Overview

The generation of noise is often an inherent part of the operation and function of the diverse range of activities located within the district. On industrial sites, in town centres and rural areas, noise is integral to the operation of businesses and agriculture. While everyday living activities such as mowing lawns generate noise, the expectation is that noise levels in residential settings, particularly at night, are low. This is because noise has the potential to cause annoyance and affect peoples' health as a result of sleep disturbance. The noise provisions in this chapter provide limits that recognise the type of activities that are anticipated in each zone. The noise provisions also recognise that some activities have specific noise characteristics that require measurement and assessment. An example of these activities is construction noise, audible bird scaring devices and frost fans.

Section 16 of the Act requires that noise is kept to a reasonable level by adopting the best practicable option. The duty applies to everyone. This chapter sets out the rules for managing noise. Generally, if noise exceeds the standards set by these rules or it does not comply with noise conditions established through a resource consent process, it is considered to be unreasonable noise and the best practicable option available must be taken to reduce it. Under the Act, Waitomo District Council has a range of powers to manage noise including education and negotiation for voluntary compliance, service of an excessive noise direction, infringement notices, abatement notices or enforcement order procedures.

This plan manages noise at both source and receptor. An example of noise controlled at source is noise being emitted from a factory as measured at the site boundary. An example of noise controlled at receptor is the use of noise insulation rules which require acoustic design of noise sensitive activities to reduce the level of noise heard by occupants.

This plan does not control operational noise of aircraft (including helicopters) using Te Kūiti Aerodrome. At the time of writing this plan, the aerodrome was not operating at levels which necessitated noise controls. However, it is expected that should this change, noise levels will be monitored and appropriate mitigation provided to maintain the amenity of existing, lawfully established noise sensitive activities in the vicinity. Additionally, the noise rules in this plan do not apply to noise from aircraft in flight, vehicles being driven on roads or trains (other than when any of these are being loaded or unloaded).

A Rail Vibration Alert Overlay applies to the area within 60 metres each side of the railway designation boundary where vibration effects may be experienced from use and maintenance of the rail network. There are no provisions or restrictions which are associated with the Rail Vibration Alert Overlay. Instead, it is intended to alert property owners of the potential for vibration effects.

Please note that the noise rules for wind turbines are located in the energy chapter. The noise rules for temporary diesel generators are contained in the energy chapter (where their use is associated with an energy activity) and in the network utilities chapter (where their use is associated with a network utility). Noise rules for new roads and altered roads that are within the scope of NZS 6806:2010, substations, energy storage batteries and

compressors associated with gas transmission pipelines are also contained in the network utilities chapter. In all other circumstances, the provisions of this chapter apply.

Objectives

Refer also to the relevant objectives in Part 2 District - Wide Matters

NOISE-O1. Enable activities to generate noise that is compatible with the role, function and predominant character of each zone.

NOISE-O2. Ensure that activities do not generate noise levels which adversely affect amenity values, the health and wellbeing of people and communities.

NOISE-O3. New noise sensitive activities are designed and/or located to minimise conflict and reverse sensitivity effects.

Policies

Refer also to the relevant policies in Part 2 District - Wide Matters

NOISE-P1. Ensure any noise effects generated by an activity, or a combination of activities, are of a type, scale and level that supports the character and amenity outcomes anticipated in the relevant zone:

1. The residential, rural lifestyle, Māori purpose and settlement zones are predominantly living environments where a low level of noise is anticipated, and people's peace and comfort is maintained.
2. The general rural and future urban zones are working and living environments. Noise from rural activities is an accepted part of these environments, including higher noise levels at night or in the morning during different times of the year.
3. The open space and natural open space zones experience moderate levels of noise at different times of the day and infrequently at night time, depending on whether the space is used for playgrounds or active sports. At times there may also be noise from festivals, markets and other temporary activities.
4. The tourism zone has a mix of living and working activities. Residents expect a reasonable level of night time amenity, while visitors are there to experience a full range of tourism activities. A balance of low to moderate levels of noise at night is anticipated for this zone.
5. The commercial zone is a business environment. A noise environment which accommodates restaurants and bars is required in this zone. However, consideration of the mixed use nature of some parts of this zone is necessary.
6. The industrial and rural production zones are a higher noise environment. Management of noise at site boundaries is particularly important to ensure that the potential for cumulative effects outside of these zones are addressed.

