

## 0.0 PLANNING REPORT FOR PLAN CHANGE 87 - FROST PROTECTION FANS

**File Number:** A3735952

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### RECOMMENDATION

1. That the report titled "Planning Report for Plan Change 87 – Frost Protection Fans" dated 4 May 2020 be received.
2. That pursuant to Clause 10(1) of Schedule 1 of the Resource Management Act 1991, the District Plan Committee makes the following decisions on Plan Change 84 ...*decisions to be inserted here.*
3. That staff be authorised to make minor editorial changes to the decision of the District Plan Committee in consultation with the Committee Chairperson.
4. That pursuant to Clause 10(4)(b) of Schedule 1 of the Resource Management Act 1991, the decision on Plan Change 84 be publicly notified.
5. That pursuant to Clause 11 of Schedule 1 of the Resource Management Act 1991, the decision on Plan Change 84 be served on every person who made a submission on the Plan Change and be made available at all Council offices and all public libraries in the District.

### INTRODUCTION

The purpose of this report is to provide recommendations on submissions and further submissions to Plan Change 87 – Frost Protection Fans.

Plan Change 87 proposes new rules (including new matters of discretion) to provide greater flexibility and protection for the operation of frost protection fans within the rural environment. In addition, the plan change identified, and sought to address, the need to clarify some of the existing rules relevant to frost protection fans.

For a full background to the Plan Change and explanation of the proposed provisions please refer to the Section 32 Report ('s32 Report') (Attachment 2).

Any recommended changes (by the author of this report) to the District Plan First Review are shown as follows; existing District Plan text in black, proposed changes as included in the Section 32 Report in red, and recommendations as a result of this Planning Report in blue.

### TOPIC 1: FROST PROTECTION FANS – ACTIVITY STATUS

#### BACKGROUND

Following a review of the current District Plan provisions, existing resource consents for frost protection fans processed by the Council, and a review of other councils' District Plan provisions, Plan Change 87 identified that there is scope to provide greater flexibility and protection for the establishment and on-going operation of frost protection fans in the District.

The plan change (as notified) proposes to allow frost protection fans as a permitted activity (instead of a controlled activity as they are at present) subject to performance standards. It is proposed to use the existing performance standards that currently apply for controlled activity frost protection fans. Additional activity performance standards are also proposed.

The existing controlled activity performance standards relate to noise limits during operation (to protect residential dwellings), limitations on frost fan use based on temperature at canopy height, and the times during which the frost protection fan can operate for maintenance purposes. The noise limits during operation (55dBA Leq and 65dBA Lmax) are not to be exceeded at the notional boundary of existing dwellings in the Rural and Lifestyle Zones or within the property boundary of any site in the Residential, Rural-Residential or Future Urban Zone.

The additional standards proposed for permitted frost fan use include:

- An exemption from having to meet the noise limits (55dBA Leq and 65dBA Lmax) if all affected persons have provided their written approval;
- The requirement to comply with noise levels at the boundary of any property in the Rural or Lifestyle Zone that does not have an existing or consented dwelling at the time the frost protection fan is established. Currently, rural and lifestyle properties are only protected where they have an existing dwelling;
- An allowance for the operation of frost protection fans for testing outside the normal maintenance hours of Monday to Friday 8am to 5pm, if required for urgent unforeseen maintenance (e.g. as a result of a breakdown; and
- The need to provide information on the compliance (or lack of compliance) and the location of the frost protection fan(s) to Council prior to installation.

Matters of discretion were also proposed, along with minor consequential and editorial changes.

The proposed changes (as notified) are set out in Rules 4C.1.3.6 to 4C.1.4.2 in Attachment 1.

## SUBMISSION POINTS

Eleven (11) submission points were received on Topic 1 to Plan Change 87, along with four further submission points. This includes:

- One (1) submission from Federated Farmers of New Zealand (submission point 19.6) in support of the entire plan change (Topics 1 to 3) as notified;
- Nine (9) submission points in support, subject to amendments (submission points 13.13-13.14 (Horticulture New Zealand), 1.10-1.15 (Daniel Kinnoch), 11.8 (Te Puke Economic Development Group), and 21.7 (New Zealand Kiwifruit Growers); and
- Horticulture New Zealand also made four (4) further submission points on submissions to Topic 1 (FS33.5, FS33.13, FS33.15, and FS33.16).

The main submission points made by submitters are as follows:

- a. The ability for horticultural growers to operate frost fans in an unimpeded manner (when required to protect crops) is extremely important to the industry.
- b. It is important that farmers and horticulturists can continue their production activities in the Rural Zone without undue reverse sensitivity complaints.
- c. The proposed plan change will avoid unnecessary time and cost associated with growers obtaining resource consents where the activity performance standards can be complied with.
- d. It is acknowledged that noise associated with frost fans can be a controversial issue and the proposed plan change is considered to be a practical approach to the management of a challenging issue.

- e. Submitters have suggested that there needs to be greater flexibility in Rule 4C.1.3.6(c) to allow testing for operational readiness.
- f. The additional flexibility enabled by Rule 4C.1.3.6(e)(ii) (which allows noise standards to be exceeded if written approvals are obtained) is considered pragmatic.
- g. The difference between proposed Rules 4C.1.3.6(a)(i) and (ii) has been queried and it is suggested that the two could be brought together and simplified as one rule.<sup>1</sup>
- h. Various editorial changes have been suggested for proposed Rule 4C.1.3.6 (permitted activity performance standards for frost protection fans).

- **DISCUSSION ON CHANGES REQUESTED IN SUBMISSIONS**

This section addresses the changes requested in submissions to the provisions proposed under Topic 1 to Plan Change 87.

***Providing for operational readiness***

Rule 4C.1.3.6(c) (as operative in the District Plan) requires that the operation of frost protection fans for maintenance purposes can only occur between the hours of 8am and 5pm, Monday to Friday. Under Plan Change 87 it was proposed to extend the rule to allow operation for unforeseen maintenance outside of these hours.

Enabling operation of frost protection fans for operational readiness outside of normal business hours (as requested by submitters) is considered to be a practical change that is consistent with the intent of the rule (as notified). Having regard to the seasonal and relatively infrequent use of frost protection fans for testing purposes, it is considered that the change requested by submitters will not result in unacceptable adverse noise effects.

The following comments and responses are provided to the queries and changes requested by Mr Kinnoch to Rule 4C.1.3.6:

***Notional Boundary***

The term 'notional boundary' referenced in Rule 4C.1.3.6(a)(i) (refer to page 3 of Attachment 1) has been queried, and Mr Kinnoch suggests this term is usually referred to a legal boundary.

The term 'notional boundary' is defined in the District Plan (as set out below) and the wording proposed in the plan change is consistent with other rules in the District Plan that refer to the term 'notional boundary'.

Section 3 – Definitions of the District Plan defines the term as follows:

*“Notional Boundary” is as defined in New Zealand Standard NZS 6801:2008 Measurement of Sound and is a line 20m from any side of a dwelling, or the legal boundary of the property on which the dwelling is located, whichever point is closer to the dwelling.*

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<sup>1</sup> Proposed Rule 4C.1.3.6(a)(i) relates to noise limits at the 'notional boundary' of dwellings in the Rural and Lifestyle Zones, whereas Rule 4C.1.3.6(a)(ii) relates to noise limits at the legal property boundary on sites within the Rural and Lifestyle Zones that are not occupied by a dwelling.

***Difference between Rules 4C.1.3.6(a)(i) and (ii)***

Mr Kinnoch's submission states that he does not see a difference between Rules 4C.1.3.6(a)(i) and (ii), and he suggests that the two could be simplified into one rule. These rules relate to noise generated by frost protection fans in the Rural and Lifestyle Zones.

However, the two sub-clauses provide a distinction between properties that are developed with a dwelling, and those that are not. In this regard, sub-clause (i) protects existing and consented dwellings from noise generated by new frost fans. Sub-clause (ii) protects the legitimate rights of undeveloped rural properties to establish a dwelling in the future without being affected by noise generated by new frost fans.

***Changes to Rules 4C.1.3.6(e)(ii) and 4C.1.4.2(b)***

Mr Kinnoch suggests proposed Rules 4C.1.3.6(e)(ii) and 4C1.4.2(b) could be simplified by removing reference to the owners and occupiers of dwellings.

Rule 4C.1.3.6(e)(ii) provides an exemption for frost protection fans from complying with the noise limits if certain conditions are met. One of these conditions is that written approval is obtained from owners of the land, and owners and occupiers of the dwelling(s) to which any non-compliances apply.

Rule 4C1.4.2(b) is a matter of discretion that is applicable to resource consent applications for restricted discretionary frost protection fans that fail to comply with permitted activity performance standards. The matter of discretion requires consideration of the effect of noise generated by the frost protection fan (over the permitted limits of 55dBA Leq and/or 65dBA Lmax) on the owners of land, and owners and occupiers of dwellings who will be affected by the noise.

While Mr Kinnoch's submission is acknowledged, the separate reference to owner and occupiers of dwellings is intentional. Rules 4C.1.3.6(e)(ii) and 4C1.4.2(b) reflect the requirements of Rule 4C.1.3.6(a), which provides consideration for sites that are occupied by dwellings, and those that aren't but that have a legitimate right to be developed with a complying dwelling in the future. In addition, it is important to recognise the potential for effects on occupiers of dwellings (who may not be owners of the dwelling concerned).

***Simplifying Rule 4C.1.3.6(c)***

Changes have been suggested to simplify Rule 4C.1.3.6(c), which relates to times during which frost protection fans may operate for frost protection purposes (as opposed to operating for maintenance or testing purposes).

Mr Kinnoch has suggested that the rule could be simplified as follows:

~~*When the frost protection fan is in operation for frost protection the*~~ *A frost protection fan must not start up until the air at canopy height drops to 2°C, and shall cease operation when the rising temperature reaches 4°C at canopy height.*

The intention of the opening words *"When the frost protection fan is in operation for frost protection..."* is to differentiate between Rule 4C.1.3.6(c) (operation of frost protection fans for frost protection purposes) and Rule 4C.1.3.6(d) (operation of frost protection fans for maintenance purposes). Given the need to differentiate between times for frost protection and maintenance purposes, it is considered that the wording, as notified, is appropriate.

***Terminology in Rule 4C.1.4.2(d)***

Mr Kinnoch has queried why the words "preventing" and "minimising" have been used in Rule 4C.1.4.2(d) instead of the terms "avoid, remedy or mitigate". Rule 4C.1.4.2(d) is matter of discretion

for restricted discretionary activity frost protection fans (i.e. those that fail to meet the permitted activity performance standards) that requires consideration of the best practicable option for preventing and minimising adverse effects associated with noise emissions.

The wording used in the proposed matter of discretion (as notified) reflects the wording in section 16 of the RMA (duty to avoid unreasonable noise) and the definition of 'Best Practicable Option' (also in the RMA). As such, the wording of Rule 4C.1.4.2(d) (as proposed) is considered to be appropriate when considering effects of noise emissions. In addition, it is considered that replacement of the words "preventing" and "minimising" with "avoid, remedy or mitigate" would not add any value for plan users.

### Option 1 – As Proposed – Option 3 in the s32 Report

Option 1 is to retain the changes proposed under Topic 1 in Plan Change 87 as notified without change (refer to Attachment 1). In summary, Option 1 is to allow frost protection fans as a permitted activity (instead of a controlled activity as they are at present) subject to performance standards. It is proposed to use the existing performance standards that currently apply for controlled activity frost protection fans as permitted activity performance standards. Additional activity performance standards are also proposed. Additional detail on Option 1 can be found in the 'Background' section above.

<p><b>Costs</b></p>	<ul style="list-style-type: none"> <li>• For frost fan operators, there is an additional requirement to provide information regarding the location and noise levels to be emitted from proposed frost protection fans.</li> <li>• For frost fan operators, there is an additional requirement to consider the effects of noise on owners of properties in the Rural and Lifestyle Zone that are not occupied by a dwelling.</li> <li>• Does not provide for testing for operational readiness outside normal business hours, and this may be unreasonably restrictive having regard to the nature of horticultural activities that operate 7 days a week.</li> </ul>
<p><b>Benefits</b></p>	<ul style="list-style-type: none"> <li>• For frost fan operators, this option enables the use of frost protection fans with a higher noise limit than can currently occur, without the need for resource consent.</li> <li>• For frost fan operators, this option saves time and money associated with preparation and lodgement of resource consent applications.</li> <li>• For frost fan operators, this option provides greater flexibility if noise levels are exceeded and affected persons have provided their written approval.</li> <li>• For frost fan operators, this option recognises that frost protection fans may need to operate outside of the prescribed hours for maintenance in unforeseen circumstances (e.g. such as during a breakdown).</li> <li>• For neighbours and Council, this option ensures that frost fan operators confirm that their frost protection fans comply with the relevant rules and any non-compliances are properly identified for the purposes of obtaining written approvals.</li> <li>• For neighbours, this option ensures that both existing dwellings and vacant land in the Rural and Lifestyle Zones (with potential to be developed with a dwelling) are protected from the noise effects of frost protection fans. It also continues to protect people and property in the Residential, Rural-Residential, Medium Density Residential or Future Urban Zones.</li> </ul>

	<ul style="list-style-type: none"> <li>For Council, this option ensures that information on the location of frost protection fans is provided so that the new rules can be applied.</li> </ul>
<b>Effectiveness/ Efficiency</b>	<ul style="list-style-type: none"> <li>Effective in addressing the issue that greater flexibility is required for the establishment and operation of frost protection fans. This option also recognises the need and requirements of frost protection fans which are required for primary productive activities in the rural environment.</li> <li>Effective in achieving the objectives of the District Plan which seek to ensure noise is not unreasonable, having regard to the character and amenity of the zones where noise is generated and received.</li> <li>This option is considered to be an efficient method for addressing the identified issue and to achieve the objectives of the District Plan.</li> </ul>
<b>Risks of Acting/ Not Acting if there is uncertain or insufficient information about the subject matter</b>	<ul style="list-style-type: none"> <li>N/A – Sufficient information is available.</li> </ul>

**Option 2 – As Proposed – Option 3 in the s32 Report, but with minor amendment to allow testing for operational readiness**

This option is to retain the changes proposed under Topic 1 in Plan Change 87 as notified (as set out under Option 1 above and in the 'Background' section to Topic 1) with a minor amendment to allow testing for operational readiness outside of normal weekday business hours (as set out in Attachment 1).

