

WAIRAU AWATERE

RESOURCE MANAGEMENT PLAN

Plan Change 58

MARLBOROUGH SOUNDS

RESOURCE MANAGEMENT PLAN

Plan Change 23

Officers Report

Use of Wind machines for Frost Protection

Prepared by Tony Quickfall (planning consultant)

Hearing Commencing: 22 March 2010

INTRODUCTION

Introduction

This report sets out the recommendations of the consultant planner on submissions to Plan Changes 58 and 23. These plan changes arise from on-going issues over noise from frost fans. Importantly, a report following a workshop for stakeholders¹ sets out the purpose and framework on which the plan changes are generally based. The purpose of the plan changes is to:

- address the noise effects arising from the operation of frost fans;
- enable more effective control and monitoring of potential effects from frost fans.

The plan change can't deal with existing frost fans or to encompass cumulative effects.

The stakeholder workshop report notes that *“the absence of control through a permitted activity rule is not effective or efficient within the meaning of s.32...it does not enable MDC to perform its statutory function of management and control...an immediate plan change is justified to make the activity a controlled activity...it does not affect existing machines unless they are presently operating unlawfully”*.

Plan changes 58 and 23 respond to stakeholder workshops and the subsequent report.

Format

The report is in two parts. Part 1 relates to plan change 58 (Wairau Awatere Resource Management Plan). Part 2 relates to plan change 23 (Marlborough Sounds Resource Management Plan). The report is structured by plan section, and follows a logical format of description, recommendations, and plan amendments.

This report only provides a brief summary of the issues raised by submitter. Refer to the “Summary of Submissions” for a full summary, or the submissions themselves for full details.

Plan amendments

The recommended plan amendments are shown with new text underlined, and deleted text indicated with a ~~strikethrough~~.

Weighting of submission numbers

Under the Resource Management RMA, submissions on plan changes are decided on the merits of the submissions and the reasons for the changes sought. Decisions are not made on the basis of the number of submitters on any particular issue.

In accordance with Environment Court practice, recommended decisions in this report are based on the merits of each submission and the issues raised. Recommendations are not based on the number of submissions.

Plan References

The frost fan plan changes makes the same changes to both the:

- Wairau Awatere Resource Management Plan (“WARMP”) and
- Marlborough Sounds Resource Management Plans (“MSRMP”).

¹ Report Following Second Workshop in Blenheim Regarding Wind Machines for Frost Protection: John Maassen, March 2009

“Plan change” in this report refers to the plan change in that particular section of the report (section 1 being WARMP, section 2 being MSRMP). Where required, specific plans are referred to as WARMP or MSRMP. “RM plans” means both plans.

Note – because there are two separate plans and two separate plan changes, recommendations in this report must be within the scope of the submission and the plan change. For example, if a submitter requests changes to the WARMP under plan change 58, the Resource Management RMA restricts any changes being made to the MSRMP. In this example, changes to the MSRMP for reasons of consistency cannot be made, since such changes are outside the scope of the submission and the plan change.

Submitter references

In this report, reference to submissions adopt the format of submitter:submission number. For example “24:118” means submitter number 24, submission point 118.

Submission and further submissions

Unless otherwise stated, “submissions” refers to all submissions, including both original submissions and further submissions.

PART 1 PLAN CHANGE 58 – WAIRAU AWATERE RESOURCE MANAGEMENT PLAN

OVERVIEW: ISSUES AND RECOMMENDATIONS

Issues raised

Submissions have been grouped into the following key issues. Any submission not fitting within a specific issue falls within the “general” category.

- Whole plan change, General Comments, Section 32
- 26.0 Definitions
- New noise management rules
 - Frost fan rules
 - 30.1.4.2.3 & 30.2.1 Deletion of existing permitted activity rules, controlled activities
 - 30.2.9 & 30.2.9.1 Erection and Use of Frost Fans, Standards and Terms
 - 30.2.9.1.3 Operation
 - 30.2.9.1.4 Proximity to Residential and Marlborough Ridge Zones
 - 30.2.9.2 Matters Over Which Council Will Exercise Control
 - Acoustic insulation rules
 - 30.1.4.2.4 and W31.1.5.1 Noise Sensitive Activities & acoustic insulation,
- Technical noise issues
 - 30.2.9.1.1 Noise
 - 30.2.9.1.2 Sound Level Measurement
- Zones
 - Appendix K Marlborough Ridge Zone
 - Rural Residential Zone
- Additional Provisions Sought

Summary of issues raised

Noise Controls

Submissions broadly related to both frost fans themselves and acoustic insulation of houses close to frost fans (reverse sensitivity). Within each of these two general categories, submissions essentially fell into 3 camps:

- those seeking tighter noise controls on both frost fans and acoustic insulation controls (e.g. lower sound thresholds and increased separation distance);
- those seeking to relax the noise controls or retain permitted activity status; and
- those seeking generally to retain the proposed noise controls with some amendments.

Suggested changes which would either tighten up or ease up on the proposed controls have been recommended not to be accepted, for various reasons but primarily because the relief sought is either ineffective (if the rules are relaxed) or not justified (if they are tightened up).

Submitters seeking changes of clarification or to improve on the proposed wording have generally been accepted.

Safety

A number of submitters have expressed concerns around safety of the operation of frost fans. Council considers that submissions on safety aspects are outside the scope of the plan changes, which relates to noise from the fans. Accordingly, submissions relating to safety considerations are unable to be accepted.

In addition, safety considerations are also controlled under other specific legislation, and it would result in unnecessary duplication to control safety through an RM plan. Finally, there is no documented basis in Marlborough for controlling safety as an adverse effect, which would justify controls in the RM plans.

Technical Matters

Some submitters raised issues surrounding the more technical aspects of noise controls and measuring. Some of these submissions have been recommended to be accepted.

Council commissioned a separate report on technical noise aspects² (appended to this Officers Report) which specifically responds to the technical issues raised. A technical amendment (to provide relief to and as recommended by the Noise report) is to amend the indoor noise level to facilitate more effective monitoring .

Section 32 Report

Some submissions challenged Council's section 32 report, on the grounds it has failed to show the plan change is the most appropriate method. Submitters also sought to defer the plan change until after frost fan monitoring has been completed. These submissions have been generally recommended to be rejected.

Definitions

Finally, some submissions sought clarification of definitions. These have been recommended to be accepted where the suggestions provided additional clarification.

²*Review of Noise & Acoustic Matters Technical Discussion Document* Malcolm Hunt Associates. 107-74.09(final), February 2010

Whole Plan Change, General Comments, Section 32

Discussion, recommendations and reasons

Benmorven Estate Family Trust (4:20) oppose the plan change and seek no changes, apart from insulating new houses. The section 32 analysis demonstrates that “do nothing” is not the best option in terms of the whole community or the environmental effects. This option was rejected. The relief sought can be accepted in part, to the extent that insulating new houses is to be retained.

Blair Gibbs (35:149), Dashwood Corner Vineyard Ltd (8:28), Jane Buckland and John Kershaw (34:148), Little Oasis Vineyard Ltd (9:29), Waihopai Holdings Ltd (22:67) oppose the plan change and seeks either its withdrawal or amendments as sought by New Zealand Winegrowers. **Fairhall Downs Estate Wines (17:80) and Guy Lissaman (33:144)** have not sought specific relief, but support New Zealand Winegrowers submission. These submissions can be accepted in part, to the extent that the New Zealand Winegrowers submission is accepted in part (as follows).

Buttergill Farms 2003 Ltd (7:27) seek to either withdraw the plan change or amend in accordance with New Zealand Winegrowers submission. Withdrawing the plan change (“do nothing” option) is inappropriate so this part of the submission is rejected. The New Zealand Winegrowers submission has been accepted in part.

Clintondale Trust – Whyte Trustee Company Ltd (21:119) oppose the plan change on various grounds. Both this submitter and **Horticulture New Zealand (20:25)** request Council to notify potential residents of the realities of living in rural areas.

Assessing complaints based on the number of complaints relative to the number of frost fans is misleading. The duration, frequency and nature of complaints carries more weight than a pure numbers assessment. Recorded complaints relating to frost fans have been received over a number of years. It is also understood that frost fans have generated some “nuisance” effects without necessarily leading to formal complaints. In addition, “do nothing” would likely lead to an increase in complaints because of the current rules.

Withdrawing the plan change until monitoring results are completed would not promote sustainable management and will lead to continued adverse effects under the current provisions. This relief sought is rejected.

An independent analysis of monitoring results is likely to occur, so this part of the submission can be accepted.

Similarly, under Clintondale Trust – Whyte Trustee Company relief sought “3”, a section 32 analysis of any further changes post monitoring will be undertaken.

Relief sought “4” (Clintondale Trust – Whyte Trustee Company) is rejected on the basis that not all other proposed amendments are recommended to be withdrawn.

Relief sought “5” (Clintondale Trust – Whyte Trustee Company) appears to relate to withdrawing the plan change, so is rejected.

Relief sought “6” (Clintondale Trust – Whyte Trustee Company) and the submission from Horticulture New Zealand relating to LIMS can be accepted. LIMs already note the underlying zoning as the basis for permitted activities. LIMs are issued under s.44A of the Local Government Official Information and Meetings Act 1987. The Local Government Official Information and Meetings Act 1987 provides that, in addition to the required information, a territorial authority “*may provide in the memorandum such other information concerning the land as the authority considered, at its discretion, to be relevant.*” The Quality Planning Website provides little guidance on contents of a LIM. Ministry for the Environment publish a brochure “Thinking About Living in the Country”, which alerts rural residents to general reverse sensitivity effects arising from rural activities. This brochure was developed to be available at Council counters to inform rural residents.

One possible issue with identifying the specific location of frost fans on LIMs is “where to stop” in terms of the information provided. Adjacent properties will contain a range of rural activities other than frost fans. A way around this would be to include a general “catch all” note about rural reverse sensitivity in accordance with the Local Government Official Information and Meetings Act 1987, Tasman District Council also face various reverse sensitivity issues in rural areas, including rural noise. As a standard practice, they include the following “catch all” statement on all their LIMs in accordance with the Local Government Official Information and Meetings Act 1987. Note 3 is standard on all TDC LIMs and is taken from the MfE brochure:

Notes

1. *Final inspections on buildings were not mandatory prior to 1 January 1993. Should an evaluation of the building be required an independent qualified person should be consulted.*
2. *Information provided is based on what is known to the Council and what is shown in Council records which may not be complete. Every care will be taken to ensure that the information is correct, however, Council cannot guarantee that the information is accurate and does not accept any liability for these records*
3. *If purchasing in a rural or rural-residential area, it should be recognised that adjoining land uses could affect amenity values by factors such as spray drift, noise and smell.*
4. *Conditions of any authorised uses of the land are contained in the Council’s District and Regional Plans. If necessary, you should refer to relevant rules in these plans.*
5. *Should any new vehicles access be formed or any modification to an existing access undertaken, or a change of use (e.g. vehicle type or volume), consultation with Council’s Engineering Department is required to ensure works comply with the Engineering Code of Practice.*
6. *If a Contaminated Site record is found and the site or any adjacent site has been used for industrial purposes in the past, we suggest you make further enquiries.*

Adding a new method which promotes a “catch all” statement to Rural LIMs would give relief to these submitters and is recommended as an effective non-regulatory method to raises awareness about reverse sensitivity.

