

Noise (NOISE)

Introduction

Noise arises from a range of activities. However, noise can also be a nuisance to others and can have adverse effects on the amenity and character of an area, and on people's health and wellbeing. The purpose of the noise chapter is to ensure that activities are undertaken in a way that the noise they produce is consistent compatible¹ with expected amenity levels and maintains people's health and well-being. For existing activities or areas that have higher levels of noise, the noise chapter also seeks to manage noise sensitive activities to protect these existing activities from reverse sensitivity effects.

The rules within this chapter apply only to noise generated by an activity, not the activity itself.

Objectives and Policies

Objectives	
NOISE-O1	Noise
Noise is <u>consistent compatible</u> ² with the purpose, and anticipated character and qualities of the receiving environment, and maintains the health and well-being of people and communities.	
Policies	
NOISE-P1	Noise Effects
Manage noise effects to maintain the character and amenity anticipated in the area in which the effects are received, taking into account the nature, frequency, <u>and duration and benefit to the community</u> ³ of the activity generating the noise.	
NOISE-P2	Reverse Sensitivity
Manage noise sensitive activities in proximity to State Highways and Airports, and within the Town Centre Zone, to protect them from reverse sensitivity effects.	

Rules

Note for Plan Users: *Other than where expressly provided for, noise levels arising from activities 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.*

NOISE-R1	Noise Generating Activity Not Otherwise Listed	
All Zones	Activity Status: PER Where: 1. The noise generated by any activity does not exceed the limits set out in NOISE-TABLE 1, measured at the location set out in NOISE-TABLE 1.	Activity status when compliance is not achieved with R1.1: RDIS Matters of discretion are restricted to: NOISE-MD1 Noise Effects
NOISE-R2	Permitted Noise	

¹ NZAAA (04.05) NZHA (05.03), Nicki McMillan (09.01), Totally Tourism (24.01) and Richard Geary (25.01)

² NZAAA (04.05) NZHA (05.03), Nicki McMillan (09.01), Totally Tourism (24.01) and Richard Geary (25.01)

³ Meridian (18.03)

All Zones	Activity Status: PER Where: <ol style="list-style-type: none"> 1. The noise is generated from the following noise sources: <ol style="list-style-type: none"> a. normal domestic activities; b. agricultural and horticultural noise; c. the use of generators and mobile equipment (including vehicles) for emergency purposes, where they are operated by emergency services or lifeline utilities, and including testing and maintenance; d. the use of mobile generators by lifeline utilities for planned electricity supply interruption not exceeding 48 hours in duration; e. the use of mobile generators during a power outage (including planned and unplanned outages); f. any warning device or sirens used by emergency services, including routine testing and maintenance; g. the use of an aircraft or helicopter by emergency services; h. traffic noise generated within a road; or i. the use of Motorised Craft for Emergency Response Purposes. 	
NOISE-R3	Noise Associated with Recreational Activities	
All Zones	Activity Status: PER Where: <ol style="list-style-type: none"> 1. The recreational activity does not involve powered motorsport, or gunfire; and 2. The noise generated by any amplified sound does not exceed the limits set out in NOISE-TABLE 1, measured at the location set out in NOISE-TABLE 1. 	Activity status when compliance is not achieved with R3.1 - R3.2: RDIS Matters of discretion are restricted to: NOISE-MD1 Noise Effects
NOISE-R4	Temporary Activities (Excluding Temporary Military Activities) managed under TEMP-R2, TEMP-R4 or TEMP-R5⁴	
All Zones	Activity Status: PER Where: <ol style="list-style-type: none"> 1. Between 10.00pm and 10.00am, the noise generated by any temporary activity does not exceed the limits set out in NOISE-TABLE 1, measured at the location set out in NOISE-TABLE 1; and 	Activity status when compliance is not achieved with R4.1 - R4.3: RDIS Matters of discretion are restricted to: NOISE-MD1 Noise Effects

⁴ TLGL (10.08)