NOISE-P2. Reduce the potential for reverse sensitivity effects by employing land use controls that manage the design and/or location of new noise sensitive

activities in proximity to areas that consistently experience higher noise levels.

NOISE P3. Manage noise at source while recognising that some activities are important for the economic and social wellbeing, and health, safety and security of communities and may exceed the specified noise levels on a temporary and/or irregular basis. However, there remains a duty for such activities to avoid unreasonable noise.

Rules

The rules that apply to noise are contained in the tables listed below. To undertake any activity, it must comply with the rules listed in:

- NOISE - Table 1 - Activities Rules; and
- NOISE - Table 2 - Performance Standards; and
- Any relevant provision in Part 2 District-wide matters; and
- Any relevant provision in Part 3 Area Specific Matters.

Where an activity breaches more than one rule, the most restrictive status shall apply to the activity.

Refer to Part 1 - How the Plan Works for an explanation of how to use this plan, including activity status abbreviations.

NOISE - Table 1 - Activities Rules

Unless specifically stated otherwise, the rules in this table apply to all zones, precincts, all roads, new roads approved by resource consent and activities on the surface of water	
NOISE-R1.	**Emission of noise (not otherwise provided for in this table)**
Activity Status: PER **Where:** 1. All of the performance standards in NOISE - Table 2 are complied with.	**Activity status where compliance is not achieved: RDIS** **Matters over which discretion is restricted:** (a) The matters of discretion associated with any performance standard which cannot be complied with in NOISE - Table 2.
NOISE-R2.	**Emission of noise from temporary military training activities**
Activity Status: PER **Where:** Weapons firing and/or the use of explosives 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 housing a noise sensitive activity: (i) 7am to 7pm hours: 500m	**Activity status where compliance is not achieved: RDIS** **Matters over which discretion is restricted:** (a) The length of duration of the activity, characteristics of the noise being generated including its frequency, intensity, and any special noise characteristics; and (b) Effects on people and communities' health and wellbeing, including the potential for sleep disturbance; and

(ii) 7pm to 7am hours: 1,250m

3. Where the minimum separation distances specified above cannot be met, the activity must comply with the following peak sound pressure level when measured at the notional boundary of any building housing a noise sensitive activity:
   (i) 7am to 7pm hours: 95 dBC
   (ii) 7pm to 7am hours: 85 dBC
4. NZS6802:2008 Acoustics – Environmental Noise shall not be used to assess noise from weapons firing and use of explosives.
5. All other sources:

Time (Mon to Sun)	Noise limit $L_{Aeq(15min)}$	L_{AFmax}
7am - 7pm	55 dB	N/A
7pm - 10pm	50 dB	N/A
10pm – 7am	45 dB	75 dB

(c) Any mitigation of the noise proposed, in accordance with a best practicable option approach including site layout, design and location of structures and equipment and the timing of operations; and
(d) The degree to which adverse effects can be mitigated through conditions of consent such as noise attenuation; and
(e) The social benefits that will be derived from the activity.

NOISE-R3.	**Emission of noise from a temporary event**
Activity Status: PER **Where:** 1. The noise generated complies with NOISE-S6.	**Activity status where compliance is not achieved: RDIS** **Matters over which discretion is restricted:** (a) The extent and effect of any non-compliance with any rule and any matters of discretion in the rule.

NOISE-R4.	**Emission of noise from audible bird scaring devices**
Activity Status: PER **Where:** 1. The noise generated complies with NOISE-S7; and 2. The activity is undertaken in the general rural or rural production zones; and 3. This rule does not apply to audible bird scaring devices used for public health protection purposes located on Waitomo District Council land or infrastructure.	**Activity status where compliance is not achieved: RDIS** **Matters over which discretion is restricted:** (a) The extent and effect of any non-compliance with any rule and any matters of discretion in the rule.
Activity Status: DIS **Where:** 4. The activity is undertaken in zones other than the general rural or rural production zones.	**Activity status where compliance is not achieved: N/A**

NOISE-R5.	Emission of noise from frost fans
Activity Status: PER **Where:** 1. The noise generated complies with NOISE-S8; and 2. The activity is undertaken in the general rural or rural production zones.	**Activity status where compliance is not achieved: RDIS** **Matters over which discretion is restricted:** (a) The extent and effect of any non-compliance with any rule and any matters of discretion in the rule.
Activity Status: DIS **Where:** 3. The activity is undertaken in zones other than the general rural or rural production zones.	**Activity status where compliance is not achieved: N/A**

