not exceed the following rating noise levels at any point within the received property boundary: | c. hours of operation and duration of activity; |
| <u>Rural Residential zone</u> | a. 7.00am to 10.00pm (daytime): 50 dB LAeq (15min); | d. the temporary or permanent nature of any adverse effects; |
| <u>Kororāreka Russell Township zone</u> | b. 10.00pm to 7.00am (night-time): 40 dB LAeq (15 min); and 70 dB LAFmax | e. the ability to internalise and/or minimise any conflict with adjacent activities; and |
| <u>Hospital zone</u> | c. 10.00 pm to 7.00 am. | f. any mitigation proposed, in accordance with the best practicable option approach (e.g. site layout and design, design and location of structures, buildings and equipment and the timing of operation). |
| <u>Quail Ridge</u> | b) Noise generated in Mixed Use, Light Industrial, Horticultural Processing facilities, Ngawha Innovation and Enterprise Park or Orongo Bay zones, or from non-aircraft operation activity within an Airport Zone: | |

³⁴ Consequential amendment due to change in title of NOISE-S1

³⁵ S516.072

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| <p>Natural Open Space</p> | <p><u>1. Noise shall not exceed the following rating noise levels at any point within the receiving property boundary:</u></p> <p>a. <u>7.00am to 10.00pm (daytime): 55 dB LAeq</u></p> <p>b. <u>10.00pm to 7.00am (night-time): 40 dB LAeq and 75 dB LAFmax</u></p> <p>c) <u>Noise generated in the Hospital or Heavy Industrial zones or Mineral Extraction Overlays or within any site used for substation activities which is owned and operated by a requiring authority within any zone³⁶:</u></p> <p><u>1. Noise shall not exceed the following rating noise levels at any point within the receiving property boundary:</u></p> <p>a. <u>7.00am to 10.00pm (daytime): 55 dB LAeq</u></p> <p>b. <u>10.00pm to 7.00am (night-time): 46.5 dB LAeq and 75 dB LAFmax</u></p> | |
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| <p>Receiving zone</p> <p>Rural Production zone</p> <p>Rural Lifestyle zone</p> <p>Māori Purpose - Rural zone</p> <p>Horticulture zone</p> <p>Moturoa Island zone</p> <p>Kauri Cliffs zone</p> <p>Ngawha Innovation and</p> | <p>Noise rule</p> <p>Noise generated by any activity shall not exceed the following limits within the notional boundary of any noise sensitive activity in the Rural Production, Rural Lifestyle or Māori Purpose zones:</p> <p><u>d) Noise generated in all zones, other than the zones and sites in e), f) and g) below:</u></p> <p><u>1. Noise shall not exceed the following rating noise levels within the notional boundary of any noise sensitive activity within the receiving property:</u></p> <p>a. <u>7.00am to 10.00pm (daytime): 55 dB LAeq (15min);</u></p> <p>b. <u>10.00pm to 7.00 am (night-time) 40 dB LAeq (15-min); and 70 dB LAFmax</u></p> <p>c. 10.00 pm to 7.00 am.</p> <p>e) <u>Noise generated in Mixed Use, Light Industrial, Horticultural Processing Facilities, Ngawha Innovation and Enterprise Park or Orongo Bay Zones, or from non-aircraft operation activity within an Airport zone:</u></p> | <p>Matters of discretion if compliance not achieved:</p> <p>a. ambient noise levels and any special character noise from any existing activities, the nature and character of any changes to the sound received at any receiving site and the degree to which such sounds are compatible with the surrounding activities;</p> <p>b. type, scale and location of the activity in relation to any noise sensitive activities;</p> <p>c. hours of operation and duration of activity;</p> <p>d. the temporary or permanent nature of any adverse effects;</p> <p>e. the ability to internalise and/or minimise any conflict with adjacent activities;</p> <p>f. any mitigation proposed, in accordance with the best practicable option approach (e.g. site layout and design, design and location of structures, buildings and equipment and the timing of operation); and</p> |
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³⁶ S454.104