<b>Costs</b>	<ul style="list-style-type: none"> <li>As set out under Option 1.</li> </ul>
<b>Benefits</b>	<ul style="list-style-type: none"> <li>As set out under Option 1, with the additional benefit of allowing testing for operational readiness outside normal business hours (a benefit for frost fan operators).</li> </ul>
<b>Effectiveness/ Efficiency</b>	<ul style="list-style-type: none"> <li>As set out under Option 1.</li> </ul>
<b>Risks of Acting/ Not Acting if there is uncertain or insufficient information about the subject matter</b>	<ul style="list-style-type: none"> <li>N/A – Sufficient information is available.</li> </ul>

## DISCUSSION

Allowing testing for operational readiness outside normal weekday business hours is considered to be a practical outcome, which recognises the operational requirements of horticultural activities. Having regard to the seasonal and relatively infrequent use of frost protection fans for testing purposes, it is considered that the change requested by submitters will not result in unacceptable adverse effects associated with noise. Furthermore, the change is consistent with the intent of proposed permitted activity performance standard Rule 4C.1.3.6(d) (as notified), which sought to allow for the operation of frost protection fans for legitimate testing and maintenance purposes outside of the prescribed days and hours (Monday to Friday, 8am to 5pm) given such activities would be relatively infrequent and unlikely to result in unreasonable adverse noise effects.

For the reasons discussed earlier in this report (under 'Discussion on Submissions'), it is considered that the changes requested by Mr Kinnoch are not appropriate and may result in unintended consequences in terms of how the rules are interpreted and applied.

## RECOMMENDATION

That Plan Change 87 be adopted (as notified and set out in Attachment 1), with a minor amendment to Rule 4C.1.3.6(d) to allow testing for operational readiness outside of the hours of 8am to 5pm, Monday to Friday as follows:

(d) When the frost protection fan is operating for maintenance purposes the machine shall only be used from Monday to Friday 8am to 5pm. Testing outside these hours may only take place for urgent unforeseen maintenance purposes or for testing operational readiness.

The following submissions are therefore:

### Accepted

Submission	Point Number	Name
11	8	Te Puke Economic Development Group
13	13	Horticulture New Zealand
13	14	Horticulture New Zealand
21	7	New Zealand Kiwifruit Growers
FS33	5	Horticulture New Zealand
FS33	15	Horticulture New Zealand

### Accepted in Part

Submission	Point Number	Name
19	6	Federated Farmers of New Zealand (Inc.)
FS33	13	Horticulture New Zealand
FS33	16	Horticulture New Zealand

**Rejected**

Submission	Point Number	Name
1	10	Daniel Kinnoch
1	11	Daniel Kinnoch
1	12	Daniel Kinnoch
1	13	Daniel Kinnoch
1	14	Daniel Kinnoch
1	15	Daniel Kinnoch

**REASONS**

Option 2 provides for better flexibility for frost protection fan operators than the current and notified rules and avoids the need for unnecessary resource consents. It also provides an appropriate level of protection against the actual and potential adverse effects associated with noise generated by frost protection fans. It also provides an opportunity to avoid the need for resource consent if affected persons provide their written approval.

In addition, the rule and matters of discretion recognise the potential for effects on people who own neighbouring properties that may not yet be developed with a dwelling. Further to this, the rule recognises that during an unforeseen breakdown, there may be the need to operate the frost protection fan for testing purposes and this is considered to be appropriate. Extending the rule further to allow for testing for operational readiness outside of normal weekday business hours is considered to be practical and appropriate. It will also not result in unreasonable adverse effects associated with noise (particularly given the seasonal and infrequent use for operational testing).

The requirement to provide certification of compliance with the noise levels specified in the rules and other information identifying the location of the frost protection fans will ensure that compliance with the standards can be proven. It also allows Council to record the location of the frost protection fans to enable reverse sensitivity to be addressed (see further discussion on reverse sensitivity effects under Topic 2 below).

The minor editorial changes suggested by Mr Kinnoch are not considered appropriate as they will change the way that the rules are applied and may have unintended consequences. In this regard:

- The term 'notional boundary' is defined in the District Plan and reference to this term is appropriate as proposed;
- The changes suggested to Rules 4C.1.3.6(e)(ii)<sup>2</sup> and 4C.1.4.2(b)<sup>3</sup> would remove the necessary distinction between adjacent sites occupied by dwellings and those without;
- The opening sentence to Rule 4C.1.3.6(c) (permitted hours of operation for maintenance purposes) is necessary to distinguish between times during which frost protection fans are allowed to operate for frost protection purposes, and times that they are allowed to operate for maintenance and testing purposes.

<sup>2</sup> Proposed Rule 4C.1.3.6(a)(i) relates to noise limits at the 'notional boundary' of dwellings in the Rural and Lifestyle Zones that are occupied by a dwelling

<sup>3</sup> Proposed Rule 4C.1.3.6(a)(ii) relates to noise limits at the legal property boundary on sites within the Rural and Lifestyle Zones that are not occupied by a dwelling



- Terminology proposed in Rule 4C.1.4.2(d) (matter of discretion requiring consideration of the best practicable option for preventing and minimising adverse noise effects) is appropriate when considering effects of noise emissions.

Option 2 is considered to be the most effective and efficient method to achieve the objectives of the District Plan.

## TOPIC 2: FROST PROTECTION FANS – REVERSE SENSITIVITY

### BACKGROUND

As set out earlier in this report (under Topic 1), Plan Change 87 identified that there is scope to provide greater protection for the establishment and on-going operation of frost protection fans in the District.

The s32 Report identified that new dwellings establishing in close proximity to frost protection fans result in the potential for amenity and health related effects for occupiers of the new dwellings due to noise emitted from frost protection fans. This is particularly important given frost protection fans typically operate during normal sleeping hours.

It was also identified that amenity and health related effects on occupants of new dwellings result in the potential for reverse sensitivity effects. Reverse sensitivity effects arise where a new and more sensitive activity establishes and has the potential to constrain the on-going operation of existing activities (e.g. a new dwelling developed near an existing frost protection fan).

The s32 Report highlights the importance of ensuring the effects of noise from the operation of frost protection fans are not unreasonable and that peoples' health and safety is protected in accordance with the overall purpose of the RMA. In addition, to adequately protect the on-going operation of lawfully established frost protection fans, it was identified that there is a need to avoid the potential for reverse sensitivity effects.

As a result, Plan Change 87 proposed the following change to Rule 4C.1.3.2 (also refer to Attachment 1 to see the change in context of other rules within Section 4C – Amenity):

#### 4C.1.3.2 Noise Limits

- (a) **Noise limits for activities in Residential, Rural-Residential, Future Urban, Rural and Lifestyle Zones**

...

- (iii) Any new dwelling to be erected, or the addition of habitable space to an existing dwelling, within 300m of any existing or consented frost protection fan located on a title separate to that of the subject site and in different ownership shall be designed and constructed so as to ensure that, with respect to noise emitted by any existing or consented frost protection fan, internal noise levels do not exceed LAeq(15min) 30dBA in any bedroom and LAeq(15min) 40dBA in any other habitable room. Written certification of such compliance from a suitably qualified and experienced acoustic engineer shall be submitted with the building consent application for the dwelling concerned. Where the windows of the dwelling are required to be closed to achieve compliance with the aforementioned noise limits, alternative means of ventilation shall be provided in compliance with clause G4 of the New Zealand Building Code or any subsequent equivalent clause.

For the purposes of this rule, "consented" means:

- (a) any frost protection fan for which a resource consent has been granted; or  
(b) any permitted frost protection fan for which certification has been provided to the Council in accordance with Rule 4C.1.3.6(b);

prior to lodgement of a building consent application for the dwelling concerned.

## SUBMISSION POINTS

Eleven (11) submission points were received on Topic 2, along with eight (8) further submission points. This includes:

- Four (4) submissions in support (submission points 11.9 (Te Puke Economic Development Group), 13.15 (Horticulture New Zealand), 19.6 (Federated Farmers of New Zealand - in support of the entire plan change as notified), and 21.8 (New Zealand Kiwifruit Growers));
- Four (4) submissions in support, subject to amendments (submission points 1.16, 1.19, 1.20, and 1.22 (Daniel Kinnoch));
- One (1) submission is opposed to Topic 2 (submission point 1.17 (Daniel Kinnoch));
- The inclination of two (2) submission points is not stated (submission points 1.18 and 1.21 (Daniel Kinnoch)); and
- Horticulture New Zealand made eight (8) further submission points on submissions to Topic 2 (FS33.6 to FS33.12, and FS33.14).

The main submission points are summarised as follows:

Federated Farmers, Horticulture New Zealand, New Zealand Kiwifruit Growers, and the Te Puke Economic Development Group all support the proposed change under Topic 2. Their reasons include:

- It is important that farmers and horticulturists can continue their production activities in the Rural Zone without undue reverse sensitivity complaints.
- The approach provides a level of protection for frost fan operators and helps establish realistic expectations of rural amenity that can be expected if new dwellings are located in close proximity to frost fans.
- Frost fans generally operate in the Rural Zone on highly productive land which may not be appropriate for subdivision, urban housing or other development. The proposed rules are therefore supported because the submitter considers that mitigating reverse sensitivity impacts should be the responsibility of the neighbouring dwelling owner or developer.

Mr Kinnoch made a number of submissions regarding technical details, as well as the structure and readability of the rule. As a result of the various submission points, Mr Kinnoch requests that Rule 4C.1.3.2(a)(iii) (shown above) be re-worded. The following is a summary of the key points made in Mr Kinnoch's submission:

- a. The rule, as drafted, is lengthy and not particularly easy to read.
- b. The proposed rule has the potential to create additional cost for the construction of new houses/additions.

- c. The section 32 analysis does not explain why a 300m separation distance is required for new dwellings from existing or consented frost protection fans, versus the 200m specified under part (ii) of the rule for new dwellings from the Post Harvest Zone boundary.
- d. The rule does not assist the plan user to work out the maximum noise level of a frost protection fan that a home must be designed in anticipation of.
- e. The Council's intention to create a publicly available online map that identifies the location of existing or consented frost protection fans is queried.
- f. There is no need to differentiate between new dwellings and additions of habitable spaces to existing dwellings. Mr Kinnoch considered that simply referring to 'dwellings' would be sufficient to capture both new dwellings, and additions to existing dwellings.
- g. Proposed Rule 4C.1.3.2(a) does not require internal noise levels to be achieved for noise sensitive activities other than dwellings (i.e. it does not require protection for hospitals, schools, care centres, boarding houses, and visitor accommodation facilities). Mr Kinnoch queries whether this was intentional.
- h. Clause G4 of the New Zealand Building Code is considered inadequate in terms of providing dwelling occupants sufficient internal comfort when windows are shut specifically during summer months. Mr Kinnoch refers to the Auckland Unitary Plan process which determined higher quality mechanical ventilation and/or cooling (than provided for through compliance with Clause G4) was necessary to mitigate the need for occupants to open windows for relief during summer months.

### Discussion on Changes Requested in Submissions

The following discusses Mr Kinnoch's submission points:

- a. It is acknowledged proposed Rule 4C.1.3.2(a)(iii) (shown above) could be re-structured to make it easier to read for plan users. The drafting and structure of the proposed rule (as notified) follows that of other similar rules within the District Plan. This ensures consistency within the District Plan and avoids unintended consequences that can arise if rules dealing with a similar issue are drafted in a different way. While Mr Kinnoch's comments are acknowledged, it is considered appropriate to use the format (as proposed). The format can be revisited during the next District Plan Review (or at a time that Section 4C – Amenity is reviewed in a more holistic manner).
- b. It is acknowledged that proposed Rule 4C.1.3.2(a)(iii) may result in additional costs for some homeowners/developers. However, such a cost is not considered unacceptable. It ensures people are protected from the adverse effects of frost fan noise. At the same time, it also ensures that reverse sensitivity effects are avoided and to ensure operators of existing frost fans can continue operating without unreasonable constraints.
- c. The rule relating to new and extended dwellings being designed to mitigate the effects of noise within 200m of a Post Harvest Zone reflects the different activities undertaken within that Zone. The 300m separation distance was proposed in Rule 4C.1.3.2(a)(iii) because this is the distance within which sensitive activities are more likely to be affected by noise from frost protection fans (specifically). In this regard, a review of information held on Council's resource consent files shows that the most common frost fans currently consented (Frost Boss and Orchard Rite) generate noise levels of 55dBA at a distance of 240m. The portable Tow & Blow has been assessed as generating 55dBA at a distance of 300m.