NOISE-R6.	Emission of noise and vibration from construction activities
Activity Status: PER **Where:** 1. The noise and vibration generated complies with NOISE-S9.	**Activity status where compliance is not achieved: DIS**

NOISE-R7.	Emission of noise and vibration from blasting
Activity Status: PER **Where:** 1. The noise and vibration generated complies with NOISE-S10; and 2. The activity is undertaken in the general rural and rural production zones; and 3. This rule does not apply to building demolition.	**Activity status where compliance is not achieved: DIS**

NOISE-R8.	Emission of noise from helicopters during construction projects
Activity Status: PER **Where:** 1. The activity is for building construction purposes or for infrastructure construction, maintenance and repair; and 2. The activity is undertaken for a period of not more than two consecutive weeks annually per construction or infrastructure project; and 3. The activity only operates during the hours of 9am – 5pm, Monday to Saturday.	**Activity status where compliance is not achieved: DIS**

NOISE-R9. Construction of a new building containing a sensitive land use within a State Highway or Rail Corridor Noise Control Boundary

Activity Status: PER

Where:

1. Activity-specific standards: New buildings are designed, constructed and maintained to ensure that any part of the building located within the State Highway or Rail Corridor Noise Control Boundary and containing an activity listed in NOISE Table 3:
   (i) complies with the maximum future indoor design noise levels in NOISE Table 3 and meets the ventilation requirements in NOISE Table 4; or
   (ii) is located so the nearest exterior façade of that part of the building is at least 50m from the formed carriageway of the State Highway and 50m from the formed railway track and there is a solid building, fence, wall or landform that blocks the line of sight from all parts of all windows and doors to that activity to all parts of the formed carriageway of the State Highway and all points 3.8m directly above the formed railway track; or
   (iii) is located so it can be demonstrated by way of prediction or measurement by a suitably qualified and experienced acoustic consultant that noise at all exterior façades of that part of the building will be no more than 15 dB above the relevant maximum indoor design noise levels in NOISE Table 3; or
   (iv) accords with the construction schedule in NOISE Table 5 and meets the ventilation requirements in NOISE Table 4.
2. Assumptions: For State Highways, the design road noise is to be based on measured or predicted external noise levels plus 3 dB. For the Rail Corridor:
   (i) The source level for railway noise is 70 LAeq(1h) at a distance of 12 metres from the nearest track; and
   (ii) The attenuation over distance is 3 dB per doubling of distance up to 40 metres and 6 dB per doubling of distance beyond 40 metres; or
   (iii) As modelled by a Suitably Qualified and Experienced Acoustic Consultant using a recognised computer modelling method for freight trains with diesel locomotives, having regard to factors such as barrier attenuation, the location of the dwelling relative to the orientation of the track, topographical features and any intervening structures.

Activity status where compliance is not achieved: RDIS

Matters over which discretion is restricted:

(a) Adverse effects on health and amenity of people indoors within the Noise Control Boundary overlay.
(b) Alternative options for building design or location that would achieve compliance with the standards in NOISE Table 3.
(c) Adverse effects on the continuing operation of the State Highway network, or railway corridor as a result of non-compliance with the standards.
(d) Any natural or built features of the site or surrounding area that will mitigate noise effects
(e) The outcome of any consultation undertaken with NZTA or KiwiRail.

NOISE-R10. Alterations, additions or change in use of an existing building to add or increase a sensitive land use within a State Highway or Rail Corridor Noise Control Boundary

Activity Status: PER

Where:

