

## SECTION 14.2 NOISE

### 14.2.1 INTRODUCTION

Noise ranks highly on the list of environmental pollutants and is an increasing matter to which communities must have regard. If the emission of noise from the various land use and transportation activities is not controlled, this is likely to result in long term adverse effects on the acoustic environment and the amenity of the individual properties, localities, and the wider District. The acoustic environment of the Hastings District varies from the low background noise levels in the rural areas of the District where there is little sound generated by human activity, to areas of significant residential, commercial and industrial activities where noise levels are elevated.

As with many other Districts, the noise climate in Hastings is dominated by two main environmental noise sources - road traffic and industrial and commercial activity which includes agricultural and horticultural operations. Generally speaking, noise level drops as one moves away from these noise sources.

The varying noise levels which exist in the Hastings District do give rise to the potential for conflict where, for instance, activities and residential areas adjoin one another and expectations for what is an acceptable acoustic environment are at variance.

Industrial areas which generate, or have the potential to generate, significant noise include Omahu Road, Tomoana, Whakatu, Karamu, King Street, (Watties) and Whirinaki. Some industry in these areas operate for a part of the night or on a continuous basis which impacts markedly on the night-time background noise levels which are otherwise fairly uniformly low.

Road traffic noise dominates the inner city area and also, but to a lesser extent, smaller townships, and there are also a number of major routes through the District which impact on adjacent areas, particularly residential. These routes include Omahu Road, the Havelock Road, Pakowhai Road, Maraekakaho Road, and Karamu Road. The purpose of the District Plan is to provide a regime in which the management of noise generation is made possible in order to protect the amenity of the community, as well as enabling those activities which have noise associated with them to operate in a practical environment.

### 14.2.2 RESOURCE MANAGEMENT ISSUES

- ***Noise Effects of Activities on Adjoining Properties***

All occupiers of land have a responsibility to keep the emission of noise from their site to reasonable levels. In most circumstances a reasonable level of noise will be achieved when appropriate numerical noise Performance Standards are complied with. Appropriate design of buildings and the location of noise generating equipment would minimise the impact on the receiving environment.

The provision of areas such as industrial zones where lower noise standards can be accommodated internally provide alternative ways of managing noise generating activities. By ensuring that noise producing activities locate in areas of higher existing background noise level such activities are able to operate without undue restraint.

Similarly, areas having existing low ambient noise levels will be able to maintain their acoustic quality by ensuring that only activities which produce little or no noise establish within them, for example, residential areas distant from major road traffic routes and industrial areas.

- ***Protecting the Amenity of the Residential Zones***

Residential amenity needs to be protected against adverse effects which may arise from non-residential activities, often associated with and located within residential areas, for example, Places of Assembly and neighbourhood retail shops. Appropriate noise standards need to be established and complied with to ensure that these activities are compatible with the residential area.

Consideration should be given to the need for effective sound insulation for new dwellings and existing dwellings undergoing renovations to protect the occupants from outdoor noise. With housing density increasing in some areas and separation distances decreasing, achieving low internal noise levels is becoming one of the most important factors for a good dwelling. Nuisance can also be created by the use of high powered stereo systems by residents.

- ***An Increasing Diversity of Residential Location***

Trends towards inner city apartment dwellings means that traditional non-residential areas such as commercial and even industrial neighbourhoods are becoming popular for housing. This can often lead to conflict, particularly where the noise environment is greater than people expect or wish to tolerate in a residential setting.

- ***Licensed Premises Generate Noise from Patrons***

Licensed premises such as hotels and night-clubs can cause serious disturbances at night if they are adjacent to, or in, residential areas. This is due to the noise levels associated with amplified music varying considerably; amplified music even at low levels can cause problems because of its intrusive nature; and, unpredictable and uncontrollable noise from car parks and patrons leaving the site late at night.

- ***Noise Generation Associated with Rural Activities***

Farming, agricultural, and horticultural activities can produce some noise which is difficult or impracticable to control. This situation has the potential to result in conflicting expectations particularly where people residing on rural lifestyle properties have anticipation of a consistently quiet environment.

- ***Increasing Road Traffic Noise in Urban Areas***

Road traffic noise is not decreasing despite individual vehicles becoming marginally quieter at certain speeds. Long term control measures need to be adopted otherwise road traffic will continue to be the most annoying and disturbing noise source in the community. A combination of measures including vehicle emission limits, quieter tyres and road surfaces, increases in public transportation, effective land use planning and the use of barriers all need to be considered. The Council also needs to plan its roading hierarchies, and land use zoning and development to avoid unacceptable exposure to new sources of traffic noise in the long term. Existing roads which have traffic volumes that will have significant noise impact include Havelock Road, Omahu Road, Pakowhai Road, Maraekakaho Road, Heretaunga Street and State Highway 2.

- ***Increased Activity at Bridge Pa Aerodrome***

Long term planning measures are crucial to avoid the exposure of residents to unacceptable levels of aircraft noise. Not only will this protect residential amenity, but will ensure that Bridge Pa aerodrome can develop without unreasonable restrictions on aircraft movements. The noise from individual aircraft can also affect numbers of people

as flight paths vary. This may need to be addressed in the future by ensuring all aircraft select suitable flight paths to ensure that noise over residential areas is minimised.

- **Temporary Disruption Caused by Construction Activities**

As noise from construction projects is generally of limited duration, the community will usually tolerate a higher noise level provided it is no louder than necessary, that it is indeed of limited duration, and that it occurs within appropriate hours of the 24 hour day.

- **Railway Generated Noise**

The principal railway noise in residential areas is the high maximum noise levels from passing trains. Although it would appear the community tolerates this noise source, it does not mean that this constitutes an acceptable acoustic environment. Similar noise control measures to road traffic and/or aircraft noise may need to be adopted so that over the long term the number of persons exposed to unacceptable railway noise is reduced.

- **Helicopter Landing Areas**

The use of helicopter transport is likely to increase and as the noise generated by helicopters can be particularly intrusive, residential or other noise sensitive activities have the potential to be adversely affected.

- **Health of Communities**

Noise has the potential to adversely affect people's health. Noise may be defined as unwanted sound. Sound may be described in terms of frequency, magnitude and duration, but noise has connotations of annoyance and disturbance which are subjective factors. Community reaction to noise is determined not only by the sound level, but also by the characteristics of the noise itself and the previous exposure of the community to noise. Adverse health effects of noise include:

- Physiological and chronic health effects
- Annoyance
- Interference with speech communications
- Interference with the learning process and education
- Interference with mental activity
- Interference with rest and sleep

The desirable upper limit for night - time exposure is determined by criteria to protect from disturbance to the onset of sleep and awakening thresholds for the average person.

### 14.2.3 OBJECTIVES

- *NSO1 To manage the emission and mitigate the effects of noise so as to maintain and enhance the acoustic environment ensuring no adverse effects and no incompatibility with human activities.*
- *NSO2 To ensure the effects of noise upon people are not adverse to their health.*

**14.2.4 POLICIES**

- NSP1 Control the emission levels of noise throughout the District, based on existing ambient noise and accepted standards for noise generation and receipt.**

Explanation

Different parts of the District have differing background noise levels which reflects the range of activities carried out in them. The District Plan will identify current accepted noise levels and include rules that establish appropriate noise levels for each zone, and activities at zone interfaces.

- NSP2 Manage the interface of different land use zones to protect the aural environment of residential and other less noisy areas of the District.**

Explanation

Different land use activities generate different levels of noise. Management of the interface of the different zones is important in order to ensure that noise does not intrude into quieter areas, and that at or within the boundary of each zone, noise levels meet accepted minimum standards for the receiving environment.