- d. Mr Kinnoch's submission that the proposed rule does not assist the plan user to work out the maximum noise level (from a frost protection fan) that a home must protect itself from is acknowledged. It is therefore agreed that it would be helpful to reference the permitted noise levels. However, the actual noise produced will be dependent on a number of factors (including the type and location of the fan, the topography of the land, and other mitigating factors such as buildings, for example). It is therefore not possible to specify an accurate design standard within the rule. Reference could, however, be provided in an explanatory note to the rule which could refer readers to the activity performance standards for frost protection fans in Rule 4C.1.3.6 and the need to consider the specific frost protection fan concerned.
- e. In response to Mr Kinnoch's query (regarding Council's intention to create a publicly available online map that identifies the location of existing or consented frost protection fans), it is clarified that Council would need to make information on existing and consented frost protection fans publicly available through its mapping system (or other similar means, such as a register) to enable the proposed rules to be interpreted and administered.
- f. Reference to new dwellings and additions to habitable spaces of existing dwellings in proposed Rule 4C.1.3.2(a)(iii) is consistent with existing District Plan activity performance standards. Differentiating between the two is considered helpful for plan users as it makes it clear that the performance standards also apply when an existing dwelling is to be extended.
- g. Proposed Rule 4C.1.3.2(a)(iii) does not require internal noise levels to be achieved for noise sensitive activities other than dwellings (i.e. it does not require protection for hospitals, schools, care centres, boarding houses, and visitor accommodation facilities). This was intentional and the following is noted in this regard:
- The rule (as proposed) is consistent with other similar rules within the District Plan;
  - Not all sensitive sites will be sensitive to frost fans due to hours of operation and not all provide for sleeping;
  - Council staff advise they do not typically receive complaints associated with noise effects on other types of sensitive activities;
  - Many activities that may be sensitive to noise from frost protection fans (e.g. retirement villages, rest homes, large early learning centres, or hospitals) would be discretionary or non-complying activities under the relevant zone provisions of the District Plan. As such, reverse sensitivity effects would be considered as part of a resource consent application for such an activity.
- h. Mr Kinnoch's comments on the inadequacy of Clause G4 of the New Zealand Building Code to provide dwelling occupants with sufficient internal comfort when windows are shut during summer months are acknowledged. It is also acknowledged that other councils with more recently developed rules (compared to those in the District Plan) may include a more sophisticated rules framework to manage internal amenity when windows need to remain closed. We do not have any expert advice on this matter and Mr Kinnoch has not requested a specific change to address his comments. It is considered, however, that the issue raised by Mr Kinnoch is not significant given frost protection fans operate on very cold nights when temperatures are below 4 degrees. As such the risk of windows needing to be open due to heat is low. It is recommended that reference to Standard G4 be retained (as notified) given this is consistent with other similar rules within the District Plan. It is suggested that this matter could be revisited as part of the District Plan review, or at a time when the noise provisions in Chapter 4C – Amenity are reviewed.

**OPTION 1 – AS PROPOSED - OPTION 2 IN THE S32 REPORT**

Option 1 is to retain the changes under Issue 2 to Plan Change 87 as notified without change. This involves a new clause under Rule 4C.1.3.2 to require new dwellings within 300m of existing or consented frost protection fans to be designed and constructed to protect occupants from noise effects associated with the operation of the frost protection fan.

<b>Costs</b>	<ul style="list-style-type: none"> <li>For neighbours, there is the potential for additional costs associated with developing new dwellings within 300m of frost protection fans.</li> <li>The rule, as proposed, does not assist plan users in clarifying the noise levels that may be produced by a frost protection fan (that a new or extended dwelling needs to be designed and constructed to mitigate).</li> </ul>
<b>Benefits</b>	<ul style="list-style-type: none"> <li>For neighbours, this option protects their amenity and health from noise associated with the operation of existing frost protection fans.</li> <li>For frost fan operators, this option reduces potential for complaints from occupants of new dwellings established close to existing frost protection fans.</li> <li>For frost fan operators, this option protects the on-going operation of existing/consented frost protection fans and helps protect these from reverse sensitivity effects.</li> </ul>
<b>Effectiveness/ Efficiency</b>	<ul style="list-style-type: none"> <li>Option 1 is an effective and efficient method to address the identified issue.</li> </ul>
<b>Risks of Acting/ Not Acting if there is uncertain or insufficient information about the subject matter</b>	<ul style="list-style-type: none"> <li>N/A – Sufficient information is available.</li> </ul>

**Option 2 – As Proposed under Option 1 above, but with an explanatory note to provide guidance for plan users on anticipated noise levels produced by frost protection fans**

Option 2 is the same as Option 1 (above), with an additional explanatory note to provide guidance for plan users on noise levels anticipated to be produced by frost protection fans.

<b>Costs</b>	<ul style="list-style-type: none"> <li>As per the first point under Option 1 (above).</li> </ul>
<b>Benefits</b>	<ul style="list-style-type: none"> <li>As per Option 1, with the additional benefit of providing plan users with information on permitted noise limits for frost protection fans to assist them with designing their dwelling to mitigate noise effects.</li> </ul>
<b>Effectiveness/ Efficiency</b>	<ul style="list-style-type: none"> <li>Option 2 is an effective and efficient method to address the identified issue. The additional direction provided by an explanatory note is considered to be more effective than Option 1.</li> </ul>

<b>Risks of Acting/ Not Acting if there is uncertain or insufficient information about the subject matter</b>	<ul style="list-style-type: none"> <li>• N/A – Sufficient information is available.</li> </ul>
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## RECOMMENDATION

That the change proposed under Topic 2 of Plan Change 87 be retained as notified, with clarification edits and the addition of an explanatory note to refer readers to Rule 4C.1.3.6 which sets out the permitted noise limits for frost protection fans as set out under Option 2 and as follows:

- (iii) Any new dwelling to be erected, or the addition of habitable space to an existing dwelling, within 300m of any existing or consented approved frost protection fan located on a title separate to that of the subject site and in different ownership shall be designed and constructed so as to ensure that, with respect to noise emitted by any existing or consented approved frost protection fan, internal noise levels do not exceed LAeq(15min) 30dBA in any bedroom and LAeq(15min) 40dBA in other habitable room.

Written certification of such compliance from a suitably qualified and experienced acoustic engineer shall be submitted with the building consent application for the dwelling concerned. Where the windows of the dwelling are required to be closed to achieve compliance with the aforementioned noise limits, alternative means of ventilation shall be provided in compliance with clause G4 of the New Zealand Building Code or any subsequent equivalent clause.

For the purposes of this rule:

Dwelling includes minor dwelling.

Existing means any frost protection fan which was both physically and lawfully established on a site prior to lodgement of a building consent application for the dwelling concerned.

Approved means any frost protection fan that is not existing but for which; resource consent has been granted; or certificate of compliance for a permitted activity has been granted; or written certification of compliance with noise limits has been provided to Council in accordance with Rule 4C.1.3.6(b); prior to lodgement of a building consent application for the dwelling concerned.

For the purposes of this rule, “consented” means:

- (c) any frost protection fan for which a resource consent has been granted; or
- (d) any permitted frost protection fan for which certification has been provided to the Council in accordance with Rule 4C.1.3.6(b);

prior to lodgement of a building consent application for the dwelling concerned.

### Explanatory Notes:

To achieve the required internal noise levels for dwellings and additions under this rule, consideration will need to be given to the permitted noise limits in Rule 4C.1.3.6 and to the actual noise limits that existing or approved frost protection fans are able to emit in accordance with their lawful establishment and/or approval.

The following submissions are therefore:

### Accepted

Submission	Point Number	Name
11	9	Te Puke Economic Development Group
13	15	Horticulture New Zealand
19	6	Federated Farmers of New Zealand (Inc.)
21	8	New Zealand Kiwifruit Growers
FS33	5	Horticulture New Zealand
FS33	6	Horticulture New Zealand
FS33	10	Horticulture New Zealand
FS33	11	Horticulture New Zealand

### Accepted in Part

Submission	Point Number	Name
1	16	Daniel Kinnoch
1	18	Daniel Kinnoch
1	19	Daniel Kinnoch
1	21	Daniel Kinnoch
1	22	Daniel Kinnoch
FS33	7	Horticulture New Zealand
FS33	8	Horticulture New Zealand
FS33	9	Horticulture New Zealand
FS33	12	Horticulture New Zealand

### Rejected

Submission	Point Number	Name
1	17	Daniel Kinnoch
1	20	Daniel Kinnoch

## REASONS

Option 2 is considered to be the most effective and efficient method to address the need to adequately protect the amenity and health of occupants of future dwellings from the adverse effects of noise generated by existing and consented frost protection fans. In addition, it is considered to be the most effective and efficient method to provide protection for the on-going operation of existing and consented frost protection fans from potential reverse sensitivity effects associated with the development of new dwellings that may be affected by noise.

The explanatory note suggested addresses the issue raised by Mr Kinnoch that Rule 4C.1.3.2(a)(iii) does not include reference to noise levels likely to be generated by frost protection fans. It is considered that the proposed explanatory note will assist plan users to design dwellings so that occupants are adequately protected against noise from frost protection fans.

Other submissions made by Mr Kinnoch are acknowledged, however, many of the changes he requests will have unintended consequences for the way in which the rules are interpreted and/or will not be consistent with the existing format and structure of rules within the Plan.

### TOPIC 3: FROST PROTECTION FANS – HEIGHT IN POST HARVEST ZONE

#### BACKGROUND

As set out earlier in this report, Plan Change 87 identified that there are some inconsistencies in the rules for frost protection fans. In particular, the current height limit for frost fans in the Post Harvest Zone is not consistent with that for the Rural Zone. In this regard, the Rural Zone specifically permits frost protection fans up to a height of 15m (to provide for their technical requirements). However, the general building height limit of 12m within the Post Harvest Zone applies to all buildings and structures, including frost protection fans.

Plan Change 87 therefore sought to address the anomaly between the rules within the Rural and Post Harvest Zones, and proposed the following change so that the permitted height for frost protection fans is the same in each zone:

#### 22. Post Harvest

...

##### 22.4.1 General

The following performance standards shall be met by all Permitted and Controlled Activities and shall be used as a guide for the assessment of all other activities. Any Permitted or Controlled activity that fails to comply with any of these standards will be a Restricted Discretionary Activity for the particular non-compliance.

#### (a) Height of buildings/structures

Maximum: 12m- excluding frost protection fans which shall be a maximum of 15m inclusive of blades.

#### SUBMISSION POINTS

Four (4) submission points were received on Topic 3 of Plan Change 87, along with one (1) further submission point. This includes the following:

- Three (3) submissions in support (submission points 11.10 (Te Puke Economic Development Group), 13.16 (Horticulture New Zealand), and 21.9 (New Zealand Kiwifruit Growers));
- One (1) submission in support, subject to amendments (submission point 1.23 (Daniel Kinnoch)); and
- One (1) further submission point from Horticulture New Zealand (FS33.17).

The main submission points are as follows:

- Te Puke Economic Development Group, Horticulture New Zealand, New Zealand Kiwifruit Growers support the change (as notified) as it provides consistency between the Rural and Post Harvest Zones and because it reflects the technical and operational requirements of frost protection fans.
- Mr Kinnoch suggests that the change proposed under Topic 3 to Plan Change 87 conflicts with a change to the same rule proposed under Plan Change 82 (which proposes to increase the maximum permitted building height from 12m to 14m). He suggests that the changes to Rule



22.4.1(a) should be made under one plan change (i.e. either Plan Change 82 or Plan Change 87).

With respect to Mr Kinnoch's submission, it is important to be mindful of the change proposed to Rule 22.4.1(a) under Plan Change 82. However, the two changes to the rule deal with different issues and therefore have not been proposed under the same plan change. The amendments recommended under both plan changes deal with different parts of the rule and are not conflicting. In this regard, Plan Change 82 deals with the height of buildings generally, whereas Plan Change 87 seeks to provide a specific height limit for frost protection fans (which relates to the technical requirements of these structures). For these reasons it is considered appropriate for the changes to be dealt with under the two separate plan changes.

## RECOMMENDATION

That the changes to Rule 22.4.1(a) set out in Topic 3 to Plan Change 87 be retained as notified.

The following submissions are therefore:

### Accepted

Submission	Point Number	Name
11	10	Te Puke Economic Development Group
13	16	Horticulture New Zealand
21	9	New Zealand Kiwifruit Growers
FS33	17	Horticulture New Zealand

### Rejected

Submission	Point Number	Name
1	23	Daniel Kinnoch

### Reason

Adopting the change to Rule 22.4.1(a), as notified, is an effective and efficient method to address the anomaly in the District Plan that the Post Harvest Zone does not identify the specific height requirement for frost protection fans. In addition, it is considered entirely appropriate to deal with the changes proposed to Rule 22.4.1(a) through Plan Changes 82 and 87 separately as the plan changes are not conflicting, and they deal with different issues and different parts of the rule.

