

Appendix 1 – Recommended Amendments to the Noise Chapter – Supplementary Evidence

KEY

Red Underlined – Additions recommended as part of s42A Report

~~Red Strikethrough~~ – Deletions recommended as part of s42A Report

Green Underlined – Additions recommended as part of Supplementary Evidence

~~Green Strikethrough~~ – Deletions recommended as part of Supplementary Evidence

NOISE - NOISE

Overview

Noise is an environmental *effect* that has the potential to cause adverse *effects* on amenity, cause annoyance and impact on health. Almost all activities produce some *noise effects*. The purpose of the Noise Chapter is to provide noise limits for zones and specific activities to ensure land use are compatible with the anticipated amenity values of that zone and adjoining zones. The District Plan zone chapters control the types of activities that are permitted in each zone. The noise chapter works in conjunction with the zone chapters to inform and control the *noise* effects that may reasonably be expected from the permitted activities in each zone. The noise chapter controls the timing, character and level of *noise* that is considered generally acceptable in each zone and from specific noise generating activities. The *noise* limits for each zone are designed for the anticipated purpose, character and amenity of that zone.

Noise may cause adverse *effects* depending on when and where the *noise* occurs in relation to other activities, its duration, the characteristics of the *noise* including the sound pressure level (loudness) and frequency (pitch), its steadiness, and whether it has *special audible characteristics* (*noise* that is tonal or impulsive). The sensitivities of an individual and their expectations are other factors that determine the level of annoyance. The background sound level in different environments also influences the level of acceptability to *noise*, which varies throughout the district. Some *noise* is accepted as part of day-to-day living, for example lawn mowing, or farm animal *noise* within *rural areas* or machinery in an industrial zone. However, in some cases the *noise* can become more significant and cause adverse *effects* in the surrounding environment.

In addition, section 16 of the Resource Management Act 1991 (RMA) also places a duty on persons undertaking activities to adopt the *best practicable option* to ensure that the emission of *noise* does not exceed a reasonable level. In some cases, unreasonable levels of *noise* may occur at a level below the standards specified in the District Plan, and the Council can take action under the RMA to control unreasonable levels of *noise*.

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Where *noise* generating activities have or can be legally established, such as processing industries in *rural areas*, or where higher *noise* levels can occur, such as on State Highways and railways, it may be appropriate to manage the location of *noise sensitive activities*, such as *residential activities*, to protect the amenity and health of people and avoid complaints arising in relation to the *noise* from those activities.

A rail corridor vibration alert layer, for information purposes only, identifies an area where rail vibration may be experienced.

Objectives

- NOISE-O1 Recognise and provide for activities that generate *noise* whilst ensuring that the character, timing and duration of *noise* levels are compatible with the purpose and character of each zone.
- NOISE-O2 Activities do not generate unreasonable *noise effects* which adversely affect *amenity values* and health and ~~wellbeing~~ well-being of people and communities.
- NOISE-O3 Require *noise sensitive activities* to be located, designed and constructed to achieve reasonable indoor noise levels, minimise conflict and manage potential *reverse sensitivity effects*.

Policies

- NOISE-P1 Maintain the character and amenity of each zone by controlling the types of activities and level of *noise* that is permitted in each zone.
- NOISE-P2 Ensure the health and ~~wellbeing~~ well-being of people and the community is protected by managing *noise effects* generated by an activity, having regard to:
1. the frequency, intensity, duration and offensiveness of the *noise* being generated;
 2. whether the level, intensity, character and timing of *effects* are compatible with the character and amenity of the location and adjacent activities;
 3. internalisation of *noise effects* to the extent practicable and to avoid or minimise conflict at and beyond *site* boundaries;
 4. any impact on the health and well-being of the surrounding community (including sleep disturbance);
 5. the adoption/implementation of *best practicable options* to minimise the adverse *effects*;
 6. any positive *effects* associated with the activity;
 7. The extent to which noise levels may compromise the ability of existing and anticipated activities to operate or establish in the future without undue constraints; and
 8. the ability to avoid conflict with existing and anticipated *noise sensitive activities*.
- NOISE-P3 Require acoustic treatment within *buildings* used by *noise sensitive activities* in the following locations:
1. adjacent to the State Highway and rail network; and

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2. within Industrial, Mixed Use, Local Centre and Town Centre Zones.

NOISE-P4 Enable the infrequent *noise* levels associated with *temporary activities*, *temporary military training activities* and *emergency services training activities* provided that the level, timing and duration of *noise* is reasonable.

Notes

Note 1 Provisions in Other Chapters

The provisions in this chapter apply in addition to the provisions of the other chapters in the District Plan and the plan should be read as a whole. This chapter also implements other chapters in the District Plan that do not have specific rules such as Sites and Areas of Significance to Māori and Mana Whenua.

Note 2 Noise sources exempt from specific rules and standards

Noise associated with the following activities are not subject to the Rules and Standards of the Noise Chapter:

1. Any warning device, siren, mobile equipment or fixed plant used by emergency services during an emergency response or for routine testing and maintenance, ~~including noise from helicopter take off and landings during an emergency response~~. This exemption does not apply to the noise generated at permanent emergency services depots or bases, such as fire stations, police stations or the base for emergency aircraft.
2. Volunteer fire brigade sirens.
3. Emergency helicopter landings and take offs which are associated with the function of the hospital in terms of patient care.
4. Noise from vehicles on *roads* which are managed by a road controlling authority.
5. Trains on rail lines, including at railway *yards*, railway sidings or stations and level crossing warning devices. This exemption does not apply to the testing (when stationary), maintenance or unloading of trains, or trains on private sidings.
6. Overflying *aircraft* and noise from aircraft taking-off and landing in the Airport Zone and Mandeville Aviation and Rail Precinct.
7. Motorcraft operating on the surface of *waterbodies*.
8. *Noise* from animals and birds associated with non-commercial activities on a site.