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| <p>Enterprise Park zone</p> <p>Settlement</p> | <p><u>1. Noise shall not exceed the following rating noise levels within the notional boundary of any noise sensitive activity within the receiving property:</u></p> <p><u>a. 7.00am to 10.00pm (daytime): 55 dB LAeq</u></p> <p><u>b. 10.00pm to 7.00am (night-time): 40 dB LAeq and 75 dB LAFmax</u></p> <p><u>f) Noise generated in the Hospital or Heavy Industrial zones or in Mineral Extraction Overlays:</u></p> <p><u>1. Noise shall not exceed the following rating noise levels within the notional boundary of any noise sensitive activity within the receiving property:</u></p> <p><u>a. 7.00am to 10.00pm (daytime): 55 dB LAeq and 75 dB LAFmax</u></p> <p><u>b. 10.00pm to 7.00am (night-time): 45 dB LAeq and 75 dB LAFmax</u></p> <p><u>g) Noise generated within any site used for substation activities which is owned and operated by a requiring authority within any zone:</u></p> <p><u>1. Noise shall not exceed the following rating noise levels within the notional boundary of any noise sensitive activity within the receiving property:</u></p> <p><u>a. 7.00am to 10.00pm (daytime): 55 dB LAeq</u></p> <p><u>b. 10.00pm to 7.00am (night-time): 45dB LAeq and 75 dB LAFmax</u></p> | <p>g. any mitigation proposed, in accordance with the best practicable option approach (e.g. site layout and design, design and location of structures, buildings and equipment and the timing of operation).</p> |
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| <p>Receiving zone</p> <p>Settlement zone</p> <p>Rural Residential</p> <p>Carrington Estate zone</p> | <p><u>Noise rule</u></p> <p><u>g, h) Noise generated in all zones, other than the zones and sites in hi) and ij) below:</u></p> <p><u>Noise generated by any activity shall not exceed the following limits within the notional boundary of any noise sensitive activity in the Settlement zones:</u></p> <p><u>1. Noise shall not exceed the following rating noise levels within the notional boundary of any noise sensitive activity within the receiving property:</u></p> | <p>Matters of discretion if compliance not achieved:</p> <p>a. ambient noise levels and any special character noise from any existing activities, the nature and character of any changes to the sound received at any receiving site and the degree to which such sounds are compatible with the surrounding activities;</p> <p>b. type, scale and location of the activity in relation to any noise sensitive activities;</p> <p>c. hours of operation and duration of activity;</p> |
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| | <p>a. 7.00am to 10.00pm (daytime): 50 dB LAeq (15min);</p> <p>b. 10.00pm to 7.00am (night-time): 40 dB LAeq (15min); and 70 dB LAFmax</p> <p>c. 10.00 pm to 7.00 am.</p> <p>hi) <u>Noise generated in Mixed Use, Light Industrial, Horticultural Processing Facilities, Ngawha Innovation and Enterprise Park or Orongo Bay zones, or from non-aircraft operation activity within an Airport zone:</u></p> <p>1. <u>Noise shall not exceed the following rating noise levels within the notional boundary of any noise sensitive activity within the receiving property:</u></p> <p>a. <u>7.00am to 10.00pm (daytime): 55 dB LAeq</u></p> <p>b. <u>10.00pm to 7.00am (night-time): 40 dB LAeq and 75 dB LAFmax</u></p> <p>ij) <u>Noise generated in the Hospital or Heavy Industrial zones or in Mineral Extraction Overlays or within any site used for substation activities which is owned and operated by a requiring authority within any zone:</u></p> <p>1. <u>Noise shall not exceed the following rating noise levels within the notional boundary of any noise sensitive activity within the receiving property:</u></p> <p>a. <u>7.00am to 10.00pm (daytime): 55 dB LAeq</u></p> <p>b. <u>10.00pm to 7.00am (night-time): 45 dB LAeq and 75 dB LAFmax</u></p> | <p>d. the temporary or permanent nature of any adverse effects;</p> <p>e. the ability to internalise and/or minimise any conflict with adjacent activities;</p> <p>f. any mitigation proposed, in accordance with the best practicable option approach (e.g. site layout and design, design and location of structures, buildings and equipment and the timing of operation); and</p> |
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| <u>Receiving zone</u> | <u>Noise rule</u> | Matters of discretion if compliance not achieved: |
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| <p>Natural Open Space zone</p> <p>Open Space zone</p> <p>Sport and Active</p> | <p>ik) <u>Noise generated in all zones, except Heavy and Light Industrial, Horticultural Processing and Orongo Bay zones:</u>³⁷</p> <p>1. <u>Noise shall not exceed the following rating noise levels at any point within the receiving property boundary:</u></p> <p>a. <u>Open Space and Sport and Active Recreation:</u></p> <p>i. <u>All times: 55dB LAeq</u></p> | <p>a. ambient noise levels and any special character noise from any existing activities, the nature and character of any changes to the sound received at any receiving site and the degree to which such sounds are compatible with the surrounding activities;</p> <p>b. type, scale and location of the activity in relation to any noise</p> |