Clintondale Trust-Whyte Trustee Company Ltd (12:120) suggest section 32 has not been adequately complied with and fails to consider costs, and the risks of acting or not acting. They seek withdrawal of the section 32 report. The report does provide a qualitative analysis of costs and benefits at a broad level. This level of analysis is typical of a section 32 analysis, and is considered appropriate for the resource management issues being addressed.

C J Smith (2:9) seeks a definition around the wording “appropriately qualified and experienced acoustical engineer”. This term is standard phraseology in plans. IPENZ³ advise that acoustic engineers with this experience are few, and that this is an appropriate descriptor for Council staff to use as a basis for assessing competence.

Constellation New Zealand Ltd (19:99) opposes the plan change, and seeks clarification around assessing non-compliance of a frost fan prior to its installation, and withdrawal of the plan change until

³ IPE, Administration, pers comms 15.2.10

monitoring is completed. Withdrawing the plan change will not provide the best environmental outcome and will not address the resource management issue, and is rejected.

The proposed change does require an assessment of frost fan noise prior to consent being granted and prior to installation of frost fans. Given that information will be known about the location of the fan, location of the nearest dwellings and the manufacturer's acoustic ratings, assessing compliance with the rules prior to installation can be easily calculated. The Council's Technical Noise Report⁴ also refers to published results from monitoring frost fans which are able to be used in assessing compliance. As with all resource consents, the responsibility lies with applicants to demonstrate compliance and for Council staff to audit this assessment. This can be achieved through simple formula and verification by noise consultants. The clarification sought by the submitter is not necessary.

David Kerr (3:10) seeks a number of specific changes.

1. Close the "loop hole". The plan change does create a loop hole as "normal" agricultural practices have no need for frost fans. If they do, then the rule applies. No amendments are necessary.
2. Consider cumulative effects. The Council's technical Noise Report (*ibid*) advises that setting cumulative effects would be very difficult, and that there is limited potential for adverse cumulative noise effects for frost fans establishing at sites 300m or more from rural dwellings. No amendments are necessary.
3. Impose 5 dBA penalty. Council's technical Noise Report (*ibid*) advises that the rule's reference to NZS6802:2008 means that audible characteristics can be assessed, and penalised. An additional 5dBA penalty is not necessary.
4. Alternative methods to equal the 300m clear zone. It is unclear what, if any, amendments are sought. Any new frost fans within 300m will either need to meet the noise standards, or apply for consent as a full discretionary activity.
5. Require mechanical governor on injector pump. It is unnecessarily prescriptive for an RM Plan to prescribe the mechanical operation. Controlling effects allows flexibility in how this is achieved. In addition Council's Technical Noise report (*ibid*) advises blade configuration as well as rotational speed to be the main noise determinants.
6. Discard the 100m rule. The 100m rule has been deleted.
7. Yearly notice for absentee landowners. Notifying absentee landowners would create unnecessary administration and compliance costs. Tenants are also entitled to the same level of environmental protection as landlords.
8. Automatic compliance testing for all machines within 300m. Automatic compliance testing for all frost fans within 300m of a dwelling would impose unjustified additional monitoring costs.
9. Exempt all houses within 300m. The plan change does not impose any additional building requirements on existing houses or buildings, so the relief sought can be accepted to this extent. Acoustic insulation is required only for new, specific alterations. On a technical matter, Council does not impose this as a building code, but as a resource management rule.

⁴ "Review of Noise & Acoustic Matters Technical Discussion Document" Malcolm Hunt Associates. 107-74.09(V2), February 2010.

Des Ashton (1:1), Janet & Wayne Boyce (36:150), Kathryn Rees (11:51) support the plan change and their submissions can be accepted.

Glenys Parsons (29:135) seeks that Council should address noise and safety issues from frost fans. This submission can be accepted to the extent that the plan change does address noise issues, but the submission on safety concerns should be rejected for reasons set out already.

Lions Back Vineyard (30:139), McKean Estates Marlborough Ltd (32:142), Meadowbank Holdings Ltd (27:125) oppose the plan change and requests no changes to existing rules. The recommendation is to make the proposed changes, so these submissions are rejected.

Malcolm Maclean (13:53) submits that the reference in the plan change should be changed from dB LAeq to dBA Leq. The Council's Technical Noise Report (*ibid*) advises that the plan change has adopted the latest international practice in expressing sound. This has been derived from the 2008 noise standards which include the international notation. The Technical Noise report also recommends changing the notation to the 2008 New Zealand Standards notation. Both notations are technically correct and mean the same thing. All other notations for noise in the RM Plans use the earlier notation identified by Mr. Maclean. Although international best practice has adopted the new notation, it could cause confusion to plan users to use the new notation when all other noise controls in the RM Plans use the earlier notations. Given that both notations are technically no different, and to ensure consistency with the rest of the noise rules and avoid any confusion, the noise notation in the plan change should be amended to dBA Leq as sought. A consequential amendment should also be made to specify the 15 minute time interval.

Nelson Marlborough DHB (23:81) seek to improve the provisions relating to noise. The plan change proposes to do this, so this submission can be accepted.

Nelson Marlborough DHB (23:82) supports, with amendments proposed elsewhere in their submission. As not all amendments have been recommended for accepting, this submission can be accepted in part.

Netherwood Lodge Trust (5:15 and 6:22), seek adequate funding for the compliance department to undertake monitoring while **Paul Bruckel (21:66)** seeks a programme of compliance monitoring and enforcement. The Netherwood submissions can be accepted in part to the extent that Council has funding allocated for monitoring and enforcement. Paul Bruckel's submission can be accepted in part as Council has a monitoring and enforcement programme relating to rules in the RM Plans.

New Zealand Winegrowers (10:30) seek withdrawal of the plan change (until monitoring is completed), or alternatively seek a number of amendments:

1. It is recommended not to withdraw the plan change, so this relief is rejected.
2. Considering frost fans together with wider reverse sensitivity issues is not necessary. This plan change is in response to a specific rural reverse sensitivity issues relating to frost fans. It is acknowledged that frost fans are part of wider reverse sensitivity issue in the rural environment. However, other issues are either covered by existing plan rules, or have not generated the same level of complaint as frost fans. It is therefore appropriate that this plan change is limited to frost fans.
3. Including a notation on LIMs is considered appropriate and effective. Amendments have been recommended accordingly (**recommended amendment 1**).

4. Cumulative effects are very difficult to monitor and enforce for a variety of reasons. This is a physical and practical consideration, which means Council cannot review the conclusions it has reached on enforcement.

New Zealand Winegrowers (10:46) submit that the section 32 report does not establish the plan change as the most appropriate method, and seek to defer the plan change until monitoring is completed. **Wither Hills Vineyards Marlborough Ltd (25:122)** seek to decline the plan change on the grounds it is ultra vires and Council has insufficient information. The author of the independent workshop report⁵ concluded that “*there are some obvious deficiencies in the existing plan provisions*” and “*the absence of control through the permitted activity rule is not effective or efficient within the meaning of s.32*”. The section 32 report reflects these findings, and the plan change is justified as the most appropriate method. Waiting for additional information through the results of monitoring is effectively a “do nothing” option. This option is identified in both the section 32 report and the independent report (*ibid*) as not efficient and not effective at addressing the resource management issue.

The plan change is not ultra vires, as it does not breach any powers of the Council to make a plan change.

Peter Constantine (24:109) supports the plan change (except for amendments as sought in other parts of his submission). Submission 109 can be accepted as other parts of his submission have also been accepted.

Richard Ryan (26:123) seeks employment and training of compliance staff, and recording of noise levels prior to the season. He also seeks fines of a minimum of \$5000 per night for each fan breaching noise levels. Monitoring and enforcement staff are employed by Council, and have the training necessary to respond to complaints, so the relief sought can be accepted in part. However, pre-recording noise levels (presumably ambient noise) is not necessary, since the proposed Leq sound monitoring takes into account any background (ambient) noise. The specific fines sought are not within scope of the plan change, and it is outside Council’s powers to specify and impose specific fines. Fines of the type sought are set and imposed by the Environment Court on the conviction of an offender.

Terra Vitae Vineyards Ltd (14:64) seek a timely and inexpensive process for compliant frost fans. The controlled activity status allows for consents to be processed in a timely and cost effective way, provided all necessary information is supplied and that the proposal meets the controlled activity standards. The submission can be accepted to this extent. Council internal procedures for processing consents are outside the scope of the plan change.

Waihopai Holdings Ltd (22:78) seek a new provision setting out which frost fans the new rules apply to. Their concern relates to replacement noise reducing fan blades also being subject to the new controls. The controls are intended to apply to all types and designs of frost fans, including new blade designs or new fan designs that reduce noise. This is appropriate since designs will change over time, and it is too prescriptive to limit the rule to any particular design. In addition, since the primary source of the nuisance noise is the fans rather than the motor, any noise reducing blades will reduce noise emission, and increase compliance. The relief sought is inappropriate and unnecessary.

Wither Hills Vineyards Marlborough Ltd (25:121) seek the plan change be declined (rejected) on various grounds (not sustainable management; not efficient use of resources; not enable economic wellbeing; not most appropriate method). The Council’s section 32 analysis shows the plan change

⁵ “Report Following Second Workshop in Blenheim Regarding Wind Machines for Frost Protection”: John Maassen, 25 March 2009

will achieve the purpose of the RMA (promote sustainable use of natural and physical resources) and is the most appropriate method. In addition, controlled activity status is not unduly restrictive, and still allows some level of control over potential effects. For these reasons the submission is rejected.

Submitter	Submitter #	Submissions #	Recommended Decision
Benmorven Estate Family	4	20	Accept in part
Blair Gibbs	35	149	Accept in part
<i>Further Submissions</i> <i>New Zealand Winegrowers (Support)</i>			<i>Accept in part</i>
Buttergill Farms 2003 Ltd	7	27	Accept in part
<i>Further Submissions</i> <i>New Zealand Winegrowers (Support)</i>			<i>Accept in part</i>
C J Smith	2	9	Reject
Clintondale Trust – Whyte Trustee Company Ltd	12	119	Accept in part 1. Reject 2. Accept 3. Accept 4. Reject 5. Reject 6. Accept
<i>Further Submissions</i> <i>Horticulture New Zealand (Support in part)</i>			<i>Accept in part</i>
Clintondale Trust-Whyte Trustee Company Ltd	12	120	Reject
Constellation New Zealand Ltd	19	99	Reject
Dashwood Corner Vineyard Ltd	8	28	Accept in part
<i>Further Submissions</i> <i>New Zealand Winegrowers (Support)</i>			<i>Accept in part</i>
David Kerr	3	10	Accept in part 1. Reject 2. Reject 3. Reject 4. Reject 5. Reject 6. Accept 7. Reject 8. Reject 9. Accept in part
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>			<i>Reject in part</i>
Des Ashton	1	1	Accept
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>			<i>Reject</i>
Fairhall Downs Estate Wines	17	80	Accept in part
<i>Further Submissions</i> <i>New Zealand Winegrowers (Support)</i>			<i>Accept in part</i>
Glenys Parsons	24	135	Accept in part
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>			<i>Reject in part</i>
Guy Lissaman	33	144	Accept in part
<i>Further Submissions</i>			