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9. Noise from vehicles, machinery or equipment undertaking *agricultural, horticultural and pastoral activities* in the *rural environment*, including *noise* from stock, other outdoor animals and working dogs, and audible bird scaring devices but excluding *noise* from stationary processing activities.
10. Public firework displays.
11. *Noise* from *plantation forestry*, which is managed under section 98 of the Resource Management (National Environment Standard for Plantation Forestry) Regulations 2017.

While the above noise sources are exempt from meeting the noise standards, any potential and actual adverse effects associated with the character, timing, duration or level of noise shall be considered for any discretionary or non-complying activity.

Section 16 of the RMA places a general duty on all operators and occupiers to adopt the *best practicable option* to ensure *noise* (including vibration) emitted from any *site* does not exceed a reasonable level. What constitutes a "reasonable level" is not prescribed by the RMA. However, the Rules and Standards of this chapter and the zone chapters are designed for the anticipated activities in each zone and may be used as a guide together with the relevant Objectives and Policies when considering whether the timing, duration, level and character of noise effects of activities that require resource consent will be reasonable.

Note 3

Rail Corridor Vibration Alert Layer

The Rail Corridor Vibration Alert Layer identifies the vibration-sensitive area within 60 metres each side of the rail corridor. Properties within this area may experience rail vibration. No specific district plan rules or notification requirements apply within the Rail Corridor Vibration Alert Layer.

Rules

NOISE-R1 Noise from activities not otherwise provided for in this Chapter

Activity Status: Permitted

Where:

1. The activity complies with NOISE-S1 and NOISE-S2

Activity status where compliance not achieved:

Restricted Discretionary

Matters of discretion:

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		1. <u>The extent and effect of non-compliance with any noise standards and the matters of discretion for the relevant infringed standard.</u>
NOISE-R12	Noise from construction activities	
All zones	Activity status: Permitted Where: - Noise from construction work complies with the following limits in Table 32 when measured and assessed at 1m from the nearest external wall of any building containing a Noise Sensitive Activity that is occupied during the work; and - Noise from construction work complies with the following limits in Table 43 when measured and assessed at 1m from the nearest external wall of any other building that is occupied during the work; and - The noise from construction shall be measured and assessed in accordance with NZS6803:1999 unless varied by any part of this Chapter. Notes: <i>The duration of any construction activity is defined by the duration of the entire project from start to finish, even though some large projects may only affect some receivers for shorter periods.</i> <i>Short-term duration means up to 14 days of work.</i> <i>Typical duration means up to between 15 days and 20 weeks of work.</i>	Activity status where compliance is not achieved: Restricted Discretionary Matters of discretion: - The noise level, hours of operation, duration and nature of the noise. - Proximity and nature of nearby activities and the adverse effects and disruption they may experience from the noise. - The noise levels inside any affected building where the doors and windows of that building are normally closed. - Effects on character and amenity values on the surrounding environment, particularly for long term construction work. - Effects on the health and ~~wellbeing~~ <u>well-being</u> of people. - Any noise reduction measures or mitigation. - Length of time for which the specified noise standard will be exceeded at any receiver(s). - Alternative methods to avoid or minimize noise effects. - Whether any proposed measures to avoid, mitigate or otherwise manage noise or vibration generated by the activity represent the best practicable option.

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- (c) *Long-term duration means more than 20 weeks of work.*
2. *The measurement and assessment period for construction activity noise is 30 minutes. No adjustment for duration or averaging shall be applied.*

NOISE-R23 Vibration from *construction activities*

All zones

Activity status: Permitted

Where:

1. Vibration from any *construction activity* does not exceed:
 - (a) **Building damage limits** - the limits set out in German Industrial Standard DIN 4150-3 (2016): *Vibrations in buildings – Part 3: Effects on structures* when measured in accordance with that standard on any structure not on the same site; and
 - (b) **Amenity limits** - the limits in the table below when measured in the nearest corner of the floor of any storey within a multi-storey building, or within 500mm of ground level at the foundation of a single storey building containing any *noise sensitive activity* that is occupied during the *construction activity*.

Receiver	Period	Peak Particle Velocity Limit millimeters/second
Occupied <i>noise sensitive activity</i>	Night-time 10.00pm to 7.30am	0.3 mm/s

Activity status where compliance is not achieved with:

NOISE-R3(1)(a): Non-Complying

NOISE-R3(1)(b):

Restricted Discretionary

Matters of discretion:

1. Management of *effects* from the activity with particular regard to:
 - (a) The level, timing, duration and nature of the vibration;
 - (b) Proximity and nature of nearby activities and the adverse effects and disruption they may experience from the vibration;
 - (c) The potential effects on buildings and structures;
 - (d) Any proposed measures to manage or mitigate vibration levels and effects;
 - (e) Length of time for which the vibration standard will be exceeded at any receiver(s); and
 - (f) Alternative methods to avoid or minimise vibration effects.