- NSP3 Provide for areas where activities which generate higher levels of noise can operate effectively.**

Explanation

Noisy industrial and similar activities need to operate in appropriate locations of higher background noise level where the impact of such noise on the environment and its potential to cause nuisance will be lessened.

- NSP4 Manage the noise outputs associated with agricultural, viticultural and horticultural activities so that the operation of noise equipment, and in particular crop protection equipment, is provided for while avoiding the generation of unnecessary or unreasonably high noise levels.**

Explanation

Some agricultural, horticultural and viticultural activities are inherently noisy and can have considerable impact in otherwise quiet rural environments. However many are seasonal or occur infrequently and only in adverse weather conditions. These occurrences can result in conflicting expectations in regard to the acoustic environment between non farming, rural residential and agricultural operators. Such noise should be minimised but not to the extent of preventing accepted agricultural, viticultural and horticultural activities operating.

- NSP5 Noisy construction and demolition activities will be allowed subject to restrictions to ensure the protection of the community from excessive noise.**

Explanation

Many construction and demolition activities are inherently noisy but methods are available which can minimise the emission and impact of such noise. Noise experienced during construction and demolition is generally of a temporary nature and, provided ongoing noise at inconvenient times can be mitigated or avoided, reasonable levels of construction noise will be accommodated.

- NSP6 Provide for noisy activities of limited duration and frequency which are of importance to the community, subject to appropriate controls.**

Explanation

Some activities such as construction, outdoor concerts, emergency service facility sirens and certain agricultural, viticultural and horticultural operations are inherently noisy but are of a temporary nature and therefore more tolerable than activities which generate noise continuously.

- NSP7 Progressively work towards the reduction in exposure by the community to unacceptable levels of road traffic noise.**

Explanation

Road traffic is a predominant source of noise in the community and impacts to some extent on almost all residents of the District. Major roads which have significant impact include Havelock Road, Omahu Road, Pakowhai Road, Maraekakaho Road, Heretaunga Street and Karamu Road. Land use activities alongside existing and future major roads capable of carrying large traffic volumes should be compatible with the high traffic noise environment. This is dependent however on the community being able to accurately define, existing ambient noise levels, and predict noise levels associated with the future growth of road traffic. The Council will progressively review ambient noise levels on its arterial network, and introduce controls to protect the internal acoustic environment of future sensitive activities, including residential and educational facilities on or near these roads.

- NSP8 Have regard to the design and provision of effective noise mitigation on all new Regional and District Arterials, and Collector Roads constructed in the District.**

Explanation

Where new roads are built as part of the District Roding Hierarchy with the express purpose of acting as arterial and collector routes, appropriate mitigation on design measures shall be included to manage the noise generated, to ensure that the amenity of existing and future residents is protected.

- NSP9 Manage aircraft noise generated by the use of Bridge Pa aerodrome and associated activities to ensure that residents are not subjected to unacceptable levels of noise.**

Explanation

Users of the Bridge Pa Aerodrome will be required to adopt the Best Practicable Option to avoid creating an unreasonable level of noise. The application of the Best Practicable Option will not only help to protect the health and amenity of the community but will also provide for maximising the potential future use of the aerodrome facility.

## 14.2.5 METHODS

These Objectives and Policies will be implemented through the following Methods.

- **Hastings District Plan**

Noise: Rules prescribe noise Performance Standards related to the existing background noise levels in each zone and zone interfaces. Specific Noise Performance Standards are specified for construction and demolition noise, outdoor concerts, noisy agricultural activities, and other legitimate but inherently noisy activities.

- **Noise Management Plans**

Where a Noise Management Plan has been established and agreed to between a specific industry, and those neighbours who are affected by its aural emissions, the Council shall recognise the Noise Management Plan, and refer to it should any dispute arise between parties in the future. Nothing in a Noise Management Plan will interfere with the Council's obligation and duty to Control Excessive Noise as defined by the Resource Management Act 1991.

The Council shall assist specific industries, and their communities to establish effective noise management plans, where there is a willingness by all parties to reduce potential conflict due to unacceptable noise emission levels. The Council will encourage parties to include a dispute resolution process in noise management plans, which will ensure that litigation is not the only recourse available to disputing parties and may lead to an agreed settlement.

Examples of Noise Management Plans include the Pan Pac Noise Management Plan for their Industrial 4 Zoned site at Whirinaki. This Plan specifies a number of actions for the progressive reduction in noise levels over time and is one of the main reasons why the Whirinaki Community and Council have accepted noise limits in the District Plan, which are in some situations much higher than normally accepted limits.

- **New Zealand Standards**

The following New Zealand Standards (unless otherwise stated in section 14.2) will be followed for assessing noise emission controlled by the District Plan.

|               |  |
|---------------|--|
| NZS 6801:1991 | Measurement of Sound   |
| NZS 6802:1991 | Assessment of Environmental Sound  |
| NZS 6801:2008 | Acoustics – Measurement of environmental sound (Only applies to section 14.2.8.5 Flaxmere Village Centre Zone) |
| NZS 6802:2008 | Acoustics - Environmental Noise (Only applies to section 14.2.8.5 Flaxmere Village Centre Zone)                |
| NZS 6803P:    | Measurement and Assessment of Noise from Construction Maintenance Demolition work.                             |
| NZS 6807:1993 | Noise from Helicopter Landing Areas.   |

- **Resource Management Act 1991**

Control of Excessive Noise: The Council will control the emission of excessive noise, as defined by the Act, and shall utilise the provisions of the Act to ensure that the emission of noise is kept within the Standards adopted by the District Plan.

- **Hastings District Council Consolidated Bylaw 1995**

- **Monitoring**

Monitoring of noise emission and of background noise will be undertaken in order to ensure the effectiveness of the above methods in accomplishing the objectives and policies of the District Plan.

- **Land Information Memorandum**

Any Land Information Memorandum (LIM) issued in relation to Lot 2 DP 23134 or subdivisions of this land, will include a statement that this land is subject to higher than average noise levels as shown on the Noise Contour Plan in Appendix 14.2-1.

#### 14.2.6 ANTICIPATED OUTCOMES

It is anticipated that the following specific outcomes will be achieved:

- The exposure of residents to unacceptable levels of noise will be minimised.
- Sufficient flexibility for activities in industrial and commercial zones will be provided while the amenity of rural and residential zones will not be adversely affected by such activities.
- Inherently noisy crop protection devices in rural zones will be separated from residential activities and operated in a manner that does not compromise the health of neighbouring residents.
- Noise producing activities will be able to take place in appropriately zones areas without undue restriction.

#### 14.2.7 RULES

The noise created by any activity, shall be required to comply with the General Performance Standards and Terms in Section 14.2.8 and the Specific Performance Standards and Terms in Section 14.2.9.

#### 14.2.8 GENERAL PERFORMANCE STANDARDS

##### 14.2.8.1 MAXIMUM NOISE LEVELS

Activities shall comply with the noise levels stated in Tables 14.2.8.1-1 and 14.2.8.1-2.

Exemptions for Rural Noise Limits

Whirinaki

- (a) The land subject to the Whirinaki Noise Contour Plan, Appendix 14.2-1 shall not be subject to the Noise Limits set out in Table 14.2.8.1-1 and 14.2.8.1-2.
- (b) Noise from the Industrial 4 Zone shall not exceed 55 dBA  $L_{10}$  at any time outside the 55 dBA noise contour, 60 dBA  $L_{10}$  at any time outside the 60 dBA noise contour, and 65 dBA  $L_{10}$  at any time outside the 65 dBA noise contour (refer Appendix 14.2-1 Whirinaki Noise Contour Plan).