	<p>2. Between 10.00am and 10.00pm, the noise generated by any temporary activity does not exceed 65 dB L_{Aeq} at:</p> <ol style="list-style-type: none"> the notional boundary of any building containing a noise sensitive activity in the General Rural Zone; or the boundary of any site containing a noise sensitive activity in all other zones; and <p>3. For activities involving amplified sound, the activities shall not:</p> <ol style="list-style-type: none"> exceed 4 hours a day on the site of the temporary activity (including sound checks). 	
NOISE-R5	Noise associated with the Operation and Maintenance of Aircraft Engines	
<u>SPAZ AIRPZ</u>⁵	Activity Status: PER	
NOISE-R6	Construction Noise	
All Zones	Activity Status: PER <p>Where:</p> <ol style="list-style-type: none"> 1. Noise from any construction activity complies with the relevant noise limits set out in Tables 2 and 3 of NZS 6803:1999 <i>Acoustics – Construction Noise</i>, when measured and assessed in accordance with that standard. 	Activity status when compliance is not achieved with R6.1: RDIS <p>Matters of discretion are restricted to: NOISE-MD1 Noise Effects</p>
NOISE-R7	Blasting Noise	
All Zones	Activity Status: PER <p>Where:</p> <ol style="list-style-type: none"> 1. The noise created by the use of explosives does not exceed a peak sound pressure of 115 dB L_{peak} when measured at the boundary of the site where the explosives are being used. 	Activity status when compliance is not achieved with R7.1: DIS
NOISE-R8	Frost Fan Noise	

⁵ Clause 16(2)

GRUZ	Activity Status: PER Where: <ol style="list-style-type: none"> 1. The noise generated by all frost fans operating simultaneously on a site does not exceed 55 dB $L_{Aeq\ (15min)}$ when measured at the notional boundary of any building containing a noise sensitive activity on a separate site under different ownership. 	Activity status when compliance is not achieved with R8.1: RDIS Matters of discretion are restricted to: NOISE-MD1 Noise Effects
NOISE-R9	Audible Bird Scaring Device Noise	
GRUZ	Activity Status: PER Where: <ol style="list-style-type: none"> 1. The device is only operated between 30 minutes prior to sunrise and 30 minutes after sunset; and 2. The use of the device does not exceed: <ol style="list-style-type: none"> a. 12 times in any half hour period; and b. a maximum of three clustered shots; and 3. The noise generated by the device does not exceed 65 dB L_{AE} at the boundary with any residential zone or at the notional boundary of any building containing a noise sensitive activity. 	Activity status when compliance is not achieved with R9.1 – R9.3: RDIS Matters of discretion are restricted to: NOISE-MD1 Noise Effects
NOISE-R10	Noise Generated by Aircraft and Helicopter Movements	
Where the movements originate from the GRUZ	Activity Status: PER Where: <ol style="list-style-type: none"> 1. The Aircraft and Helicopter Movements are permitted under GRUZ-R15. 	Activity status when compliance is not achieved with R10.1: RDIS Matters of discretion are restricted to: NOISE-MD1 Noise Effects
Where the movements originate from any zone other than the GRUZ or AIRSPZ ⁶	Activity Status: DIS	
NOISE-R11	Noise Associated with the use of Airfields and Helicopter Landing Areas	

⁶ NZAAA (04.12) NZHA (05.19), Nicki McMillan (09.01), Totally Tourism (24.01), Richard Geary (25.01)