³⁷ S516.072

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| <p>Recreation zone</p> <p>Natural Open Space</p> | <p><u>b. Natural Open Space:</u></p> <p><u>i. 7.00 am to 10.00 pm (daytime): 55 dB LAeq</u></p> <p><u>ii. 10.00 pm to 7.00 am (night-time): 45 dB LAeq</u></p> <p>Noise generated by any activity shall not exceed the following noise limits at any point within any other site in the Natural Open Space, Open Space, and Sport and Active Recreation zones:</p> <p>-</p> <p>a. 7.00 am to 10.00 pm – 50 dB LAeq (15min);</p> <p>b. 10.00 pm to 7.00 am – 40 dB LAeq (15 min); and</p> <p>c. 10.00 pm to 7.00 am – 70 dB LAFmax.</p> | <p>sensitive activities; to outdoor activities within the zone;</p> <p>c. hours of operation and duration of activity;</p> <p>d. the temporary or permanent nature of any adverse effects;</p> <p>e. the ability to internalise and/or minimise any conflict with adjacent activities;</p> <p>f. any mitigation proposed, in accordance with the best practicable option approach (e.g. site layout and design, design and location of structures, buildings and equipment and the timing of operation); and</p> <p>g. any mitigation proposed, in accordance with the best practicable option approach (e.g. site layout and design, design and location of structures, buildings and equipment and the timing of operation).</p> |
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| <p>Receiving zone</p> <p>Mixed Use zone</p> | <p><u>Noise rule</u></p> <p>k) Noise generated in all zones:</p> <p><u>1. Noise shall not exceed the following rating noise levels at any point with the receiving property boundary:</u></p> <p>Noise generated by any activity shall not exceed the following limits at any point within another site in the zone:</p> <p>Sunday to Thursday</p> <p>a. 7.00am to 10.00pm (<u>daytime</u>): 60 dB LAeq (15min);</p> <p>b. 10.00pm to 7.00am (<u>night-time</u>): 55 dB LAeq (15 min); and 80 dB LAFmax</p> <p>c. 10.00 pm to 7.00 am.</p> <p>Friday and Saturday</p> <p>a. 7.00am to midnight (<u>daytime</u>): 60 dB LAeq (15min);</p> <p>b. midnight to 7.00am: - 55 dB LAeq (15 min); and 80 dB LAFmax</p> <p>c. midnight to 7.00 am.</p> <p>2. Noise generated by any activity shall not exceed the following limits at any point within the boundary of any sites in the General Residential zone, or notional boundary of any noise sensitive activity within the Rural</p> | <p>Matters of discretion if compliance not achieved:</p> <p>a. ambient noise levels and any special character noise from any existing activities, the nature and character of any changes to the sound received at any receiving site and the degree to which such sounds are compatible with the surrounding activities;</p> <p>b. any existing noise generating activities and the level of noise that will be received within any noise sensitive building;</p> <p>c. the primary purpose and the frequency of use of the activity;</p> <p>d. the ability to design and construct buildings accommodating noise sensitive activities with sound insulation and/or other mitigation measures to ensure the level of noise received within the building is minimised particularly at night;</p> <p>e. any mitigation proposed, in accordance with the best practicable option approach (e.g. site layout and design, design and location of structures, buildings</p> |
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| | <p>Production, Rural Lifestyle, Rural Residential, Horticulture, or Māori Purpose zones:-</p> <p>a. 7.00am to 10.00pm – 55 dB L_(15min);</p> <p>b. 10.00pm to 7.00am – 40 dB L_(15min); and</p> <p>c. 10.00pm to 7.00am – 75 dB L_{AFmax};</p> | <p>and equipment and the timing of operation); and</p> <p>f. the effects on any existing noise sensitive activities</p> |
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| <p>Receiving zone</p> <p>Light Industrial zone</p> <p>Orongo Bay</p> | <p>1. Noise generated by any activity shall not exceed the following limits at any point within another site in the zone:—</p> <p>lm) Noise generated in all zones:</p> <p>1. Noise shall not exceed the following rating noise levels at any point with the receiving property boundary:</p> <p>a. 7.00am to 10.00pm (daytime): 65 dB L_{Aeq (15min)};</p> <p>b. 10.00pm to 7.00am (night-time): 60 dB L_{Aeq (15-min)}; and 80 dB L_{AFmax}</p> <p>c. 10.00 pm to 7.00 am—.</p> <p>2. Noise generated by any activity shall not exceed the following limits at any point within the boundary of any sites in the General Residential zone, or the notional boundary of any noise sensitive activity within the Rural Production, Rural Lifestyle, Rural Residential, Horticulture, or Māori Purpose zones:</p> <p>a. 7.00 am to 10.00 pm – 55 dB L_{Aeq (15min)};</p> <p>b. 10.00 pm to 7.00 am – 40 dB L_{Aeq (15 min)}; and</p> <p>10.00 pm to 7.00 am – 75 dB L_{AFmax};</p> | <p>Matters of discretion if compliance not achieved:</p> <p>a. ambient noise levels and any special character noise from any existing activities, the nature and character of any changes to the sound received at any receiving site and the degree to which such sounds are compatible with the surrounding activities;</p> <p>b. type, scale and location of the activity in relation to any noise sensitive activities;</p> <p>c. hours of operation and duration of activity;</p> <p>d. the temporary or permanent nature of any adverse effects;</p> <p>e. the ability to internalise and/or minimise any conflict with adjacent activities;</p> <p>f. any mitigation proposed, in accordance with the best practicable option approach (e.g. site layout and design, design and location of structures, buildings and equipment and the timing of operation); and</p> <p>g. the effects on any existing noise sensitive activities.</p> |
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| <p>Receiving zone</p> <p>Heavy Industrial zone</p> <p>Horticulture Processing zone</p> | <p>Noise rule</p> <p>mn) Noise generated in all zones:</p> <p>1. Noise shall not exceed the following rating noise level at any point within the receiving property boundary:</p> <p>a. All times: 75 dB L_{Aeq}</p> <p>Noise generated by any activity shall not exceed the following limits at any point within another site in the zone:</p> <p>a. All times – 75 dB L_{Aeq (15min)}</p> | <p>Matters of discretion if compliance not achieved:</p> <p>a. ambient noise levels and any special character noise from any existing activities, the nature and character of any changes to the sound received at any receiving site and the degree to which such sounds are compatible with the surrounding activities;</p> <p>b. type, scale and location of the activity in relation to any noise sensitive activities;</p> |
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| | <p>2. Noise generated by any activity shall not exceed the following limits at any point within the boundary of any sites in the General Residential zone, or the notional boundary of any noise sensitive activity within the Rural Production, Rural Lifestyle, Rural Residential, Settlement, Horticulture, or Māori Purpose zones:</p> <ul style="list-style-type: none"> a. 7.00 am to 10.00 pm – 55 dB LAeq (15min); b. 10.00 pm to 7.00 am – 40 dB LAeq (15 min); and c. 10.00 pm to 7.00 am – 75 dB LAFmax. | <ul style="list-style-type: none"> c. hours of operation and duration of activity; d. the temporary or permanent nature of any adverse effects; e. the ability to internalise and/or minimise any conflict with adjacent activities; f. any mitigation proposed, in accordance with the best practicable option approach (e.g. site layout and design, design and location of structures, buildings and equipment and the timing of operation); and g. the effects on any existing noise sensitive activities. |
| <p>Mineral extraction overlay</p> | <p>1. Mineral extraction activities shall not exceed the following limits when measured at any point within the boundary of any site in the General Residential zone, or within the notional boundary of any noise sensitive activity within the Rural Production, Rural Lifestyle, Rural Residential, Settlement, Horticulture, or Māori Purpose zones:</p> <ul style="list-style-type: none"> a. 7.00 am to 10.00 pm – 55 dB LAeq (15min); b. 10.00 pm to 7.00 am – 40 dB LAeq (15 min); and c. 10.00 pm to 7.00 am – 75 dB LAFmax. | <p>Matters of discretion if compliance not achieved:</p> <ul style="list-style-type: none"> - a. ambient noise levels and any special character noise from any existing activities, the nature and character of any changes to the sound received at any receiving site and the degree to which such sounds are compatible with the surrounding activities; b. type, scale and location of the activity in relation to any noise sensitive activities; c. hours of operation and duration of activity; d. the temporary or permanent nature of any adverse effects; e. the ability to internalise and/or minimise any conflict with adjacent activities; f. the effects on any existing noise sensitive activities; and g. any mitigation proposed, in accordance with the best practicable option approach (e.g. site layout and design, design and location of structures, buildings and equipment and the timing of operation). |
| <p>Orongo Bay zone</p> | <p>1. Noise generated by any activity shall not exceed the following limits at any point within another site in the Orongo Bay zone:</p> <ul style="list-style-type: none"> a. 7.00 am to 10.00 pm – 65 dB LAeq (15min); b. 10.00 pm to 7.00 am – 60 dB LAeq (15 min); and | <p>Matters of discretion if compliance not achieved:</p> <ul style="list-style-type: none"> - a. ambient noise levels and any special character noise from any existing activities, the nature and character of any changes to the sound received at any receiving |