Submitter	Submitter #	Submissions #	Recommended Decision
<i>New Zealand Winegrowers (Support)</i>			<i>Accept in part</i>
Horticulture New Zealand	20	45	Accept in part
Jane Buckland and John Kershaw	34	148	Accept in part
<i>Further Submissions</i> <i>New Zealand Winegrowers (Support)</i>			<i>Accept in part</i>
Janet & Wayne Boyce	36	150	Accept
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>			<i>Reject</i>
Kathryn Rees	11	51	Accept
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>			<i>Reject in part</i>
Little Oasis Vineyard Ltd	9	29	Accept in part
<i>Further Submissions</i> <i>New Zealand Winegrowers (Support)</i>			<i>Accept in part</i>
Lions Back Vineyard	30	139	Reject
Malcolm Maclean	13	53	Accept
Meadowbank Holdings Ltd	27	125	Reject
McKean Estates Marlborough Ltd	32	142	Reject
Nelson Marlborough District Health Board	23	81	Accept
Nelson Marlborough DHB	23	82	Accept in part
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>			<i>Reject in part</i>
Netherwood Lodge Trust (Adele Dawkins)	5	15	Accept in part
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>			<i>Reject in part</i>
Netherwood Lodge Trust (Lindsay Dawkins)	6	22	Accept in part
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>			<i>Reject in part</i>
New Zealand Winegrowers	10	30	Accept in part 1. Reject 2. Reject 3. Accept 4. Reject
<i>Further Submissions</i> <i>Horticulture New Zealand (Support)</i> <i>Nelson Marlborough DHB (Oppose)</i>			<i>Accept in part</i> <i>Reject in part</i>
New Zealand Winegrowers	10	46	Reject
<i>Further Submissions</i> <i>Horticulture New Zealand (Support)</i>			<i>Reject</i>
Paul Bruckel	21	66	Accept in part
Peter Constantine	24	109	Accept
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>			<i>Reject</i>
Richard Ryan	26	123	Accept in part 1. Accept in part

Submitter	Submitter #	Submissions #	Recommended Decision
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>			2. Reject <i>Reject in part</i>
Terra Vitae Vineyards Ltd	14	64	Accept
Waihopai Holdings ltd	22	67	Accept in part <i>Accept in part</i> <i>Reject in part</i>
<i>Further Submissions</i> <i>New Zealand Winegrowers (Support)</i> <i>Nelson Marlborough DHB (Oppose)</i>			
Waihopai Holdings Ltd	22	78	Reject <i>Reject</i>
<i>Further Submissions</i> <i>New Zealand Winegrowers (Support)</i>			
Wither Hills Vineyards Marlborough Ltd	25	121	Reject <i>Accept</i>
<i>Further Submissions</i> <i>Nelson Marlborough DHB (Oppose)</i>			
Wither Hills Vineyards Marlborough Ltd	25	122	Reject

Recommended amendments 1

a) Amend method 12.2.3 (Rural 3 Zone, WARMP) to read as follows:

Guidelines Provide Information on appropriate land use practices and encourage use of voluntary guidelines and best practices.

Include information on LIMs advising prospective purchasers of rural land of the possible presence of activities which might affect amenity values (reverse sensitivity) through effects such as noise and odour.

b) Amend method 12.4.3 (rural general) to read as follows:

Promotion and Guidelines The Council will encourage the establishment of Landcare and other similar groups.

Include information on LIMs advising prospective purchasers of rural land of the possible presence of activities which might affect amenity values (reverse sensitivity) through effects such as noise and odour.

c) Amend method 11.4 (Rural Environment) to read as follows:

Guidelines Provision of information indicating how...
...mitigate adverse effects

Include information on LIMs advising prospective purchasers of rural land of the possible presence of activities which might affect amenity values (reverse sensitivity) through effects such as noise and odour.

d) Amend the notation used to express noise levels in the plan change (as recommend to be amended) to “dBA Leq15”.

W26.0 Definitions

Discussion, recommendations and reasons

C J Smith (2:2) requests a separate definition for the fan drive unit as a noise generator. Council’s Technical Noise Report (*ibid*) indicates that drive units (drive engine) does not usually control overall sound levels, and that the primary noise source is the fan blades moving through the air. In addition, the matters of control allow for controls to be imposed on the operation of drive engines including muffling. Although a new definition is not required, an amendment to the existing definition would be useful to provide clarification.

Malcolm Maclean (13:54) supports the definitions.

Michael Hyson (28:131) seeks to include mobile devices as well as fixed devices. This change has merit, as it is unclear in the definition whether “land based” means permanent or mobile.

Clintondale Trust – Whyte Trustee Company Ltd (12:101) seek a new definition for “frost fan” to include the motive source. This addition has merit, since the entire structure (including motive source) combines to generate the noise effect.

Nelson Marlborough DHB (23:84) also seek changes to the definition of “frost fan”. The suggested changes provide greater clarify and should be accepted.

New Zealand Winegrowers (10:32) seek to add the definition, as proposed. This submission can be accepted since the recommended amendments relating to other submissions also give relief to this submitter.

Submitter	Submitter #	Submissions #	Recommended Decision
C J Smith	2	2	Accept in part
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>			<i>Accept in part</i>
Clintondale Trust – Whyte Trustee Company Ltd	12	101	Accept
Nelson Marlborough DHB	12	101	Accept
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i> <i>Horticulture New Zealand (Support in part)</i>			<i>Reject</i> <i>Accept in part</i>
Malcolm Maclean	13	54	Accept
<i>Further Submissions</i> <i>Horticulture New Zealand (Support in part)</i>			<i>Accept in part</i>
Michael Hyson	28	131	Accept
New Zealand Winegrowers	10	32	Accept

Recommended amendments 2

Amend the definition of frost fan to read:

Frost fan means a land based device, *including both permanent and mobile*, designed or adapted to *mitigate frost damage control frost* by fanning warmer air over potentially frost-affected surfaces, and includes ~~the~~ *any motive source*, support structure, *and power source*.

Plan change 58 – New Noise Management Rules

W30.1.4.2.3 Deletion of existing permitted activity rules

Discussion, recommendations and reasons

Clintondale Trust - Whyte Trustee Company Ltd (12:102) opposes deletion of permitted activity status for frost fans on various grounds. The submitters seek permitted activity status with new amendments.

Decibel Level

The Malcolm Hunt report prepared for the Hurunui District Plan relates to a different plan with different provisions. The more recent report commissioned by the Council (February 2010, *Ibid*) was compiled specifically for the Marlborough RM Plans and should be used as the reference technical document. This later report endorses the 55 dB level, and concludes that “*importantly, a LAeq 55 dB limit can be achieved by modern frost fans*” (at the 300m boundary). This is supported by published monitoring results.

This submitter (and others) have misinterpreted the 5 dB “adjustor” (penalty) for frost fans having special audible characteristics. Council’s technical noise advisor, Malcolm Hunt, has advised the following as the correct interpretation of the 5 dB penalty:

1. The penalty applies only to frost fans with special audible characteristics. It does not apply to all frost fans.
2. It is only applied when assessing compliance under the New Zealand Standards. The 5 dB penalty is not “built into” or incorporated within the proposed 55 dB noise limit.
3. It is incorrect to subtract the 5 dB penalty from the proposed 55 dB noise limit to make an effective noise limit of 50 dB.

On this basis, the submitter’s opposition to the proposed noise limits are unfounded.

Notional Boundary

The submitter has incorrectly interpreted “notional boundary”. The definitions includes 20m from the dwelling “or nominated building”. Bedrooms form part of a dwelling, so the notional boundary would be 20m from a bedroom.

Sound Level Measurement

The measurement time period is specified in the New Zealand Standards. As the RM Plan rules require measurements and assessment to be undertaken in accordance with the New Zealand Standards, any measurement will be consistent and it is not necessary to duplicate the measurement time period in the RM plan rules.

Start up Temperature

Clarification could be included, as sought, on when the temperature is recorded, and to clarify the intention is 2 degrees and below.

Setback rule

The use of specific zoning makes the setback specific to noise sensitive areas. The identified zones typically have a higher density of residents and/or sensitive receivers. It is therefore appropriate, and within the purpose of the RMA, to retain a 500m separation between sensitive receivers and frost fans as a known source of noise which can adversely affect people living

within these zones. There is no inconsistency between the two plans, since the most noise sensitive zone in the Sounds are limited to the Urban Residential Zone.

Relief Sought

Some clarification of the trigger temperature is appropriate, generally along the lines sought. Different wording is recommended to accord with plan drafting principles and for increased certainty, and to take into account a separate submission by Nelson Marlborough DHB (23:91) relating to the conjunctive word “and. All other relief sought is inappropriate (in terms of section 32) and should be rejected.

Malcolm Maclean (13:55) supports the plan change and seeks no specific amendments.

Nelson Marlborough DHB (23:85) support deleting existing provisions. The relief sought is to delete existing rule 36.1.4.2.4. The submitter has confirmed that this is a typographical error, and the correct reference should be to delete 30.1.4.2.3 (a) – (c) as per the submission heading. The deletion is recommended, and submission can be accepted.

New Zealand Winegrowers (10:34) oppose the change from permitted activity to controlled activity, and seek various amendments. **Nelson Marlborough DHB (23:93)** also requests provision for maintenance testing of frost fans (refer summary of submission W30.2.9.1 – Standards and terms). The New Zealand Winegrowers amendments sought will mostly be ineffective in addressing the RMA issues and therefore will be ineffective in promoting the purpose of the RMA. Reversion to permitted activity status should be rejected.

However, permitting the operation of frost fans for maintenance and testing purposes is appropriate. Additional clarification should be included relating to the timing of maintenance as sought in the Nelson Marlborough DHB submission. Alternative wording is recommended to give relief to both submitters, with a consequential notation relating to monitoring to avoid any confusion.

Nelson Marlborough DHB (23:87) support the controlled activity rule (30.2.1). It is recommend to retain this rule, so this submission can be accepted.

Submitter	Submitter #	Submissions #	Recommended Decision
Clintondale Trust Whyte Trustee Company Ltd <i>Further Submissions</i> <i>Horticulture New Zealand (Support in part)</i>	12	102	Accept in part <i>Accept in part</i>
Malcolm Maclean	13	55	Accept
Nelson Marlborough DHB <i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>	23	85	Accept <i>Reject in part</i>
New Zealand Winegrowers <i>Further Submissions</i> <i>Horticulture New Zealand (Support)</i> <i>Nelson Marlborough DHB (Oppose)</i>	10	34	Accept in part <i>Accept in part</i> <i>Reject in part</i>
Nelson Marlborough DHB	23	93	Accept
Nelson Marlborough DHB	23	87	Accept
Further Submissions Horticulture New Zealand (Oppose)			Reject

Recommended amendments 3

Amend rule 30.2.9.1.3; 2.3.3.4 (WARMP) to read as follows:

- a) The frost fan shall only be operated for frost protection ~~and~~
- b) *With the exception under (i) below, the frost fan shall only be operated when the local air temperature ~~on the vineyard~~ drops to 2°C or below. For the purposes of this rule, temperature shall be measured within the property to be protected, at the nominal mid point of the bud height (above ground level) of the plants being protected*

(i) Exception to rule (b): The frost fan may operate above 2°C for the purposes of maintenance and testing, limited to operation between 8am to 5pm on any day except weekends or public holidays.