Where the Airfield or Helicopter Landing Area is located within the GRUZ	Activity Status: PER Where: <ol style="list-style-type: none"> 1. The Airfield or Helicopter Landing Area is permitted under GRUZ-R16; or 2. The noise from the Helicopter Landing Area does not exceed 50 dB Ldn within the notional boundary of any other site, when measured and assessed in accordance with the provisions of <i>New Zealand Standard 6807:1994 Noise Management and Land Use Planning for Helicopter Landing Areas</i>; or 3. The noise from the airfield does not exceed 55 dB Ldn within the notional boundary of any other site, when measured and assessed in accordance with the provisions of <i>New Zealand Standard 6805:1992 Airport Noise Management and Land Use Planning</i>. 	Activity status when compliance is not achieved with R11.1 – R11.3: RDIS Matters of discretion are restricted to: NOISE-MD1 Noise Effects
Where the Airfield or Helicopter Landing Area is located within any zone other than the GRUZ, AIRPZ and GSPZ	Activity Status: DIS	
NOISE-R12	Noise Associated with Airport Activities and Airport Support Activities	
Airport Area within the GSPZ	Activity Status: PER	
NOISE-R13	Noise Associated with Motorised Craft	
All Zones	Activity Status: PER Where: <ol style="list-style-type: none"> 1. The measured sound pressure level (measured and assessed in accordance with <i>ISO 2922:2000 and ISO 14509-1:2008</i>) does not exceed a maximum A weighted level at a distance of 25 meters from the motorised craft of: <ol style="list-style-type: none"> a. 77 dB L_{ASmax} between 8.00am and <u>10.00pm</u>; and 	Activity status when compliance is not achieved with R13.1: RDIS Matters of discretion are restricted to: NOISE-MD1 Noise Effects

	<p>b. 67 dB L_{ASmax} between 10.00pm and <u>8.00am</u>.⁷</p> <p>Advice Note: <i>This rule does not apply to motorised craft noise for emergency response purposes which is managed under NOISE-R2.1(h).</i></p>	
NOISE-R14	Temporary Military Training Activities – Weapons Firing and <u>L</u> or <u>/</u> use of Explosives	
All Zones	<p>Activity Status: <u>PER</u></p> <p>Where:</p> <ol style="list-style-type: none"> 1. Notice is provided to the Council at least 5 working days prior to the commencement of the activity; and 2. The activity complies with the following minimum separation distances to the notional boundary of any building that contains a noise sensitive activity: <ol style="list-style-type: none"> a. 7.00am to 7.00pm: 500m; and b. 7.00pm to 7.00am: 1,250m; or 3. Where the minimum separation distances specified above cannot be met, then the activity shall comply with the following peak sound pressure level: <ol style="list-style-type: none"> a. 7.00am to 7.00pm: 95 dB L_{peak}, when measured at or within the notional boundary of a building containing a noise sensitive activity in a rural zone or at the site boundary of a building containing a noise sensitive activity in any other zone; and b. 7.00pm to 7.00am: 85 dB L_{peak}, when measured 1 m from the façade of a building containing a noise sensitive activity in any zone 	<p>Activity status when compliance is not achieved with R14.1 - R14.3: RDIS</p> <p>Matters of discretion are restricted to:</p> <p>NOISE-MD1 Noise Effects</p>
NOISE-R15	Temporary Military <u>Training</u>⁷ Activities – All Other Noise Sources not Listed in NOISE-R14	
All Zones	<p>Activity Status: <u>PER</u>⁸</p> <p>Where:</p>	<p>Activity status when compliance is not achieved with R15.1: RDIS</p>

⁷ NZDF (30.07)

⁸ NZDF (30.07)