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	Daytime 7.30am to 10.00pm	2 mm/s
Other occupied buildings	At all times	2 mm/s

Notes:

1. *All vibration measurements shall be undertaken in accordance with ISO-4866:2010 – Mechanical vibration and shock.*
2. *Construction vibration levels of 2mm/s PPV are easily felt by receivers in residential units or other buildings and may generate complaints, especially if the source or impending duration of the vibration is unknown.*
3. *A construction vibration limit of 0.3mm/s PPV is near the limit of perception for most people and compliance with such a limit would avoid sleep disturbance for most people. The low limit would likely mean that no construction activity involving tracked or heavy machinery could occur in proximity to any occupied noise sensitive activity.*
4. *The vibration levels in NOISE - R3.1.a are only likely to be approached or exceeded where high-vibration construction activities are undertaken, such as piling, vibratory compaction or blasting.*
5. *The vibration levels in NOISE - R3.1.b are only likely to be approached or exceeded where moderate to high-*

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vibration construction activities are undertaken, such as piling or vibratory compaction within approximately 50-100m, or from heavy tracked plant within 20m, of a noise sensitive activity or for blasting during the day. The vibration limits applying at night are much lower and require greater separation distances or low-vibration activities to achieve compliance.

NOISE-R34 Noise from small scale wind turbines

All zones

Activity status: Permitted

Where:

1. The noise (rating) level from the operation of any *small scale wind turbine(s)* on a site is 10 dB LAeq lower than the levels permitted in NOISE-S1.

Note:

The noise level generated by small scale wind turbines must be measured and assessed in accordance with the relevant sections of New Zealand Standard 6808: 2010 Acoustics – Wind farm noise, NZS 6801:2008 Acoustics Measurement of Environmental Sound and NZS 6802:2008 Acoustics Environmental Noise

Activity status where compliance is not achieved:

Restricted Discretionary

Matters of discretion:

1. *Effects* on ambient *noise* levels, and in particular whether the consistency of the noise would affect the enjoyment of periods of quiet and peacefulness where that can be reasonably expected.
2. Management of *effects* from the turbine(s) with particular regard to:
 - (a) the frequency, intensity, duration and offensiveness of the *noise* being generated;
 - (b) whether the level of *effects* are compatible with the character and amenity of the location and adjacent activities; and
 - (c) any impact on the health and well-being of the surrounding community, including sleep disturbance effects.
3. The extent to which alternative locations and methods, and use of low noise generating plant and equipment, have been considered, recognising:
 - (a) the practical constraints associated with *renewable electricity generation activities*; and

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		(b) the environmental benefits of <i>renewable electricity generation activities</i>. 4. The ability to mitigate adverse <i>effects</i> through the imposition of <i>conditions</i>. 5. The cumulative effects from multiple <i>small scale wind turbines</i>.
NOISE-R45	Noise from temporary military training and emergency services training activities involving fixed (stationary) noise sources	
General Rural Zone-All Zones	Activity status: Permitted Where: 1. The <i>noise</i> generated complies with Noise Standard NOISE-S1 ~~for the General Rural Zone~~. Note: <i>Fixed (stationary) noise sources (other than firing of weapons and explosives) include power generation, heating, ventilation or air conditioning systems, or water or wastewater pumping / treatment systems.</i>	Activity status where compliance is not achieved: Controlled Matters of Control: 1. Whether the <i>noise</i> levels are likely to cause alarm or adversely affect the character, Ngāi Tahu cultural values or <i>amenity values</i> of the location and adjacent activities. 2. Any mitigation of the <i>noise</i> proposed, in accordance with a <i>best practicable option</i> approach (e.g. <i>site</i> layout and design, design and location of <i>structures, buildings</i> and equipment and the timing of operations), recognising the practical constraints associated with <i>temporary military training activities</i>. 3. The provision of a <i>noise</i> management plan that specifically identifies the likely <i>noise</i> impacts for the area and describes the measures required to avoid or mitigate these. 4. The programme for notification and communication with occupiers and owners of affected <i>sites</i> prior to the activities commencing, including updates during the event. 5. The method for following up any complaints received during or after the event including communications with the Council.
NOISE-R56	Noise from temporary military training and emergency services training activities involving mobile noise sources	

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All zones	Activity status: Permitted Where: 1. The <i>noise</i> generated must not exceed the levels contained within Table 1 when measured at 1 metre from the nearest external wall of any building occupied by a <i>noise sensitive activity</i>; and 2. The <i>noise</i> generated must not exceed the levels contained within Table 2 when measured at 1 metre from the nearest external wall of any building occupied by a <i>noise sensitive activity</i>. <i>Note:</i> <i>This rule applies to the use of temporary mobile military training activities including but not limited to personnel carriers, light and heavy vehicles, self-propelled equipment and construction plant.</i>	Activity status where compliance not achieved: Controlled Matters of Control: 1. Whether the <i>noise</i> levels are likely to cause alarm or adversely affect the character, Ngāi Tahu cultural values or <i>amenity values</i> of the location and adjacent activities. 2. Any mitigation of the <i>noise</i> proposed, in accordance with a <i>best practicable option</i> approach (e.g. <i>site</i> layout and design, design and location of <i>structures, buildings</i> and equipment and the timing of operations), recognising the practical constraints associated with <i>temporary military training activities</i>. 3. The provision of a <i>noise</i> management plan that specifically identifies the likely <i>noise</i> impacts for the area and describes the measures required to avoid or mitigate these. 4. The programme for notification and communication with occupiers and owners of affected <i>sites</i> prior to the activities commencing, including updates during the event. 5. The method for following up any complaints received during or after the event including communications with the Council.
NOISE-R67		
Noise from temporary military training and emergency services training activities involving live firing, firing of blank ammunition, and/or the use of explosives		
All zones	Activity status: Permitted Where: 1. The activity complies with the following minimum separation distances to any notional boundary: (a) 0700 to 1900 hours: 500m (b) 1900 to 0700 hours: 1250m	Activity status where compliance is not achieved: Discretionary

