Planning Report
Plan Change 56 – Frost Protection Fans – Height and Cumulative Noise

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1.0 Introduction

1.1 The purpose of this report is to provide recommendations on submissions and further submissions to Plan Change 56 – Frost Protection Fans – Height and Cumulative Noise.

1.2 The purpose of this Plan Change is to address three topics with regard to frost protection fans, namely:

- The permitted height of a frost protection fan.
- Rules relating to cumulative noise.
- The listed matters of control.

1.3 For a full background to the Plan Change and the proposed provisions please refer to the Section 32 Report. For a list of the proposed provisions only, please refer to the document titled 'Summary of Recommendations – All Section 32 Reports".

1.4 Any recommended amendments to rules in this report will be 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.

2.0 Topic 1: Permitted Height of a Frost Protection Fan

2.1 Background

The permitted height standard for structures within the Rural Zone is 9 metres which is less than the height of frost protection fans. This by default causes all frost protection fans to be a restricted discretionary activity requiring resource consent, even if they comply with noise for example.

The controlled activity height standard for frost protection fans is 15 metres. The effect of the current rule framework is to require otherwise complying frost fans to unnecessarily require resource consent for the non-complying height.

Plan Change 56 recommended that the permitted height for frost protection fans be increased from 9m to 15m. As a result the following amendments are proposed:

Amend Rule 18.4.1(a) Height of Buildings to have an exemption for frost protection fans as follows:

"(a) Height of Buildings

Maximum – 9m excluding frost protection fans which shall be a maximum of 15m inclusive of blades."

Delete Rule 4C.1.3.7 (b) Frost Protection Fans – Performance Standard for Controlled Activity – Height of Frost Fans.

~~"(b) The overall height for the fan including the fan blade shall not exceed 15m."~~

2.2 Submission Points

Toi Te Ora – Public Health Services and Horticulture New Zealand and New Zealand Kiwifruit Growers Incorporated were in support of the notified changes.

2.3 Recommendation

That proposed changes to Rules 18.4.1(a) and 4C.1.3.7 (b) be retained as notified.

The following submissions are therefore:

Accepted

Submission	Point Number	Name
20	2	Toi Te Ora – Public Health Services
21	1	Horticulture New Zealand and New Zealand Kiwifruit Growers Incorporated

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2.4 Reason

The submission points are in support of this part of the Plan Change.

3.0 Topic 2: Cumulative Noise

3.1 Background

The District Plan provisions relate to both fixed and portable frost protection fans. The provisions require that where a proposed frost protection fan does not meet the permitted rural performance standards for noise that it defaults to a controlled activity. The controlled activity performance standards require that the 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). Where a fan does not meet these controlled activity performance standards it is deemed a restricted discretionary activity.

The presence of other fans in close proximity to a proposed fan has potential to cause a fan that meets the controlled activity performance standards operation alone to exceed the controlled activity standard. If this is not taken into account there is potential for persons to be adversely affected due to the increased noise levels that would arise. The Section 32 Report recommended that an assessment be done on the cumulative noise.

3.2 Submission Points

3.2.1 Toi Te Ora – Public Health Services supports in part the proposed change as it provides a more accurate assessment of potential noise effects. However, they are of the opinion that the proposed provisions do not go far enough to protect public health. Horticulture New Zealand and New Zealand Kiwifruit Growers Incorporation opposed this submission.

3.2.2 Stratum Consultants Ltd oppose the proposed change and feel that land owners that had the opportunity and means to establish frost fans already have an advantage on a first in first served basis. According to them the potential effects are adequately addressed with the written approval that is already required from dwelling/property owners within close proximity to frost fans.

3.2.3 Horticulture New Zealand and New Zealand Kiwifruit Growers Incorporated say they understand the cumulative effects issue, but oppose the proposed change for the following reasons. The approach is not the most effective or efficient and the effects are far more significant than stated in the Section 32. Consultation undertaken by Council is deficient. There has been no consultation with the horticultural sector. The change proposed is not minor and will impact on the horticultural sector and create uncertainty for growers. The consideration of cumulative noise effects should be undertaken in an assessment of a controlled activity application. However, defining a cumulative total noise limit at a notional boundary as a rule is not a reasonable approach. The rule is unfair, unworkable and impossible to enforce.

3.3 Option 1 – Status Quo - Retain the existing rule which only focuses on the noise effects of the proposed frost fan and does not take the cumulative noise effects of surrounding fans into consideration

Benefits	▪ Controls noise effects of the fan included in the application. ▪ Does not require the landowner to undertake a cumulative noise assessment to address the effects of other fans that are outside the control of the applicant. This also reduces their costs.
Costs	▪ Landowners are still required to get resource consent

	for a specific fan, but there are no additional costs otherwise.
Effectiveness/ Efficiency	▪ Status quo is controlling the effects of a specific fan effectively and efficiently. However, it is not effective or efficient at ensuring cumulative noise effects from surrounding frost protection fans do not cause adverse effects on people.
Risks of Acting/ Not Acting if there is uncertain or insufficient information about the subject matter	▪ N/A – sufficient information is available.