	<ol style="list-style-type: none"> 1. The activity complies with the following noise limits: <ol style="list-style-type: none"> a. 7.00am to 7.00pm: 55 dB L_{Aeq} (15 min), when measured at or within the notional boundary of a building containing a noise sensitive activity in a rural zone or at the site boundary of a building containing a noise sensitive activity in any other zone; and b. 7.00pm to 7.00am: 45 dB L_{Aeq} (15 min) and 75 dB L_{AFmax} when measured 1 m from the façade of a building containing a noise sensitive activity in any zone. 	<p>Matters of discretion are restricted to:</p> <p>NOISE-MD1 Noise Effects</p>
NOISE-R16	<p>Any New Building Containing a Noise Sensitive Activity, or the Alteration of an Existing Building which Creates a New Habitable Room, or the Use of an Existing Building for a New Noise Sensitive Activity</p>	
<u>Noise Control Boundary</u> <u>Overlay (State Highways)</u> <u>Noise Corridor Overlay</u> ⁹	<p>Activity Status: PER</p> <p>Where:</p> <ol style="list-style-type: none"> 1. The <u>Any new building, or any new habitable room in an existing building,</u>¹⁰ is designed and constructed to achieve indoor design noise levels set out in NOISE-TABLE 2, with road noise based on measured or predicted noise <u>levels limits</u>¹¹ plus 3 dB; and 2. If windows must be closed to achieve the design noise levels in 1., the building is designed, constructed and maintained with a mechanical ventilation system that for habitable rooms for a residential activity, achieves the following requirements: <ol style="list-style-type: none"> a. provides mechanical ventilation to satisfy clause G4 of the New Zealand Building Code; and b. is adjustable by the occupant to control the ventilation rate in increments up to a high air 	<p>Activity status when compliance is not achieved with R16.1 - R16.3: RDIS</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> a. The location of the building. b. The effects of the non-compliance on the health and amenity of occupants. c. Any mitigation measures proposed to manage effects on the health and amenity of occupants. d. The outcome of consultation with <u>the New Zealand Transport Agency</u> Waka Kotahi NZ Transport Agency.¹²

⁹ NZTA (20.03)¹⁰ NZTA (20.04)¹¹ NZTA (20.04)¹² NZTA (20.05)

	<p>flow setting that provides at least 6 air changes per hour; and</p> <ul style="list-style-type: none"> c. provides relief for equivalent volumes of spill air; and d. provides cooling and heating that is controllable by the occupant and can maintain the inside temperature between 18°C and 25°C; and e. does not generate more than 35 dB L_{Aeq}(30s) when measured 1 metre away from any grille or diffuser; and <p>3. A report prepared by a suitably qualified and experienced person demonstrating compliance with 1. or 2. above (as relevant) is submitted to the Council with the application for building consent.</p>	
NOISE-R17	<p>Any New Building Containing a Noise Sensitive Activity, or the Alteration of an Existing Building which Creates a New Habitable Room, or the Use of an Existing Building for a New Noise Sensitive Activity, within 500m of any Special Purpose Airport Zone.</p>	
All Zones <u>GRUZ</u>¹³	<p>Activity Status: PER</p> <p>Where:</p> <ol style="list-style-type: none"> 1. Any <u>new</u>¹⁴ habitable spaces are designed and constructed to achieve an external to internal noise reduction of not less than 25 dB Dtr,2m,nT,w+Ctr; and 2. <u>If windows must be closed to achieve the design noise levels in 1.</u>¹⁵ <u>the building is designed, constructed and maintained with a mechanical ventilation system that for habitable rooms for a residential activity, achieves the following requirements:</u> <ol style="list-style-type: none"> a. provides mechanical ventilation to satisfy clause G4 of the New Zealand Building Code; and b. is adjustable by the occupant to control the 	<p>Activity status when compliance is not achieved with R17.1 – R17.3: RDIS</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> a. The location of the building. b. The effects of the non-compliance on the health and amenity of occupants. c. Any mitigation measures proposed to manage effects on the health and amenity of occupants.

¹³ Clause 16(2)¹⁴ Clause 10(2)(b) relating to NZTA (20.04)¹⁵ Clause 10(2)(b) relating to NZTA (20.04)