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| | <p>c. 10.00 pm to 7.00 am – 80 dB L_{AFmax}.</p> <p>2. Noise generated by any activity shall not exceed the following limits at any point within the boundary of any sites in the Orongo Bay zone, or the notional boundary of any noise sensitive activity within any other zone:</p> <p>a. 7.00 am to 10.00 pm – 55 dB L_{Aeq} (15min);</p> <p>b. 10.00 pm to 7.00 am – 40 dB L_{Aeq} (15 min); and</p> <p>c. 10.00 pm to 7.00 am – 75 dB L_{AFmax}.</p> | <p>site and the degree to which such sounds are compatible with the surrounding activities;</p> <p>b. type, scale and location of the activity in relation to any noise sensitive activities;</p> <p>c. hours of operation and duration of activity;</p> <p>d. the temporary or permanent nature of any adverse effects;</p> <p>e. the ability to internalise and/or minimise any conflict with adjacent activities;</p> <p>f. the effects on any existing noise sensitive activities; and</p> <p>g. any mitigation proposed, in accordance with the best practicable option approach (e.g. site layout and design, design and location of structures, buildings and equipment and the timing of operation).</p> |
| <p>Airport zone <u>Applies to aircraft operation and engine testing within the Airport zone</u></p> | <p><u>Within the Airport zone:</u></p> <p>1. Aircraft operation associated with the Airport zone is excluded from compliance with the Noise NOISE-S1 zone standards, provided it complies with the following rules:</p> <p>2. The maximum n-Noise generated from aircraft operations at the Bay of Islands Airport, Kaitaia Airport and Kaikohe Airport over any 90 continuous days, measured in accordance with NZS 6805:1992 Airport Noise Management and Land Use Planning, shall not exceed:</p> <p>a. 55 dB L_{dn} at or beyond the outer control boundary shown on the planning maps; and</p> <p>b. 65 dB L_{dn} at or beyond the air noise boundary shown on the planning maps.</p> <p>3. The maximum n-Noise levels from aircraft engine testing measured in accordance with NZS 6801:2008 Acoustics - Measurements of Environmental Sound and assessed in accordance with NZS 6802:2008 Acoustics - Environmental Noise at any point within the boundary of a receiving environment site within General Residential, Rural Production, Rural Lifestyle, or Rural Residential zones shall not exceed: notional boundary of a noise sensitive activity on another site shall not exceed:</p> | <p>Matters of discretion if compliance not achieved:</p> <p>a. ambient noise levels and any special character noise from any existing activities, the nature and character of any changes to the sound received at any receiving site and the degree to which such sounds are compatible with the surrounding activities;</p> <p>b. any existing noise generating activities and the level of noise that will be received within any noise sensitive building;</p> <p>c. the primary purpose and the frequency of use of the activity;</p> <p>d. the ability to design and construct buildings accommodating noise sensitive activities with sound insulation and/or other mitigation measures to ensure the level of noise received within the building is minimised particularly at night; and</p> <p>e. any mitigation proposed, in accordance with the best practicable option approach (e.g. site layout and design, design and location of structures, buildings and equipment and the timing of operation).</p> <p>f. <u>All potential aircraft noise matters</u></p> |

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| | <p>a. on any day 7.00am to 10.00pm exceed 55 dB LAeq (9 15 minhour); and</p> <p>b. on any day 10.00pm to 7.00am: am not exceed 45dB LAeq (9 hours) and 75 dB LAmax, with the exception that on any 12 nights between hours of 10.00pm to 7.00am in any calendar year, the maximum noise levels from aircraft engine testing shall not exceed 50 dB LAeq (9 hour) and 75 dB LAmax.</p> | |
| NOISE-S2 Temporary activities standards | | |
| All zones | <p>1. The noise generated from any temporary activities (excluding temporary military training activities) and emergency management training activities, shall not exceed the following limits at any point:</p> <ul style="list-style-type: none"> a. within the boundary of any General Residential, Rural Residential zone or Kororāreka Russell Township Zone; and b. within the notional boundary of any noise sensitive activity in any Rural Production, Settlement, Rural Lifestyle, Horticulture or Māori Purpose zones: <ul style="list-style-type: none"> i. occur within the hours of 8.00am to 10.00pm; and ii. a maximum of four events in any 12 month period on the same site provided that the temporary activity and any pre-event rehearsal do not individually exceed four hours duration and of³⁸the following maximum noise levels: <ul style="list-style-type: none"> ▪ 70 dB LAeq (1 hour) ▪ 85 dB Leq (1 min) at 63 Hz ▪ 75 dB B <u>Leq</u>³⁹ (1 min) at 125 Hz or iii. a maximum of two events in any 12 month period on the same site provided that the temporary activity does not exceed 12 hours per day over a maximum duration of three consecutive days and the following maximum noise limits: | <p>Matters of discretion if compliance not achieved:</p> <ul style="list-style-type: none"> a. ambient noise levels and any special character noise from any existing activities, the nature and character of any changes to the sound received at any receiving site and the degree to which such sounds are compatible with the surrounding activities; and b. type, scale and location of the activity in relation to any noise sensitive activities; c. hours of operation and duration of activity; d. the temporary or permanent nature of any adverse effects; e. the ability to internalise and/or minimise any conflict with adjacent activities; f. the effects on any existing noise sensitive activities; and g. any mitigation proposed, in accordance with the best practicable option approach (e.g. site layout and design, design and location of structures, buildings and equipment and the timing of operation). |

³⁸ Clause 16 correction

³⁹ S516.073

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| | <ul style="list-style-type: none"> ▪ 60 dB LAeq (1 hour) ▪ 75 dB Leq (1 min) at 63 Hz ▪ 65 dB <u>dB</u> LAeq⁴⁰ (1 min) at 125 Hz <p>2. The above noise levels can increase by 10 dB (LAeq) where the receiving site it is⁴¹ within the Mixed Use, Light Industrial, Heavy Industrial, Open Space, Sport and Active Recreation, and Natural Open Space zones; and</p> <p>3. A maximum of one public fireworks display on the same site in any 12 month period that does not comply with the above noise limits provided:</p> <ol style="list-style-type: none"> a. all Rural zoned properties within 1,000m of the fireworks are advised in writing at least seven days in advance; and b. the fireworks display finishes before 10.30pm. | |
| NOISE-S3 | Noise from temporary military training activities | |
| All zones | <p>Noise generated from fixed noise sources shall not exceed the following limits at any point within the notional boundary of any noise sensitive activity:</p> <ol style="list-style-type: none"> 1. 7am to 7pm <u>10pm</u>: 50 dB LAeq(15min); 7pm to 10pm — 45 50 dB LAeq(15min); 2. 10pm to 7am: 40 45 dB LAeq(15min); and 3. 10 pm to 7 am: 70 <u>75</u>⁴² dB LAE_{max}: | <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> a. the level, hours of operation, duration and nature of the noise; b. proximity and nature of nearby activities and the adverse effects they may experience from the noise; c. the existing noise environment; d. effects on character and amenity values on the surrounding environment; e. effects on the health and wellbeing of people; and f. any noise reduction measures. |
| NOISE-S4 | Helicopter landing areas | |
| All zones | <p>Noise generated from the movements and landing of helicopters shall comply with the following noise limits when measured at any point within any General Residential and Rural Residential zones, or within the notional boundary of any noise sensitive activity in the Rural Production, Rural Lifestyle, Settlement, Horticulture or Māori Purpose zones when assessed in accordance with NZS 6807:1994: Noise Management and Land Use Planning for Helicopter Landing Areas.</p> | <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> a. the extent of non-compliance and whether the proposal complies with noise limits of 50 dB L_{dn}; b. whether there are any restrictions on the number of movements proposed; |