1. Activity-specific standards: The alteration, addition or change of use of an existing building does not increase the gross floor area of an activity listed within NOISE Table 3 within the State Highway or Rail Corridor Noise Control Boundary; or
2. An internal alteration to an existing residential unit does not increase the total gross floor area of activities listed in NOISE Table 3 by more than $5m^2$ within each 10-year period from 19 June 2025 within the State Highway or the Rail Noise Control Boundary; or
3. Other than internal alterations $5m^2$ or less within each 10-year period from 19 June 2025 provided for in (b) above, the alteration, addition or change of use of an existing building increases the gross floor area of an activity listed within Table 3 within the State Highway or Rail Corridor Noise Control Boundary, but the part of the building containing that activity:
   (i) Is designed, constructed and maintained to comply with the indoor design noise levels specified in NOISE Table 3 and meets the ventilation requirements in NOISE Table 4; or
   (ii) Is in a location where the nearest exterior façade of that part of the building is at least 50m from the formed carriageway of the State Highway and 50m from the formed railway track and there is a solid building, fence, wall or landform that blocks the line of sight from all parts of all windows and doors to that activity to all parts of the formed carriageway of the State Highway and all points 3.8m directly above the formed railway track; or
   (iii) Is in a location where it can be demonstrated by way of prediction or measurement by a suitably qualified and experienced acoustic consultant that the noise at all exterior façades of that part of the building is no more than 15 dB above the relevant noise levels in NOISE Table 3; or
   (iv) Is designed, constructed and maintained in accordance with the construction schedule in NOISE Table 5 and meets the ventilation requirements in NOISE Table 4.
4. Prior to the alteration, addition or change of use of an existing building to which this standard applies, a design report shall be submitted to the Council demonstrating compliance with the maximum indoor design noise levels specified in NOISE Table 3 for that part of the building subject to this rule, applying the assumptions in NOISE-RX.2. Alternatively, the design report may be substituted with confirmation that the alteration, addition or change of use within the building will meet the construction schedule requirements in NOISE Table 5.
5. A commissioning report must be submitted to the Council prior to occupation of the building demonstrating compliance with all of the mechanical ventilation system report requirements in NOISE Table 4 for the area of the existing building that has been altered, added to or undergone a change of use.
6. Assumptions: For State Highways, the design road noise is to be based on measured or predicted external noise levels plus 3 dB. For the Rail Corridor:
   (i) The source level for railway noise is 70 $LA_{eq}(1h)$ at a distance of 12 metres from the nearest track; and
   (ii) The attenuation over distance is 3 dB per doubling of distance up to 40 metres and 6 dB per doubling of distance beyond 40 metres; or
   (iii) As modelled by a Suitably Qualified and Experienced Acoustic Consultant using a recognised computer modelling method for freight trains with diesel locomotives, having regard to factors such as barrier attenuation, the location of the dwelling relative to the orientation of the track, topographical features and any intervening structures.

Activity status where compliance is not achieved: RDIS

Matters over which discretion is restricted:

(a) Adverse effects on health and amenity indoors of people within the Noise Control Boundary overlays

(b) Alternative options for building design or location that would achieve compliance with the standards in NOISE Table 3

(c) Adverse effects on the continuing operation of the State Highway network, or railway corridor as a result of non-compliance with the standards.

(d) Any natural or built features of the site or surrounding area that will mitigate noise effects.

(e) The outcome of any consultation undertaken with NZTA or KiwiRail.

NOISE-R11.	Emission of noise from helipads, farm helipads and helicopter landing areas

Activity Status: RDIS

Where:

1. There are 10 or more flight movements per month per site (a landing and take-off counts as 2 movements); and
2. This rule does not apply to the Aerodrome Precinct – PREC3, the general rural, rural production and natural open space zones. All flight movements in these zones and PREC3 are permitted; and
3. Sound from any helicopter landing area must be assessed, managed and controlled in accordance with NZ 6807:1994 Noise Management and Land Use Planning for Helicopter Landing Areas.

Where the activity is restricted discretionary, the matters over which discretion is restricted are:

(a) The characteristics of the noise being generated including its frequency, intensity and any special noise characteristics; and

(b) The time of the day or night the landing area/helipad will be used; and

(c) Potential for cumulative effects considering the background noise environment and any special noise characteristics from existing sources; and

(d) Proximity of actual and anticipated noise sensitive activities to the proposed or existing landing area/helipad and effects on these activities; and

(e) Effects on people and communities' health and wellbeing, including the potential for sleep disturbance; and

(f) Any mitigation of the noise proposed, in accordance with a best practicable option approach, including site layout, design and location of structures or equipment and the timing of operations; and

(g) The degree to which adverse effects can be mitigated through conditions of consent such as noise attenuation; and

(h) Whether the proposal meets New Zealand industry best practice guidelines such as the Helicopter Association International Fly Neighborly Guide 1993, the Spreadmark Certification Programme or Growsafe Accreditation (Aerial) Programme; and

(i) The economic benefits, including providing opportunities for employment that will be derived from the activity.