## PLAN CHANGE 87 - RECOMMENDED CHANGES TO THE DISTRICT PLAN FIRST REVIEW

The purpose of this part of the report is to show the Proposed Plan Change in full including any recommended changes in response to the submissions and further submissions.

Recommended changes to the District Plan First Review are shown as follows; existing District Plan text in black, proposed changes as included in the Section 32 Report in red, and recommendations as a result of this Planning Report in blue.

See Attachment 1 for recommended changes associated with Topics 1 and 2 which relate to Section 4C – Amenity. A number of minor edits are also included for improving readability.

Changes recommended to Rule 22.4.1(a) (Topic 3) are as follows:

## 22. Post Harvest

...

### 22.4.1 General

The following performance standards shall be met by all Permitted and Controlled Activities and shall be used as a guide for the assessment of all other activities. Any Permitted or Controlled activity that fails to comply with any of these standards will be a Restricted Discretionary Activity for the particular non-compliance.

#### (a) Height of buildings/structures

Maximum: 12m- excluding frost protection fans which shall be a maximum of 15m inclusive of blades.

## ATTACHMENTS

1. Attachment 1 - Recommended changes to 4C.1 Noise and Vibration
2. Section 32 Report - Plan Change 87 - Frost Protection Fans

# 4C.1 Noise and Vibration

## Explanatory Statement

### 4C.1.3 Activity Performance Standards

The following performance standards shall be met by all Permitted and Controlled Activities and shall be used as a guide for all other activities. Any Permitted Activity which fails to comply with any of these standards shall be deemed a Discretionary Activity for the particular non-compliance.

#### 4C.1.3.2 Noise Limits

(a) **Noise limits for activities in Residential, Rural-Residential, Future Urban, Rural and Lifestyle Zones**

- (i) All activities located within these zones shall be so conducted as to ensure that noise from the site shall not exceed the following noise limits within the stated timeframes at any point within the *notional boundary* of any *dwelling* in a Rural, Lifestyle or Rural-Residential Zone, or at any point within the boundary of any property within a Residential or Future Urban Zone (other than the site of the activity);

Time Period		Sound Level Not to be Exceeded	
Day	Hours	Leq	Lmax
Monday to Saturday	7am to 10pm	50dBA	N/A
Sunday	7am to 6pm	50dBA	N/A
At all other times and on public holidays		40dBA	65dBA

(iii) Any new dwelling to be erected, or the addition of habitable space to an existing dwelling, within 300m of any existing or consented approved frost protection fan located on a title separate to that of the subject site and in different ownership shall be designed and constructed so as to ensure that, with respect to noise emitted by any existing or consented approved frost protection fan, internal noise levels do not exceed LAeq(15min) 30dBA in any bedroom and LAeq(15min) 40dBA in other habitable room.

Written certification of such compliance from a suitably qualified and experienced acoustic engineer shall be submitted with the building consent application for the dwelling concerned. Where the windows of the dwelling are required to be closed to achieve compliance with the aforementioned noise limits, alternative means of ventilation shall be provided in compliance with clause G4 of the New Zealand Building Code or any subsequent equivalent clause.

For the purposes of this rule:

*Dwelling* includes *minor dwelling*.

*Existing* means any frost protection fan which was both physically and lawfully established on a site prior to lodgement of a building consent application for the *dwelling* concerned.

*Approved* means any frost protection fan that is not *existing* but for which; resource consent has been granted; or certificate of compliance for a permitted activity has been granted; or written certification of compliance with noise limits has been provided to *Council* in accordance with Rule 4C.1.3.6(b); prior to lodgement of a building consent application for the *dwelling* concerned.

For the purposes of this rule, "consented" means:

- (a) any frost protection fan for which a resource consent has been granted; or
- (b) any permitted frost protection fan for which certification has been provided to the *Council* in accordance with Rule 4C.1.3.6(b);

prior to lodgement of a building consent application for the *dwelling* concerned.

**Explanatory Notes:**

To achieve the required internal noise levels for *dwelling*s and additions under this rule, consideration will need to be given to the permitted noise limits in Rule 4C.1.3.6 and to the actual noise limits that *existing* or *approved* frost protection fans are able to emit in accordance with their lawful establishment and/or approval.

**4C.1.3.6 Frost Protection Fans – Performance Standard for Permitted Activity**

~~Frost protection fans (including portable non-fixed type) shall be a Permitted Activity subject to the relevant performance standards of the underlying zone. Should the fan not comply with the relevant noise standards the activity shall default to be considered as a Controlled or Restricted Discretionary Activity as detailed in 4C.1.3.7 and 4C.1.3.8.~~

Frost protection fans (including portable non-fixed type) shall be a Permitted Activity subject to compliance with the following performance standards. Any frost protection fan (including portable non-fixed type) that fails to meet these performance standards shall be a Restricted Discretionary Activity.

(a) Noise limits

Noise from the operation of a frost protection fan shall not exceed 55dBA *Leq* or 65dBA *Lmax* when measured:

Rural and lifestyle zones

- (i) At any point at or within the notional boundary of any dwelling in the Rural or Lifestyle Zone that:
- is or will be located on a title separate to that of the subject site and in different ownership; and
  - was existing or approved ~~on~~ prior to the date that certification is provided to the Council in accordance with (b), below;
- (ii) At any point at or within the boundary of a property in the Rural or Lifestyle Zone that:
- is located on a title separate to that of the subject site and in different ownership; and
  - did not have an existing or approved dwelling ~~on~~ prior to the date that certification is provided to the Council in accordance with (b) below;

Other zones

- (iii) At any point at or within the boundary of any property within a Residential, Rural-Residential, Medium Density Residential or Future Urban Zone.

For the purposes of (i) and (ii) above:

Dwelling includes minor dwelling.

Existing means any dwelling both physically and lawfully established on a site.

Approved means any dwelling that is not existing but for which; resource consent has been granted; or certificate of compliance for a permitted activity has been granted.

(b) Certification that noise limits are met

Evidence of the ability to meet (a) above shall be provided to Council prior to the installation of the frost protection fan and shall include:

- (i) Certification from an appropriately qualified and experienced acoustic engineer that the noise limits in (a) above will be met; and

## ATTACHMENT 1

- (ii) A plan showing the location, and Global Positioning System co-ordinates, of the frost protection fan(s) to which the certification applies.

(c) Operating times

When the frost protection fan is in operation for frost protection the frost protection fan must not start up until the air at canopy height drops to 2°C, and shall cease operation when the rising temperature reaches 4°C at canopy height.

(d) Maintenance

When the frost protection fan is operating for maintenance purposes the machine shall only be used from Monday to Friday 8am to 5pm. Testing outside these hours may only take place for urgent unforeseen maintenance purposes or for testing operational readiness.

Except that:

(e) Written approval for exceeding noise limits

Noise from the operation of a frost protection fan may exceed the noise levels described in (a) above, if:

- (i) The noise to be produced by the operation of the frost protection fan(s) is assessed and determined by an appropriately qualified and experienced acoustic engineer.

The assessment shall include:

- the noise levels to be produced by the operation of the frost protection fan(s);
- identification of the non-compliances with the noise levels specified in (a) above;
- a plan showing the location, and the Global Positioning System co-ordinates, of the frost protection fan(s) to which the assessment applies;

AND

- (ii) The written approval of the owners of the land, and owners and occupiers of the dwelling(s) to which the non-compliances apply have provided their written approval for the non-compliances identified in the assessment provided in (i) above.

AND

## ATTACHMENT 1

- (iii) The information in (i) and (ii) above is provided to Council prior to the installation of the frost protection fan.

Any frost protection fan (including portable non fixed type) that fails to meet the performance standards above shall be a Restricted Discretionary Activity.

### **Explanatory Notes:**

Fan Type - The distance required to achieve 55dBA *Leq* and 65dBA *Lmax* will vary depending on the noise performance of the frost protection fan.

For portable frost protection fans, determination and/or certification of noise to be emitted must take into account the full range of possible operating locations for the device.

### **~~4C.1.3.7 Frost Protection Fans — Performance Standard for Controlled Activity~~**

~~Where the following performance standards cannot be met then the activity shall fall to being assessed as a Restricted Discretionary Activity.~~

- ~~(a) Noise from the operation of frost protection fans shall not exceed 55dBA *Leq* and 65dBA *Lmax* at any point within the *notional boundary* of any *dwelling* in a Rural or Lifestyle Zone (excluding a residential *dwelling* on the same property on upon which the fan is operating) nor at any point within the boundary of any property within a Residential, Rural Residential or Future Urban Zone.~~
- ~~(b) When the frost protection fan is in operation for frost protection the frost protection fan must not start up until the air at canopy height drops to 2°C, and shall cease operation when the rising temperature reaches 4°C at canopy height.~~
- ~~(c) When the frost protection fan is operating for maintenance purposes the machine shall only be used from Monday to Friday 8am to 5pm.~~

### **~~Explanatory Note:~~**

~~Fan Type — The distance required to achieve 55dBA will vary depending on the noise performance of the frost protection fan. Applications for resource consent must be supported with evidence identifying the noise performance of the fan to be used.~~

~~Where the written approvals of all affected persons have not been obtained then notice shall be served on those persons.~~

### **~~Explanatory Note:~~**

~~For the purpose of identifying affected persons where the noise from the operation of the frost protection fan exceeds 55dBA *Leq* at any point within the *notional boundary* of any *dwelling* in a Rural, Lifestyle or Future Urban Zone, (excluding a residential *dwelling* on the same property on upon which the fan is operating) or~~

~~at any point within the boundary of any Residential or Rural Residential zone, those occupiers/owners shall be deemed to be affected.~~

#### ~~4C.1.4~~ **Matters of Control – Controlled Activities**

##### ~~4C.1.4.1~~ **Frost Protection Fans**

- ~~(a) ——— Council shall exercise control over the following;~~
- ~~(i) ——— The noise level that is permitted to be emitted from the frost protection fan;~~
  - ~~(ii) ——— The operational requirements of the frost protection fan;~~
  - ~~(iii) ——— The operation of the frost protection fan for maintenance purposes;~~
  - ~~(iv) ——— The hours of operation and times when the fan is permitted to operate.~~

#### **4C.1.54 Matters of Discretion**

##### **4C.1.54.2 Restricted Discretionary Activity - Frost Protection Fans**

~~Council shall restrict its discretion to the following:~~

- ~~(a) ——— The best practicable option, this should address as a minimum; alternative options for frost protection, effectiveness of those alternative options, affordability, cumulative effects of existing machines in the vicinity, and any effects on established land uses, and proposed mitigation.~~
- ~~(b) ——— The effect of the increased noise level on those persons who will experience noise levels over 55dBA *L<sub>cq</sub>* at their *notional boundary* or boundary.~~

Council shall restrict its discretion to the following:

- (a) ——— The level of noise that is to be emitted from the frost protection fan(s).
- (b) ——— The effect of noise on the owners of land, and owners and occupiers of  *dwellings*  who will be affected by noise levels over 55dBA *L<sub>eq</sub>* and/or 65dBA *L<sub>max</sub>*.
- (a) ——— The hours of operation, duration and frequency of use of the frost protection fan.
- (b) ——— The best practicable option for preventing or minimising adverse effects associated noise emissions. This may include, but is not limited to consideration of alternative options for frost protection, effectiveness of those alternative options, affordability, cumulative effects of existing frost protection fans in the vicinity, effects on established land uses, and proposed mitigation.



(c) The operational requirements of the frost protection fan.

**4C.1.6 Other Methods**

(a) Application of other statutory powers

Notwithstanding the foregoing clauses the *Council* reserves the right to use its more general statutory and regulatory powers (e.g. under relevant resource management, environmental, and health legislation and *Council's* own bylaws) to exercise appropriate control over noise in the environment.

(b) Vibration

Where significant vibration effects are experienced *Council* may deal with the matter as a nuisance under the Health Act.



*Western Bay of Plenty  
District Council*

Change to the District Plan - First Review

# **Plan Change 87 Frost Protection Fans**

Section 32 Report



## **1.0 Introduction**

### **1.1. General Introduction and Background**

The purpose of this report is to consider a plan change to provide greater flexibility and protection for the operation of frost protection fans within the rural environment. In addition, it has been identified that there is a need to clarify some of the existing rules relevant to frost protection fans. Some minor changes are proposed to address these issues.