⁴⁰ S516.073

⁴¹ Clause 16 correction

⁴² S217.020

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| | <p>Noise generated from the operation of helicopters complies with the following noise limits when assessed in accordance with NZS 6807:1994: Noise Management and Land Use Planning for Helicopter Landing Areas:</p> <ol style="list-style-type: none"> 1. <u>40 dB L_{dn} when measured at any point within any General Residential, Rural Residential, Hospital and Māori Purpose-Urban zones, or within the notional boundary of any noise sensitive activity in the Rural Production, Rural Lifestyle, Settlement, Horticulture, Carrington Estate, Kororareka Russell Township, Moturoa Island, Kauri Cliffs, Ngawha Innovation and Enterprise Park, Quail Ridge or Māori Purpose – Rural zones.</u> 2. <u>50 dB L_{dn} when measured within any Mixed Use Zone, or within any other zone not otherwise listed in NOISE-S4.</u> 3. <u>60 dB L_{dn} when measured at any point within any Light Industrial zone</u> 4. <u>70 dB L_{dn} within any Heavy Industrial or Horticultural Processing zone.</u>⁴³ <p>Note: Section 4.3 of NZS 6807:1994 shall not apply.</p> | <ol style="list-style-type: none"> c. the level, duration and character of the noise; d. proximity and nature of nearby activities and the adverse effects they may experience from the noise; e. effects on character and amenity values on the surrounding environment; f. effects on health and wellbeing of people; g. noise mitigation measures proposed; h. any wider social or community benefits from the operation of helicopters; and i. any potential cumulative effects. <ol style="list-style-type: none"> a. That compliance with a helicopter noise limit of 50 dB L_{dn} will occur at noise sensitive activities, or that compliance with the guidelines of NZS6807:1994 will be achieved at non-noise sensitive receivers Section 4.3 of NZS 6807:1994 shall not apply b. <u>The potential for cumulative helicopter noise levels to exceed 50 dB L_{dn} (7 day) at noise sensitive activities.</u> c. <u>Any restrictions on any weekly, monthly or annual helicopter movements proposed.</u> d. <u>Any potential wider social or community benefits from the operation of the helicopter.</u> <p>Note: The restricted discretionary noise rule of 50 dB L_{dn} is the same as that recommended in NZS6807:1994 as the “limit of acceptability” for rural or residential landuse. The 40 dB L_{dn} permitted standard is intentionally set at a much lower level. Compliance with the permitted standard will typically have an insignificant effect on amenity.</p> |
| <p>NOISE-S5 Noise insulation standards for all noise sensitive activities</p> | | |
| <p>All zones within 40m of a State Highway that</p> | <ol style="list-style-type: none"> 1. Any habitable room in a new building used for a noise sensitive activity, or an alteration to an existing building that changes its use to a noise sensitive activity, must be designed, constructed, | <p>Matters of discretion are restricted to:</p> |

⁴³ S516.074 and others

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| <p>exceed an average of 15,000 daily one-way vehicle movements⁴⁴</p> <p><u>All zones within 100m of an operational rail line</u></p> | <p>and maintained to achieve a maximum internal noise limits set out in Table 1 by: of 40dB L_{Aeq}(24h);</p> <p>2. Compliance with (1) above shall be achieved based on an existing noise level with a 2-3 decibel addition allowing for future traffic increases and design uncertainty;⁴⁵</p> <p>a. Compliance with (1) above shall be achieved if, prior to the construction of any building containing a habitable room, an acoustic design certificate from a suitably qualified acoustic engineer is provided to the Council stating the design will achieve compliance with this standard, or the certificate shows that the noise at all exterior façades of that part of the building is no more than 15 dB above the relevant noise limits in Table 1. design noise level as determined in accordance with (2) above is less than 55 dB L_{Aeq}(24h) for road.</p> <p><u>When providing the acoustic design certificate the following applies:</u></p> <p>(i) <u>For roads, the acoustic design certificate shall be achieved based on an existing traffic noise level with a 3 dB addition allowing for future traffic increases and design uncertainty;</u></p> <p>(ii) <u>For rail, railway noise is assumed to be 70 L_{Aeq}(1h) at a distance of 12 metres from the track (unless otherwise determined by a suitably qualified and experienced person) and must be deemed to reduce at a rate of 3 dB per doubling of distance up to 40 metres and 6 dB per doubling of distance beyond 40 metres.</u></p> <p><u>OR</u></p> <p>b. <u>For rail: 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</u></p> | <p>a. effects in the ability of existing or permitted activities to operate or establish without undue constraint;</p> <p>b. any legal instruments proposed;</p> <p>c. mitigation of noise achieved through other means;</p> <p>d. any topographical or other site constraints;</p> <p>e. any alternative solutions proposed by a suitably qualified acoustic engineer to achieve appropriate amenity for present and future residents of the site;</p> <p>f. any existing noise generating activities and the level of noise that will be received within any noise sensitive building;</p> <p>g. the primary purpose and the frequency of use of the activity; and</p> <p>h. the ability to design and construct buildings accommodating noise sensitive activities with sound insulation and/or other mitigation measures to ensure the level of noise received within the building is minimised particularly at night.</p> <p>a. <u>The extent of noncompliance with the noise and vibration standards.</u></p> <p>b. <u>Effects on the health and wellbeing of people.</u></p> <p>c. <u>The reverse sensitivity effects on the rail or road network, including the extent to which the activity will unduly constrain the</u></p> |
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⁴⁴ S356.109