	<p>ventilation rate in increments up to a high air flow setting that provides at least 6 air changes per hour; and</p> <ul style="list-style-type: none"> c. provides relief for equivalent volumes of spill air; and d. provides cooling and heating that is controllable by the occupant and can maintain the inside temperature between 18°C and 25°C; and e. does not generate more than 35 dB L_{Aeq(30s)} when measured 1 metre away from any grille or diffuser; and <p>3. A report prepared by a suitably qualified and experienced person demonstrating compliance with 1. or 2. above (as relevant) is submitted to the Council with the application for building consent.</p>	
NOISE-R18	Any New Building Containing a Noise Sensitive Activity, or the Alteration of an Existing Building which Creates a new Habitable Room, or the Use of an Existing Building for a New Noise Sensitive Activity.	
TCZ	<p>Activity Status: PER</p> <p>Where:</p> <ol style="list-style-type: none"> 1. Any habitable spaces are designed and constructed to achieve an external to internal noise reduction of not less than 25 dB Dtr,2m,nT,w+Ctr; and 2. The building is designed, constructed and maintained with a mechanical ventilation system that for habitable rooms for a residential activity, achieves the following requirements: <ul style="list-style-type: none"> a. provides mechanical ventilation to satisfy clause G4 of the New Zealand Building Code; and b. is adjustable by the occupant to control the ventilation rate in increments up to a high air 	<p>Activity status when compliance is not achieved with R18.1 - R18.3: RDIS</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> a. The location of the building. b. The effects of the non-compliance on the health and amenity of occupants. c. Any mitigation measures proposed to manage effects on the health and amenity of occupants.

	<p>flow setting that provides at least 6 air changes per hour; and</p> <ul style="list-style-type: none">c. provides relief for equivalent volumes of spill air; andd. provides cooling and heating that is controllable by the occupant and can maintain the inside temperature between 18°C and 25°C; ande. does not generate more than 35 dB L_{Aeq(30s)} when measured 1 metre away from any grille or diffuser; and <p>3. A report prepared by a suitably qualified and experienced person demonstrating compliance with 1. or 2. above (as relevant) is submitted to the Council with the application for building consent.</p>	
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NOISE-TABLE 1 – Noise Limits

1. The noise limit applying is that of the zone within which the site receiving the noise is located.

Zone of Site Receiving Noise	Measurement Location	7.00am – 10.00pm	10.00pm – 7.00am	L_{AFmax}
Any Residential Zone	At any point within the boundary of another site	50 dB $L_{Aeq(15min)}$	40 dB $L_{Aeq(15min)}$	70 L_{AFmax}
NCZ				
MUZ				
ASPZ				
PVSPZ				
GRUZ	At any point within the notional boundary of any noise sensitive activity within the site	55 dB $L_{Aeq(15min)}$	45 dB $L_{Aeq(15min)}$	70 L_{AFmax}
RLZ	At any point within the boundary of another site	55 dB $L_{Aeq(15min)}$	45 dB $L_{Aeq(15min)}$	70 L_{AFmax}
TCZ	At any point within the boundary of another site	65 dB $L_{Aeq(15min)}$	55 dB $L_{Aeq(15min)}$	85 L_{AFmax}
GSPZ	At any point within the boundary of another site which is located in the Tourist Development Area	55 dB $L_{Aeq(15min)}$	45 dB $L_{Aeq(15min)}$	70 L_{AFmax}
PDSPZ	At any point within the boundary of another site which is located in a Built Development Area	50 dB $L_{Aeq(15min)}$	40 dB $L_{Aeq(15min)}$	70 L_{AFmax}

NOISE-TABLE 2 - Indoor Design Noise Levels

Activity	Indoor Design Noise Level $L_{Aeq(24h)}$
Residential	
All Habitable Rooms	40 dB
Education	
Lecture rooms/theatres, music studios, assembly halls	35 dB
Teaching areas, conference rooms, drama studios, sleeping areas	40 dB
Libraries	45 dB
Health	
Overnight medical care, wards	40 dB

Clinics, consulting rooms, theatres, nurses' stations	45 dB
Places of worship, marae	
All rooms	35 dB

Matters of Discretion

NOISE-MD1 Noise Effects

- a. The level, hours of operation, duration and characteristics of the noise.
- b. The location and nature of nearby activities and the adverse effects they may experience from the noise.
- c. The existing noise environment.
- d. Effects on amenity values and anticipated character of the receiving environment.
- e. Effects on health and well-being of people, including sleep disturbance.
- f. The effectiveness of any noise reduction measures.
- g. The extent to which alternative locations and methods have been considered to avoid, remedy, or mitigate any adverse effects recognising functional need, operational need, and any technical, and practical constraints.
- h. The benefits of the activity generating noise.