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Outcome

*Noise emissions will not intrude to an unreasonable degree on the existing noise environment.*

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- (c) Industrial 6 Zone  
Lot 2 DP 4847 (548 St Georges Rd Sth)

The noise rules applying to the above site shall be those of the Rural Zone rather than those applying to the Industrial 6 Zone.

#### 14.2.8.1-1 NOISE LIMITS MEASURED IN dBA L<sub>10</sub>

**NOTE:** Refer to rule 14.2.8.5 regarding **Flaxmere Village Centre Zone** and noise emanating and being received in that Zone. Noise emanating from the General Residential Zone and being received in the Flaxmere Village Centre Zone is subject to rule 14.2.8.5. Noise emanating from the Flaxmere Village Centre and being received in the surrounding General Residential Zone is subject to the General Residential Zone standards below.

| ZONE   | INDUSTRIAL                    |                        |                       |     |                       |     |                               | OTHER                          |                       |     |
|--|-------------------------------|------------------------|-----------------------|-----|-----------------------|-----|-------------------------------|--------------------------------|-----------------------|-----|
|  | 1                             | 2                      | Def 2<br>Irongate     | 3   | 4                     | 5   | 6                             | Com                            | Rural                 | Res |
| Ind 1 and<br>Industrial<br>Precinct<br>(in Hv Nth) | 65                            |                        |                       |     |                       |     |                               |                                |                       |     |
| Ind 2 & Ind<br>7                                   | 65                            | 70                     |                       |     |                       |     |                               |                                |                       |     |
| Def Ind 2<br>(Irongate)                            | N/A                           | 65<br>55nbD+<br>45nbOT | 65<br>50nbD<br>40nbOT |     |                       |     |                               |                                |                       |     |
| Def Ind 7<br>(Tomoana)                             | 65<br>55nb<br>D<br>45nb<br>OT | 65<br>55nbD+<br>45nbOT | 65<br>50nbD<br>40nbOT | N/A | 65<br>55nbD<br>45nbOT | N/A | 65<br>55nb<br>D<br>45nb<br>OT | 65<br>50nb<br>D+<br>40nb<br>OT | 65<br>50nbD<br>40nbOT |     |
| Ind 3  | 65                            | N/A                    | N/A                   | 65  |                       |     |                               |                                |                       |     |
| Ind 4  | N/A                           | N/A                    | N/A                   | N/A | 70                    |     |                               |                                |                       |     |
| Ind 5  | N/A                           | N/A                    | N/A                   | N/A | N/A                   | 60  |                               |                                |                       |     |
| Ind 6  | N/A                           | N/A                    | 65<br>55nbD<br>45nbOT | N/A | N/A                   | N/A | 65                            |                                |                       |     |
| Com  | 55                            | 60                     | N/A                   | N/A | N/A                   | N/A | N/A                           | 55                             |                       |     |
| Rural  | 65<br>55nb<br>D<br>45nb<br>OT | 65<br>55nbD+<br>45nbOT | 65<br>50nbD<br>40nbOT | N/A | 65<br>55nbD<br>45nbOT | N/A | 65<br>55nbD<br>45nbO<br>T     | 65<br>50nb<br>D+<br>40nb<br>OT | 65<br>50nbD<br>40nbOT |     |

|     |             |              |             |              |  |             |                    |              |             |             |
|-----|-------------|--------------|-------------|--------------|--|-------------|--------------------|--------------|-------------|-------------|
| Res | 55D<br>45OT | 55D+<br>45OT | 50D<br>40OT | 55D+<br>45OT | 55 DW<br>45 OTW<br>(1)<br>50 OTW<br>(2)<br>55 OTW<br>(3) | 55D<br>40OT | 55D<br>40OT<br>45# | 50D+<br>40OT | 50D<br>40OT | 45D<br>35OT |
|-----|-------------|--------------|-------------|--------------|--|-------------|--------------------|--------------|-------------|-------------|

#### 14.2.8.1-2 MAXIMUM NOISE LEVELS MEASURED IN DbA Lmax

| ZONE                 | IND     | DEF IND 2<br>(Irongate) | IND 5   | COM     | RES     | RURAL   |
|----------------------|---------|-------------------------|---------|---------|---------|---------|
| Ind                  | 85NT    |                         |         |         |         |         |
| Def Ind 2 (Irongate) | 75NT nb | <b>65NT nb</b>          |         |         |         |         |
| Ind 5                | NA      | <b>NA</b>               | 80NT    |         |         |         |
| Com                  | 80NT    | <b>NA</b>               | NA      | 80NT    |         |         |
| Res                  | 75NT    |                         | 65NT    | 70NT    | 65NT    |         |
| Rural                | 75NT nb | <b>65NT nb</b>          | 65NT nb | 70NT nb | 65NT nb | 65NT nb |

#### Explanation of Tables 14.2.8.1-1 and 14.2.8.1-2

- (i) The figure given in the box where a column and a line relating to the same zone intersect is the maximum noise limit in that zone as measured at or beyond the boundary of the site in which the noise source is located (except for where this figure is denoted with 'nb' the measurement point is explained below).
- (ii) The figure given in the box where a column and a row relating to different zones intersect is the noise limit as measured at any point within the boundary of the zone receiving the noise (Except for where this figure is denoted with 'nb' the measurement point is explained below). Where the zone boundary is within road reserve, noise limits will not be enforced on the carriageway but are applicable on the berm within the zone receiving the noise.
- (iii) For example in relation to Table 14.2.8.1-1 activities within the Industrial 2 Zone must not exceed 55 dBA L10 between 7 a.m - 10 p.m Monday - Friday and 7 a.m - 12 noon Saturday and 45 dBA L10 at all other times and public holidays as measured at or within the notional boundary of any rural zoned site. In relation to Table 14.2.8.1-2 activities within the Industrial 1-4 and 6 zones must not exceed 75 dBA LMax as measured at or within the boundary of any residential zoned site.
- (iv) Where the figure given in the table is denoted with 'nb' the limit is to be complied with at any point within any notional boundary, off the site on which the noise source is located. It should be noted that when a new dwelling is built/relocated adjacent to an existing noise source, the existing noise source will be required to meet the noise limit at the new notional boundary.

#### Explanation of Words, Symbols and Abbreviations in Tables 14.2.8.1-1 and 14.2.8.1-2

|                     |  |
|---------------------|--|
| Commercial (Com) =  | Commercial Service, Central Commercial, Central Residential Commercial, Suburban Commercial Zones and Large Format Retail Zone, Havelock North Village Centre Zone (except Industrial Precinct). |
| Rural =             | Plains, Rural, Rural Residential, Te Mata Special Character, Tuki Tuki Special Character, Special Purpose Zone: Regional Sports Park, Deferred Industrial and Deferred Residential Zones         |
| Residential (Res) = | General Residential, Plains Residential and Coastal Residential Zones  |
| N/A =               | Non Applicable as there is no zone interface   |
| D =                 | 7 a.m - 7 p.m. Monday - Friday and 7 a.m - 12 Noon Saturday  |