⁴⁵ S356.110

| | <p><u>to all points 3.8 metres above railway tracks.</u></p> <p><u>OR</u></p> <p>c. <u>For rail: is a single-storey framed residential building with habitable rooms designed, constructed and maintained in accordance with the construction schedule in Schedule 'Z'.</u></p> <p><u>Table 1: Internal noise limits for state highway and rail corridor noise</u></p> <table border="1"> <thead> <tr> <th><u>Building type</u></th> <th><u>Occupancy/activity</u></th> <th><u>Maximum internal railway noise level</u> <u>L_{Aeq}(1h)</u></th> <th><u>Maximum internal state highway noise level</u> <u>L_{Aeq}(24h)</u></th> </tr> </thead> <tbody> <tr> <td rowspan="2"><u>Residential</u></td> <td><u>Sleeping spaces</u></td> <td><u>40 dB</u></td> <td><u>40 dB</u></td> </tr> <tr> <td><u>All other habitable rooms</u></td> <td><u>40 dB</u></td> <td><u>40 dB</u></td> </tr> <tr> <td rowspan="3"><u>Education</u></td> <td><u>Lecture rooms/ theatres, music studios, assembly halls</u></td> <td><u>35 dB</u></td> <td><u>35 dB</u></td> </tr> <tr> <td><u>Teaching areas, conference rooms, drama studios, sleeping areas</u></td> <td><u>40 dB</u></td> <td><u>40 dB</u></td> </tr> <tr> <td><u>Library reading areas</u></td> <td><u>45 dB</u></td> <td><u>45 dB</u></td> </tr> <tr> <td rowspan="2"><u>Health</u></td> <td><u>Overnight medical care, wards</u></td> <td><u>40 dB</u></td> <td><u>40 dB</u></td> </tr> <tr> <td><u>Clinics, consulting rooms, theatres, nurses' stations</u></td> <td><u>45 dB</u></td> <td><u>45 dB</u></td> </tr> <tr> <td><u>Cultural</u></td> <td><u>Main congregational areas within places of worship and</u></td> <td><u>35 dB</u></td> <td><u>35 dB</u></td> </tr> </tbody> </table> | <u>Building type</u> | <u>Occupancy/activity</u> | <u>Maximum internal railway noise level</u> <u>L_{Aeq}(1h)</u> | <u>Maximum internal state highway noise level</u> <u>L_{Aeq}(24h)</u> | <u>Residential</u> | <u>Sleeping spaces</u> | <u>40 dB</u> | <u>40 dB</u> | <u>All other habitable rooms</u> | <u>40 dB</u> | <u>40 dB</u> | <u>Education</u> | <u>Lecture rooms/ theatres, music studios, assembly halls</u> | <u>35 dB</u> | <u>35 dB</u> | <u>Teaching areas, conference rooms, drama studios, sleeping areas</u> | <u>40 dB</u> | <u>40 dB</u> | <u>Library reading areas</u> | <u>45 dB</u> | <u>45 dB</u> | <u>Health</u> | <u>Overnight medical care, wards</u> | <u>40 dB</u> | <u>40 dB</u> | <u>Clinics, consulting rooms, theatres, nurses' stations</u> | <u>45 dB</u> | <u>45 dB</u> | <u>Cultural</u> | <u>Main congregational areas within places of worship and</u> | <u>35 dB</u> | <u>35 dB</u> | <p><u>ongoing operation, maintenance and upgrade of the rail or road network.</u></p> <p>d. <u>The outcome of any consultation with KiwiRail or NZTA.</u></p> |
|----------------------|---|---|--|---|--|--------------------|------------------------|--------------|--------------|----------------------------------|--------------|--------------|------------------|---|--------------|--------------|--|--------------|--------------|------------------------------|--------------|--------------|---------------|--------------------------------------|--------------|--------------|--|--------------|--------------|-----------------|---|--------------|--------------|---|
| <u>Building type</u> | <u>Occupancy/activity</u> | <u>Maximum internal railway noise level</u> <u>L_{Aeq}(1h)</u> | <u>Maximum internal state highway noise level</u> <u>L_{Aeq}(24h)</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>Residential</u> | <u>Sleeping spaces</u> | <u>40 dB</u> | <u>40 dB</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <u>All other habitable rooms</u> | <u>40 dB</u> | <u>40 dB</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>Education</u> | <u>Lecture rooms/ theatres, music studios, assembly halls</u> | <u>35 dB</u> | <u>35 dB</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <u>Teaching areas, conference rooms, drama studios, sleeping areas</u> | <u>40 dB</u> | <u>40 dB</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <u>Library reading areas</u> | <u>45 dB</u> | <u>45 dB</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>Health</u> | <u>Overnight medical care, wards</u> | <u>40 dB</u> | <u>40 dB</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <u>Clinics, consulting rooms, theatres, nurses' stations</u> | <u>45 dB</u> | <u>45 dB</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>Cultural</u> | <u>Main congregational areas within places of worship and</u> | <u>35 dB</u> | <u>35 dB</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| | <p><u>the wharenui of marae</u></p> | | | |
| <p>3. The building shall be designed, constructed, and maintained in accordance with the design certificate. The design certificate shall also state the required HVAC design noise levels that are to be included in the ventilation design as well as any relevant assumptions; or</p> <p>4. Where design external noise levels in (2) above are greater than 55 dB LAeq(24h). Compliance with this clause shall be achieved if, prior to construction of any habitable room, a ventilation and HVAC design certificate is provided by a suitably qualified practitioner.</p> <p>2. <u>If windows must be closed to achieve internal noise limits Where design external noise levels in (1A 2) above are greater than 55 dB LAeq(24 h) the specified spaces in Table 1 habitable rooms of the noise sensitive activity must be designed, constructed and maintained with cooling and mechanical ventilation system(s) that achieves the following requirements:</u></p> <ul style="list-style-type: none"> i. <u>Provides mechanical ventilation to satisfy clause G4 of the New Zealand Building Code; and</u> ii. <u>provides cooling that is controllable by the occupant and can maintain the inside temperature to below 25°C</u> <p>(a) <u>Achieves the following requirements for habitable rooms, including sleeping spaces within a residential activity:</u></p> <ul style="list-style-type: none"> i. <u>provides mechanical ventilation to satisfy clause G4 of the New Zealand Building Code; and</u> ii. <u>is adjustable by the occupant to control the ventilation rate in increments up to a high air flow setting that provides at least 1 air changes per hour; and</u> iii. <u>provides relief for equivalent volumes of spill air;</u> iv. <u>provides cooling and heating that is controllable by the occupant and can maintain the inside temperature between 18°C and 25°C; and</u> v. <u>does not generate more than 35 dB LAeq(30s) when measured 1 metre away from any grille or diffuser. The noise level must be measured after the system has cooled the room to the temperatures in (2)(a)(iv) or after a period of 30 minutes from the</u> | | | | |