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2. Where the minimum separation distances specified above cannot be met, then the activity shall comply with the following peak sound pressure level when measured at the notional boundary of any building housing a *noise sensitive activity*:
 - (a) 0700 to 1900 hours: 95dBC
 - (b) 1900 to 0700 hours: 85dBC; and
3. Notice must be provided to the Gore District Council at least 5 working days prior to the commencement of the activity, specifying:
 - (a) whether the activity involves live firing and / or the use of explosives, or firing of blank ammunition,
 - (b) the location of the activity and the boundaries within which the activity will take place,
 - (c) distances to buildings housing noise sensitive activities, and
 - (d) the timing and duration of the activity; and
4. The activity is carried out for no longer than 31 days on the site in any one calendar year, excluding set up and take down which can occur one week immediately prior to and one week immediately following the activity.

NOISE-R78 Construction of, additions to or alterations to ~~new and relocated~~ buildings ~~for~~ occupied by a noise sensitive activity

All zones

Activity status: Permitted

Where:

1. Any *habitable room* within a *building* used for a *noise sensitive activity* which is located within the:
 - (a) rail~~way~~-corridor noise control overlay
 - (b) the state highway noise control overlay
 complies with NOISE-S34.

Activity status where compliance is not achieved:

Discretionary

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<u>Advice Note: NOISE-R8(1) includes buildings that have been constructed offsite and subsequently relocated and placed within the rail corridor noise control overlay and/or the state highway noise control overlay.</u>		
Town Centre Zone, Local Centre Zone, Mixed Use Zone, Light Industrial, General Industrial Zone, Airport Zone	2. Any <i>habitable room</i> within a building for a <i>noise sensitive activity</i> complies with NOISE-S3.	
NOISE-R~~89~~ Noise from the take-off and landing of <i>aircraft</i> and helicopters used for <i>agricultural aviation</i>		
All Zones	Activity status: Permitted Where: 1. The take-off and <u>/or</u> landing is to and <u>/or</u> from a <i>rural airstrip</i>, a <i>helicopter landing area</i> located in the <i>rural environment</i>, or the Mandeville Aviation and Rail Precinct; 2. Take off and landings do not occur for more <u>than</u> 315 hours in any 12 month period; 3. The <i>rural airstrip</i> or <i>helicopter landing area</i> is ~~separated setback~~ by at least 500m from ~~any the~~ notional boundary <u>of a noise sensitive activity not located on the same a site not being serviced by the use of the airstrip</u>; and 4. A record of take offs and landing times and dates is maintained <u>by the landowner of the site where the rural</u>	Activity status where compliance is not achieved with: NOISE-R~~79~~(1) to (4): Discretionary

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	<u>airstrip and/or helicopter landing area is located</u> and <u>the record is made</u> available to the Council upon request.	
Airport Zone	Activity status: Permitted	
NOISE-R910 Noise from the take-off and landing of helicopters (Other than for <i>agricultural aviation</i>)		
All Zones except the Airport Zone	Activity status: Permitted Where: - The take-off and <u>or</u> landing are to and <u>or</u> from a <i>helicopter landing area</i> which is: - separated from the <i>notional boundary</i> on another site by a minimum distance of 300m; and - separated from any occupied building that does not contain a <i>noise sensitive activity</i> on another site in any zone by a minimum distance of 200m; and ~~The flight path to the helicopter landing area is not within a horizontal distance of 250m of any notional boundary on any other site; and~~ - The number of <i>movements</i> to and from the <i>helicopter landing area</i> does not exceed: 2 <i>movements</i> per day; and 4 <i>movements</i> per week; and 10 <i>movements</i> per month.	Activity status where compliance not achieved with NOISE-R9(1) to(3): Restricted Discretionary Where: - Noise emissions from a take-off or landing of a helicopter do not exceed: 40 dB L_{dn} and 70dB $L_{AF(max)}$ between the hours of 10pm and 7am when measured and assessed at a <i>notional boundary</i> in the General Residential Zone, Medium Density Residential Zone, Large Lot Residential Zone, Rural Lifestyle Zone, Neighbourhood Zone, Sport and Active Recreation Zone. 50 dB L_{dn} and 70dB $L_{AF(max)}$ between the hours of 10pm and 7am when measured and assessed at a <i>notional boundary</i> in the General Rural Zone, Māori Purpose Zone, Settlement Zone, Open Space Zone or Special Purpose Zone – Field Days and Camp Columba. 60 dB L_{dn} and 85dB $L_{AF(max)}$ between the hours of 10pm and 7am at any site in the Town Centre Zone, Local Centre Zone, Mixed Use Zone and Light Industrial Zone. 65 dB L_{dn} at any site in the General Industrial Zones. Notes:

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Noise levels from landing and take-offs must be measured and assessed in accordance with NZS6807:1994 Noise Management and Land Use Planning for Helicopter Landing Areas.