Activity status where compliance is not achieved: DIS

NOISE-R12.	Exemptions

Noise – Table 2 -Performance Standards

NOISE- S1.	Noise standards for the residential, rural lifestyle, settlement and Māori purpose zones

1. Within the residential, rural lifestyle, settlement and Māori purpose zones, noise generated by an activity must not exceed the following noise limits at the legal boundary of the receiving site or the nearest practical measuring point to that boundary:

Time	Noise limit
7am - 7pm	50 dBA(LAeq)
7pm - 10pm	45 dBA(LAeq)
10pm – 7am	40 dBA(LAeq)
10pm-7am	70 dBA(LAmax)

Matters of discretion if compliance is not achieved:

(a) The characteristics of the noise being generated including its frequency, intensity and any special noise characteristics; and

(b) The proximity of the activity to existing noise sensitive activities; and

(c) The degree to which the noise will be compatible with existing and anticipated activities; and

(d) The potential for cumulative effects considering the background noise environment and any special noise characteristics from existing sources; and

(e) Effects on people and communities' health and wellbeing, including the potential for sleep disturbance; and

(f) Any mitigation of the noise proposed, in accordance with a best practicable option approach including site layout, design and location of structures and equipment and the timing of operations; and

(g) The degree to which adverse effects can be mitigated through conditions of consent such as noise attenuation.

NOISE- S2.	Noise standards for the general rural and future urban zones

1. Noise generated by an activity in the general rural and future urban zones must not exceed the following noise limits at any point within any residential zone, or, at or within the notional boundary of any noise sensitive activity in the general rural, future urban, tourism, rural lifestyle, settlement or Māori purpose zones:

Time	Noise limit
7am - 7pm	50 dBA(LAeq)
7pm - 10pm	45 dBA(LAeq)
10pm – 7am	40 dBA(LAeq)
10pm-7am	70 dBA(LAmax)

AND

2. In the event there are no existing noise sensitive activities on an adjoining site, but such activities could be constructed as a permitted activity under

Matters of discretion if compliance is not achieved:

(a) The characteristics of the noise being generated including its frequency, intensity, and any special noise characteristics; and

(b) The degree to which the noise will be compatible with existing and anticipated activities; and

(c) The potential for cumulative effects considering the background noise environment and any special noise characteristics from existing sources; and

(d) Effects on people and communities' health and wellbeing, including the potential for sleep disturbance; and

(e) Any mitigation of the noise proposed, in accordance with a best practicable option

this plan, the noise levels will be assessed or, at or within a line 20 m parallel to the legal boundary of the site where the noise source originates from.	approach including site layout, design and location of structures and equipment and the timing of operations; and (f) The degree to which adverse effects can be mitigated through conditions of consent such as noise attenuation.

NOISE- S3.	**Noise standards for the open space and natural open space zones**

1. Noise generated by an activity in the open space and natural open space zones must not exceed the following noise limits at any point within any residential zone, or, at or within the notional boundary of any noise sensitive activity in the general rural, tourism, rural lifestyle, settlement, future urban or Māori purpose zones:

Time	Noise limit
7am - 7pm	50 dBA(LAeq)
7pm - 10pm	45 dBA(LAeq)
10pm – 7am	40 dBA(LAeq)
10pm-7am	70 dBA(LAmax)

Matters of discretion if compliance is not achieved:

(a) The characteristics of the noise being generated including its frequency, intensity, and any special noise characteristics; and

(b) The degree to which the noise will be compatible with existing and anticipated activities; and

(c) The potential for cumulative effects considering the background noise environment and any special noise characteristics from existing sources; and

(d) Effects on people and communities' health and wellbeing, including the potential for sleep disturbance; and

(e) Any mitigation of the noise proposed, in accordance with a best practicable option approach including site layout, design and location of structures and equipment and the timing of operations; and

(f) The degree to which adverse effects can be mitigated through conditions of consent such as noise attenuation; and

(g) The community and social benefits from the activity.