|                      |  |
|----------------------|--|
| OT =                 | All other times and public holidays  |
| D+ =                 | 7 a.m - 10 p.m. Monday - Friday and 7 a.m - 12 noon Saturday (except for Suburban Commercial refer to D).  |
| DW                   | 0600 – 2200 Monday to Friday<br>0700 – 1700 Saturday   |
| OTW                  | All other times and public holidays excluding Hawke's Bay Anniversary Day (as observed)  |
| (1)=                 | As measured adjacent to 230; and adjacent to 218 Whirinaki Road (Planer Mill)  |
| (2)=                 | As measured adjacent to 203 Whirinaki Road (Entrance)  |
| (3)=                 | As measured adjacent to 178 Whirinaki Road (Pulp Mill)   |
|                      | <u>Note</u>  |
|                      | Appendix 14.2-2 gives details of identified locations for monitoring noise levels from the Industrial 4 Zone   |
|                      | Noise from vehicles accessing the mill site shall comply with the limits in Tables 14.2.8.1-1 & 2 when the vehicle is on the mill (western) side of the landscaping strip, 37.5m from the boundary of the site, but not when the vehicle is between this point and the road. |
| nb                   | Notional boundary measurement applies  |
| Ind =                | Industrial 1, 2, 3, 4 and 6 Zones and Industrial Precinct (Havelock North)   |
| Def Ind 2 (Irongate) | Deferred Industrial 2 Zone (Irongate)  |
| Def Ind 7 (Tomoana)  | Deferred Industrial 7 Zone (Tomoana)   |
| Ind 5 =              | Industrial 5 Zone  |
| NT=                  | 10pm to 7am on the following day   |
| #                    | For Lot 2 DP 23303 (1085 Wairoa Road (SH2)) – 45OT Standard Applies  |

#### 14.2.8.2 MEASUREMENT

The noise levels referred to in Tables 14.2.8.1-1 and 14.2.8.1-2 and in the following Standards and Terms shall be measured in accordance with New Zealand Standards NZS 6801:1991 "Measurement of Sound" and assessed in accordance with NZS 6802:1991 "Assessment of Environmental Sound"

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#### Outcome

*Noise measurement and assessment in accordance with the relevant New Zealand Standards will ensure consistency between Council and privately initiated noise testing.*

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When measuring sound associated with wind power generation facilities the noise levels referred to in Tables 14.2.8.1-1 shall be measured in accordance with New Zealand Standard NZS 6808:1998 "Acoustics - the assessment and measurement of sound from wind turbine generators"

#### 14.2.8.3 EXEMPTIONS FROM MAXIMUM NOISE LIMITS

##### (1) Use of Machinery for Land Based Primary Production

Provided that the best practicable option is adopted to ensure that the emission of noise from the use of vehicles, machinery or other mobile or portable equipment for Land Based Primary Production does not exceed a reasonable level, Rule 14.2.8.1 shall not apply. This exemption does not apply to any fixed or permanently installed plant except for such plant to which any Specific Performance Standard under 14.2.9 relates.

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#### Outcome

*Higher levels of noise will be accepted for mobile agricultural activities.*

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**(2) Temporary Events**

Rule 14.2.8.1 shall not apply to Temporary Events involving the use of sound amplification system(s) during the hours of 0900 to 2400, provided that the adjusted noise level (L10) when measured within any site zoned Residential or within the notional boundary of any residential building located in the Plains, Rural, Rural Residential, Te Mata or Tuki Tuki Special Character, Deferred Residential or Deferred Industrial Zones shall not exceed the following levels:

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Outcome

*Temporary Entertainment Activities will be allowed to generate high noise levels on a limited basis.*

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| TIME        | dBA |
|-------------|-----|
| 0900 - 1800 | 75  |
| 1800 - 2400 | 70  |

NB: This exemption does not apply to Temporary Military Training

**(3) Recreation Activities**

Rules 14.2.8.1 and 14.2.8.5 shall not apply to activities of a normal recreational nature, such as sporting events and playground activities (including school grounds both during and outside of school hours) that do not involve motorised activities, gunfire or amplified music.

**(4) Emergency Service Warning Devices**

Rules 14.2.8.1 and 14.2.8.5 shall not apply in any part of the District for a warning device which is used by emergency services.

**(5) Motorised Activities and Amplified Music (Special Purpose Zone: Regional Sports Park)**

Rule 14.2.8.1 shall not apply to activities involving motorised activities or amplified music within the Special Purpose Zone: Regional Sports Park during the hours of 0900 – 2300 for up to 8 events in any calendar year for a maximum of 6 hours per event (including practices) During these times the noise level as measured within the notional boundary of any occupied residential building within the Plains zone and any occupied site zoned Residential or Deferred Residential shall not exceed the following levels:

| TIME        | dBA  |
|-------------|--|
| 0900 – 2300 | 80dBA L <sub>10</sub><br>85dBA L <sub>01</sub> |

**14.2.8.4 CONSTRUCTION NOISE**

Rules 14.2.8.1 and 14.2.8.5 shall not apply to construction noise.

Construction noise in any zone shall not exceed the recommended limits in, and shall be measured in accordance with the provisions of NZ Standard 6803:1999 Acoustics - Construction Noise "Measurement and Assessment of Noise from Construction, Maintenance and Demolition Work". Discretionary adjustments within clause 6.1 shall be mandatory within the District.

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Outcome

Higher levels of noise over controlled durations will be accepted for construction purposes

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**14.2.8.5 FLAXMERE VILLAGE CENTRE ZONE**

1) The noise level from activities on any other site should not exceed the following limits when measured within:

(a) Residential sites in the Community/Residential Precinct:

|                   |   |
|-------------------|---|
| 0700 -2200 hours  | 55 dB L <sub>Aeq</sub>                              |
| 2200 – 0700 hours | 45 dB L <sub>Aeq</sub> ,<br>75 dB L <sub>Amax</sub> |

(b) Residential sites (elderly housing) located in the Commercial Service Precinct:

|                   |   |
|-------------------|---|
| 0700 -2200 hours  | 60 dB L <sub>Aeq</sub>                              |
| 2200 – 0700 hours | 55 dB L <sub>Aeq</sub> ,<br>80 dB L <sub>Amax</sub> |

(c) Commercial, Commercial Service, Supermarket, and Community sites:

|              |                        |
|--------------|------------------------|
| At all times | 60 dB L <sub>Aeq</sub> |
|--------------|------------------------|

NOTE: refer to rule 14.2.8.1 regarding the interface with rules managing noise in the surrounding General Residential Zone.

2) (a) The internal noise levels in all residential buildings located within the Flaxmere Village Centre Zone shall not exceed the following limits:

|                       |                                 |
|-----------------------|---------------------------------|
| Bedrooms              | 35 dB L <sub>Aeq</sub> 24 hours |
| Other habitable rooms | 40 dB L <sub>Aeq</sub> 24 hours |

These limits shall not be exceeded while at the same time complying with the ventilation requirements of Clause G4 of the New Zealand Building Code.

(b) Certification from a suitably qualified and experienced acoustician, endorsed by the owner of the residential building, shall be provided stating that the residential building has been designed, specified and constructed to comply with the internal noise limits of Rule (2) (a) above. A certificate is required prior to construction, and an additional certificate after construction is completed.

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Outcome

Noise effects within the Flaxmere Village Centre will not reach high or excessive levels relating to the receiving use, whilst commercial and community facility uses are provided for and not inhibited by overly onerous noise controls.

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Outcome

Residential buildings in the Flaxmere Village Centre will be insulated to mitigate the effects of relatively higher noise levels of nearby commercial and community facility uses.

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- (c) Residential buildings designed and constructed in accordance with the specifications contained in Appendix 14.2-3 shall be deemed to comply with Rules (2) (a) and (b) and no further such certificate shall be required.