3.4 Option 2 – As notified - Require the Assessment of Cumulative Noise

Benefits	▪ More accurate assessment of potential noise effects on neighbouring properties which will make the owner of a new fan place it in a location that does not generate adverse effects.
Costs	▪ Additional cost for a land owner wishing to install a frost protection fan (through having to obtain a cumulative noise assessment) where there are other fans in close proximity. ▪ May encourage the use of alternative frost protection methods that may be more noisy (helicopter) or harmful to the environment (burning).
Effectiveness/ Efficiency	▪ Effective as addressing cumulative noise ensures that noise effects are properly taken into account. ▪ It requires landowners to consider noise generated by fans that are not within their control and is therefore not efficient. ▪ A number of horticulturists are making use of portable frost protection fans that can be shifted easily from one location to another. As cumulative noise is influenced by the location and number of fans, the use of portable frost protection fans makes cumulative noise assessments and monitoring impractical, therefore is not effective and efficient.
Risks of Acting/ Not Acting if there is uncertain or insufficient information about the subject matter	▪ N/A – sufficient information is available.

3.5 Discussion

3.5.1 As per operative Rule 4C.1.3.7, 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. Cumulative noise effects will take noise effects of other fans (irrespective of ownership) into consideration. Even though it may be a more accurate calculation of the effect, it may be outside the control of an applicant.

3.5.2 Portable non-fixed type frost fans are becoming more popular and accessible. According to the information obtained from the distributers, the noise level of these fans is 45dBA at 300 metres and may therefore be within the noise limit. However, Council has no control over the location or quantity of these fans. As a cumulative noise level depends on the location and quantity of the source and other variables such as topography, the enforcement and monitoring of cumulative noise will be problematic.

3.5.3 Alternative frost protection methods can have more noise or other effects. Although it is very expensive, helicopters, which have significantly more noise effects, are still used for frost protection purposes. Heat generated through burning is also used for frost protection. This can result in other effects to the environment.

3.5.4 Western Bay of Plenty has mild winter temperatures and the need to use frost protection fans is limited.

3.6 Recommendation

That the proposed changes requiring an assessment of Cumulative Noise be withdrawn.

The following submissions are therefore:

Accepted

Submission	Point Number	Name
5	3	Stratum Consultants Ltd
21	2	Horticulture New Zealand and New Zealand Kiwifruit Growers Incorporated
FS53	6	Horticulture New Zealand and New Zealand Kiwifruit Growers Incorporated

Rejected

Submission	Point Number	Name
5	3	Toi Te Ora – Public Health Services

3.7 Reasons

3.7.1 Even though cumulative noise effects may be a more accurate calculation of the noise affects from frost protection fans, it is outside the control of a single applicant to address all contributing noise.

3.7.2 The cumulative noise effects from frost protection fans depend on the location and quantity of fans and other variables such as topography. Also, because portable frost protection fans are not restricted to a location or quantity, the monitoring and enforcement of their contributions to cumulative noise will be problematic.

3.7.3 Landowners may instead turn to using alternative frost protection options, e.g. the use of a helicopter and burning which can be more harmful.

3.7.4 Western Bay of Plenty has mild winter temperatures and the need to use frost protection fans is limited.

3.7.5 Landowners establishing frost fans first will have an advantage over other in that cumulative noise will be less due to the low number of frost fans.

3.7.6 Written approval is already required from dwelling/property owners within close proximity to frost fans.

4.0 Topic 3: Matters of Control

4.1 Background

The District Plan provisions require that where a proposed frost protection fan does not meet the permitted rural performance standards for noise that it defaults to a controlled activity. The controlled activity performance standards then require a frost protection fan to meet a number of standards in relation to not only noise, but also height, hours of operation and maintenance. The associated matters of control then fail to align with these performance standards and instead identify a range of other matters that are not appropriate to the activity.

Rule 4C.1.4.1 is proposed to be amended to provide for matters of control that are directly relevant to the operation of a frost protection fan.

4.2 Submission Points

Toi Te Ora – Public Health Services and Horticulture New Zealand and New Zealand Kiwifruit Growers Incorporated are in support of the notified changes.

4.3 Recommendation

That proposed changes to Rule 4C.1.4.1 be retained as notified.

The following submissions are therefore:

Accepted

Submission	Point Number	Name
20	3	Toi Te Ora – Public Health Services
21	3	Horticulture New Zealand and New Zealand Kiwifruit Growers Incorporated

4.4 Reason

The submission points are in support of the Plan Change.

5.0 Plan Change 56 - Recommended Changes to the District Plan First Review

5.1 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.

5.2 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.

5.3 Recommended changes to the District Plan

Amend Rule 18.4.1(a) Height of Buildings to have an exemption for frost protection fans as follows:

"(a) Height of Buildings

Maximum – 9m excluding frost protection fans which shall be a maximum of 15m inclusive of blades."

Delete Rule 4C.1.3.7 (b) Frost Protection Fans – Performance Standard for Controlled Activity – Height of Frost Fans.

~~"(b) The overall height for the fan including the fan blade shall not exceed 15m."~~

Amend Rule 4C.1.3.7(a) as follows;

"Noise from the operation of frost protection fans ~~(either stand-alone or in combination with other frost protection fans in close proximity to a receiving site)~~ shall not exceed 55dBA Leq and 65dBA Lmax at any point within the notional boundary of any dwelling in a Rural or Lifestyle Zone…."

Amend the Explanatory Note under Rule 4C.1.3.7 as follows;

"Fan Type – The distance required to achieve 55dBA will vary depending on the noise performance of the frost protection fan ~~and the location of other frost protection fans in the locality~~. Applications for resource consent must be supported with evidence identifying the noise performance of the fan to be used ~~along with the potential cumulative noise from other fans in the locality~~."

Amend Rule 4C.1.4.1, Matters of Control - Frost Protection Fans, as follows;

~~(a) Without limitation, Council will assess the proposed model of fan(s), location(s), possible alternatives, and any proposed noise mitigation measures.~~

(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.