## **2.0 Resource Management Act 1991**

### **2.1. Section 32 – Requirements for Preparing Evaluation Reports**

Before a proposed plan change can be publicly notified the Council is required under section 32 ("s.32") of the Resource Management Act 1991 ('the Act' or 'RMA') to carry out an evaluation of alternatives, costs and benefits of the proposal. With regard to the Council's assessment of the proposed plan change s.32 requires the following:

- (1) An evaluation report required under this Act must—*
  - (a) examine the extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of this Act; and*
  - (b) examine whether the provisions in the proposal are the most appropriate way to achieve the objectives by—*
    - (i) identifying other reasonably practicable options for achieving the objectives; and*
    - (ii) assessing the efficiency and effectiveness of the provisions in achieving the objectives; and*
    - (iii) summarising the reasons for deciding on the provisions; and*
  - (c) contain a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the proposal.*
  
- (2) An assessment under subsection (1)(b)(ii) must—*
  - (a) identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for—*
    - (i) economic growth that are anticipated to be provided or reduced; and*
    - (ii) employment that are anticipated to be provided or reduced; and*
  - (b) if practicable, quantify the benefits and costs referred to in paragraph (a); and*
  - (c) assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions.*
  
- (3) If the proposal (an amending proposal) will amend a standard, statement, regulation, plan, or change that is already proposed or that already exists (an existing proposal), the examination under subsection (1)(b) must relate to—*
  - (a) the provisions and objectives of the amending proposal; and*
  - (b) the objectives of the existing proposal to the extent that those objectives—*
    - (i) are relevant to the objectives of the amending proposal; and*

*(ii) would remain if the amending proposal were to take effect.*

*(4) If the proposal will impose a greater prohibition or restriction on an activity to which a national environmental standard applies than the existing prohibitions or restrictions in that standard, the evaluation report must examine whether the prohibition or restriction is justified in the circumstances of each region or district in which the prohibition or restriction would have effect.*

*(4A) If the proposal is a proposed policy statement, plan, or change prepared in accordance with any of the processes provided for in Schedule 1, the evaluation report must—*

*(a) summarise all advice concerning the proposal received from iwi authorities under the relevant provisions of Schedule 1; and*

*(b) summarise the response to the advice, including any provisions of the proposal that are intended to give effect to the advice.*

## **2.2. Section 74**

In accordance with Section 74(2A) of the Act, Council must take into account any relevant planning document recognised by an iwi authority that has been lodged with Council. None of the iwi/hapu management plans lodged with Council raise any issues of particular relevance to this Plan Change.

## **2.3. Clause 3 of Schedule 1 - Consultation**

Clause 3(1) of Schedule 1 of the RMA requires the Council to consult the following during the preparation of a proposed plan:

- a. The Minister for the Environment;
- b. Other Ministers of the Crown who may be affected;
- c. Local authorities who may be affected;
- d. Tangata Whenua of the area who may be affected (through iwi authorities); and
- e. Any customary marine title group in the area.

Information was provided to the Minister for the Environment on a range of proposed plan changes and feedback was requested. No feedback has been received.

No other Ministers of the Crown or marine title groups are considered affected by the proposed change. Consultation was undertaken with the Bay of Plenty Regional Council on a number of proposed plan changes and Regional Council staff have advised they have no concerns with the changes proposed to District Plan provisions associated with frost protection fans.

Under Clause 3B of Schedule 1, with respect to Tangata Whenua, the Council is treated as having consulted iwi authorities if it:

- (a) considers ways in which it may foster the development of their capacity to respond to an invitation to consult; and*
- (b) establishes and maintains processes to provide opportunities for those iwi authorities to consult it; and*

- (c) consults with those iwi authorities; and*
- (d) enables those iwi authorities to identify resource management issues of concern to them; and*
- (e) indicates how those issues have been or are to be addressed.*

Tangata Whenua have been consulted through the Tauranga Moana and Te Arawa ki Tai Partnership Forum on 14 March 2019 and 25 June 2019. No specific feedback was provided in relation to this proposed plan change.

In addition, the Council engaged with the public to request input prior to the writing of this report. This was done through notices in local newspapers and the Council's 'Have Your Say' website.

Two people who live next to properties with existing frost protection fans provided feedback outlining concerns associated with noise from these devices. One person specifically identified that noise generated affects their sleep and that this has flow on effects for their health and wellbeing. Another person thought the current rules for frost protection fans are about right, and neither person thought that permitted noise levels should be increased (as would be the case if the preferred option for the plan change proceeds).

Option 1 (as outlined below) is supported by one of the people providing feedback, as they consider it gives neighbours some protection and means that orchardists need to consider neighbours, and that Council can enforce the rules.

Council also engaged with the following groups and stakeholders on a range of proposed plan changes:

- a. Representatives of the kiwifruit industry through NZKGI;
- b. New Zealand Transport Agency ('the Agency');
- c. Toi Te Ora Public Health.

The kiwifruit industry representatives supported the approach to provide for frost protection fans as a permitted activity based on current controlled activity standards (e.g. noise limits of 55dBA Leq and 65dBA Lmax, rather than current permitted noise limit of 40dBA Leq and 65dBA Lmax). The potential for reverse sensitivity effects was raised by representatives of the kiwifruit industry, and in particular the need to protect the on-going operation of existing frost protection fans from new residential development.

The need to operate frost protection fans was identified as being particularly important for areas where water is not available for frost protection, and the potential risk of disease (e.g. PSA) associated with using water for frost protection was also noted. Further to this, the need to operate frost protection fans for unforeseen maintenance (e.g. as a result of a breakdown) was also identified.

The New Zealand Transport Agency indicated they had no particular interest in changes to District Plan provisions for frost protection fans.

Toi Te Ora Public Health wants to ensure that Council maintains control over noise emissions from frost protection fans and expressed the view that people's physical health must be prioritised over economic benefit.

### **3.0 Analysis of Frost Protection Fan Provisions**

#### **3.1. Introduction**

Rules in the District Plan relating to frost protection fans aim to recognise these features as legitimate activities within rural areas, while also managing adverse effects associated with noise and visual amenity.

#### **3.2. Review of Western Bay District Plan Frost Protection Fan Provisions**

Under the Western Bay's District Plan, frost protection fans are provided for as a permitted activity in the Rural Zone and Post Harvest Zone, subject to the permitted activity standards associated with the zone (e.g. noise, building height and side yard requirements). Separate rules are also included in the Amenity section (Section 4C) of the District Plan, which control noise from frost protection fans.

It is the night time noise limits that are most relevant for the operation of frost protection fans as it is during this time that they operate (except for maintenance purposes). It is understood that the night time noise limits for the Rural Zone (40dBA Leq / 65 dBA Lmax) and Post Harvest Zone (45dBA Leq/ 65 dBA Lmax) are often unachievable for the operation of frost protection fans. As such, most require resource consent as a controlled or restricted discretionary activity. If the following standards are met, the frost protection fan is assessed as a controlled activity:

- a. Noise from the operation of frost protection fans does not exceed 55dBA Leq and 65dBA Lmax at any point within the notional boundary of any dwelling in a Rural or Lifestyle Zone or at any point within the boundary of any property within a Residential, Rural-Residential or Future Urban Zone.
- b. The frost protection fan must not start up until the air at canopy height drops to 2°C, and operation must cease when the rising temperature reaches 4°C at canopy height.
- c. The frost protection fan may only operate for maintenance purposes from Monday to Friday, 8am to 5pm.

If the above standards cannot be met, resource consent is required for a restricted discretionary activity and any adversely affected persons would be notified (unless their written approval had been provided).

It is noted that the noise limits under the current rules relate to the notional boundary of existing dwellings in the Rural and Lifestyle Zones, and the property boundary of any site in the Residential, Rural-Residential or Future

Urban Zone. The term 'notional boundary' is defined within the District Plan as the line 20m from any side of a dwelling, or the legal boundary of the property on which the dwelling is located, whichever is the closer to the dwelling.

### **3.3. Review of Resource Consents for Frost Protection Fans in Western Bay**

To assist in understanding the issues arising from resource consent applications and the value added by the resource consent process, a review of resource consent applications received since 2012 has been undertaken.

This review showed that there have been 43 applications made, out of which 40 applications were granted consent. Three were withdrawn and none of the applications were declined. The resource consents granted in recent years have tended to include consistent conditions which require:

- a. Compliance with the controlled activity performance standards ((a) to (c) in section 3.2 above);
- b. Use of the frost protection fan is limited to a maximum of 20 times/nights per year;
- c. Records are to be kept on the use of the frost protection fan;
- d. Thermometers to be independently assessed and calibrated; and
- e. An alarm is to be activated to inform the orchard manager when a frost fan commences operation so that they can ensure compliance with the temperature related-condition.

### **3.4. Review of Frost Protection Fan Provisions for Other Councils**

To understand how other districts manage frost protection fans, a review was undertaken of district plan provisions for Marlborough, Tasman, Whakatane, Hastings, and Hurunui Districts. All of these districts (except for Marlborough) provide for frost protection fans as permitted activities, subject to compliance with a range of conditions. Marlborough District Council requires resource consent for a controlled activity if the standards are met.

All of the District Plans include similar standards to the Western Bay District Plan and the following are key observations from the review:

- a. Most District Plans include a noise limit of 55dBA Leq at the notional boundary of a dwelling, or at 300m from the device (whichever is closer). The exception is Hastings District Council, which applies a limit of 65dBA Leq;
- b. Marlborough, Tasman, and Hurunui Districts only allow use of frost protection fans between bud burst and the end of harvest (so that they are only used when crops are at risk from frost damage);

- c. Most districts limit hours for operation associated with maintenance in a manner consistent with Western Bay;
- d. Marlborough District requires frost protection fans to be located at least 500m from residential and township zones, and at least 300m from a rural residential zone.
- e. Marlborough, Tasman and Hurunui District Plans include rules to require new dwellings in close proximity to existing frost protection fans to be designed and constructed to ensure bedrooms and other habitable areas within the dwelling are not unreasonably affected by the operation of frost protection fans that existed prior to the development of the dwelling. This approach is similar to that for new dwellings constructed within Western Bay that are within 200m of a Post Harvest Zone.

### **3.5. Summary**

In summary, the Western Bay District Plan approach to frost protection fans is similar to other districts. However, there is scope to provide greater flexibility and protection for the establishment and on-going operation of frost protection fans in the District. Based on the review of resource consent applications processed by the Council, there is a fairly standard set of conditions that get applied.

Where noise limits have not been achieved, written approvals have been obtained from affected persons and provided with resource consent applications in most cases. It therefore appears that there may be some merit in allowing the operation of frost protection fans as permitted activities, subject to the need to comply with appropriate standards to ensure the amenity, and health and wellbeing of the community is protected.

Key issues that have arisen as a result of the review of frost protection fan provisions in the District Plan include:

- a. The need to enable the establishment of frost protection fans in the rural environment, subject to appropriate noise and operational limits;
- b. The need to protect established frost protection fans from reverse sensitivity effects associated with the establishment of new, more sensitive land use activities after the frost protection fan is established;
- c. The need to ensure that the legitimate development rights of peoples' properties are recognised;
- d. The need to enable the operation of frost protection fans for testing outside the hours weekday hours, if required for urgent unforeseen maintenance; and



- e. The need to ensure the rules for frost protection fans are well-linked and to avoid inconsistencies within different sections of the District Plan.

## 4.0 Issue 1 – Frost Protection Fans – Activity Status

### 4.1. Option 1 – Status Quo

This option is to retain the existing rules without change (as summarised in section 3.2 of this report). This means that frost protection fans are permitted if they meet the noise limits of the relevant zone (i.e. 40dBA Leq and 65 dBA Lmax in the Rural Zone, and 45dBA Leq and 65 dBA Lmax in the Post Harvest Zone), but otherwise require resource consent for a controlled or restricted discretionary activity.

<b>Costs</b>	<ul style="list-style-type: none"> <li>▪ For frost fan operators, in most situations, frost protection fans do not meet the night time noise limits for the Rural Zone and Post Harvest Zone and therefore resource consents are required most of the time.</li> <li>▪ For frost fan operators, the need for resource consent results in additional financial costs.</li> <li>▪ If meeting the controlled activity noise limits, resource consent must be granted and, based on a review of resource consent applications processed for controlled activity frost protection fans, there appears to be limited value added through the resource consent process.</li> <li>▪ For frost fan operators, the need for resource consent may be unnecessary if effects can be adequately managed through compliance with performance standards.</li> </ul>
<b>Benefits</b>	<ul style="list-style-type: none"> <li>▪ The noise related effects of each frost protection fan that fails to meet the noise limits of the zone can be assessed on a case by case basis and conditions can be imposed, if required.</li> </ul>
<b>Effectiveness/ Efficiency</b>	<ul style="list-style-type: none"> <li>▪ Not effective or efficient in addressing the identified issue.</li> </ul>
<b>Risks of Acting/ Not Acting if there is uncertain or insufficient information about the subject matter</b>	<ul style="list-style-type: none"> <li>▪ N/A – Sufficient information is available.</li> </ul>

### 4.2. Option 2 – Allow frost protection fans as permitted activities based on current controlled activity standards

This option is to allow frost protection fans as a permitted activity, subject to compliance with the performance standards that currently apply to the controlled activity rule. These are set out in section 3.2 of this report and relate to noise limits during operation (to protect residential dwellings), limitations on use based on temperature at canopy height, and times during which the frost protection fan can operate for maintenance purposes. Noise

limits under the current rules relate to the notional boundary of existing dwellings in the Rural and Lifestyle Zones, and the property boundary of any site in the Residential, Rural-Residential or Future Urban Zone.

If compliance is not achieved, the proposal would be assessed as a restricted discretionary activity, similar to the current approach of the District Plan, and matters of discretion would be included.

This option provides more flexibility for the operation of frost protection fans as, for example, the permitted noise limit would increase from 40dBA Leq and 65dBA Lmax to 55dBA Leq and 65dBA Lmax in the Rural Zone. Failure to comply with the standards would result in the need for resource consent for a restricted discretionary activity.

Minor consequential edits would also be required under this option to ensure consistency within the rules and to assist with usability of the District Plan.