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| | <p><u>commencement of cooling (whichever is the lesser).</u></p> <p><u>OR</u></p> <p><u>(b) As determined by a suitably qualified and experienced person.</u></p> <p><u>AND</u></p> <p><u>(c) For other spaces, is as determined by a suitably qualified and experienced person.⁴⁶</u></p> <p><u>5. Noise levels from ducted ventilation and cooling systems must be designed to within the design sound level range of NZS2107:2016 when measured as a time and space average over the room beyond 1 metre from any diffuser or outlet. If split system air conditioning systems are used, an HVAC design certificate must confirm these are of good quality, suitable for noise sensitive applications, and include a “low noise” or “quiet” operation mode.⁴⁷</u></p> | |
| <p>Mixed Use zone</p> <p>Light Industrial zone</p> <p>Orongo Bay zone</p> | <ol style="list-style-type: none"> 1. Any habitable room in a new building used for a noise sensitive activity, or an alteration to an existing building that changes its use to a noise sensitive activity, must be designed, constructed, and maintained to achieve the following maximum internal noise limit: <ol style="list-style-type: none"> a. Any habitable room used as a bedroom: 30 dB LAeq; and b. Other habitable rooms in residential units, or teaching areas:⁴⁹ 40 dB LAeq. 2. The following external noise levels in <u>NOISE-Table 1</u> shall be used in the design and shall be assumed to be incident on the exposed wall facade(s). An assessment from a suitably qualified acoustic engineer may determine noise levels on other building elements based on the surrounding environment using NOISE-Table 1 - Design Noise Level Incident; and 3. Compliance with (1) above shall be achieved if, prior to construction of any building containing habitable rooms used by noise sensitive activities, an acoustic design certificate from a suitable qualified acoustic engineer is provided to the | <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> a. effects in the ability of existing or permitted activities to operate or establish without undue constraint; b. any legal instruments proposed; c. mitigation of noise achieved through other means; d. any topographical or other site constraints; and e. any alternative solutions proposed by a suitably qualified acoustic engineer to achieve appropriate amenity for present and future residents of the site. |

⁴⁶ S416.041 and others

⁴⁷ S516.075

⁴⁸ Clause 16 correction

⁴⁹ Clause 16 correction

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| | <p>Council stating the design will achieve compliance with this standard. The design certificate shall also state the required HVAC design noise levels that are to be included in the ventilation design as well as any relevant assumptions.</p> <p>4. <u>The habitable rooms of the noise sensitive activity must be designed, constructed and maintained with cooling and mechanical ventilation system(s) that achieves the following requirements:</u></p> <ul style="list-style-type: none"> i. <u>Provides mechanical ventilation to satisfy clause G4 of the New Zealand Building Code; and</u> ii. <u>provides cooling that is controllable by the occupant and can maintain the inside temperature to below 25°C</u> <p>5. <u>Noise levels from ducted ventilation and cooling systems must be designed to within the design sound level range of NZS2107:2016 when measured as a time and space average over the room beyond 1 metre from any diffuser or outlet. If split system air-conditioning systems are used, an HVAC design certificate must confirm these are of good quality, suitable for noise sensitive applications, and include a “low noise” or “quiet” operation mode.⁵⁰</u></p> | |
| <p>Outer noise control boundary</p> | <p>1. Any noise sensitive activity with a habitable room in a new building or alteration or addition to an existing building, that is located between the outer control boundary and the air noise boundary shown on the planning maps shall be designed, constructed, and maintained to meet an internal noise level of:</p> <ul style="list-style-type: none"> a. 40 dB L_{dn}. <p>2. Compliance with (1) above shall be achieved if, prior to the construction of any building containing a habitable room, an acoustic design certificate from a suitably qualified acoustic engineer is provided to the Council which certifies that the proposed design and construction of the building, alterations or additions will achieve the internal sound levels. The building shall be designed, constructed, and maintained in accordance with the design certificate; or</p> | <p>Matters of discretion are restricted to:</p> <ul style="list-style-type: none"> a. effects in the ability of existing or permitted activities to operate or establish without undue constraint; b. any legal instruments proposed; c. mitigation of noise achieved through other means; d. any topographical or other site constraints; and e. any alternative solutions proposed by a suitably qualified acoustic engineer to achieve appropriate amenity for present and future residents of the site. |

⁵⁰ S516.075

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| | <p>3. <u>The habitable rooms of the noise sensitive activity must be designed, constructed and maintained with cooling and mechanical ventilation system(s) that achieves the following requirements:</u></p> <ul style="list-style-type: none"> i. <u>Provides mechanical ventilation to satisfy clause G4 of the New Zealand Building Code; and</u> ii. <u>provides cooling that is controllable by the occupant and can maintain the inside temperature to below 25°C</u> <p>4. <u>Noise levels from ducted ventilation and cooling systems must be designed to within the design sound level range of NZS2107:2016 when measured as a time and space average over the room beyond 1 metre from any diffuser or outlet. If split system air-conditioning systems are used, an HVAC design certificate must confirm these are of good quality, suitable for noise sensitive applications, and include a “low noise” or “quiet” operation mode.⁵¹</u></p> <p>5. Where the noise level specified in (1) above cannot be met with ventilating windows open, a ventilation system shall be installed.</p> <p>Note:</p> <ul style="list-style-type: none"> i. For the purpose of this standard, ventilation system means a system complying with the Acceptable Solutions and Verification Methods for New Zealand Building Code Clause G4 Ventilation. This standard will ensure a minimum level of mechanical ventilation with ventilating windows closed. | |
| NOISE - S6 | Explosives | |
| All zones | <p>Noise generated from the use of explosives shall comply with noise limits set in NOISE - Table 2 - Explosives, when measured at the specified receiver site in any zone.</p> <p>Notes:</p> <ul style="list-style-type: none"> 1. In assessing the above noise and vibration levels, airblast and ground vibration shall be measured and assessed in accordance with AS2187.2:2006 Explosives — Storage and Use Part 2: Use of Explosives; 2. Noise shall be measured at any point within any Residential, Mixed Use, Natural Open Space or Industrial zone, or within | Matters of discretion are restricted to: Not applicable |