NOISE- S4.	**Noise standards for the industrial and rural production zones**

1. Within the rural production and industrial zones, noise generated by an activity must not exceed the following noise limits at the legal boundary of the site or the nearest practical measuring point to that boundary:

Time	Noise limit
7am - 7pm	75 dBA(LAeq)
7pm - 10pm	65 dBA(LAeq)
10pm – 7am	60 dBA(LAeq)
10pm-7am	90 dBA(LAmax)

AND

Matters of discretion if compliance is not achieved:

(a) The characteristics of the noise being generated including its frequency, intensity, and any special noise characteristics; and

(b) The degree to which the noise will be compatible with existing and anticipated activities; and

(c) The potential for cumulative effects considering the background noise environment and any special noise characteristics from existing sources; and

2. Noise generated by an activity in the rural production and industrial zones must not exceed the following noise limits at any point within any residential zone, or, at or within the notional boundary of any noise sensitive activity in the general rural, tourism, rural lifestyle, settlement, future urban, natural open space, open space or Māori purpose zones:

Time	Noise limit
7am - 7pm	55 dBA(LAeq)
7pm - 10pm	50 dBA(LAeq)
10pm – 7am	45 dBA(LAeq)
10pm-7am	75 dBA(LAmax)

(d) Effects on people and communities' health and wellbeing, including the potential for sleep disturbance; and
(e) Any mitigation of the noise proposed, in accordance with a best practicable option approach including site layout, design and location of structures and equipment and the timing of operations; and
(f) The degree to which adverse effects can be mitigated through conditions of consent such as noise attenuation; and
(g) Ambient noise levels and any special character of 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
(h) The economic benefits, including providing opportunities for employment that will be derived from the activity.

NOISE- S5.	Noise standards for the commercial and tourism zones

1. Within the commercial and tourism zones, noise generated by an activity must not exceed the following noise limits at the legal boundary of the receiving site or the nearest practical measuring point to that boundary:

Time	Noise limit
7am - 7pm	65 dBA(LAeq)
7pm - 10pm	60 dBA(LAeq)
10pm – 7am	55 dBA(LAeq)
10pm-7am	70 dBA(LAmax)

AND

2. Noise generated by an activity in the commercial and tourism zones must not exceed the following noise limits at any point within any residential zone, or, at or within the notional boundary of any noise sensitive activity in the general rural, open space, natural open space, rural lifestyle, settlement, future urban or Māori purpose zones:

Time	Noise limit
7am - 7pm	50 dBA(LAeq)
7pm - 10pm	45 dBA(LAeq)
10pm – 7am	40 dBA(LAeq)
10pm-7am	70 dBA(LAmax)

Matters of discretion if compliance is not achieved:

(a) The characteristics of the noise being generated including its frequency, intensity, and any special noise characteristics; and
(b) The degree to which the noise will be compatible with existing and anticipated activities; and
(c) The potential for cumulative effects considering the background noise environment and any special noise characteristics from existing sources; and
(d) Effects on people and communities' health and wellbeing, including the potential for sleep disturbance; and
(e) Any mitigation of the noise proposed, in accordance with a best practicable option approach including site layout, design and location of structures and equipment and the timing of operations; and
(f) The degree to which adverse effects can be mitigated through conditions of consent such as noise attenuation; and
(g) Ambient noise levels and any special character of 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 (h) The economic benefits, including providing opportunities for employment that will be derived from the activity.

NOISE-S6.	Emission of noise from a temporary event

1. Noise generated by the activity must not exceed the following noise limits at any point within any residential zone, or, at or within the notional boundary of any noise sensitive activity in the general rural, rural lifestyle, settlement, future urban or Māori purpose zones:

Time	Noise limit
7am - 7pm	70 dBA(LAeq)
7pm - 10pm	55 dBA(LAeq)
10pm – 7am	40 dBA(LAeq)
10pm-7am	70 dBA(LAmax)

AND

2. This rule does not apply to public firework displays.

Matters of discretion if compliance is not achieved:

(a) The characteristics of the noise being generated including its frequency, intensity, and any special noise characteristics; and

(b) The potential for cumulative effects considering the background noise environment and any special noise characteristics from existing sources; and

(c) Effects on people and communities' health and wellbeing, including the potential for sleep disturbance; and

(d) Any mitigation of the noise proposed, in accordance with a best practicable option approach including site layout, design and location of structures and equipment and the timing of operations; and

(e) The degree to which adverse effects can be mitigated through conditions of consent such as noise attenuation; and

(f) The social and economic benefits, including providing opportunities from employment that will be derived from the activity.