3) Temporary Events

Rule 14.2.8.5 shall not apply to Temporary Events involving the use of sound application system(s) during the hours of 0900 to 2400, provided that the adjusted noise level ( $L_{Aeq}$ ) when measured within any site zoned Flaxmere Village Centre, shall not exceed the following levels:

| TIME        | dBA |
|-------------|-----|
| 0900 -1800  | 75  |
| 1800 – 2400 | 70  |

Outcome

Temporary events can occur within the nearby Commercial and Commercial Service precincts as a commercial activity, such events are expected within the Village Centre and are short and temporary by nature allowing for relatively higher noise thresholds to enable them while they occur.

- 4) Noise levels shall be measured and assessed in accordance with the requirements of New Zealand Standard NZS 6801:2008 “Acoustics – Measurement of environmental sound” and New Zealand Standard NZS 6802:2008 “Acoustics - Environmental Noise”.

Explanation Of Words, Symbols And Abbreviations in Rule 14.2.8.5:

- dBA A measurement of sound level which has its frequency characteristics modified by a filter (A-weighted) so as to more closely approximate the frequency bias of the human ear.
- $L_{Aeq}$  The time averaged sound level (on a logarithmic/energy basis) over the measurement period (normally A-weighted). This is commonly known as the average sound level.
- $L_{Amax}$  The maximum sound level recorded during the measurement period (normally A-weighted).
- Noise A sound that is unwanted by, or distracting to, the receiver.
- Ambient Noise Ambient Noise is the all-encompassing noise associated with any given environment and is usually a composite of sounds from many sources near and far.

**14.2.9 SPECIFIC PERFORMANCE STANDARDS AND TERMS**

**14.2.9.1 AUDIBLE BIRD SCARE DEVICES**

**(1) Gas Guns**

- (a) Noise generated by gas gun bird scare devices shall not exceed the following noise Performance Standards at or within the notional boundary of any residential building (within any zone) or within any residential zone.

Outcome

Bird scaring devices will be controlled to avoid excessive intrusion on adjoining residents.

| <b>Location of Receiving Environment (see definitions under 14.2.8.1 above)</b> | <b>Time Period</b>       | <b>Noise Limit dBC Peak</b> |
|---|--------------------------|-----------------------------|
| <i>Rural</i>  | <i>Sunrise to Sunset</i> | <i>115</i>                  |
| <i>Residential</i>  | <i>Sunrise to Sunset</i> | <i>100</i>                  |

- (b) Audible bird scare devices shall be operated only during the months December to May inclusive.
- (c) Audible bird scare devices shall not operate at any times other than those specified above.
- (d) Discrete sound events of the bird scaring device (each event shall not exceed 3 shots within a 1 minute period) shall be limited to 4 an hour or to a total of 12 individual shots an hour.
- (e) No audible bird scare device shall be operated unless a legible notice is fixed to the road frontage of the property on which it is being used, giving the name, address and telephone number of the person responsible for its operation.

**Note:** the following is a guide only and is not enforceable as a District Plan rule / standard.

#### **Separation Required to Meet Noise Limit**

The separation distances given in the following table are a guide as to the minimum distance a gas gun can be from a notional boundary or residential zone boundary, to be able to comply with the stated noise limit.

| <b>Guide as to Separation required to achieve Noise Limit<sup>1</sup></b> | <b>Noise Limit dBC Peak</b> |
|---|-----------------------------|
| 150m  | 115                         |
| 420m  | 100                         |

<sup>1</sup> These separation distances are relevant for rotating gas guns, or for gas guns pointing towards the relevant boundary. In situations where a gas gun is fixed away from the relevant boundary and / or noise barriers are used, a smaller separation will be required.

#### **(2) Audible Avian Distress Alarms**

- (a) Users of audible avian distress alarms shall adopt the Best Practicable Option to keep the noise produced to a reasonable level.
- (b) In adopting the best practicable option, users shall not operate alarms outside of the times specified for using gas guns in 14.2.9.1 (1) (a) and (b) above.

- (c) A notice as per 14.2.9.1 (1) (e) shall be attached to the road frontage of the property at which the alarm is being used.

**14.2.9.2 HAIL CANNONS**

- (a) Users of hail cannons must adopt the best practicable options to avoid creating an unreasonable level of noise.
- (b) No hail cannon shall be used within 500m of residentially zoned land or within 200m of any residential building (not located on the same site as the hail cannon).

---

Outcome

*Hail cannons will be controlled so as not to endanger the hearing of neighbouring residents or to avoid excessive intrusion on people in residential areas.*

---

**14.2.9.3 FROST PROTECTION FANS**

- (a) Users of frost protection fans must adopt the best practicable option to avoid creating an unreasonable level of noise.
- (b) Fans shall be separated by 300m from the boundary of any residential zone unless the noise produced by the fan does not exceed 65 dBA L10 at or within that residential zone. Fans may be located as close as 100m to a residential zone boundary subject to them being fitted with equipment demonstrated to comply with the above noise limit.

---

Outcome

*Frost Protection Fans will be controlled so as to reduce adverse effects for residents in the area.*

---

**14.2.9.4 RESIDENTIAL ACTIVITIES IN INDUSTRIAL AND COMMERCIAL ZONES**

- (a) Residential buildings and visitor accommodation (except those within Havelock North Village Centre Zone, in which case standard 14.2.9.4(c) applies) within any industrial or commercial zone shall be designed to meet the following internal noise standards with the doors and windows closed:

- (i) Habitable rooms  
At all times 35 dBA L10

- (b) Residential buildings will be required to have forced air ventilation so the occupants do not need to open windows in habitable rooms. The abovementioned noise limits will be required to be achieved while the forced air ventilation is in operation.

---

Outcome

*Residential buildings in Commercial and Industrial Zones will be insulated to mitigate the effects of high background noise levels.*

---

- (c) Within the Havelock North Village Centre Zone, residential buildings and visitor accommodation shall be designed and constructed to meet the following internal noise standards:

- Bedrooms 35 dB L<sub>Aeq</sub> 24 hours

---

Outcome

*Residential buildings and visitor accommodation in the Havelock North Village Centre Zone will be insulated to mitigate the effects of high background noise levels.*

Other habitable rooms 40 dB L<sub>Aeq</sub> 24 hours

These limits shall not be exceeded while at the same time shall comply with the ventilation requirements of Clause G4 of the New Zealand Building Code.

- (d) Certification from a suitable qualified and experienced acoustician, endorsed by the owner of the residential building and/or visitor accommodation, shall be provided stating that the residential building and/or visitor accommodation has been designed, specified and constructed to comply with the internal noise limits of standard 14.2.9.4 (c). One certificate is required prior to construction, and one after construction is completed.

Standard 14.2.9.4 (d) shall not apply where residential buildings and/or visitor accommodation are designed and constructed in accordance with the Noise Insulation Construction Schedule contained in Appendix 14.2-3.

- (e) In respect of Standard 14.2.9.4(c) noise levels shall be measured and assessed in accordance with the requirements of New Zealand Standard NZS 6801:2008 "Acoustics – Measurement of environmental sound" and New Zealand Standard NZS 6802:2008 "Acoustics - Environmental Noise".

#### 14.2.9.5 AIRCRAFT NOISE - BRIDGE PA AERODROME

Activities associated with the Bridge Pa Aerodrome shall be conducted by adopting the best practicable option to avoid creating an unreasonable level of noise. In doing so, engine testing shall be restricted to within the hours of 7a.m. - 7 p.m. inclusive.

---

Outcome

Activities at or associated with the Bridge Pa Aerodrome will not create a noise nuisance beyond the Aerodrome.