When assessing noise from helicopter landing and take-off procedures in accordance with NZS6807:1994 the following procedures shall be followed:

- (a) The heights at which an aircraft is conducting a landing or take-off procedure shall be determined in accordance with Part 91.311 of the Civil Aviation Rules.*
- (b) No averaging of L_{dn} levels is permitted.*
- (c) The noise levels of any individual helicopter flight movement include all noise generated while the helicopter is taxiing or on the ground including idling for warm up, cool down or between an arrival and departures.*

Matters of discretion:

1. Whether the hours of operation and flight frequency will affect the *amenity values* of the surrounding area.
2. The provisions of NZS 6807:1994 *Noise Management and Land Use Planning for Helicopter Landing Areas*.
3. Whether the approach and departure flight paths minimise overflight over *noise sensitive activities*.
4. Any mitigation of the *noise* proposed, in accordance with a *best practicable option* approach (e.g. *site* layout and design, design and location of *structures, buildings* and equipment and the timing of operations).
5. The ability to mitigate adverse *effects* through the imposition of *conditions* such as *noise* attenuation.

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		Activity status when compliance not achieved with NOISE-R9(5): Non-Complying
Airport Zone	Activity status: Permitted	
NOISE-R101	Noise from Temporary Events <u>and Temporary Activities</u>	
All zones	Activity status: Permitted Where: 1. The <i>Noise</i> level arising from any <i>temporary event</i> shall not exceed: (a) 8am to 10pm - 75dB L _{Aeq(5min)} (b) 10pm 31 December to 1am 1 January - 75dBL _{Aeq(5min)} When measured and assessed: (i) At or within the <i>notional boundary</i> of any other site in the General Rural Zone, Rural Lifestyle Zone, Settlement Zone, Large Lot Residential Zone, General Residential Zone and Medium Density Residential Zone. (ii) 1m from any other <i>building</i> on another site in any other zone that is occupied during the <i>temporary event</i> .	Activity status where compliance is not achieved <u>with NOISE-R11(1) and (2)</u>: Restricted Discretionary Matters of discretion: 1. Whether the <i>noise</i> levels are likely to cause alarm or adversely affect the character, Ngāi Tahu cultural values or <i>amenity values</i> of the location and adjacent activities. 2. Any mitigation of the <i>noise</i> proposed, in accordance with a <i>best practicable option</i> approach (e.g. <i>site</i> layout and design, design and location of <i>structures, buildings</i> and equipment and the timing of operations) recognising the temporary nature of the event. 3. The provision of a <i>noise</i> management plan that specifically identifies the likely <i>noise</i> impacts for the area and describes the measures required to avoid or mitigate these.

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2. At all other times, the noise limits for the receiving zone apply.

3. The temporary activity is permitted under TEMP-R11.

Note: The measured noise level must comply with the stated noise limit for every 5-minute sample with no adjustment for special audible character or duration in accordance with NZS6802:2008

4. The programme for notification and communication with occupiers and owners of affected *sites* prior to the activities commencing.

5. The method for following up any complaints received during or after the event including communications with the Council.

Activity status where compliance is not achieved with NOISE-R11(3):

Discretionary

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Standards

NOISE-S1	Noise Levels	
Noise levels generated and received in the GRZ, LLRZ, MRZ	1. The <i>Noise</i> (rating) level and maximum noise level arising from any activity shall not exceed: (a) 7am to 10pm – 50 dB <i>LAeq</i> (b) 10pm to 7am – 40 dB <i>LAeq</i> and 70 dB <i>LA_{Fmax}</i> When measured and assessed at or within the <i>boundary</i> of any other <i>site</i> in the GRZ, LLRZ & MRZ.	Activity status where compliance is not achieved: Restricted Discretionary Matters of discretion: 1. <i>Effects</i> on ambient <i>noise</i> levels. 2. Management of <i>effects</i> from the <i>noise</i> source with particular regard to: (a) the frequency, intensity, duration and offensiveness of the <i>noise</i> being generated; (b) whether the level of <i>effects</i> are compatible with the character and amenity of the location and adjacent activities; and (c) any impact on the health and well-being of the surrounding community, including sleep disturbance. 3. Any mitigation of the <i>noise</i> proposed, in accordance with a <i>best practicable option</i> approach (e.g. <i>site</i> layout and design, design and location of <i>structures</i>, <i>buildings</i> and equipment and the timing of operations). 4. The ability to mitigate adverse <i>effects</i> through the imposition of <i>conditions</i> such as <i>noise</i> attenuation.
Noise levels generated and received in the GRUZ, SPZ-Field Days & SPZ-Camp Columba Excluding the Rural Industry Precinct (PREC13) and the Mandeville Aviation and Rail Precinct (PREC8) <u>and</u> <u>New Vale Precinct (PREC14)</u>	2. The <i>Noise</i> (rating) level and maximum noise level arising from any activity shall not exceed: (a) 7am to 10pm – 55 dB <i>LAeq</i> (b) 10pm to 7am – 40 dB <i>LAeq</i> and 75 dB <i>LA_{Fmax}</i> When measured at the <i>notional boundary</i> within the GRUZ and the zone boundary of the SPZ-Field Days and SPZ-Camp Columba.	
Noise levels generated and received in the RLZ, SETZ, MPZ	3. The <i>Noise</i> (rating) level and maximum noise level arising from any activity shall not exceed: (a) 7am to 10pm – 50 dB <i>LAeq</i> (b) 10pm to 7am – 40 dB <i>LAeq</i> (c) 10pm to 7am – 75 dB <i>LA_{Fmax}</i>	