W30.2.9 Erection and Use of Frost Fans

Discussion, recommendations and reasons

Guy Lissaman (33:145), Horticulture New Zealand (20:3), Lions Back Vineyard (30:136), Villa Maria Estate Ltd (18:96) and Waihopai Holdings Ltd (22:72) all oppose the change to controlled Activity status and request frost fans be retained as permitted activities. Horticulture New Zealand requests a new permitted and restricted discretionary rule. Permitted activity status (status quo) has been shown to be ineffective in addressing the resource management issue of noise from frost fans. Retaining this status would not achieve the purpose of the RMA. Controlled activity status is appropriate, since it still provides for frost fans as an essential management tool for the productive sector (ie provided controls are met, consent cannot be declined) while still allowing effects of individual frost fans to be assessed. Similarly, the suggested restricted discretionary activity rule is inappropriate.

Kevin Eaton & Sara Stringer (37:11) request no frost fan should be allowed closer than 300m from any boundary. This change is unnecessary. Noise is the main adverse effect from frost fans. The proposed rules specify a noise level, which also applies at the notional boundary of any dwelling closer than 300m to the frost fan. This rule will control adverse effects of noise.

Nelson Marlborough DHB (23:88) support controlled activity status. This is recommended to be retained so the submission can be accepted.

Paul Bruckel (21:36) suggest a new rule relating to cumulative noise, and deletion of the 300m distance measurement. A cumulative noise assessment is not necessary, since there is limited potential for adverse cumulative noise effects (Council's Technical Noise Report, *ibid*). Including the special audible limit of 50 dBA is not technically correct, since this does not apply to all frost fans and forms part of the New Zealand Standards. Deletion of the 300m reference would not enable effective measurement or compliance to be assessed.

Peter Constantine (24:111) requests provision for scheduled maintenance. The suggested wording is appropriate, and aligns with other submissions requesting an exception to the noise controls for the purposes of (day-time) maintenance and testing.

Richard Ryan (26:124) supports the plan change, and can be accepted in part to this extent. However three amendments are requested:

Restricting frost fans to a minimum of 185m. This is considered unnecessary. The rules take account of frost fans located within 300m of houses by requiring compliance with the noise control at the notional boundary of the site.

Requiring resource consent for the tower with public notification: this is not justified on the grounds of any resource management effects. Visual effects of tower have not been identified as a significant resource management issue, so controlling towers through the consent process is unjustified. Public notification is also not justified on resource management basis, and is covered by the general notification provisions of the RMA.

Setting internal noise controls (inside the dwelling) without insulation: this is problematic as identified in Council's Technical Noise Report. Setting noise limits without insulation will be ineffective, since acoustic insulation is the only method likely to achieve full compliance.

Nelson Marlborough DHB (23: 93) seek to restrict maintenance testing of frost fans to daylight hours 8am-5pm on any day except weekends and public holidays. It has been recommended to provide for maintenance and testing. It is appropriate to limit this to the hours suggested in order to limit frost fan operational use outside climatic conditions which require their use.

Submitter	Submitter #	Submissions #	Recommended Decision
Guy Lissaman <i>Further Submissions</i> <i>New Zealand Winegrowers (Support)</i>	33	145	Reject <i>Reject</i>
Horticulture New Zealand <i>Further Submissions</i> <i>Nelson Marlborough DHB (Oppose)</i> <i>Nelson Marlborough DHB (Support in part)</i> <i>Nelson Marlborough DHB (Support in part)</i> <i>Nelson Marlborough DHB (Support in part)</i> <i>Nelson Marlborough DHB (Oppose)</i> <i>Nelson Marlborough DHB (Oppose)</i> <i>Nelson Marlborough DHB (Oppose)</i>	20	3	Reject <i>Accept</i> <i>Reject in part</i> <i>Reject in part</i> <i>Reject in part</i> <i>Accept</i> <i>Accept</i> <i>Accept</i>
Lions Back Vineyard	30	136	Reject
Villa Maria Estate Ltd	18	96	Reject
Waihopai Holdings Ltd <i>Further Submissions</i> <i>New Zealand Winegrowers (Support)</i>	22	72	Reject <i>Reject</i>
Kevin Eaton & Sara Stringer	37	11	Reject
Nelson Marlborough DHB <i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i> <i>Horticulture New Zealand (Oppose)</i>	23	88	Accept <i>Reject</i> <i>Reject</i>
Paul Bruckel <i>Further Submissions</i> <i>Nelson Marlborough DHB (Support in part)</i> <i>Nelson Marlborough DHB (Oppose)</i>	36	21	Reject <i>Reject in part</i> <i>Accept</i>
Peter Constantine <i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i> <i>Nelson Marlborough DHB (Support)</i>	24	111	Accept <i>Reject</i> <i>Accept</i>

Richard Ryan (26:124) <i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>	26	124	Accept in part <i>Reject in part</i>
Nelson Marlborough DHB <i>Further Submissions</i> New Zealand Winegrowers (Oppose) Horticulture New Zealand (Support in part)	23	93	Accept <i>Reject</i> <i>Accept in part</i>

Recommended amendments 4

Amend rules 30.2.9; 2.3.3 Appendix K (WARMP) to read as follows:

The construction ~~and use~~ *and maintenance* of a frost fan is a Controlled Activity provided the Activity conforms to the following standards and terms:

...

W30.2.9.1.3 Operation

Discussion, recommendations and reasons

Fairhall Downs Estate Wines (17:74) seek to define the operation of frost fans by crop type and to introduce new provisions clarifying where the temperature is measured from. Defining by crop type is inappropriate, since frost fans may be used for a variety of different crops. As a consequential amendment arising from this submission, reference to “vineyard” in the proposed plan change should be deleted to ensure the rule is effective. It has been recommended to accept changes relating to measurement of temperature. The submission can be accepted to this extent.

Kevin J A Little request that timing of the operation only occur after bud burst. Since frost fans can be operated at any time, limiting the standards to a specific time would not be effective in addressing the resource management noise issue.

Malcolm Maclean (13:58) seeks change to the temperature trigger. While this appears to have some merit, in practice a fixed temperature trigger is not likely to result in significant on/off operation of the frost fans. Frost conditions typically occur with a steady decrease in temperature and dissipate at a steady increase in temperature. Any oscillations around the fixed trigger point will be brief.

Submitter	Submitter #	Submissions #	Recommended Decision
Fairhall Downs Estate Wines <i>Further Submissions</i> <i>New Zealand Winegrowers (Support)</i> <i>Horticulture New Zealand (Oppose in part)</i>	17	74	Accept <i>Accept</i> <i>Reject in part</i>
Kevin J A Little (16:70)	16	70	Reject
Malcolm Maclean (13:58) <i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i> <i>Horticulture New Zealand (Oppose)</i>	13	58	Reject <i>Accept</i> <i>Accept</i>

Recommended Amendment 5

As a consequential amendment, delete reference to “vineyard” from rules 30.2.9.1.3 and Appendix K 2.3.3.

W30.2.9.1.4 Proximity to Residential and Marlborough Ridge Zones

Discussion, recommendations and reasons

Fairhall Downs Estate Wines (17:79) seeks no setback, and exclusion of the Marlborough Ridge Zone. The proposed 500m setback is consistent with setbacks from other noise-sensitive zones where this is a high density of residences. The setback from the Marlborough Ridge Zone should be retained.

Guy Lissaman (33:146) seeks no change to the current 200 metre setback and 60 dB trigger for the Marlborough Ridge Zone. **Meadowbank Holdings Ltd (27:127)** oppose the changes and seeks changes allowing for new technology within 500m as a permitted activity. **Peter Constantine (24:117)** has identified an inconsistency in the plan change relating to not allowing frost fans within 500m of the Marlborough Ridge Zone, while allowing frost fans within the actual zone as a controlled activity.

General rule 31.2.9.1.4 requires a 500m setback from the Marlborough Ridge Zone. However rule 2.3.3 provides for the erection of frost fans *within* this zone as a controlled activity, provided noise thresholds can be met. The section 32 report identified that the permitted activity rule for frost fans was originally provided in the Marlborough Ridge Zone, since that zone was initially set up to provide for *inter alia*, viticulture invitees. The proposed changes within the zone (frost fans from permitted to controlled activity) still provides for viticulture activities in a way that mitigates reverse sensitivity effects between viticulture and other permitted noise-sensitive activities in the zone. However, as pointed out by Peter Constantine, the 500m setback in the general rule creates a rule inconsistency. This would also not adequately provide for “viticulture activities ” since resource consent would be required as a discretionary activity for any frost fan within 500m of Marlborough Ridge Zone. For these reasons, the 500m setback from Marlborough Ridge Zone should be deleted. The other submissions can be accepted in part to the extent this setback is deleted. The effect of this change is that frost fans within 500m of the Marlborough Ridge Zone would be a controlled Activity provided they met the noise thresholds.

Nelson Marlborough DHB (23:92) support the 500m setback, and can be accepted to this extent. However it seeks to increase the setback to 1km from any urban zones. There is no technical or effects based justification to increase the urban setback to 1km. This is an existing setback, and there is no evidence that a 500m setback has been ineffective during the 13 or so years the plan has had effect. The 500m setback is adequate to provide a sufficient buffer to avoid significant adverse effects on sleep disturbance.

New Zealand Winegrowers (10:48) oppose the 500m setback, and suggest that the section 32 analysis does not adequately cost the “potential loss” (of grape production within 500m) arising from this rule. The purpose of the RMA provides for the social, economic and cultural well-being of people and communities, not just economic well-being. The 500m separation achieves a reasonable balance between providing for social well-being of urban residents and providing for economic well-being of growers on the urban periphery. While the section 32 report does not quantify the compliance costs of the 500m setback, in the context of the Wairau Plain and Rural 4 grape growing areas, this setback will have negligible compliance costs. This is no “loss” of production since growers within 500m can still apply for a discretionary resource consent, and since grape growing is still permitted. It is important to note that the 500m setback control for frost fans also existed prior to the plan change. Council administration of this setback has not highlight any issues in terms of loss of productive land prior to the plan change, and the 500m setback has been generally accepted.

Submitter	Submitter #	Submissions #	Recommended Decision
Fairhall Downs Estate Wines <i>Further Submissions</i> <i>New Zealand Winegrowers (Support)</i> <i>Horticulture New Zealand (Support)</i>	17	79	Reject <i>Reject</i> <i>Reject</i>
Guy Lissaman <i>Further Submissions</i> <i>New Zealand Winegrowers (Support)</i>	33	146	Accept in part <i>Accept in part</i>
Meadowbank Holdings Ltd	27	127	Accept in part
Nelson Marlborough DHB <i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i> <i>Horticulture New Zealand (Oppose)</i>	23	92	Reject <i>Accept</i> <i>Accept</i>
New Zealand Winegrowers <i>Further Submissions</i> <i>Horticulture New Zealand (Support)</i>	10	48	Reject <i>Reject</i>
Peter Constantine <i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i> <i>Nelson Marlborough DHB (Support)</i>	24	117	Accept <i>Reject</i> <i>Accept</i>

Recommended amendments 6

Delete “Marlborough Ridge Zone” from rule 30.2.9.1.4.

W30.2.9.2 Matters Over Which Council Will Exercise Control

Discussion, recommendations and reasons

C J Smith (2:6) supports the rule but seeks to add supervision of operational fans as a matter of control. This is already encompassed within matter (a) (“operational requirements”). This control would allow Council to impose, as a condition, a requirement for on-site supervision if considered appropriate or necessary, and if this is able to be practically implemented. The suggested change is not required, but the submission can be accepted as relief sought is already provided.