---

#### 14.2.9.6 BLASTING

- (a) Users of explosives shall adopt the best practicable option to avoid creating unreasonable levels of noise and vibration.
- (b) Explosive blasting shall be restricted to the hours of 7 a.m. to 7 p.m. inclusive.
- (c) Airblast over pressure from blasting on any land shall not exceed a peak non-frequency-weighted (Linear or flat) level of 115 dB, provided this level may be exceeded on up to 5% of the total number of blasts over a period of 12 months. The level should not exceed 120 dB (Lin Peak) at any time.

---

Outcome

Blasting will be controlled so as to avoid excessive noise and vibration intrusion on residents in the area.

---

**14.2.9.7 HELICOPTER LANDING AREAS**

- (a) Noise associated with helicopter landing areas shall not exceed the limits in Table 1 below and shall be measured and assessed in accordance with the provisions of NZS 6807:1994 "Noise Management and land use planning for helicopter landing areas".

**LIMITS OF ACCEPTABILITY FOR HELICOPTER LANDING AREA NOISE IN THE PLAN**

| Zone   | Edn (night - weighted sound exposure) Pa <sup>2</sup> s | Ldn (day - night average sound level) dBA | L <sub>MAX</sub> * (night time maximum sound level) dBA |
|--|---|---|---|
| Industrial   | 1 000   | 75  | n/a   |
| Commercial   | 100   | 65  | n/a   |
| Residential Zones (at site boundary)<br>Rural Zones (at notional boundary) | 3.5   | 50  | 70  |

\* The hours for night - time L<sub>MAX</sub> shall be 10:00 pm to 7:00 am the following day for the purposes of this section.

- (b) The operator of any helicopter landing area shall require as a condition of use of the site that all pilots using the site, plan routes and fly in accordance with noise abatement techniques such as the recommendations of the Helicopter Association International "Fly Neighbourly Guide", Feb 92 Revision.

Outcome

Noise from helicopter landing areas will be controlled so as to avoid unreasonable noise for residents in the area.

**14.2.9.8 WATERCRAFT**

- (a) Powered watercraft shall be fitted with effective mufflers during all movement on water and shall not exceed the following noise limits at any point within any notional boundary.

Outcome

Noise emissions from powered watercraft will be controlled so as to avoid unreasonable noise for residents living near waterbodies and for other users of the waterbody.

7:00am to 9:00pm  
(On any day) Sound Exposure Level (SEL) 85dBA  
9:00pm to 7:00am  
(The following day) Sound Exposure Level (SEL) 78dBA

- (b) Provided no moving craft shall emit noise in excess of a Sound Exposure Level of 90 dBA in any single driveby measured at any stationary point more than 25m from the line of travel of the craft.
- (c) Sound exposure levels shall be measured in accordance with the provisions of NZS 6801: 1991 Measurement of Sound.
- (d) Provided further that on four occasions in any 12 month period, the noise limit may be unrestricted for any portion of waterway for the purposes of a special event approved by Council.

**14.2.9.9 INTERNAL NOISE STANDARD FOR NEW RESIDENTIAL AND VISITOR ACCOMMODATION ACTIVITIES LOCATED ON GENERAL RESIDENTIAL ZONED SITES ADJOINING:**

**(1) THE DESIGNATED NORTHERN ARTERIAL ROUTE**

- (a) Residential Buildings and Visitor Accommodation shall be designed to meet the following internal noise standards with the doors and windows closed:

- (i) Habitable Rooms  
At all times 35dBA L10

- (b) Residential Buildings will be required to have forced air ventilation so the occupants do not need to open windows in habitable rooms. The above mentioned noise limits will be required to be achieved while the forced air ventilation is in operation.

---

Outcome

*Residential Buildings and Visitor Accommodation buildings will be insulated to mitigate the effects of high background noise levels generated by the Northern Arterial Route.*

---

**(2) THE DESIGNATED NAPIER/HASTINGS EXPRESSWAY**

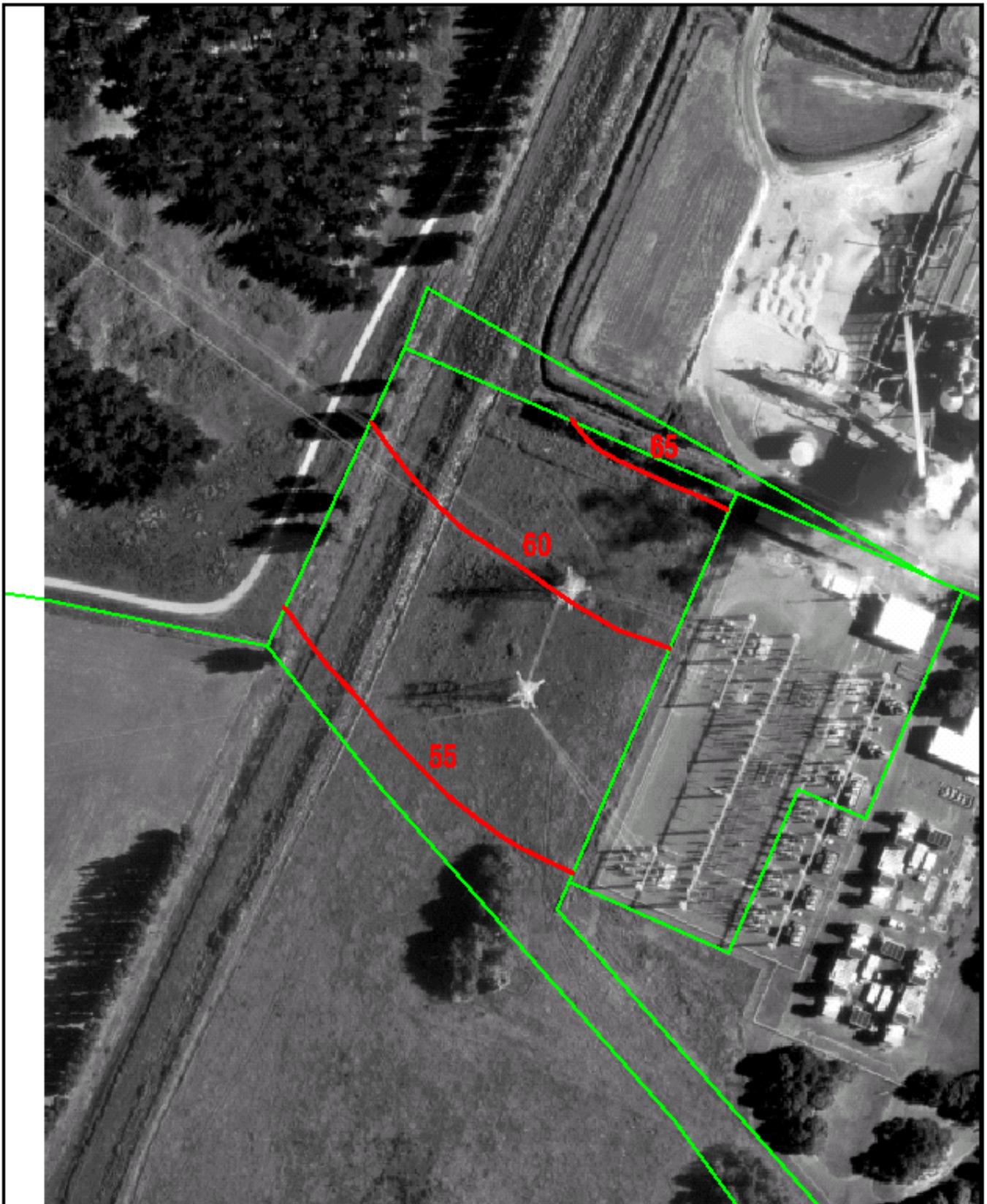
- (a) Residential Buildings and Visitor Accommodation shall be designed to meet the following internal noise standards with ventilating windows open.