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	Measured at or within the <i>notional boundary</i> of any other <i>site</i> .
Noise levels generated and received in the NCZ	4. The <i>Noise</i> (rating) level and maximum noise level arising from any activity shall not exceed: (a) 7am to 10pm – 55 dB L_{Aeq} (b) 10pm to 7am – 45 dB L_{Aeq} and 75 dB L_{AFmax} When measured at or within the <i>boundary</i> of any other <i>site</i> in the NCZ.
Noise levels generated and received in the TCZ, LCZ & MUZ	5. The <i>Noise</i> (rating) level and maximum noise level arising from any activity shall not exceed: (a) At any time - 60 dB L_{Aeq} (b) 10pm to 7am - 75dBA L_{AFmax} When measured at or within the <i>boundary</i> of any <i>site</i> in the TCZ, LCZ and MUZ.
Noise levels generated and received in the LIZ and Mandeville Aviation and Rail Precinct (PREC8)	6. The <i>Noise</i> (rating) level arising from any activity shall not exceed: (a) At any time – 65 dB L_{Aeq} When measured and assessed at or within the boundary of any other site in the LIZ or Mandeville Aviation and Rail Precinct (PREC8).
Noise levels generated and received in the GIZ and Rural Industry Precinct	7. The <i>Noise</i> (rating) level and maximum noise level arising from any activity shall not exceed: (a) At any time - 70 dB L_{Aeq}

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(PREC13) and New Vale Precinct (PREC14)	Measured at or within the <i>boundary</i> of any other <i>site</i> in the GIZ or Rural Industry Precinct.	
Noise levels generated and received in the Sport & Active Recreation Zones	8. The <i>Noise</i> (rating) level and maximum noise level arising from any activity shall not exceed: (a) 7am to 10pm – 55 dB <i>LAeq</i> (b) 10pm to 7am – 40 dB <i>LAeq</i> (c) 10pm to 7am – 75 dB <i>LA_{Fmax}</i> Measured at or within the <i>notional boundary</i> of any other <i>site</i>.	
Airport Zone	9. The <i>Noise</i> (rating) level and maximum noise level arising from any activity excluding an <i>aviation activity</i> shall not exceed: (a) At any time - 70 dB <i>LAeq</i> Measured at or within the <i>notional boundary</i> of any other <i>site</i>.	
NOISE-S2	Noise Levels between zones	
Noise levels generated from any site in the NCZ, TCZ, LCZ, MUZ, GIZ, LIZ, Rural Industry Precinct (PREC13) and Mandeville Aviation and	1. The <i>Noise</i> (rating) level and maximum noise level arising from any activity undertaken shall not exceed: (a) 7am to 10pm – 55 dB <i>LAeq</i> (b) 10pm to 7am – 45 dB <i>LAeq</i> and 75 dB <i>LA_{Fmax}</i> When measured and assessed at or within the <i>boundary</i> of any other <i>site</i> in the GRZ, MRZ and LLRZ or notional boundary of a site in the GRUZ, RLZ and SETZ.	Activity status where compliance is not achieved: Restricted Discretionary Matters of discretion: 1. <i>Effects</i> on ambient <i>noise</i> levels. 2. Management of <i>effects</i> from the <i>noise</i> source with particular regard to:

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Rail Precinct
(PREC8) and
New Vale
Precinct
(PREC14)

Noise levels
from the Sport
& Active
Recreation Zone
received in the
GRUZ, LRZ,
SETZ, GRZ,
LLRZ, MRZ

2. The *Noise* (rating) level and maximum noise level arising from any activity undertaken from a site in the Sport and Active Recreation Zone shall not exceed:
(a) 7am to 10pm – 55 dB *LAeq*
(b) 10pm to 7am – 40 dB *LAeq* and 75 dB *LA_{Fmax}*

When measured and assessed at or within the notional boundary of any site in a GRUZ, LRZ, SETZ, GRZ, LLRZ and MRZ.

Except that:
(a) Between 7am and 9.30pm Monday to Friday for no more than 3 hours in total the noise (rating) level and maximum noise level arising from any activity shall not exceed 60 dB *LAeq*; and
(b) Between 7am and 10pm on Saturdays for no more than 6 hours in total the noise (rating) level and maximum noise level arising from any activity shall not exceed 60 dB *LAeq*

Noise levels
from the
Natural Open
Space Zone
received in the
GRUZ, LRZ,
SETZ, GRZ, LLRZ,
MRZ

3. The *Noise* (rating) level and maximum noise level arising from any activity shall not exceed:
(a) 7am to 10pm – 50 dB *LAeq*
(b) 10pm to 7am – 40 dB *LAeq* and 75 dB *LA_{Fmax}*

When measured and assessed at or within the boundary of a site in GRZ, LLRZ, MRZ or notional boundary of a site in GRUZ, RLZ, SETZ.

- (a) the frequency, intensity, duration and offensiveness of the *noise* being generated;
 - (b) whether the level of *effects* are compatible with the character and amenity of the location and adjacent activities; and
 - (c) any impact on the health and well-being of the surrounding community, including sleep disturbance.
3. Any mitigation of the *noise* proposed, in accordance with a *best practicable option* approach (e.g. *site* layout and design, design and location of *structures*, *buildings* and equipment and the timing of operations).
 4. The ability to mitigate adverse *effects* through the imposition of *conditions*.