Fairhall Downs Estate Wines (17:77) seek to dispense with controls and to not restrict maintenance operation to daylight hours during week days. Deleting the controls is not within the scope of changes which can be made. The RMA requires a controlled rule to list the matters over which Council will exercise control. The relief sought cannot be made under the RMA. It is also appropriate to limit maintenance to daylight hours during week days, although provision needs to be made to allow monitoring at any time. This rule avoids frost fans being operated during night-time unnecessarily. Preventative maintenance including the recommended changes (recommendation 5) of “testing” should avoid any maintenance having to be carried out during night-time.

Kevin Eaton & Sara Stringer (37:13) request inclusion of data loggers. This is able to be required in the context of control (a) (operational requirements). In addition, matter (d) enables Council to impose conditions about recording information for frost fans. The submission can be accepted to this extent.

Lions Back Vineyard (30:138) opposes the matters of control on the grounds that Council is not capable of these matters, and the submitter may be liable for retrofits. In the case of this submitter, the matters of control will not in themselves require any retrofits of existing fans. Retrofits or additional conditions can only be imposed under the terms of an existing resource consent, along with review of consent conditions.

Meadowbank Holdings Ltd (27:128) opposes the rule and seeks detailed specifications of standards (with major weighting given to “industry”). The matters of control limit Council’s consideration to those listed and do not give unfettered control. It would be too prescriptive to apply detailed standards across the board which may be inappropriate for some circumstances. The listed matters of control provide flexibility to assess each situation on its own merits. It is also inappropriate to give greater weighting to one sector, since this doesn’t represent objective decision making and since resource management issues should be determined on the balance of evidence, rather than the standing or representation of any particular sector.

Michael Hyson (28:133) seeks to amend control (e) to allow for changes in monitoring, and suggests a new provision for website monitoring. Monitoring change and website monitoring are both within scope of matter of control (e), and the submission can be accepted in part to this extent. No further changes are considered necessary.

Nelson Marlborough DHB (23:94) seeks changes to the matters of control. **Paul Bruckel (21:43)** requests a notation after the control on fan speed. **Peter Constantine (24:116)** seeks clarity over the speed of frost fans, as well as consistency in using the singular term “frost fan”. **Waihopai Holdings Ltd (22:76)** oppose the matters of control, in particular speed of frost fans. The suggested controls relating to fan speed are more certain, and will reduce ambiguity in the current controls. These will give effect to Paul Buckel’s submission. The addition of more specific locational controls (orientation, speed and powers source) and reporting requirements (Nelson Marlborough DHB) will allow for more effective control and monitoring. “Frost fan” should be consistently referred to in the singular (Peter Constantine). Further details in the matters of control are not required (Waihopai Holdings)

New Zealand Winegrowers (10:50) and **Villa Maria Estate Ltd (18:98)** oppose the inclusion of “operational requirements” and “speed” of frost fan. It is appropriate to include controls on operational requirements, since this covers the actual operation of the frost fan, which in turn could on effective noise mitigation. As set out in the DHB submission, frost fan speed (as modified for clarity) is a source of noise and so should be controlled.

Submitter	Submitter #	Submissions #	Recommended Decision
C J Smith	2	6	Accept
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>			<i>Reject</i>
Fairhall Downs Estate Wines	17	77	Reject
<i>Further Submissions</i> <i>New Zealand Winegrowers (Support)</i>			<i>Reject</i>
Kevin Eaton & Sara Stringer	37	13	Accept
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>			<i>Reject</i>
Lions Back Vineyard	30	138	Reject
Meadowbank Holdings Ltd	27	128	Reject
Michael Hyson	28	133	Accept in part

Submitter	Submitter #	Submissions #	Recommended Decision
<i>Further Submissions</i> <i>Horticulture New Zealand (Oppose)</i>			<i>Reject in part</i>
Nelson Marlborough DHB	23	94	Accept
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>			<i>Reject</i>
New Zealand Winegrowers	10	50	Reject
<i>Further Submissions</i> <i>Horticulture New Zealand (Support)</i>			<i>Reject</i>
Paul Bruckel	21	43	Accept in part
Peter Constantine	24	116	Accept
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i> <i>Nelson Marlborough DHB (Oppose)</i> <i>Nelson Marlborough DHB (Support in part)</i>			<i>Reject</i> <i>Reject</i> <i>Accept in part</i>
Villa Maria Estate Ltd	18	98	Reject
Waihopai Holdings Ltd	22	76	Reject
<i>Further Submissions</i> <i>New Zealand Winegrowers (Support)</i>			<i>Reject</i>

Recommended amendments 7

Amend 30.2.9.2 and 2.3.3.5 to read as follows and renumber accordingly:

The Council reserves control over and may impose conditions with respect to:

- a) Operational requirement of any frost fans.
- b) Orientation, rotational constraints, engine muffling and Speed of any frost fan power source or frost fan blade set.
- c) Operation of any frost fans for maintenance purposes.
- d) Recording information about the use of any frost fans.
- e) Monitoring and reporting

Plan change 58 – Acoustic insulation rules

30.1.4.2.4; 31.1.5.1 Noise Sensitive Activities & Acoustic Insulation

Discussion, recommendations and reasons

Benmorven Estate Family Trust (4:21) support the insulation of new houses. This is recommended to be retained with improvements.

C J Smith (2:4) opposes this part of the plan change and raises possible conflict with the New Zealand Building Code. The sound insulation requirement is unlikely to conflict. The rule is a noise monitoring rule, and only requires the 30 dB noise limit to be met in bedrooms. It is unlikely that windows will be open during frosty nights. The rule does not require windows to be closed, so there is no conflict.

The reference to zones is clear, Rural 3 and 4 are distinctly different zones from Rural Township. The Rural Township Zone is already clarified on the planning maps and in the WARMP.

“Clause C” refers to the proposed rule (30.1.4.2.4(c) which defines a “frost fan” as one which has building and/or resource consent granted. Clause C is not ambiguous, as a building consent can only be approved for the complete installation, and not component parts.

Clintondale Trust – Whyte Trustee Company Ltd (12:103) support the rule, but with amendments. The amendments propose a new acoustic insulation boundary of 500m (currently proposed as 300m) and suggest reference to acoustic insulation standards. The increased 200m setback is not justified based on the Councils technical noise report (*Ibid*).

Reference to the acoustic rating standard and the New Zealand Standard referred to by the submitter is supported (and recommended) in Council’s Technical Noise Report (*ibid*). This change should be made generally as recommended in the Council’s Technical Noise report, but with modification to give effect to the submission and to reduce any ambiguity.

The amendment also suggests requiring acoustic insulation when setback from “permitted by right” frost fans. The effect of this change would be to require any new dwelling, or “sensitive extension” to be acoustically insulated if located within 300 (suggested 500) metres of all frost fans, including any existing frost fan. The rule is confusing and would benefit from clarification along the lines suggested that it includes all existing lawfully established frost fans. Alternative wording is suggested to give effect to the submission.

Horticulture New Zealand (20:31) support retention of the rule. The submission can be accepted as the rule is recommended to be retained.

Malcolm Maclean (56:13) opposes the acoustic insulation rule and seeks to increase the setbacks (to 1000m) and a more stringent insulation requirement (27dBA) on the basis this would take into account cumulative impacts. Council’s technical noise report (*ibid*) advises that there is limited potential for adverse cumulative effects of frost fans. Neither the increased setback nor the more stringent insulation requirements are justified on the basis of the technical evidence. Sound from frost fans meeting Laeq 55 dB at 300m will meet World Health Organisation sleep criteria of 30 dB, indoors with the windows closed. Dwellings beyond 300m will meet WHO criteria.

Nelson Marlborough DHB (23:86) supports the provisions, but suggests various amendments.
Noise insulation

Reference to a standard for assessing compliance with the sound insulation standard would create greater certainty. However, the submitter suggests reference to NZS 6801:2008. Councils technical noise expert has recommended a change along the lines sought by the DHB but with reference to a different standard. This change should be made along the lines recommended by in the Council’s Technical Noise report, with further modification to give effect to the submission and to reduce any ambiguity.

The submitter has suggested new reference to “adequate isolation” of the building, including orientation, screening and siting in addition to acoustic insulation. This concept has some merit, as siting, screening and orientation could be used to mitigate noise. However, there may be practical difficulties in meeting this rule if there are frost fans on more than one boundary. In addition, “isolation” by means other than insulation (e.g. siting and screening) could reduce the initial insulation requirements to meet the noise standard. This could result in issues at a later date if, for example, acoustic screening was removed. Requiring sufficient insulation to meet the noise standard ensures certainty, and for these reasons this amendment is rejected.

Ventilation

It is unlikely that acoustic insulation requirements can be achieved with windows open, as suggested. However it is considered unnecessary to include a rule requiring mechanical ventilation. Such a rule duplicates building code requirements, and will be addressed at the time of building consent.

Definitions and Standards

It would assist plan readers to include a definition of the proposed new reference to a standard. This amendment should be accepted. Given that the reference occurs in different parts of the RM plans, the definition should be provided in the Definitions chapter.

New Zealand Winegrowers (10:44) support the rule, but with an amendment to refer to New Zealand Standards. This change is supported by Council’s Technical Noise Report (*ibid*). The submission can be accepted in part since alternative wording is recommend in Council’s Technical Noise report, which provides the relief sought in the submission.

Horticulture New Zealand (20:33) support rule 31.1.5.1, which is recommended to be retained.

Submitter	Submitter #	Submissions #	Recommended Decision
Benmorven Estate Family Trust	4	21	Accept
C J Smith	2	4	Reject
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>			<i>Accept</i>
Clintondale Trust – Whyte Trustee Company Ltd	12	103	Accept in part
Horticulture New Zealand	20	31	Accept
<i>Further Submissions</i> <i>Nelson Marlborough DHB (Support in part)</i>			<i>Accept</i>
Malcolm Maclean	56	13	Reject
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>			<i>Accept</i>
Nelson Marlborough DHB	23	86	Accept in Part
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i> <i>Horticulture New Zealand (Oppose in part)</i>			<i>Reject in part</i> <i>Reject in part</i>

Submitter	Submitter #	Submissions #	Recommended Decision
New Zealand Winegrowers	10	44	Accept in Part
<i>Further Submissions Nelson Marlborough DHB (Oppose)</i>			<i>Reject in part</i>
Horticulture New Zealand	20	33	Accept

Recommended amendments 8

Amend rules 30.1.4.2.4; 31.1.5.1; 2.2.11.2 (WARMP) to read as follows and renumber accordingly:

- a) Any new dwellinghouse, visitor accommodation or other habitable building located within 300 metres of any frost fan shall be designed and constructed so that within the external building envelope surrounding any bedroom (when the doors and windows are closed) airborne sound insulation meets the following standards, as determined in accordance with NZS 1276.1:1999 (Acoustics-Rating of sound insulation in buildings and of building elements Part 1):

$$\frac{\text{Dwellings located less than 300m and more than 200m from the nearest frost fan}}{D_{nT,w} + C^r > 25}$$

$$\frac{\text{Dwellings located less than 200m and more than 100m from the nearest frost fan}}{D_{nT,w} + C^r > 28.5}$$

$$\frac{\text{Dwellings located less than 100m from the nearest frost fan}}{D_{nT,w} + C^r > 34.5}$$

~~to ensure that the noise level inside any bedroom of the dwelling shall not exceed 30 dBA LAeq with the closest fan operating when the doors and windows are closed.~~

- b) For the purposes of this rule, “external building envelope” means an envelope defined by the outermost physical parts of the building, normally the cladding and roof.