⁵¹ S516.075

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| the notional boundary of any noise sensitive activity in the Rural Production, Rural Living, Horticulture, Rural Lifestyle, Settlement or Māori Purposes zone; and | |
| 3. One blast per annum may exceed the peak airblast sound limits by 5 dB. | |

NOISE-Table 1 - Design noise level incident

| Zone | Design noise level dB LAeq (incident <u>on façade</u>) | | | | | | | |
|---|---|-----|-----|-----|-----|-----|----------|-------------------|
| | 63 | 125 | 250 | 500 | 1 | 2 | <u>4</u> | dBA ⁵² |
| | Hz | Hz | Hz | Hz | kHz | kHz | kHz | |
| Mixed Use <u>and Orongo Bay⁵³</u> | | | | | | | | |
| Bedrooms | 63 | 57 | 53 | 51 | 51 | 48 | 43 | 55 |
| Other habitable rooms | 68 | 62 | 58 | 56 | 56 | 53 | 48 | 60 |
| Light Industrial <u>and Orongo Bay⁵⁴</u> | | | | | | | | |
| Bedrooms | 56 | 58 | 59 | 59 | 54 | 52 | 50 | 60 |
| Other habitable rooms | 61 | 63 | 64 | 64 | 59 | 57 | 55 | 65 |

NOISE- Table 2 - Explosives

| Receiver | Permitted blasting time window | Number of blast per year | Peak airblast sound limit dB <u>Lzpeak-Lzpeak</u> | Ground Borne Vibration Limit PPV |
|--|--------------------------------|--------------------------|--|------------------------------------|
| Occupied noise sensitive activity | 0700 to 1900 hours | ≤ 20 >20 | 120 115 | 10mm/s <u>5mm/s</u> |
| Occupied commercial and industrial buildings | All hours | All hours | All <u>125</u> | 25mm/s |
| Unoccupied buildings | All hours | All hours ⁵⁵ | All <u>140</u> | AS2187.2:2006 Table J4.5(B) limits |

Schedule 'Z' Construction schedule for indoor noise control

| | |
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| <u>Elements</u> | <u>Minimum construction for noise control in addition to the requirements of the New Zealand Building Code</u> |
| <u>External walls</u> | <u>Wall cavity infill of fibrous insulation, batts, or similar (minimum density of 9 kg/m³)</u> |

⁵² Clause 16 corrections⁵³ S516.076⁵⁴ S516.076⁵⁵ S516.077

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| | <u>Cladding and internal wall lining complying with either Options A, B, or C below:</u> | |
| | <u>Option A - Light cladding: timber weatherboard or sheet materials with surface mass between 8 kg/m² and 30 kg/m² of wall cladding</u> | <u>Internal lining minimum 17 kg/m² plasterboard such as two layers of 10 mm thick high-density plasterboard, on resilient/isolating mountings</u> |
| | <u>Option B - Medium cladding: surface mass between 30 kg/m² and 80 kg/m² of wall cladding</u> | <u>Internal lining of minimum 17 kg/m² plasterboard such as two layers of 10 mm thick high-density plasterboard.</u> |
| | <u>Option C - Heavy cladding: surface mass between 80 kg/m² and 220 kg/m² of wall cladding</u> | <u>No requirements additional to the New Zealand Building Code</u> |
| <u>Roof/ceiling</u> | <u>Ceiling cavity infill of fibrous insulation, batts, or similar (minimum density of 7 kg/m³)</u> | |
| | <u>Ceiling penetrations, such as for recessed lighting or ventilation, shall not allow additional noise break-in</u> | |
| | <u>Roof type and internal ceiling lining complying with either Options A, B, or C below:</u> | |
| | <u>Option A - Skillion roof with light cladding: surface mass up to 20 kg/m² of roof cladding</u> | <u>Internal lining of minimum 25 kg/m² plasterboard, such as two layers of 13 mm thick high-density plasterboard</u> |
| | <u>Option B - Pitched roof with light cladding: surface mass up to 20 kg/m² of roof cladding</u> | <u>Internal lining of minimum 17 kg/m² plasterboard, such as two layers of 10 mm thick high-density plasterboard</u> |
| | <u>Option C - Roof with heavy cladding: surface mass between 20 kg/m² and 60 kg/m² of roof cladding</u> | <u>No requirements additional to the New Zealand Building Code</u> |
| <u>Glazed areas</u> | <u>Aluminum frames with full compression seals on opening panes</u> | |
| | <u>Glazed areas must be less than 35% of each room floor area</u> | |
| | <u>Either, double-glazing with:</u> | |
| | <ul style="list-style-type: none"> • <u>a laminated pane of glass at least 6 mm thick; and</u> • <u>a cavity between the two panes of glass at least 12 mm deep; and</u> • <u>a second pane of glass at least 4 mm thick</u> | |
| | <u>Or, any other glazing with a minimum performance of Rw 33 dB</u> | |
| <u>Exterior doors</u> | <u>Exterior door with line-of-sight, to any part of the state highway road surface or any point 3.8 m above railway tracks</u> | <u>Solid core exterior door, minimum surface mass 24 kg/m², with edge and threshold compression seals; or other doorset with a minimum performance of Rw 30 dB</u> |
| | <u>Exterior door shielded by the building so there is no line-of-</u> | <u>Exterior door with edge and threshold compression seals</u> |

| | | |
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| | <p><u>sight to any parts of the state highway road surface or any points 3.8 meters above railway tracks</u></p> | |
|--|--|--|