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Noise levels from the GRUZ, SPZ-Field Days & SPZ-Camp Columba and Rural Industry Precinct (PREC13) received in any other GRUZ, LRZ, SETZ, GRZ, LLRZ, MRZ	4. The <i>Noise</i> (rating) level and maximum noise level arising from any activity shall not exceed: (a) 7am to 10pm – 55 dB <i>LAeq</i> (b) 10pm to 7am – 45 dB <i>LAeq</i> and 75 dB <i>LA_{Fmax}</i> When measured and assessed at or within the <i>boundary</i> of a <i>site</i> in any GRZ, LLRZ, MRZ or notional boundary of a site in GRUZ, RLZ, SETZ.	
Noise levels received in the Natural Open Space Zone	5. The <i>Noise</i> (rating) level and maximum noise level arising from any activity undertaken from a <i>site</i> in any other zone shall not exceed: (a) At all times – 40 dB <i>LAeq</i> When measured and assessed at or within the <i>boundary</i> of any site in the Natural Open Space Zone	
All other zone interfaces	6. Except as provided for above, where noise generated by any activity on a <i>site</i> in one zone or precinct (if specified) is received by any activity on a <i>site</i> in a different zone or precinct, the activity generating the <i>noise</i> must comply with the <i>noise</i> limits and standards apply to the zone or precinct of the receiving site.	
NOISE-S3	Acoustic Treatment for noise sensitive activities	
All Zones Town Centre Zone, Local Centre Zone,	1. The <u>following</u> internal <i>noise</i> levels <u>contained in Table 4</u> shall be met for any new building, <u>alterations or additions to any existing building, including relocated buildings, which will be occupied by containing</u> a <i>noise sensitive activity</i>:	Activity status where compliance is not achieved: <u>Discretionary</u> <u>Restricted discretionary</u>

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Mixed Use
Zone, Light
Industrial,
General
Industrial
Zone, Airport
Zone

<u>Room</u>	<u>Time</u>	<u>Internal design noise level</u>
<u>Bedrooms or rooms used for sleeping</u>	<u>10.00pm – 7.00am</u>	<u>35dB LAeq(15min)</u>
<u>All other habitable rooms</u>	<u>At all times</u>	<u>40dB LAeq(15min)</u>

The internal noise levels in the table above must be achieved based on the maximum level of noise permitted in the zone or from any adjacent zone, when measured and assessed at the exterior wall of the building. Road noise shall be calculated based on measured or predicted noise levels plus 3dB.

Railway noise shall be assumed to be 70 LAeq(1h) at a distance of 12m from the railway network and shall be deemed to reduce at a rate of 3 dB per doubling of distance up to 40m and 6 dB per doubling of distance beyond 40m.

2. Where external windows and / or doors are required to be closed to meet the internal design noise levels in Table 4 (1), a mechanical ventilation and cooling system shall be installed that complies with the following requirements.
 - ~~(a) Mechanical cooling to achieve an internal temperature no greater than 25 degrees celsius based on external design conditions of dry bulb 25.1 degrees celsius and wet bulb 20.1 degrees celsius;~~
 - (a) Provides m~~M~~echanical ventilation to enable compliance with clause G4 of the New Zealand Building Code and

Matters of discretion are restricted to:

1. Adverse effects on health, well-being and amenity of building occupants.
2. Alternative options for building design, layout or location that would achieve compliance with the standards in NOISE-S3(1) Table 4 or mitigate the effects of noise from the state highway or rail network.
- ~~3. Any reverse sensitivity effects on the state highway and rail network.~~
4. Any natural or built features of the site or surrounding area that will mitigate noise effects.

Notification: Applications for resource consent under this rule will be decided without public notification.

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- that provides at least 1 air change per hour, but no less than 7.5L/s per occupant; and
- (b) Provides cooling and heating that is controllable by the occupant and can maintain the inside temperature between 18°C and 25°C; and
 - (c) Provides a All mechanical ventilation and/or cooling systems that does not must generate a noise level no greater than 35 dB L_{Aeq} when measured 2.1m from the any grille or diffuser. at the minimum air flows required to maintain the design temperatures and air flows above once the room temperature has been achieved. The noise level must be measured after the system has cooled the rooms to the temperatures in (b), or after a period of 30 minutes from the commencement of cooling (whichever is the lesser)
 - (d) Mechanical cooling must be provided for all habitable rooms (excluding bedrooms) provided that at least one mechanical cooling system must service every level of a dwelling that contains a habitable room (including bedrooms).

Or:

- (e) Alternatively, in lieu of (a) - (ed) above, a design verified by a suitably qualified and experienced HVAC expert certifying that the design will provide ventilation and internal space temperature controls to meet or exceed the outcomes described in (a) - (ed).
- (f) A commissioning report must be submitted to the Council prior to occupation of the building demonstrating compliance with (a) – (ed) or (de).

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Notes:

- ~~1. Mechanical cooling must be provided for all habitable rooms (excluding bedrooms) provided that at least one mechanical cooling system must service every level of a dwelling that contains a habitable room (including bedrooms).~~
1. Compliance shall be demonstrated at the time of application for building consent. The application shall be accompanied by a statement prepared by a suitably qualified acoustic consultant that demonstrates the internal design levels will be achieved.
2. Any required acoustic treatment must be designed, constructed and maintained in an acoustically effective state.

NOISE-S4

Acoustic Treatment for noise sensitive activities within the railway corridor and state highway noise control overlays

1. The internal noise levels contained in Table 4 shall be met for any new building, alterations or additions to any existing building, including relocated buildings, which will be occupied by a noise sensitive activity.

Road noise shall be calculated based on measured or predicted noise levels plus 3dB.
Railway noise shall be assumed to be 70 LAeq(1h) at a distance of 12m from the railway network and shall be deemed to reduce at a rate of 3 dB per doubling of distance up to 40m and 6 dB per doubling of distance beyond 40m.
2. Where external windows and / or doors are required to be closed to meet the internal design noise levels in Table 4, a mechanical ventilation and cooling system shall be installed that complies with the following requirements.