Compliance with this standard shall be demonstrated by the production of a design certificate from an appropriately qualified and experienced acoustic engineer. The design certificate shall be based either on actual noise measurements with the closest frost fan operating at normal duty, or an assumed noise level based on a frost fan emitting a noise level calculated using 500 metre reference sound level data as follows: Note: this is not based on cumulative noise, rather protection from the dominant noise source that being the closest frost fan.

	Octave Centre Frequency (Hz)							dBA
	63	125	250	500	1k	2k	4k	
<u>Design sound pressure level for one frost fan at 500 metres</u>	64	61	49	44	45	38	27	50

- c) Part (a) of this rule shall also apply to any alteration of an existing dwellinghouse, visitor accommodation or other habitable building located within 300 metres of any frost fan and existing as at 24 September 2009, where a new bedroom forms part of the alteration. Only the new bedroom has to be treated in accordance with part (a) of this rule.

- d) For the purposes of this rule, “frost fan” includes any lawfully established frost fan, and includes a proposed frost fan for which an approved building consent and/or resource consent has been granted.

Add the following new definitions to the RM Plans:

$D_{nT,w} + C^{tr}$ means the standardised level difference (outdoor or indoor) and is a measure of the airborne sound insulation provided by the external building envelope (including windows, walls, Ceilings and floors where appropriate) described using $D_{nT,w} + C^{tr}$ as defined in the following standards:

AS/S ISO 717.1:2004 Acoustics – rating of sound insulation in buildings and of building elements – Part 1: Airborne sound insulation (using spectrum no.2)

ISO 140-5:1998 Acoustics – Measurement of sound insulation in buildings and of building elements Part 5: Field measurements of airborne sound insulation of façade elements and facades.

Plan change 58 – Technical Noise Issues

30.2.9.1.1 Noise

Discussion, recommendations and reasons

C J Smith (2:5) opposes this part of the plan change, and seeks a 500m min setback from townships, towns, villages and similar communities. This has been largely provided for by the proposed 500m setback specifically referring to zones containing towns, village and communities. However, the 500m setback does not apply to the Rural Township Zone. This zone provides for the commercial areas of rural towns (Ward, Seddon, Renwick, Spring Creek and Wairau Valley). Parts of this zone adjoin rural zones, and are not buffered by an intermediary zone such as Township Residential. For example, the Wairau Valley Rural Township Zones are adjoined on 3 boundaries by Rural 4. Under the proposed rules, a frost fan could be erected within 500m of the Rural Township Zone as a controlled Activity (subject to meeting the controlled standards. Rural Township Zones contain density consistent with towns and communities. Given this, it is appropriate for the 500m buffer to also include Rural Township Zones.

Extending this to include visual impacts is not justified as visual impact has not been identified as a significant resource management issue.

Constellation New Zealand Ltd (19:100) and **New Zealand Winegrowers (10:47)** have requested changes to noise limits in respect of the 5 dB “adjustor” and notional boundary. **Villa Maria Estate Ltd (18:97)** request retention of 60 dB and the 5 DB penalty. These submitters (and others) have misinterpreted the 5 dB “adjustor” (penalty) for frost fans having special audible characteristics. Council’s technical noise advisor, Malcolm Hunt, has advised the following as the correct interpretation of the 5 dB penalty:

1. The penalty applies only to frost fans with special audible characteristics. It does not apply to all frost fans.
2. It is only applied when assessing compliance under the New Zealand Standards.
3. The 5 dB penalty is not “built into” or incorporated within the proposed 55 dB noise limit.
4. It is incorrect to subtract the 5 dB penalty from the proposed 55 dB noise limit to make an effective noise limit of 50 dB.

The submitter’s suggested changes to the proposed noise limits are not justified.

This procedure is set out in NZS 6801:2008, and any measurements undertaken by a qualified person will take this into account. For these reasons, no further changes are considered necessary.

Council’s Technical Noise Report provides the evidence sought in the New Zealand Winegrowers submission.

“Notional boundary” is an accepted and standard term for the purposes of measuring noise. As applied to noise monitoring, it does not relate to the external wall. Given its acceptance, it should be retained.

The 55 dB standard is achievable and will help address existing noise issues and should be retained.

Fairhall Downs Estate Wines (17:71) oppose the defining of notional boundary. “Notional boundary” is an accepted and standard term for the purposes of measuring noise. Given its acceptance, it should be retained.

Gary B Jones (140:31) suggests noise controls should apply to existing frost fans as well as new ones. Existing frost fans have been lawfully established under the previous rule as permitted activities, except where they breached the previous rules. Any such breach is subject to an enforcement process separate from this plan change. A new rule cannot legally impose conditions retrospectively on activities which have been lawfully established and which enjoy existing use rights (refer Section 10 of the RMA). The RMA prevents the suggested change from being made.

Guy Lisaamen (33:147) seeks no change to the noise standard until justified, and notional boundary defined as the external wall. The proposed noise level has been determined as appropriate in terms of being able to be achieved, as well as justified on the grounds of a technical noise assessment. Notional boundary should not be changed for reasons given above.

Kathryn Deane Rees (11:52) supports the rules (and can be accepted to this extent), but requests addition of cumulative effects. **Kevin J A Little (16:69)** also requests cumulative rules, along with deletion of 55 dBA and inserting 30dBA in “neighbours bedroom”. **Kevin Eaton & Sara Stringer (37:12)** request changes to 50 dBA at any boundary and 20 dBA in bedrooms. **Malcolm Maclean (13:57)** requests cumulative rules and a bedroom standard of 30 dBA within 1000m. **Michael Hyson (28:132)** requests cumulative rules as well as other rule changes.

Tightening up the 55dBA noise standard is not justified, and 55 dBA provides sufficient protection for affected neighbours. Similarly, Councils Technical Noise report (*ibid*) has identified issues with measuring noise within bedrooms. Changes have been recommended in recommendation 8 to address these issues. Sound from frost fans meeting Laeq 55 dB at 300m will meet World Health Organisation sleep criteria of 30 dB, indoors with the windows closed. It is considered that there are also practical difficulties with adopting an internal noise standard (as proposed) in terms of monitoring, enforcing, and compliance. Dwellings beyond 300m will be well within WHO criteria. Reducing the sound insulation assessment standard further, or increasing the distance from frost fans is not justified as the proposed changes will address adverse effects.

Council’s Technical Noise report (*ibid*) advises there is limited potential for adverse cumulative noise effects, and the purpose of the plan change is not to manage cumulative noise. Changes relating to cumulative effects are not justified.

Lions Back Vineyard (30:137) opposes the rule. As the rule is to be retained, this submission should be rejected.

McKean Estates Marlborough Ltd (32:143) request a 5 dBA buffer to account for drift of noise, wind and cumulative effects. The proposed Leq noise standard takes into account variations to background noise. Council’s Technical Noise Report advises there is limited potential for cumulative effects. The change sought is not required.

Meadowbank Holdings Ltd (27:126) oppose the plan change and seeks to retain the 60dBA standard. They support changes outlined in rule 30.2.9.1.1 and can be accepted to this extent.

Nelson Marlborough DHB (23:89) requests various changes.

1. The amendment to the notation, although technically correct, could cause confusion for plan readers. Other noise notations are expressed through the plan as “dBA L10” etc. For consistency throughout the plan and to avoid confusion, it is recommended to retain the expression used in the rest of the plan (55 dBA Leq).

2. The submitter raises a valid point in terms of deleting “when measured”. These words are also superfluous.
3. There is not evidence that a 300 metre specification will lead to any difficulty or errors in noise measurement or assessment. The differences in sound levels likely to be measured within 3 metres of the 300 metre position would be so small as to be immeasurable.
4. The suggested new paragraph is not required as part of the rule. Councils technical noise advisor (Malcolm Hunt) advises that calculations of the sort proposed are allowed for within the rule and New Zealand Standard. The recommended amendment to include a sound reference spectrum (recommendation 8) also addresses this submission point.

Netherwood Lodge Trust (Adele Dawkins 5:18 and Lindsay Dawkins 6:23) oppose the change and seek a 500m frost fan setback from “the land boundary” if adjoined by noise and vision sensitive activities. Visual effects of frost fans have not been identified as a significant resource management issue. The proposed blanket 500m setback is unnecessarily restrictive in terms of mitigating noise. The proposed rules will effectively mitigate any noise effects.

“Notional boundary” is an accepted and standard term for the purposes of measuring noise. As applied to noise monitoring, it does not relate to the external wall. Given its acceptance, it should be retained.

Peter Constantine (24:112) has sought retention of the noise notation “dBA Leq” and greater certainty around “any existing dwelling”. The retention of the “old” noise notation is supported as it is technically correct, and to ensure plan consistency and avoid confusion for plan readers. This is recommended in recommendation 1. The change to a specific date for dwellings is supported as providing greater certainty. The specific date relates to the notification date of the plan change, and the intent of the rule is to apply to any houses which existed at that time. Including this date will avoid any confusion.

Waihopai Holdings Ltd (22:73) seeks retention of the 60 dB standard, and deleting reference to the notional boundary measurement within 300m. The proposed 55 dB level is appropriate and achievable and should be retained. Existing fans (provided they have been lawfully established) will not be required to comply with the new noise standards. The notional boundary within 300m should be retained to ensure new dwellings and new extensions are effectively insulated from frost fan noise.

Submitter	Submitter #	Submissions #	Recommended Decision
C J Smith	2	5	Accept in Part
Constellation New Zealand Ltd	19	100	Reject
Fairhall Downs Estate Wines	17	71	Reject
<i>Further Submissions New Zealand Winegrowers (Support)</i>			<i>Reject</i>
Gary B Jones	31	140	Reject
<i>Further Submissions New Zealand Winegrowers (Oppose)</i>			<i>Accept</i>
Guy Lisaamen	33	147	Reject
<i>Further Submissions New Zealand Winegrowers (Support)</i>			<i>Reject</i>
Kathryn Deane Rees	11	52	Accept in part

Submitter	Submitter #	Submissions #	Recommended Decision
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>			<i>Reject in part</i>
Kevin Eaton & Sara Stringer	37	12	Reject
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>			<i>Accept</i>
Kevin J A Little	16	69	Reject
Malcolm Maclean	13	57	Reject
Michael Hyson	28	132	Reject
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>			<i>Accept</i>
Lions Back Vineyard	30	137	Reject
McKean Estates Marlborough Ltd	32	143	Reject
Meadowbank Holdings Ltd	27	126	Accept in part
Nelson Marlborough DHB (23:89)	23	89	Accept in part 1. reject 2. accept 3. reject 4. reject
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i> <i>Richard Karn (Support)</i>			<i>Reject in part</i> <i>Accept in part</i>
Netherwood Lodge Trust (Adele Dawkins)	5	18	Reject
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>			<i>Accept</i>
Netherwood Lodge Trust (Lindsay Dawkins)	6	23	Reject
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>			<i>Accept</i>
New Zealand Winegrowers	10	47	Reject
<i>Further Submissions</i> <i>Horticulture New Zealand (Support)</i>			<i>Reject</i>
Peter Constantine	24	112	Accept
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i> <i>Nelson Marlborough DHB (Support)</i> <i>Nelson Marlborough DHB (Oppose)</i>			<i>Reject</i> <i>Accept</i> <i>Reject</i>
Villa Maria Estate Ltd	18	97	Reject
Waihopai Holdings Ltd	22	73	Reject
<i>Further Submissions</i> <i>New Zealand Winegrowers (Support)</i>			<i>Reject</i>

Recommended amendments 9

- a) Amend rule 30.2.9.1.4 to read as follows:
The frost fan shall not be located within 500 metres of an Urban Residential, Township Residential, Rural Township, or Rural Residential Zone
- b) Delete the words “when measured” from rules 30.2.9.1.1 and 2.3.3.2.