NOISE-S7.	Emission of noise from audible bird scaring devices

1. Any audible bird scaring devices must be operated as follows:
   (i) Only during daylight hours and up to half an hour before sunrise but no earlier than 6.00am and up to half an hour after sunset ; and
   (ii) At a frequency of not more than six clusters of up to three shots from gas operated devices or three multiple shot from firearms in rapid succession per device in any 60 minute period of the day; and

Matters of discretion if compliance is not achieved:

(a) The characteristics of the noise being generated including its frequency, intensity, and any special noise characteristics; and

(b) The potential for cumulative effects considering the background noise environment and any special noise characteristics from existing sources; and

(c) Effects on people and communities' health and wellbeing, including the potential for sleep disturbance; and

(iii) At a maximum density of one device per 10 ha of crop; AND 2. The noise from any audible bird scaring device must not exceed 85 dBA unweighted peak level as measured at any point within any residential zone, or, at or within the notional boundary of any noise sensitive activity located on a separate site or holding.	(d) How the operation and management of the device will avoid or minimise potential effects on neighboring properties; and (e) Any mitigation of the noise proposed, in accordance with a best practicable option approach including site layout, design and location of devices and the timing of operations; and (f) The degree to which adverse effects can be mitigated through conditions of consent.
NOISE-S8	**Emission of noise from frost fans**
1. Noise generated by frost fans must not exceed 55 dBA(LAeq) when measured at any point within any residential zone, or, at or within the notional boundary of any noise sensitive activity located on a separate site or holding. 2. Frost fans must only be operated when the local air temperature drops to, or below 2°C, recorded at a height above ground relevant to the height of the bud or fruit being protected. 3. Records of annual calibration of the frost fan temperature sensors must be kept and made available to Waitomo District Council on request.	**Matters of discretion if compliance is not achieved:** (a) The proximity of the frost fan(s) relative to noise sensitive activities and the residential zone; and (b) The proposed height of fans and the type of motor, speed and the number of blades on the fan(s); and (c) The characteristics of the noise being generated including its frequency, intensity, and any special noise characteristics; and (d) The potential for cumulative effects considering the background noise environment and any special noise characteristics from existing sources; and (e) Effects on people and communities' health and wellbeing, including the potential for sleep disturbance; and (f) How the operation (conditions triggering use) and management of the frost fan(s) network will avoid or minimize potential effects on neighboring properties; and (g) Mitigation proposals to address potential noise and vibration effects; and (h) The economic benefits, including providing opportunities for employment that will be derived from the activity.
NOISE-S9.	**Emission of noise and vibration from construction activities**
1. The noise from construction activities must be measured, assessed, managed and controlled in accordance with the requirements of New Zealand Standard NZS 6803:1999 Acoustics – Construction noise; and	**Matters of discretion if compliance is not achieved: DIS**

2. The vibration from construction activities must be measured, assessed, managed and controlled in accordance with the requirements of German Standard DIN 4150-3:1999 Structural vibration – Effects of vibration on structures.	

NOISE-S10.	**Emission of noise and vibration from blasting**
1. The activity must only occur in the general rural or rural production; and 2. Noise generated by blasting/use of explosives must not exceed a peak sound pressure of 120dB (Lzpeak) when measured at any point within any residential zone, or, at or within the notional boundary of any noise sensitive activity; and 3. A level of 115 dBA may be exceeded on up to 5% of the total number of blasts over a period of 12 months; and 4. Blasting must not occur outside of the hours of 9am – 5pm, Monday to Saturday; and 5. Blasting, which may include a series of one or more blasts undertaken within a short time period, must not occur more than once per day. This requirement does not apply to minor blasts as identified in the Australian and New Zealand Environment Council - Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration, September 1990 or to blasting necessary for safety purposes; and 6. Vibration generated by blasting/use of explosives must not exceed the guideline values in Tables 1 and 3 of DIN 4150 inside any building, except in the case of a building located on property under the same ownership or management as that of the party blasting/using explosives.	**Matters of discretion if compliance is not achieved: DIS**

Advice Notes

Noise measurement

Noise shall be measured in accordance with NZS 6801:2008 "Acoustics - Measurement of environment sound" and assessed in accordance with NZS 6802:2008 Acoustics Environmental noise", unless otherwise specified elsewhere in this plan.