Activity status where compliance is not achieved:

Restricted discretionary

Matters of discretion are restricted to:

1. Adverse effects on health, well-being and amenity of building occupants.
2. Alternative options for building design, layout or location that would achieve compliance with the standards in Table 4 to mitigate the effects of noise from the state highway or rail network.
3. Any reverse sensitivity effects on the state highway and rail network.
4. Any natural or built features of the site or surrounding area that will mitigate noise effects.

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- (a) Provides mechanical ventilation to enable compliance with clause G4 of the New Zealand Building Code and that provides at least 1 air change per hour, but no less than 7.5L/s per occupant; and
- (b) Provides cooling and heating that is controllable by the occupant and can maintain the inside temperature between 18°C and 25°C; and
- (c) Provides a mechanical ventilation and/or cooling systems that does not generate a noise level greater than 35 dB L_{Aeq} when measured 1m from any grille or diffuser. ~~at the minimum air flows required to maintain the design temperatures and air flows above once the room temperature has been achieved.~~ The noise level must be measured after the system has cooled the rooms to the temperatures in (b), or after a period of 30 minutes from the commencement of cooling (whichever is the lesser)
- (d) Mechanical cooling must be provided for all habitable rooms (excluding bedrooms) provided that at least one mechanical cooling system must service every level of a dwelling that contains a habitable room (including bedrooms).

Or:

- (e) Alternatively, in lieu of (a) - (d) above, a design verified by a suitably qualified and experienced HVAC expert certifying that the design will provide ventilation and internal space temperature controls to meet or exceed the outcomes described in (a) - (d).

Notification: Applications for resource consent under this rule will be decided without public notification.

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- (f) A commissioning report must be submitted to the Council prior to occupation of the building demonstrating compliance with (a) – (d) or (e).

Notes:

1. Mechanical cooling must be provided for all habitable rooms (excluding bedrooms) provided that at least one mechanical cooling system must service every level of a dwelling that contains a habitable room (including bedrooms).
2. Compliance shall be demonstrated at the time of application for building consent. The application shall be accompanied by a statement prepared by a suitably qualified acoustic consultant that demonstrates the internal design levels will be achieved.
3. Any required acoustic treatment must be designed, constructed and maintained in an acoustically effective state.

NOISE-Table 1 Noise levels for temporary military training and emergency service training activities involving mobile noise sources

Time of week	Time Period	Noise Limit dB	
		L _{Aeq}	L _{Amax}
Weekdays	6:30 am – 7:30 am	60	75
	7:30 am – 6:00 pm	75	90
	6:00 pm – 8:00 pm	70	85
	8:00 pm – 6:30 am	45	75
	6:30 am – 7:30 am	45	75
	7:30 am – 6:00 pm	75	90

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Saturdays	6:00 pm – 8:00 pm	45	75
	8:00 pm – 6:30 am	45	75
Saturdays and public holidays	6:30 am – 7:30 am	45	75
	7:30 am – 6:00 pm	55	85
	6:00 pm – 8:00 pm	45	75
	8:00 pm – 6:30 am	45	75

NOISE-Table 2 Construction work noise limits for buildings containing a noise sensitive activity

Time of week	Time period	Duration of work					
		1. Typical duration (dBA)		2. Short-term duration (dBA)		3. Long-Term duration (dBA)	
		LAeq	LAF(max)	LAeq	LAF(max)	LAeq	LAF(max)
Weekdays	6.30am -7.30am	60	75	65	75	55	75
	7.30am – 6.00pm	75	90	80	95	70	85
	6.00pm – 8.00pm	70	85	75	90	65	80
	8.00pm – midnight – 6.30am	45	75	45	75	45	75
Saturdays	7.30am – 6.00pm	75	90	80	95	70	85
	6.00pm – midnight – 7.30am	45	75	45	75	45	75
Sundays and Public holidays	7.30am – 6.00pm	55	85	55	85	55	85
	6.00pm – midnight – 7.30am	45	75	45	75	45	75

NOISE-Table 3 Construction work noise limits for any building which is not a noise sensitive activity

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Time	Duration of work		
	1. Typical duration	2. Short-term duration	3. Long-Term duration
	dB LAeq	dB LAeq	dB LAeq
7.30am – 6.00pm on all days	75	80	70
6.00pm – 7.30am on all days	80	85	75

NOISE-Table 4 Internal noise limits for buildings containing a noise sensitive activity

Activity	Maximum Noise Limit within the State Highway Noise Control Overlay LAeq (24h)	Maximum Noise Limit within the Rail Corridor Noise Control Overlay LAeq (1h)
<u>Residential Activity</u>		
<u>Bedrooms / sleeping spaces</u>	<u>40dB</u>	<u>35dB</u>
<u>All other habitable rooms</u>	<u>40dB</u>	<u>40dB</u>
<u>Education Facility</u>		
<u>Lecture rooms / theatres, music studios, assembly halls</u>	<u>35dB</u>	<u>35dB</u>
<u>Teaching areas, conference rooms, drama studios, sleeping areas</u>	<u>40dB</u>	<u>40dB</u>
<u>Libraries</u>	<u>45dB</u>	<u>45dB</u>
<u>Healthcare Activity</u>		
<u>Overnight medical care, wards</u>	<u>40dB</u>	<u>40dB</u>
<u>Clinics, consulting rooms, theatres, nurses' stations</u>	<u>45dB</u>	<u>45dB</u>
<u>Place of Worship, Marae, Papatipu Rūnanga complex</u>		

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<u>Place of Worship, Marae, Papatipu Rūnanga complex</u>	<u>35dB</u>	<u>35dB</u>
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