- c) Amend rule 30.2.9.1.1 (i) and (ii) and 2.3.3.2 (i) and (ii) to read as follows:
- i) At a distance of 300 metres from the device; or
 - ii) At *any point within* the notional boundary of any existing dwelling, visitor accommodation, or other habitable building (other than on the property on which the frost fan is situated);
whichever is the least distance.
- d) As a consequential amendment in rules 30.1.4.2.4(b); 31.1.5.1(b); and 2.2.11.1(b), delete the word “existing” from the rule and replace with “existing at 24 September 2009”.

30.2.9.1.2 Sound Level Measurement

Discussion, recommendations and reasons

Nelson Marlborough DHB (23:90) seek to correct the New Zealand standard title. A search on the New Zealand Standards website describes the title as follows:

Search Results

Your search for '6802' in 'New Zealand & Joint Standards' catalogue returned 0 Catalogues and 1 Standard results.
Standards

NZS 6802:2008 CURRENT

Acoustics - Environmental noise

The notation in the plan appears to be correct.

Netherwood Lodge Trust (Adele Dawkins 5:16, Lindsay Dawkins 6:24) request cumulative noise standards. Council's Technical Noise Report (*ibid*) advises there is limited potential for cumulative effects from frost fans. Such a standard is not justified.

Richard Karn (15:65) requests measurements for 2 cycles rather than 15 minutes. Such measurements would not be in accordance with international and New Zealand standards for measuring sound, and are therefore inappropriate on technical grounds.

Waihopai Holdings Ltd (22:75) requests clarification in the rules around the 5 dB penalty. Council's technical noise advisor, Malcolm Hunt, has advised the following as the correct interpretation of the 5 dB penalty:

1. The penalty applies only to frost fans with special audible characteristics. It does not apply to all frost fans.
2. It is only applied when assessing compliance under the New Zealand Standards.
3. The 5 dB penalty is not "built into" or incorporated within the proposed 55 dB noise limit.
4. It is incorrect to subtract the 5 dB penalty from the proposed 55 dB noise limit to make an effective noise limit of 50 dB.

This procedure is set out in NZS 6801:2008, and any measurements undertaken by a qualified person will take this into account. For these reasons, no further changes are considered necessary.

Nelson Marlborough DHB (23:91) support the new rule and requests greater certainty around measurement the temperature. This has been provided in recommendation 3. The submitter also raises a valid point regarding the use of "and". The effect of this word is to create two separate rules within the one rule: one rule is that the frost fans are only to be used for frost protection, "and" the second rule is they may only be used when the air temperature drops below 2⁰. The rule should be reconfigured for greater certainty.

Netherwood Lodge Trust (Adele Dawkins 5:17 and Lindsay Dawkins 6:25) request that frost fans are only switched on at zero degrees. **Paul Bruckel (21:41)** requests a 0.75⁰ trigger. Adopting either a zero or 0.75 degree trigger risks crop damage, given the lead in time between freezing temperature and

fans starting, and the lag time between fans starting and temperatures increasing to prevent damage. The 2⁰ trigger is necessary to provide sufficient lead and lag time.

Peter Constantine (24:113) requests an exception to the temperature trigger to allow for maintenance. This has been recommended in recommendation 3.

Submitter	Submitter #	Submissions #	Recommended Decision
Nelson Marlborough DHB <i>Further Submissions</i> New Zealand Winegrowers (Oppose) Richard Karn (Support) Nelson Marlborough DHB (Support in part)	23	90	Reject <i>Accept</i> <i>Reject</i> <i>Reject in part</i>
Netherwood Lodge Trust (Adele Dawkins) <i>Further Submissions</i> New Zealand Winegrowers (Oppose)	5	16	Reject <i>Accept</i>
Netherwood Lodge Trust (Lindsay Dawkins) <i>Further Submissions</i> New Zealand Winegrowers (Oppose)	6	24	Reject <i>Accept</i>
Richard Karn <i>Further Submissions</i> New Zealand Winegrowers (Oppose) Nelson Marlborough DHB (Oppose)	15	65	Reject <i>Accept</i> <i>Accept</i>
Waihopai Holdings Ltd <i>Further Submissions</i> New Zealand Winegrowers (Support)	22	75	Reject <i>Reject</i>
Nelson Marlborough DHB <i>Further Submissions</i> New Zealand Winegrowers (Oppose) Horticulture New Zealand (Oppose in part)	23	91	Accept <i>Accept</i> <i>Accept</i>
Netherwood Lodge Trust Adele Dawkins <i>Further Submissions</i> New Zealand Winegrowers (Oppose)	5	17	Reject <i>Accept</i>
Netherwood Lodge Trust Lindsay Dawkins <i>Further Submissions</i> New Zealand Winegrowers (Oppose)	6	25	Reject <i>Accept</i>
Paul Bruckel <i>Further Submissions</i> New Zealand Winegrowers (Oppose) New Zealand Winegrowers (Oppose) New Zealand Winegrowers (Oppose) Horticulture New Zealand (Oppose)	21	41	Reject <i>Accept</i> <i>Accept</i> <i>Accept</i> <i>Accept</i>
Peter Constantine <i>Further Submissions</i> New Zealand Winegrowers (Oppose) Nelson Marlborough DHB (Oppose)	24	113	Accept <i>Reject</i> <i>Reject</i>

Plan change 58 – Zones

Appendix K Marlborough Ridge Zone

Discussion, recommendations and reasons

C J Smith (2:8) both supports and opposes the plan change and seeks various changes. Although not all requested amendments have been recommended to be made, this submission can be accepted in part to the extent the submitter supports the plan change.

Clintondale Trust – Whyte Trustee Company (12:105) request permitted activity status and seek to increase the 300m acoustic insulation threshold to 500m. They also seek the acoustic insulation rule applies to setbacks from existing frost fans as well as proposed frost fans.

Permitted activity status would be ineffective in resolving the resource management issue, and it is not recommended. The increased separation threshold for acoustic insulation from 300m to 500m is not justified.

The revised descriptor for the insulation rating has been recommended to be accepted in other recommendations (recommended amendments 8), as has reference to existing frost fans. The submission can be accepted in part to this extent.

Horticulture New Zealand (20:35) supports rule 2.2.11.1. This submission can be accepted.

Malcolm Maclean (13:61) opposes the rule and suggests a 1000m sound insulation setback and reducing the internal measurement to 27 dB. The changes sought are not justified or necessary in terms of mitigating noise, and they would be unreasonably restrictive. Sound from frost fans meeting Laeq 55 dB at 300m will meet World Health Organisation sleep criteria of 30 dB indoors, with the windows closed. Dwellings beyond 300m will meet WHO criteria.

Meadowbank Holdings Ltd (27:130) seek an exemption from the noise controls for dwellings on the same property as the frost fan, and a 100m sound insulation setback. It is unreasonable to exempt dwellings on the same property, as occupiers of those dwellings are entitled to the same level of environmental (noise) protection under the RMA as dwellings on a different property. This could also lead to adverse effects on future owners, arising from future potential subdivision of dwellings on the same property, if acoustic insulation is not required. The specific 100m setback would not address dwellings closer or further than 100m.

Nelson Marlborough DHB (23:95) seeks various amendments to the rule, consistent with amendments sought to other rules. This submission can be accepted in part as other submission have been recommended to be accepted in part.

New Zealand Winegrowers (10:49) oppose controls within this zone, and seek alternative wording. Permitted activity status would be ineffective in resolving the resource management issue, and it not recommended. The revised descriptor for the insulation rating has been recommended to be accepted in other recommendations, so the submission can be accepted in part to this extent.

Paul Bruckel (21:39) seeks to control cumulative effects, to limit frost fans to certain operating times, to reduce the trigger temperature and to insert a new note. Council's Technical Noise Report (*ibid*) advises there is limited potential for adverse effects from cumulative noise. The limitation on operating times is too restrictive and does not allow for maintenance. The suggested temperature

threshold does not provide enough lead in time. Finally, the note is not necessary since measurements will be undertaken in accordance with NZS 6801:2008 and NZS 6802:2008.

Peter Constantine (24:118) requests provision for scheduled maintenance. The suggested wording is appropriate, and aligns with other submissions requesting an exception to the noise controls for the purposes of (day-time) maintenance and testing.

Submitter	Submitter #	Submissions #	Recommended Decision
C J Smith	2	8	Accept in part
Clintondale Trust – Whyte Trustee Company	12	105	Accept in part
Horticulture New Zealand	20	35	Accept
Malcolm Maclean	13	61	Reject
Meadowbank Holdings Ltd	27	130	Reject
Nelson Marlborough DHB	23	95	Accept in part
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i> <i>Nelson Marlborough DHB (Support in part)</i>			<i>Reject in part</i> <i>Accept in part</i>
New Zealand Winegrowers	10	49	Accept in part
<i>Further Submissions</i> <i>Horticulture New Zealand (Support in part)</i> <i>Nelson Marlborough DHB (Oppose)</i>			<i>Accept in part</i> <i>Reject in part</i>
Paul Bruckel	21	39	Reject
<i>Further Submissions</i> <i>Horticulture New Zealand (Oppose)</i> <i>Nelson Marlborough DHB (Support in Part)</i> <i>Nelson Marlborough DHB (Oppose)</i>			<i>Accept</i> <i>Reject in part</i> <i>Accept in part</i>
Peter Constantine	27	118	Accept
<i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i> <i>Nelson Marlborough DHB (Oppose)</i> <i>Nelson Marlborough DHB (Support in part)</i> <i>Nelson Marlborough DHB (Oppose)</i> <i>Nelson Marlborough DHB (Support)</i> <i>Nelson Marlborough DHB (Support)</i>			<i>Reject</i> <i>Reject</i> <i>Accept in part</i> <i>Reject</i> <i>Accept</i> <i>Accept</i>

Recommended amendments

Amend as per other recommendations.

Rural Residential Zone

Discussion, recommendations and reasons

C J Smith (2:7) both supports and opposes the plan change and seeks various changes. This submission can be accepted to the extent it supports the plan change.

Clintondale Trust – Whyte Trustee Company Ltd (12:104) and **New Zealand Winegrowers (10:38)** support the rule but with various amendments. Some of the amendments sought have been recommended to be accepted in other recommendations, so this submission can be accepted in part.

Malcolm Maclean (13:60) opposes the acoustic insulation rule and seeks to increase the setbacks (to 1000m) and a more stringent insulation requirement (27dBA) on the basis this would take into account cumulative impacts. Council’s Technical Noise Report (*Ibid*) advises that there is limited potential for adverse cumulative effects of frost fans. Neither the increased setback nor the more stringent insulation requirements are justified on the basis of the technical evidence. Sound from frost fans meeting Laeq 55 dB at 300m will meet World Health Organisation sleep criteria of 30 dB indoors, with the windows closed. Dwellings beyond 300m will meet WHO criteria.