Noise – Table 3 - Maximum indoor design noise levels for State Highway and rail corridor noise

Type of Noise Control Boundary	Activity	Rail Corridor maximum indoor design noise level	State Highway maximum indoor design noise level
State Highway and Rail Corridor	Bedrooms	35dB LA_{eq}	40dB LA_{eq}
	Lecture rooms / theatres, music studios, assembly halls	35dB LA_{eq}	35dB LA_{eq}
	Conference rooms, drama studios, libraries and designated sleeping rooms for children aged 6 years or younger in schools, early childhood centres or tertiary institutions	40dB LA_{eq}	40dB LA_{eq}
	Sensitive activities in hospitals including overnight medical care, wards, clinics, consulting rooms, theatres, nurses' stations	40dB LA_{eq}	40dB LA_{eq}
	Places of assembly including churches, places of worship and marae	35dB LA_{eq}	35dB LA_{eq}
	Other habitable rooms	40dB LA_{eq}	40dB LA_{eq}

Noise – Table 4 - Mechanical ventilation system

Activity	Ventilation requirements (in the situations where windows must be closed to achieve indoor noise levels set out in NOISE Table 3)
Habitable rooms for a residential activity	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 flow setting that provides at least 6 air changes per hour; and 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 LA_{eq}(30s) when measured 1 metre away from any grille or diffuser.
Other spaces	To be determined by a suitably qualified and experienced person.

Noise - Table 5 - Construction schedule

Elements	**Minimum construction schedule for controlling noise in State Highway and Railway Noise Effects Areas in addition to the requirements of the New Zealand Building Code**	
Exterior walls	Wall cavity infill of fibrous insulation, batts or similar (minimum density of 9kg/m^3)	
	Cladding and internal wall lining complying with either Options A, B or C below:	
	Option A - Light cladding: timber weatherboard or sheet materials with surface mass between 8kg/m^2 and 30 kg/m^2 of wall cladding	Internal lining of minimum 17 kg/m^2 plasterboard, such as two layers of 10 mm thick high-density plasterboard, on resilient/isolating mountings
	Option B - Medium cladding: surface mass between 30 kg/m^2 and 80 kg/m2 of wall cladding	Internal lining of minimum 17 kg/m^2 plasterboard, such as two layers of 10 mm thick high-density plasterboard
	Option C - Heavy cladding: surface mass between 80 kg/m^2 and 220 kg/m^2 of wall cladding	No requirements additional to New Zealand Building Code
Roof / ceiling	Ceiling cavity infill of fibrous insulation, batts or similar (minimum density of 7 kg/m3)	
	Ceiling penetrations, such as for recessed lighting or ventilation, shall not allow additional noise break-in	
	Roof type and internal ceiling lining complying with either Options A, B or C below:	
	Option A - Skillion roof with light cladding: surface mass up to 20 kg/m^2 of roof cladding	Internal lining of minimum 25 kg/m^2 plasterboard, such as two layers of 13 mm thick high-density plasterboard
	Option B - Pitched roof with light cladding: surface mass up to 20 kg/m^2 of roof cladding.	Internal lining of minimum 17 kg/m^2 plasterboard, such as two layers of 10 mm thick high-density plasterboard
	Option C - Roof with heavy cladding: surface mass between 20 kg/m^2 and 60 kg/m^2 of roof cladding	No requirements additional to New Zealand Building Code
Glazed areas	Aluminium frames with full compression seals on opening panes	
	Glazed areas shall be less than 35% of each room's gross floor area	
	Either: double-glazing with: • a laminated pane of glass at least 6 mm thick; • a cavity between the two panes of glass at least 12 mm deep; and	

	• a second pane of glass at least 4 mm thick Or • any other glazing with a minimum performance of Rw 33 dB	
Exterior doors	Exterior door: • within the State Highway noise effects area with a line-of-sight to any part of the State Highway road surface; or • within the railway corridor noise effects area with a line-of-sight to any point 3.8m directly above the formed railway track.	Solid core exterior door, minimum surface mass 24 kg/m^2, with edge and threshold compression seals; or other doorset with minimum performance of Rw 30 dB