<p><b>Costs</b></p>	<ul style="list-style-type: none"> <li>▪ The existing controlled activity standards only address a limited number of matters. Other matters are dealt with through conditions of consent (e.g. limit on number of days per year). Converting the controlled standards into permitted standards would remove the requirement for resource consent and therefore the opportunity to address other matters through conditions of consent.</li> <li>▪ As a permitted activity, frost fan operators would be able to proceed without resource consent. Frost fan operators may not know whether their proposed frost protection fan would comply with noise limits. Therefore, there is potential that frost protection fans may be placed in positions that do not meet noise limits and this may affect neighbours.</li> <li>▪ If neighbours were to complain about frost fans, the Council staff would need to investigate whether noise limits had been exceeded (or not). This is considered to be an inefficient use of Council staff time.</li> <li>▪ This option does not recognise the potential effects on the owners of properties in the Rural and Lifestyle Zones that currently do not have a dwelling, but that have a legitimate right to develop that land with a dwelling in the future. This is because the current rules for noise produced by frost protection fans relate to the notional boundary of existing dwellings in the Rural and Lifestyle Zones and do not relate to vacant land.</li> </ul>
<p><b>Benefits</b></p>	<ul style="list-style-type: none"> <li>▪ For frost fan operators, this option enables the use of frost protection fans with a higher noise limit than can currently occur, without the need for resource consent.</li> <li>▪ For frost fan operators, this option saves time and money associated with preparation and lodgement of resource consent applications.</li> </ul>
<p><b>Effectiveness/ Efficiency</b></p>	<ul style="list-style-type: none"> <li>▪ Effective in addressing the issue that greater flexibility is required for the establishment and operation of frost protection fans. This option also recognises the need and requirements of frost protection fans which are required for primary productive activities in the rural environment.</li> </ul>

	<ul style="list-style-type: none"> <li>▪ Only partly effective in achieving the objectives of the District Plan which seek to ensure noise is not unreasonable, having regard to the character and amenity of the zones where noise is generated and received.</li> <li>▪ This option is a somewhat efficient method to address the identified issue and achieves the objectives of the District Plan.</li> </ul>
<p><b>Risks of Acting/ Not Acting if there is uncertain or insufficient information about the subject matter</b></p>	<ul style="list-style-type: none"> <li>▪ N/A – Sufficient information is available.</li> </ul>

**4.3. Option 3 – Allow frost protection fans as permitted activities based on current controlled activity standards and:**

- a. **Additional standards to recognise rights for owners of land in the Rural and Lifestyle Zones without an existing or consented dwelling;**
- b. **An additional option for obtaining written approvals (where noise limits are to be exceeded) to avoid the need for resource consent;**
- c. **A change to allow testing of frost protection fans outside specified maintenance hours, if required for urgent unforeseen maintenance purposes; and**
- d. **Additional requirements for frost fan operators to provide information to Council regarding the location of frost protection fans and compliance with District Plan rules.**

This option is to allow frost protection fans as a permitted activity, subject to compliance with the performance standards that currently apply for controlled activity frost protection fans and to include additional performance standards.

The existing controlled activity performance standards are set out in section 3.2 of this report and relate to noise limits during operation (to protect residential dwellings), limitations on use based on temperature at canopy height, and times during which the frost protection fan can operate for maintenance purposes. Noise limits under the current rules also relate to the notional boundary of existing dwellings in the Rural and Lifestyle Zones, and the property boundary of any site in the Residential, Rural-Residential or Future Urban Zone.

The additional standards proposed under this option include:

- a. An exemption from having to meet noise limits (55dBA Leq and 65dBA Lmax) if affected persons have provided their written approval;
- b. The requirement to comply with noise levels at the boundary of any property in the Rural or Lifestyle Zone that does not have an existing or consented dwelling at the time the frost protection fan is established;
- c. An allowance for the operation of frost protection fans for testing outside the hours of Monday to Friday 8am to 5pm, if required for urgent unforeseen maintenance (e.g. as a result of a breakdown); and
- d. The need to provide information on the compliance (or lack of compliance) and the location of the frost protection fan(s) to Council prior to installation.

Matters of discretion are also proposed under this option, along with any other necessary consequential changes.

<b>Costs</b>	<ul style="list-style-type: none"> <li>▪ For frost fan operators, there is an additional requirement to provide information regarding the location and noise levels to be emitted from proposed frost protection fans.</li> <li>▪ For frost fan operators, there is an additional requirement to consider the effects of noise on owners of properties in the Rural and Lifestyle Zone that are not occupied by a dwelling.</li> </ul>
<b>Benefits</b>	<ul style="list-style-type: none"> <li>▪ For frost fan operators, this option enables the use of frost protection fans with a higher noise limit than can currently occur, without the need for resource consent.</li> <li>▪ For frost fan operators, this option saves time and money associated with preparation and lodgement of resource consent applications.</li> <li>▪ For frost fan operators, this option provides even greater flexibility (compared with Option 2) if noise levels are exceeded and affected persons have provided their written approval.</li> <li>▪ For frost fan operators, this option recognises that frost protection fans may need to operate outside of the prescribed hours for maintenance in unforeseen circumstances (e.g. such as during a breakdown).</li> <li>▪ For neighbours and Council, this option ensures that frost fan operators confirm that their frost protection fans comply with the relevant rules and any non-compliances are properly identified for the purposes of obtaining written approvals.</li> <li>▪ For neighbours, this option ensures that both existing dwellings and vacant land in the Rural and Lifestyle Zones (with potential to be developed with a dwelling) are protected from the noise effects of frost protection fans. It also continues to protect people and property in the Residential, Rural-Residential, Medium Density Residential or Future Urban Zones.</li> <li>▪ For Council, this option ensures that information on the location of frost protection fans is provided so that new rules proposed under section 5.0 of this report can be applied. This proposed rule requires new dwellings to be</li> </ul>

	designed and constructed so that they are protected from noise emitted by existing frost protection fans and, in turn protects the operation of frost protection fans from reverse sensitivity effects.
<b>Effectiveness/ Efficiency</b>	<ul style="list-style-type: none"> <li>▪ Effective in addressing the issue that greater flexibility is required for the establishment and operation of frost protection fans. This option also recognises the need and requirements of frost protection fans which are required for primary productive activities in the rural environment.</li> <li>▪ Effective in achieving the objectives of the District Plan which seek to ensure noise is not unreasonable, having regard to the character and amenity of the zones where noise is generated and received.</li> <li>▪ This option is considered to be an efficient method for addressing the identified issue and to achieve the objectives of the District Plan.</li> </ul>
<b>Risks of Acting/ Not Acting if there is uncertain or insufficient information about the subject matter</b>	<ul style="list-style-type: none"> <li>▪ N/A – Sufficient information is available.</li> </ul>

#### 4.4. Option 4 – Permit frost protection fans without noise limits

This option is to exempt frost protection fans from the noise limits in the District Plan.

<b>Costs</b>	<ul style="list-style-type: none"> <li>▪ For neighbours, unrestricted use of frost protection fans would mean that the effects of noise on them would not be managed and such effects have the potential to adversely affect the health and amenity of those in the surrounding environment (particularly given frost protection fans operate during normal sleeping hours).</li> </ul>
<b>Benefits</b>	<ul style="list-style-type: none"> <li>▪ For frost fan operators, the use of frost protection fans would be unrestricted, allowing them to protect crops as needed.</li> <li>▪ For frost fan operators, this option saves time and money associated with preparation and lodgement of resource consent applications.</li> </ul>
<b>Effectiveness/ Efficiency</b>	<ul style="list-style-type: none"> <li>▪ Exempting frost protection fans from any noise limits is not an effective or efficient method to achieve the objectives of the District Plan, particularly those which seek to achieve an environment free of unreasonable noise in accordance with the character and amenity of the relevant zone.</li> </ul>
<b>Risks of Acting/ Not Acting if there is uncertain or insufficient information</b>	<ul style="list-style-type: none"> <li>▪ N/A – Sufficient information is available.</li> </ul>

#### **4.5. Preferred Option**

The preferred option is Option 3:

- a. Amend Rule 4C.1.3.6 to provide for frost protection fans as a permitted activity, subject to a number of permitted activity performance standards;
- b. Amend Rule 4C.1.3.6 to require restricted discretionary resource consent for any frost protection fan that fails to comply with the permitted activity performance standards; and
- c. Include matters of discretion for restricted discretionary frost protection fans (Rule 4C.1.4.2).

The changes proposed to the text are provided in **Attachment A**.

#### **4.6. Reasons**

Option 3 is the preferred option as it provides for better flexibility than the current rules and avoids the need for unnecessary resource consents. It also provides an appropriate level of protection against the actual and potential adverse effects associated with noise generated by frost protection fans, but also provides an opportunity to avoid the need for resource consent if affected persons provide their written approval.

In addition, the rule and matters of discretion recognise the potential for effects on people who own neighbouring properties that may not yet be developed with a dwelling. Further to this, the rule recognises that during an unforeseen breakdown, there may be the need to operate the frost protection fan for testing purposes and this is considered to be appropriate.

The requirement to provide certification of compliance with the noise levels specified in the rules and other information identifying the location of the frost protection fans will ensure that compliance with the standards can be proven. It also allows Council to record the location of the frost protection fans to enable reverse sensitivity to be addressed.

Option 3 is considered to be the most effective and efficient method to achieve the objectives of the District Plan.

### **5.0 Issue 2 – Frost Protection Fans – Reverse Sensitivity**

#### **5.1. Introduction**

There is potential for dwellings to establish in locations that could be affected by noise from existing or consented (but not yet established) frost protection fans. This results in the potential for amenity and health related

effects for occupiers of the new dwellings as the result of noise emitted from frost protection fans, particularly given noise from frost protection fans is typically emitted during normal sleeping hours.

These potential effects also result in the potential for reverse sensitivity effects. Reverse sensitivity effects arise where a new and more sensitive activity establishes and has the potential to constrain the on-going operation of existing activities (e.g. a new dwelling developed near an existing frost protection fan).

The health and safety of people is integral to the sustainable management purpose of the RMA, and there is a general duty under section 16 of the RMA to ensure the best practicable option is adopted to ensure that the emission of noise does not exceed a reasonable level. It is therefore important to ensure that the effects of noise from the operation of frost protection fans is not unreasonable and that peoples' health and safety is protected in accordance with the overall purpose of the Act.

In addition, to adequately protect the on-going operation of lawfully established frost protection fans, there is a need to avoid potential for reverse sensitivity effects.

## 5.2. Option 1 – Status Quo

This option is to retain the existing rules without change. Under this option, there are no requirements for new dwellings to be located and designed to avoid adverse noise effects associated with existing frost protection fans.

<b>Costs</b>	<ul style="list-style-type: none"> <li>▪ For frost fan operators, there is the potential for new dwellings to constrain operation of existing frost protection fans.</li> <li>▪ For neighbours, they may unknowingly build a dwelling in a location affected by noise from an existing frost protection fan.</li> </ul>
<b>Benefits</b>	<ul style="list-style-type: none"> <li>▪ For neighbours, there will be no restrictions on where they can build a dwelling if they are willing to accept noise produced by frost protection fans, which occurs for a limited period of time each winter.</li> </ul>
<b>Effectiveness/ Efficiency</b>	<ul style="list-style-type: none"> <li>▪ Not effective or efficient in addressing the identified issue.</li> </ul>
<b>Risks of Acting/ Not Acting if there is uncertain or insufficient information about the subject matter</b>	<ul style="list-style-type: none"> <li>▪ N/A – Sufficient information is available.</li> </ul>

**5.3. Option 2 – Amend Rule 4C.1.3.2 to require new dwellings within 300m of existing or consented frost protection fans to be designed and constructed to protect occupants from noise effects associated with the operation of the frost protection fan**

<b>Costs</b>	<ul style="list-style-type: none"> <li>For neighbours, there is the potential for additional costs associated with developing new dwellings within 300m of frost protection fans.</li> </ul>
<b>Benefits</b>	<ul style="list-style-type: none"> <li>For neighbours, this option protects their amenity and health from noise associated with the operation of existing frost protection fans.</li> <li>For frost fan operators, this option reduces potential for complaints from occupants of new dwellings established close to existing frost protection fans.</li> <li>For frost fan operators, this option protects the on-going operation of existing/consented frost protection fans and helps protect these from reverse sensitivity effects.</li> </ul>
<b>Effectiveness/ Efficiency</b>	<ul style="list-style-type: none"> <li>Option 2 is an effective and efficient method to address the identified issue.</li> </ul>
<b>Risks of Acting/ Not Acting if there is uncertain or insufficient information about the subject matter</b>	<ul style="list-style-type: none"> <li>N/A – Sufficient information is available.</li> </ul>

**5.4. Preferred Option**

The preferred option is Option 2:

(a) Amend Rule 4C.1.3.2 as set out in **Attachment A** and as follows :

**4C.1.3.2 Noise Limits**

(a) **Noise limits for activities in Residential, Rural-Residential, Future Urban, Rural and Lifestyle Zones**

...

(iii) Any new dwelling to be erected, or the addition of habitable space to an existing dwelling, within 300m of any existing or consented frost protection fan located on a title separate to that of the subject site and in different ownership shall be designed and constructed so as to ensure that, with respect to noise emitted by any existing or consented frost protection fan, internal noise levels do not exceed LAeq(15min) 30dBA in any bedroom and LAeq(15min) 40dBA in other habitable room. Written certification of such compliance from a suitably qualified and experienced acoustic engineer shall be submitted with the building consent application for the dwelling concerned. Where the windows of the dwelling are required to be closed to achieve compliance with the



aforementioned noise limits, alternative means of ventilation shall be provided in compliance with clause G4 of the New Zealand Building Code or any subsequent equivalent clause.