- i) Habitable Rooms  
At all times 40dBA (24 hour  $L_{eq}$ )

- (b) The design shall be based on the traffic flows predicted for the expressway a minimum of 10 years after the building has been constructed.

- (c) At the same time and under the same physical conditions as the internal noise levels in (a)(i) above are achieved, all habitable spaces will be adequately ventilated in accordance with the Building Code.

PAN PAC SOUTHERN BOUNDARY – NOISE CONTOUR PLAN



|   |   |   |   |
|---|---|---|---|
|  <p><b>Hastings District Council</b><br/>GIS Section</p> | <p>Grid: New Zealand Map Grid<br/>Height Datum: Mean Sea Level<br/>Coordinates in Metres<br/>Res datum: Datum 1948</p> <p>Date: June 2003</p> | <p>Scale 1 : 2000</p>  | <p><b>NOTES</b></p> <p>1. Contour intervals derived from the local planning unit project.</p> <p>2. Contour intervals may vary slightly as an adjustment of height.</p> <p><b>DISCLAIMER</b></p> <p>The Hastings District Council is not responsible for the accuracy of the data shown on this map or any other map.</p> |
|---|---|---|---|

APPENDIX 14.2-2(A)

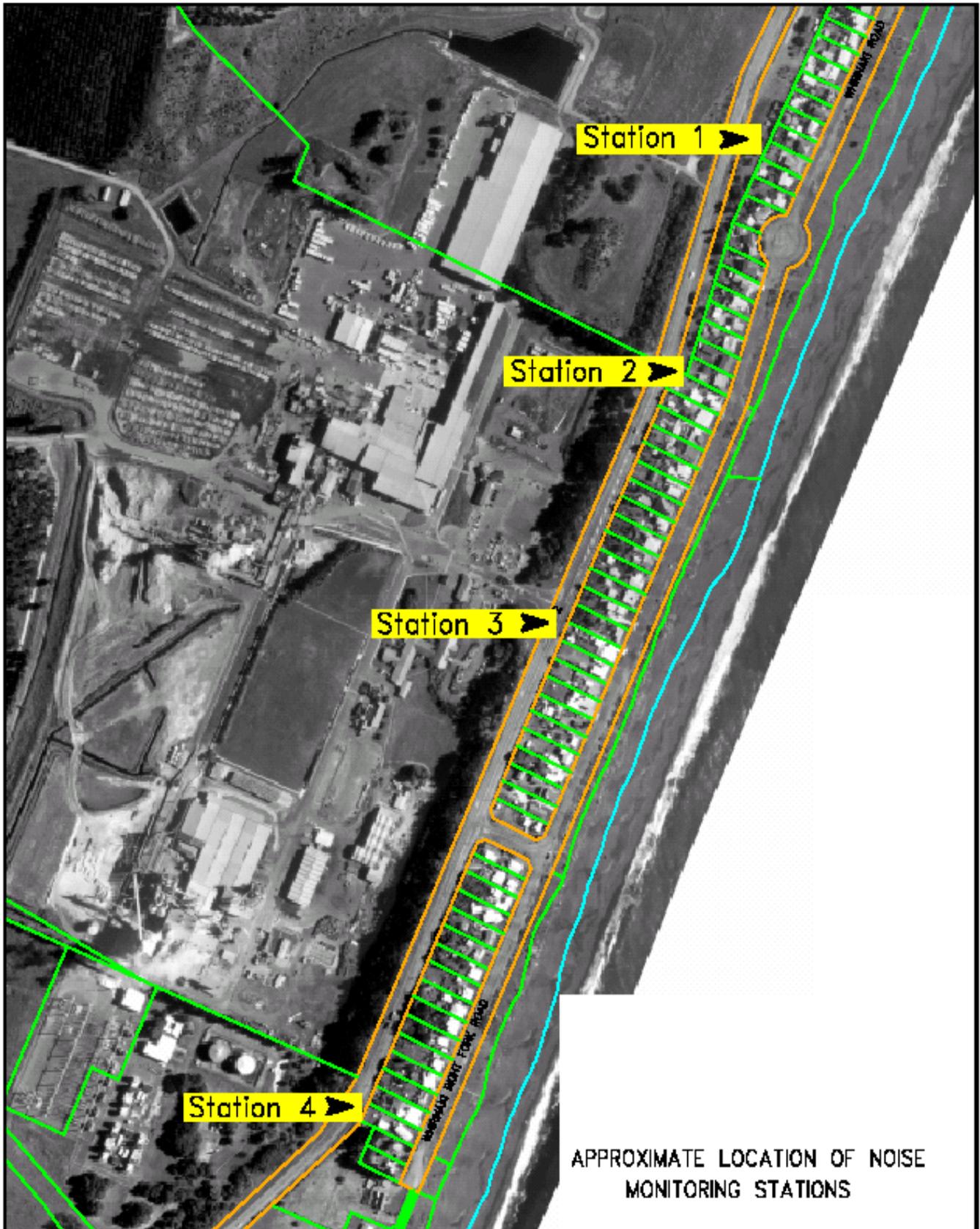
INDUSTRIAL 4 / COASTAL RESIDENTIAL ZONE, WHIRINAKI  
– NOISE MEASUREMENT POINTS

---

The following are the identified locations for monitoring noise levels from the Industrial 4 Zone with the approximate locations being shown on the following map:

- Station 1:** Approximately 8m from SH2 carriageway generally in line with boundary between 229 & 230 Whirinaki Road OTW(1) (45dBA L10)
  
- Station 2:** Approximately 5m from SH2 carriageway behind 218 Whirinaki Road OTW(1) (45dBA L10)
  
- Station 3:** Approximately 2m from SH2 carriageway behind 203 Whirinaki Road OTW(2) (50dBA L10)
  
- Station 4:** Approximately 3m from SH2 carriageway generally in line with boundary between 177 & 178 Whirinaki Road OTW(3) (55dBA L10)

WHIR/NAKI INDUSTRIAL 4 - COASTAL RESIDENTIAL ZONE INTERFACE



APPROXIMATE LOCATION OF NOISE MONITORING STATIONS



**Hastings District Council**  
GIS Section

Grid: New Zealand Map Grid  
Height: Odnors Mean Sea Level  
Coordinates in Metres  
Bandwidth: Datum 1948