For the purposes of this rule, "consented" means:

- (a) any frost protection fan for which a resource consent has been granted; or
- (b) any permitted frost protection fan for which certification has been provided to the Council in accordance with Rule 4C.1.3.6(b);

prior to lodgement of a building consent application for the dwelling concerned.

## **5.5. Reasons**

Option 2 is the preferred option as it the most effective and efficient method to address the need to adequately protect the amenity and health of occupants of future dwellings from the adverse effects of noise generated by existing and consented frost protection fans. In addition, it is considered to be the most effective and efficient method to provide protection for the on-going operation of existing and consented frost protection fans from potential reverse sensitivity effects associated with the development of new dwellings that may be affected by noise.

## **6.0 Issue 3 – Frost Protection Fans – Height in Post-Harvest Zone**

### **6.1. Introduction**

As set out in section 3.1 of this report, it has been identified that there are some inconsistencies in the rules for frost protection fans. In particular, the height limit for frost fans in the Post Harvest Zone is not consistent with that for the Rural Zone.

The maximum permitted height for buildings and structures in the Rural Zone is 9.0m, except that frost protection fans are allowed up to a height of 15.0m as a permitted activity (Rule 18.4.1(a)). The reason frost fans are allowed up to a height of 15m is due to the actual height of these structures, and their technical and operational requirements.

Rule 22.4.1(a) states that the maximum permitted height for buildings and structures in the Post-Harvest Zone is 12.0m and there is no exclusion for frost protection fans.

This is an anomaly between the rules and it is understood the intention is that frost protection fan structures be permitted up to a height of 15.0m, regardless of whether they are located in the Rural Zone or Post-Harvest Zone.

## 6.2. Option 1 – Status Quo

This option is to retain the existing rules without change (frost fan height limit of 12m).

<b>Costs</b>	<ul style="list-style-type: none"> <li>▪ District Plan rules (between Rural and Post Harvest Zones) would continue to be inconsistent.</li> <li>▪ District Plan rules would not adequately provide for frost protection fans within the Post-Harvest Zones.</li> </ul>
<b>Benefits</b>	<ul style="list-style-type: none"> <li>▪ No benefits identified.</li> </ul>
<b>Effectiveness/ Efficiency</b>	<ul style="list-style-type: none"> <li>▪ Not effective or efficient in addressing the identified issue.</li> </ul>
<b>Risks of Acting/ Not Acting if there is uncertain or insufficient information about the subject matter</b>	<ul style="list-style-type: none"> <li>▪ N/A – Sufficient information is available.</li> </ul>

## 6.3. Option 2 – Amend Rule 22.4.1(a) to allow for frost protection fans up to a height of 15.0m in the Post Harvest Zone

This option is to amend Rule 22.4.1(a) to provide a 15.0m height limit for frost protection fans.

<b>Costs</b>	<ul style="list-style-type: none"> <li>▪ No costs identified.</li> </ul>
<b>Benefits</b>	<ul style="list-style-type: none"> <li>▪ Height limits would be consistent between the Rural Zone and Post-Harvest Zone.</li> <li>▪ District Plan rules would adequately provide for frost protection fans within the Post-Harvest Zones.</li> </ul>
<b>Effectiveness/ Efficiency</b>	<ul style="list-style-type: none"> <li>▪ Option 2 is an effective and efficient method to address the inconsistency in the District Plan.</li> </ul>
<b>Risks of Acting/ Not Acting if there is uncertain or insufficient information about the subject matter</b>	<ul style="list-style-type: none"> <li>▪ N/A – Sufficient information is available.</li> </ul>

## 6.4. Preferred Option

The preferred option is Option 2:

(a) Amend Rule 22.4.1(a) as follows:

### **22.4.1 General**

The following performance standards shall be met by all Permitted and Controlled Activities and shall be used as a guide for the assessment of all other activities. Any Permitted or Controlled activity that fails to comply with any of these standards will be a Restricted Discretionary Activity for the particular non-compliance.

#### **(a) Height of buildings/structures**

Maximum: 12m; excluding frost protection fans which shall be a maximum of 15m inclusive of blades.

### **6.5. Reasons**

Option 2 is the preferred option as it the most effective and efficient method to address the anomaly in the District Plan that the Post-Harvest Zone does not identify the height requirement for frost protection fans.

## 4C.1 Noise and Vibration

### Explanatory Statement

*Council's* aim is to maintain a reasonable balance between the objective of maintaining a high quality living environment free from unreasonable noise and the need to recognise that permitted and lawfully established activities in the Rural and Industrial Zones may have associated noise levels that are acceptable as part of the principal activity such as farming.

In some areas the loading/unloading of materials at night and the movement onsite of vehicles 24 hours a day is an issue for adjoining landowners. The noise levels of the District Plan are intended to control this type of adverse effect.

Vibration from activities has not been an issue in the *District*. In many cases *Council* can manage vibration effects through the management of noise emissions or through the provisions of the Health Act. Specific standards to manage vibration are therefore not proposed.

*Reverse sensitivity* is a matter that requires management throughout the *District*. This is done in a number of ways.

The Post Harvest Zone and the Tara Road Rural Residential Zone each have specific buffer provisions, as does the Cameron Quarry site which is located at Otamarakau within the Rural Zone. In the latter case, a *Quarry Effects Management Area (QEMA)* has been identified on the District Planning maps over land surrounding the site.

#### 4C.1.1 Significant Issues

1. The potential for the operation of non-residential activities within residential areas to generate noise which detracts from existing amenity.
2. The potential for the operation of non-rural activities in rural and isolated natural environment areas to generate noise which detracts from existing amenity.
3. The potential for Permitted Activities within one zone to generate noise which detracts from the existing amenity of nearby zones.
4. The perception of the rural area as being a quiet environment does not reflect the realities of the Rural Zone as a productive working environment and increases the potential for *reverse sensitivity* issues.

#### **4C.1.2 Objective and Policies**

##### **4C.1.2.1 Objective**

An environment free of unreasonable noise in accordance with the character and amenity of the zone within which the noise is generated and received.

##### **4C.1.2.2 Policies**

1. Ensure activities do not generate noise levels inconsistent with the character and amenity of the zone in which the generated noise is received.
2. Exempt from the maximum permitted noise level requirements are those activities which are an integral part of accepted management practices of activities associated with production land in rural areas as well as other activities clearly of a temporary nature (e.g. *construction* works, military training exercises).
3. Have regard to any relevant New Zealand standards, guidelines, or codes of practice in the assessment of applications for resource consents.

#### **4C.1.3 Activity Performance Standards**

The following performance standards shall be met by all Permitted and Controlled Activities and shall be used as a guide for all other activities. Any Permitted Activity which fails to comply with any of these standards shall be deemed a Discretionary Activity for the particular non-compliance.

##### **4C.1.3.1 Construction Noise**

*Construction* noise shall not exceed the noise limits in, and shall be measured and assessed in accordance with the requirements of NZS 6803:1999 Acoustics – Construction Noise.

##### **4C.1.3.2 Noise Limits**

###### **(a) Noise limits for activities in Residential, Rural-Residential, Future Urban, Rural and Lifestyle Zones**

- (i) All activities located within these zones shall be so conducted as to ensure that noise from the site shall not exceed the following noise limits within the stated timeframes at any point within the *notional boundary* of any *dwelling* in a Rural, Lifestyle or Rural-Residential Zone, or at any point within the boundary of any property within a Residential or Future Urban Zone (other than the site of the activity);

**ATTACHMENT A**

(ii) Any new *dwelling* to be erected or the addition of habitable space to an existing *dwelling* within 200m of a Post Harvest Zone boundary shall be designed and constructed so as to ensure that with respect to the night time noise levels permitted within the Post Harvest Zone, internal noise levels do not exceed LAeq(15min) 30dBA in bedroom and LAeq(15min) 40dBA in other habitable rooms. Written certification of such compliance from a suitably qualified and experienced acoustic engineer shall be submitted with the building consent application for the *dwelling* concerned. Where the windows of the *dwelling* are required to be closed to achieve compliance with the aforementioned noise limits, alternative means of ventilation shall be provided in compliance with clause G4 of the New Zealand Building Code or any subsequent equivalent clause.

(iii) Any new *dwelling* to be erected, or the addition of habitable space to an existing *dwelling*, within 300m of any existing or consented frost protection fan located on a title separate to that of the subject site and in different ownership shall be designed and constructed so as to ensure that, with respect to noise emitted by any existing or consented frost protection fan, internal noise levels do not exceed LAeq(15min) 30dBA in any bedroom and LAeq(15min) 40dBA in other habitable room. Written certification of such compliance from a suitably qualified and experienced acoustic engineer shall be submitted with the building consent application for the *dwelling* concerned. Where the windows of the *dwelling* are required to be closed to achieve compliance with the aforementioned noise limits, alternative means of ventilation shall be provided in compliance with clause G4 of the New Zealand Building Code or any subsequent equivalent clause.

For the purposes of this rule, “consented” means:

- (a) any frost protection fan for which a resource consent has been granted; or
- (b) any permitted frost protection fan for which certification has been provided to the Council in accordance with Rule 4C.1.3.6(b);

prior to lodgement of a building consent application for the *dwelling* concerned.

Time Period		Sound Level Not to be Exceeded	
Day	Hours	Leq	Lmax
Monday to Saturday	7am to 10pm	50dBA	N/A
Sunday	7am to 6pm	50dBA	N/A
At all other times and on public holidays		40dBA	65dBA

**(b) Noise limits for activities in Industrial and Commercial Zones**

All activities located within Industrial and Commercial Zones shall be so conducted as to ensure that noise from the site shall not exceed the following noise limits within the stated timeframes at any point within the *notional boundary* of any *dwelling* in a Rural Zone or Rural-Residential Zone, nor at any point within the boundary of any property within a Residential or Future Urban Zone:

Time Period		Sound Level Not to be Exceeded	
Day	Hours	Leq	Lmax
Monday to Saturday	6am to 10pm	55dBA	N/A
Sunday and Public Holidays	9am to 6pm	55dBA	N/A
At all other times		45dBA	70dBA

**(c) Noise sensitivity**

- (i) For potentially noise-sensitive activities such as commercial offices, *places of assembly, medical, veterinary or scientific facilities* and *dwellings* and *accommodation facilities*, an acoustic design certificate shall be provided at the time of building consent demonstrating the *building* has been designed so that the internal noise limits set out in the following table are not exceeded;
- (ii) Where windows and doors must be closed in order to meet the internal noise standards, an alternative means of ventilation shall be provided which meets all relevant requirements of the Building Code.

	Sound Level Not to be Exceeded	
	Daytime period	Night time period
	Leq	Leq
Offices not accessory to any industry, storage or warehousing	45dBA	N/A
Residential units (habitable spaces)	45dBA	30dBA

**(d) Acoustic certification**

The following provisions shall apply to Industrial Zoned sites that are either:

- (i) within 100m of a *dwelling* in the Rural Zone that existed as at December 2005; or
- (ii) within 200m of a *dwelling* within the Rangiora Business Park that existed as at December 2005;

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- (iii) those lots within the Te Puke West Industrial Zone that are within 50m of Manoeka Road as indicated on the Te Puke West Structure Plan:
- (iv) those *lots* within the Comvita Campus Structure Plan area that are zoned Industrial and located within 50m of Wilson Road South as indicated on the Comvita Campus Structure Plan.

Prior to commencement of activities on the site or building consent being approved an acoustic design report prepared by a suitably qualified and experienced acoustical engineer shall be required by the *Council*.

The report shall outline the range of activities, their potential noise levels and any noise mitigation/management measures which will be implemented to ensure compliance with the relevant noise performance standards.

**(e) Noise limits for activities in the Post Harvest Zone**

All activities located within the Post Harvest Zone shall be conducted so as to ensure that noise from the zone shall not exceed the following noise limits within the *notional boundary* of any *dwelling* in a Rural Zone or at any point within the boundary of any property within a Residential, Rural-Residential, or Future Urban Zone:

Time Period	Sound Level Not To Be Exceeded	
	<i>Leq</i>	<i>Lmax</i>
Daytime 7am – 10pm	55dBA	N/A
Night time 10pm – 7am	45dBA	65dBA

Provided that:

- (i) Night time levels may exceed LAeq 45dBA where it is demonstrated that a noise level not exceeding LAeq (15min) 30dBA ('the internal level') can be achieved within all bedroom and LAeq(15min) 40dBA in other habitable rooms of any *dwelling* (existing as at 7 February 2009), located in any of the zones specified above. Before the externally measured LAeq 45dBA noise limit can be exceeded, any necessary mitigation measures shall be installed in the *dwelling(s)* concerned and compliance with the internal level shall be certified by a suitably qualified and experienced acoustic engineer;
- (ii) Any new *dwelling* or any addition of *habitable space* to an existing *dwelling* to be erected in a Rural, Lifestyle, Rural Residential, Residential or Future Urban Zone within 200m of a Post Harvest Zone boundary shall be designed and constructed so as to ensure that the internal noise levels do not exceed LAeq(15min) 30dBA in bedrooms and LAeq(15min) 40dBA in other habitable rooms. Written certification of such compliance from a suitably qualified and



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experienced acoustic engineer shall be submitted with the building consent application for the *dwelling* or alteration concerned. Where the windows of the *dwelling* are required to be closed to achieve compliance with the noise limits, alternative means of ventilation shall be provided in compliance with clause G4 of the New Zealand Building Code or any subsequent equivalent clause.