Date: June 2008

Scale 1 : 5000

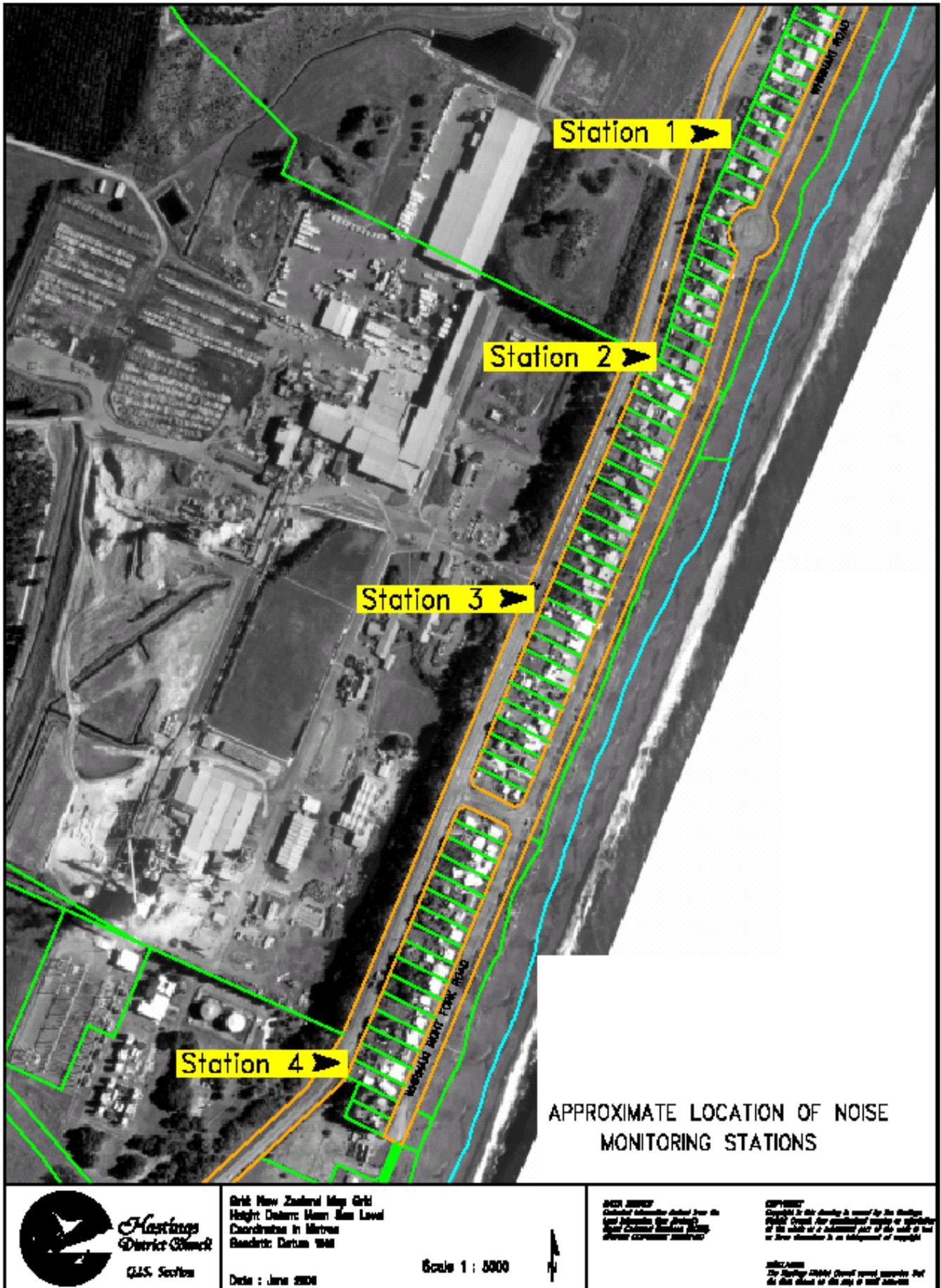


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WHIR/NAKI INDUSTRIAL 4 – COASTAL RESIDENTIAL ZONE INTERFACE



APPROXIMATE LOCATION OF NOISE MONITORING STATIONS



**Hastings District Council**

G.S. Section

Grid: New Zealand Map Grid  
 Height: Ordnance Mean Sea Level  
 Coordinates in Metres  
 Spheroid: Datum 1948

Date: June 2004

Scale 1 : 5000



**DISCLAIMER**  
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### **Noise Insulation Construction Schedule**

The schedule describes the minimum requirements necessary to achieve external sound insulation for the purposes of rule 14.2.8.5 (2) (c).

#### **External Walls of Habitable Rooms**

Minimum combined superficial density not less than  $25 \text{ kg/m}^2$ , being the combined mass of external and internal linings excluding structural elements (e.g. window frames or wall studs), with no less than  $8 \text{ kg/m}^2$  on each side of structural elements.

These requirements may be met by the following constructions:

- a. 20 mm timber exterior cladding over timber frame (100 mm x 50 mm) with interior lining of two layers of 13 mm gypsum plasterboard.
- b. 9 mm compressed fibre cement sheet over timber frame (100 mm x 50 mm) with interior lining of one layer of 13 mm gypsum plasterboard.
- c. Where the external cladding is continuous and with a surface mass of greater than  $25 \text{ kg/m}^2$  (e.g. brick veneer or minimum 25 mm stucco plaster), the interior lining may be 10 mm gypsum plasterboard.

Each of the above options a, b and c is to include cavity infill of fibrous acoustic blanket (batts or similar of a minimum mass  $9 \text{ kg/m}^3$ ), and a minimum 90 mm wall cavity.

The requirements may also be met by either:

- d. 190 mm concrete block wall, strapped and lined internally with 10 mm gypsum plasterboard.
- e. 150 mm concrete wall.

#### **Glazed Areas of Habitable Rooms**

- Glazed areas totalling less than 10 % of floor area are to be minimum thickness 6 mm single float glazing.
- Glazed areas totalling between 10 % and 35 % of floor area are to be minimum thickness 6 mm laminated glazing.
- Glazed areas totalling greater than 35 % of floor area require a specialist acoustic report to show conformance with the insulation rules, 14.2.8.5 (2) (a) and (b).
- Window frames shall be aluminium with compression seals.

#### **Roof**

Minimum combined surface mass not less than  $25 \text{ kg/m}^2$ , being the combined mass of external cladding and internal lining with no less than  $8 \text{ kg/m}^2$  on each side of structural elements.

These requirements may be met by any of the following constructions:

- a. 0.5 mm profiled steel cladding with 17 mm plywood sarking, and a ceiling of two layers of 10 mm thick gypsum plaster board.
- b. 6 mm corrugated fibre cement cladding, with a ceiling of one layer of 13 mm thick gypsum plaster board.
- c. Membrane over 15 mm thick plywood, with a ceiling of two layers of 13 mm thick gypsum plaster board.
- d. Concrete or clay tiles, with a ceiling of one layer of 13 mm thick gypsum plaster board.

Each of options a, b, c and d is to include cavity infill of fibrous acoustic blanket (batts or similar of a minimum mass  $9 \text{ kg/m}^3$ ), and a minimum 100 mm cavity. Any through ceiling lighting penetrations must be correctly acoustically rated.

### **Floor Areas Open to Outside**

- Minimum combined surface mass not less than  $25 \text{ kg/m}^2$ , being the combined mass of the floor layer and any external cladding (excluding floor joists or bearers).
- Under-floor areas of non-concrete slab type floors exposed to external sound will require a cladding layer lining the underside of floor joists of not less than 17 mm ply.
- The requirements may also be met by concrete slab floors with minimum equivalent thickness of 150 mm solid concrete.

### **External Door to Habitable Rooms**

Solid core doors (minimum surface mass  $25 \text{ kg/m}^2$ ) with compression seals are required where the door is exposed to exterior noise.

### **Ventilation**

A mechanical ventilation system shall be provided for all habitable rooms so that the ventilation requirements of clause G4 of the New Zealand Building Code are complied with. The noise generated by the required ventilation system shall not result in non-compliance with the noise limits of rule 14.2.8.5 (2) (a) and 14.2.9.4(c).

### ***Notes***

- Common specifications for timber size are given. Nominal specifications may in some cases be slightly less than the common specifications stated in the schedule for timber size.
- In determining the insulating performance of roof/ceiling arrangements, roof spaces are assumed to have no more than the casual ventilation typical of the jointing capping and guttering detail used in normal construction.