### (f) Noise limits for activities in the All Terrain Park Zone

- (i) All activities in the All Terrain Park (the Park) (except for those involving gunshot noise) shall be conducted so as to ensure that noise shall not exceed the following noise limits within the stated timeframes at any point within the *notional boundary* of any *dwelling* existing at 7 February 2009 located outside the zone.

Time Period		Sound Level Not to be Exceeded	
Day	Hours	Leq	Lmax
Monday to Sunday	7am to 10pm	50dBA	N/a
At all other times and Christmas Day, Good Friday and Easter Sunday	7am to 6pm	40dBA	65dBA

- (ii) Firing from any shooting range shall be only within the hours of 7am to 10pm and shall be so conducted as to ensure that gunshot noise does not exceed a composite noise rating (CNR) of 90 at any point within the *notional boundary* of any *dwelling* in regard to the properties in private ownership to the east of the subject site in a Rural Zone:

$$\text{CNR} = Y - 25 + 10 \log (N) + 10 \log (R);$$

Where: CNR=composite noise rating;

Y=dB linear peak level of the burst;

N=number of single shots or bursts per day;

R=number of rounds, or detonations, (acoustic events) per burst.

- (iii) Noise shall be measured and assessed in accordance with NZS6801:2008 and NZS6802:2008. Adjustments for special audible characteristics shall not apply to the assessment of gunshot noise.

### (g) Written approval

- (i) The noise levels set out in 4C.1.3.2 (a) – (f) above may be exceeded where the written approval is provided by all owners or occupiers of those properties or *dwelling*s affected by the non-compliance.

**4C.1.3.3 Exemptions from Noise Limits**

**(a) Exemptions from noise limits for short-term activities**

Subject to Rule 4C.1.6, the noise limits in Rule 4C.1.3.2 shall not apply to temporary or short-term activities as listed below, provided that the best practicable option pursuant to Section 16 of the *RMA* and manufacturers specifications for machinery, shall be adopted to ensure noise received off-site is reasonable.

The exemptions do not apply to long-term activities, and in the case of residential activities apply to domestic activities rather than commercial or business activities carried out from residential premises.

**(b) Exemptions for residential activities in all zones**

- (i) Warning Devices used by Emergency Services;
- (ii) Short-term domestic activities e.g. lawn mowing.

**(c) Exemptions for rural activities in Rural Zones**

- (i) Warning Devices used by Emergency Services;
- (ii) Activities required for primary production activities, including agricultural and horticultural vehicles and equipment; aircraft used for agricultural and horticultural purposes; and portable equipment (excluding portable sawmills and frost protection fans and audible bird scaring devices) associated with agricultural and horticultural activities such as: spraying, harvesting, etc;
- (iii) Livestock.

**(d) Other exemptions**

- (i) Noise from *construction, maintenance* and demolition (see Rule 4C.1.3.1);
- (ii) Temporary Military Training Activity;
- (iii) Temporary Activities (see Rule 4A.2.3.1 (iv)).

**(e) Noise from traffic on public roads that are legally formed and maintained is exempt from the zone rules of the District Plan**

**Explanatory Note:**

Some roads may have specific conditions imposed by resource consent or designation.

**(f) Exemptions for roadside cabinets housing telecommunication equipment**

Noise from roadside cabinets housing telecommunication equipment is subject to the requirements of the National Environmental Standard (NES) for Telecommunication Facilities. Such noise is not subject to rules in this District Plan.

**4C.1.3.4 Noise Measurement and Assessment**

- (a) For the purposes of Rule 4C.1.3.2, subject to the express provisions of these rules, sound levels should be measured in accordance with the requirements of NZS 6801:2008 Measurement of Environmental Sound, and assessed in accordance with the requirements of NZS6802:2008 Assessment of Environmental Sound;
- (b) The noise shall be measured with a sound level meter complying with the International Standard IEC 651 (1979): Sound Level Meters, Type 1.

**Explanatory note:**

*Council* may require any Discretionary or Non-Complying resource consent application in any zone to provide as part of the resource consent documentation evidence from an appropriately qualified independent person that the proposal shall comply with the District Plan noise levels for the site. *Council* shall consider the noise insulation methods associated with the use of generators, fans, blowers, refrigeration equipment, forklifts, outdoor loading operations, and any activity that operates between 7.00pm and 7.00am.

**4C.1.3.5 Audible Bird Scaring Devices – Performance Standard for Permitted Activity**

Audible bird scaring devices shall be a Permitted Activity subject to compliance with the following performance standards.

An audible bird scaring device:

- (a) Shall only be operated from half an hour before sunrise to half an hour after sunset.
- (b) Shall be set to operate at no greater frequency than 12 times in any period of one hour, that is 12 single discharges or four groups of three discharges.

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- (c) Shall not be operated for any continuous period exceeding two seconds.
- (d) Shall only be operated when the horticultural crop is at risk from bird damage.
- (e) Shall not exceed 65dB ASEL at the *notional boundary* of any Rural, Rural Residential, Future Urban or Lifestyle *dwelling* or at the boundary of any Residential Zone (excluding any *dwelling/s* located on the same site as the device is being operated).
- (f) Where those persons who experience noise levels over 65dB ASEL as described in (e) above, have provided written approval to *Council* then the activity shall be permitted.

Use of any audible bird scaring device not in compliance with the above performance standards shall fall to be considered as a Restricted Discretionary Activity.

### 4C.1.3.6 Frost Protection Fans – Performance Standard for Permitted Activity

~~Frost protection fans (including portable non-fixed type) shall be a Permitted Activity subject to the relevant performance standards of the underlying zone. Should the fan not comply with the relevant noise standards the activity shall default to be considered as a Controlled or Restricted Discretionary Activity as detailed in 4C.1.3.7 and 4C.1.3.8.~~

Frost protection fans (including portable non-fixed type) shall be a Permitted Activity subject to compliance with the following performance standards:

- (a) Noise from the operation of a frost protection fan shall not exceed 55dBA *Leq* or 65dBA *Lmax* when measured:
  - (i) At any point at or within the *notional boundary* of any *dwelling* in the Rural or Lifestyle Zone that:
    - is or will be located on a title separate to that of the subject site and in different ownership; and
    - was existing or consented on the date that certification is provided to the Council in accordance with (b), below;
  - (ii) At any point at or within the boundary of a property in the Rural or Lifestyle Zone that:
    - is located on a title separate to that of the subject site and in different ownership; and
    - did not have an existing or consented *dwelling* on the date that certification is provided to the Council in accordance with (b) below;

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- (iii) At any point at or within the boundary of any property within a Residential, Rural-Residential, Medium Density Residential or Future Urban Zone.
- (b) Evidence of the ability to meet (a) above shall be provided to Council prior to the installation of the frost protection fan and shall include:
- (i) Certification from an appropriately qualified and experienced acoustic engineer that the noise limits in (a) above will be met; and
- (ii) A plan showing the location, and Global Positioning System co-ordinates, of the frost protection fan(s) to which the certification applies.
- (c) When the frost protection fan is in operation for frost protection the frost protection fan must not start up until the air at canopy height drops to 2°C, and shall cease operation when the rising temperature reaches 4°C at canopy height.
- (d) When the frost protection fan is operating for maintenance purposes the machine shall only be used from Monday to Friday 8am to 5pm. Testing outside these hours may only take place for urgent unforeseen maintenance purposes.

Except that:

- (e) Noise from the operation of a frost protection fan may exceed the noise levels described in (a) above, if:
- (i) The noise to be produced by the operation of the frost protection fan(s) is assessed and determined by an appropriately qualified and experienced acoustic engineer. The assessment shall include:
- the noise levels to be produced by the operation of the frost protection fan(s);
  - identification of the non-compliances with the noise levels specified in (a) above;
  - a plan showing the location, and the Global Positioning System co-ordinates, of the frost protection fan(s) to which the assessment applies;

AND

- (ii) The written approval of the owners of the land, and owners and occupiers of the dwelling(s) to which the non-compliances apply have provided their written approval for the non-compliances identified in the assessment provided in (i) above.

AND

- (iii) The information in (i) and (ii) above is provided to Council prior to the installation of the frost protection fan.

Any frost protection fan (including portable non-fixed type) that fails to meet the performance standards above shall be a Restricted Discretionary Activity.

**Explanatory Notes:**

Fan Type - The distance required to achieve 55dBA *Leq* and 65dBA *Lmax* will vary depending on the noise performance of the frost protection fan.

For portable frost protection fans, determination and/or certification of noise to be emitted must take into account the full range of possible operating locations for the device.

**~~4C.1.3.7 Frost Protection Fans — Performance Standard for Controlled Activity~~**

~~Where the following performance standards cannot be met then the activity shall fall to being assessed as a Restricted Discretionary Activity:~~

- ~~(a) Noise from the operation of frost protection fans shall not exceed 55dBA *Leq* and 65dBA *Lmax* at any point within the *notional boundary* of any *dwelling* in a Rural or Lifestyle Zone (excluding a residential *dwelling* on the same property on upon which the fan is operating) nor at any point within the boundary of any property within a Residential, Rural Residential or Future Urban Zone.~~
- ~~(b) When the frost protection fan is in operation for frost protection the frost protection fan must not start up until the air at canopy height drops to 2°C, and shall cease operation when the rising temperature reaches 4°C at canopy height.~~
- ~~(c) When the frost protection fan is operating for maintenance purposes the machine shall only be used from Monday to Friday 8am to 5pm.~~

~~**Explanatory Note:**~~

~~Fan Type — The distance required to achieve 55dBA will vary depending on the noise performance of the frost protection fan. Applications for resource consent must be supported with evidence identifying the noise performance of the fan to be used.~~

~~Where the written approvals of all affected persons have not been obtained then notice shall be served on those persons.~~

**Explanatory Note:**

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~~For the purpose of identifying affected persons where the noise from the operation of the frost protection fan exceeds 55dBA *Leq* at any point within the *notional boundary* of any *dwelling* in a Rural, Lifestyle or Future Urban Zone, (excluding a residential *dwelling* on the same property on upon which the fan is operating) or at any point within the boundary of any Residential or Rural Residential zone, those occupiers/owners shall be deemed to be affected.~~

### ~~4C.1.4~~ **Matters of Control – Controlled Activities**

#### ~~4C.1.4.1~~ **Frost Protection Fans**

- ~~(a) ——— Council shall exercise control over the following;~~
- ~~(i) ——— The noise level that is permitted to be emitted from the frost protection fan;~~
  - ~~(ii) ——— The operational requirements of the frost protection fan;~~
  - ~~(iii) ——— The operation of the frost protection fan for maintenance purposes;~~
  - ~~(iv) ——— The hours of operation and times when the fan is permitted to operate.~~

### **4C.1.54 Matters of Discretion**

#### **4C.1.54.1 Restricted Discretionary Activity – Audible Bird Scaring Devices**

*Council* shall restrict its discretion to the noise levels and the consequential affect on amenity of the neighbouring properties. Notification of the application is not required. For the purposes of identifying affected persons, written approval shall be required from persons who will experience noise levels above 65dBA *SEL* (excluding a residential dwelling on the same property as the audible bird scaring device). Should any written approvals not be obtained from an affected person(s) notice will be served on those persons.

#### **4C.1.54.2 Restricted Discretionary Activity - Frost Protection Fans**

~~*Council* shall restrict its discretion to the following:~~

- ~~(a) ——— The best practicable option, this should address as a minimum; alternative options for frost protection, effectiveness of those alternative options, affordability, cumulative effects of existing machines in the vicinity, and any effects on established land uses, and proposed mitigation.~~
- ~~(b) ——— The effect of the increased noise level on those persons who will experience noise levels over 55dBA *Leq* at their *notional boundary* or boundary.~~

~~*Council* shall restrict its discretion to the following:~~

- ~~(a) The level of noise that is to be emitted from the frost protection fan(s).~~

- (b) The effect of noise on the owners of land, and owners and occupiers of dwellings who will be affected by noise levels over 55dBA *Leq* and/or 65dBA *Lmax*.
- (c) The hours of operation, duration and frequency of use of the frost protection fan.
- (d) The best practicable option for preventing or minimising adverse effects associated noise emissions. This may include, but is not limited to consideration of alternative options for frost protection, effectiveness of those alternative options, affordability, cumulative effects of existing frost protection fans in the vicinity, effects on established land uses, and proposed mitigation.
- (e) The operational requirements of the frost protection fan.

#### **4C.1.6 Other Methods**

- (a) Application of other statutory powers  
  
Notwithstanding the foregoing clauses the *Council* reserves the right to use its more general statutory and regulatory powers (e.g. under relevant resource management, environmental, and health legislation and *Council's* own bylaws) to exercise appropriate control over noise in the environment.
- (b) Vibration  
  
Where significant vibration effects are experienced *Council* may deal with the matter as a nuisance under the Health Act.