Meadowbank Holdings Ltd (27:129) oppose the plan change and seek an exclusion for dwellings within the property on which frost fans are operating, along with a 30dB level within bedrooms at 100m from a frost fan. It would be inappropriate to exclude dwellings located on the same property as a frost fan, since occupiers of those dwellings are entitled to have the same level of environmental protection under the RMA as occupiers of dwellings off-site. The 100m specific setback will not address dwellings closer or further away.

Submitter	Submitter #	Submissions #	Recommended Decision
C J Smith	2	7	Accept in part
Clintondale Trust – Whyte Trustee Company Ltd	12	104	Accept in part
New Zealand Winegrowers	10	38	Accept in part
<i>Further Submissions</i> <i>Nelson Marlborough DHB (Oppose)</i>			<i>Reject in part</i>
Malcolm Maclean	13	60	Reject
Meadowbank Holdings Ltd (27:129)	27	129	Reject

Recommended amendments

Amend as per other recommendations.

Plan change 58 – Additional Provisions Sought

Discussion, recommendations and reasons

Kevin A Little (16:68) seeks various changes, including safety considerations. **Malcolm Maclean (13:59)** raises issue about mechanical failure and blade separation. Safety and OSH considerations are not part of the plan change, and have not been identified as the resource management issue which needs addressing. Accordingly, any safety considerations are outside the scope of the plan change and cannot be considered. The other relief sought by Kevin Little is not necessary and not justified.

Kevin Eaton and Sara Stringer (37:14) seek various new provisions. Some of the changes sought (e.g. rules retrospectively applied to existing frost fans and changes relating to enforcement) are beyond the scope of the plan change and the powers of the Council and cannot be accepted. The changes sought are assessed as follows

1. ban on all 2 bladed fans: Council's Technical Noise Report (*ibid*) identifies that 4 blades are quieter than 2 blades. However the proposed noise controls require adherence to the noise standards irrespective of the blade configuration. The proposed rules will provide an incentive for quieter blade configuration (i.e. 4 blades). A ban on 2 bladed systems is therefore not necessary and will be less effective than the overall noise control.
2. retrofitting 2 blades with 4: this change is ultra vires, since the RMA prohibits the rules from being applied retrospectively to lawfully established 2 bladed systems.
3. remove frost fans within 300m: this change is unreasonable and is not justified on the technical evidence relating to noise effects
4. instant fines: these are already provided for through Council's infringement powers under the RMA
5. complaints: these are addressed separately through Council's enforcement powers
6. levy per frost fan: a levy as proposed is outside the scope of the plan change
7. notify neighbours: notifying neighbours would be ineffective on its own in terms of mitigating effects. The proposed rules should avoid the need for neighbour notification.
8. having someone present during operation: this change is already included within by plan change, under the matters of control (operational controls which would provide for this)
9. retrospectively apply new rules: this change is beyond to power of Council and unable to be imposed under the RMA (refer section 10 RMA)

Michael Hyson (28:134) seeks new controls around shut down during winds, safety controls and designing out audible characteristics. **Paul Bruckel (21:63)** seeks rules about shutdown during winds. Wind shut down is unnecessary since the most common frost conditions occur during inversions. Frost conditions during windy conditions are limited to less common advection frosts, when frost fans are ineffective. Safety and OSH considerations are not part of the plan change, and have not been identified as the resource management issue which needs addressing. Accordingly, any safety considerations are outside the scope of the plan change and cannot be considered. Designing out audible characteristics are covered by the measurement requirements under NZS 680: 2008 *Acoustics – Measurement of Sound* and NZS 6802: 2008 *Acoustics – Environmental Noise*.

Nelson Marlborough DHB (23:83) seeks additional controls on frost fans during advection frosts, and possible prohibited status. Advection frosts occur when cold air blows into an area to replace warmer air that was present before the weather change. It is associated with cloudy conditions, moderate to strong winds, no temperature inversion and low humidity. Often temperatures will drop below the freezing point (0 °C). Because many of the active protection methods work better during inversion, advection frosts are difficult to combat. Advection frosts are sporadic and infrequent, whereas radiation inversion frost events occur often. Extending the controls to differentiate between

advection and radiation frosts would unnecessarily complicate the set of rules. Provisions on advection frosts would also be impractical to monitor and enforce. Prohibited activity status during advection frost is not justified. In addition the new proposed noise standards should mitigate noise to a level which is tolerable. For these combination of reasons, the suggested changes should not be made.

Netherwood Lodge (Adele Dawkin, 5:19 and Lindsay Dawkin, 6:26) seek 4 blades on all fans and water protection in preference to fans. Prescribing fan / blade types is less effective than the proposed noise standard, which allows growers flexibility in how to achieve compliance. The noise standards provide an incentive for quieter blade configurations on new machines, and the RMA prohibits the Council from imposing rules which require the retrofitting of lawfully established 2 bladed systems. Establishing a preferential hierarchy of frost protection techniques is not considered necessary, and is not justified.

New Zealand Winegrowers (10:37) seek consideration of the limited duration of frost fan use in the plan change. Provisions around limited use of frost fans are not considered ineffective. While it is accepted that the fans are typically only used for a limited part of the season, frost fans are still able to be operated (and generate noise) at any time of the year. For this reason, the noise controls should apply year-round.

Peter Constantine (24:110) seeks a new policy and new information requirements. The plan change as proposed does not include any policy changes. Existing policy 12.2.2.2.1 recognises effects from permitted rural activities . This policy could be interpreted as including frost fans since it refers to noise as well as mitigating effects. Rather than a new policy as suggested, the existing policy could be modified to provide the relief sought. The additional information requirements for resource consent applications have merit. Including these information requirements as a condition on the controlled activity status provides a strong incentive for this information to be provided. If this information is not provided, then the frost fan becomes assessed as a discretionary activity. The suggested wording should be amended to give effect to the submission and provide better clarification.

Submitter	Submitter #	Submissions #	Recommended Decision
Kevin A Little <i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i> <i>Horticulture New Zealand (Oppose)</i>	16	68	Reject <i>Accept</i> <i>Accept</i>
Kevin Eaton and Sara Stringer <i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i> <i>Horticulture New Zealand (Oppose)</i>	37	14	Reject <i>Accept</i> <i>Accept</i>
Malcolm Maclean	13	59	Reject
Michael Hyson <i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>	28	134	Reject <i>Accept</i>
Nelson Marlborough DHB <i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i> <i>Horticulture New Zealand (Oppose)</i>	23	83	Reject <i>Accept</i> <i>Accept</i>
Netherwood Lodge (Adele Dawkin) <i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i> <i>Horticulture New Zealand (Oppose)</i>	5	19	Reject <i>Accept</i> <i>Accept</i>

Submitter	Submitter #	Submissions #	Recommended Decision
Netherwood Lodge (Lindsay Dawkin, <i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i>	6	26	Reject <i>Accept</i>
New Zealand Winegrowers	10	37	Reject
Paul Bruckel	21	63	Reject
Peter Constantine <i>Further Submissions</i> <i>New Zealand Winegrowers (Oppose)</i> <i>Nelson Marlborough DHB (Support)</i>	24	110	Accept <i>Reject</i> <i>Accept</i>

Recommended amendments 10

a) Amend policy 12.2.2, 2.1 to read as follows:

Policy 2.1 To recognise that activities permitted or provided for in rural areas may result in effects arising from the Activity itself or from management practices, including ~~such as~~ noise, dust, smell and traffic generation but that these will require mitigation where they have a significant adverse effect on the rural environment.

b) Add the following new standard as 30.2.9.1.5; and Appendix K 2.3.3.5;

An application for the installation and use of a frost fan as a controlled activity shall include the following information, in addition to any other information required by section 88 of the Resource Management RMA:

a) *Details of the proposed frost fan(s);*

b) *A plan showing the location of the proposed frost fan(s) and area it is designed to cover;*

c) *A report prepared by an appropriately qualified and experienced acoustic consultant setting out:*

i) *a full and detailed description of the proposed equipment;*

ii) *prediction of the noise contours of the proposed frost fan based on operational parameters;*

iii) *an assessment of the proposal against the noise Standards and Terms set out in the relevant plan rules; and*

iv) *detail of all methods to ensure the performance of the frost fan and noise levels remain as predicted.*

Plan change 58 – Consolidated Recommended Amendments

Amend policy 12.2.2, 2.1 to read as follows:

Policy 2.1 To recognise that activities permitted or provided for in rural areas may result in effects arising from the Activity itself or from management practices, including ~~such as~~ noise, dust, smell and traffic generation but that these will require mitigation where they have a significant adverse effect on the rural environment.

Amend method 12.2.3 (Rural 3 Zone, WARMP) to read as follows:

Guidelines Provide Information on appropriate land use practices and encourage use of voluntary guidelines and best practices.

Include information on LIMs advising prospective purchasers of rural land of the possible presence of Activities which might affect amenity values (reverse sensitivity) through effects such as noise and odour.

Amend method 12.4.3 (rural general) to read as follows:

Promotion and Guidelines The Council will encourage the establishment of Landcare and other similar groups.

Include information on LIMs advising prospective purchasers of rural land of the possible presence of activities which might affect amenity values (reverse sensitivity) through effects such as noise and odour.

Amend method 11.4 (Rural Environment) to read as follows:

*Guidelines Provision of information indicating how...
...mitigate adverse effects*

Include information on LIMs advising prospective purchasers of rural land of the possible presence of activities which might affect amenity values (reverse sensitivity) through effects such as noise and odour.

Amend the definition of frost fan to read:

Frost fan means a land based device, including both permanent and mobile, designed or adapted to mitigate frost damage control frost by fanning warmer air over potentially frost-affected surfaces, and includes ~~the~~ any motive source, support structure, and power source.

Add the following new definitions to the RM Plans:

$D_{nT,w} + C^{tr}$ means the standardised level difference (outdoor or indoor) and is a measure of the airborne sound insulation provided by the external building envelope (including windows, walls, Ceilings and floors where appropriate) described using $D_{nT,w} + C^{tr}$ as defined in the following standards:

AS/NZS ISO 717.1:2004 Acoustics – rating of sound insulation in buildings and of building elements – Part 1: Airborne sound insulation (using spectrum no.2)

ISO 140-5:1998 Acoustics – Measurement of sound insulation in buildings and of building elements Part 5: Field measurements of airborne sound insulation of façade elements and facades.

New Rule 30.1.4.2.4 Noise sensitive activities

30.1.4.2.4 Noise sensitive activities

- a) Any new dwellinghouse, visitor accommodation or other habitable building located within 300 metres of any frost fan shall be designed and constructed so that within the external building envelope surrounding any bedroom (when the doors and windows are closed) airborne sound insulation meets the following standards, as determined in accordance with NZS 1276.1:1999 (Acoustics-Rating of sound insulation in buildings and of building elements Part 1):

Dwellings located less than 300m and more than 200m from the nearest frost fan $D_{nT,w} + C^r > 25$

Dwellings located less than 200m and more than 100m from the nearest frost fan $D_{nT,w} + C^r > 28.5$

Dwellings located less than 100m from the nearest frost fan $D_{nT,w} + C^r > 34.5$

~~to ensure that the noise level inside any bedroom of the dwelling shall not exceed 30 dBA LAeq with the closest fan operating when the doors and windows are closed.~~

- b) For the purposes of this rule, “external building envelope” means an envelope defined by the outermost physical parts of the building, normally the cladding and roof.

Compliance with this standard shall be demonstrated by the production of a design certificate from an appropriately qualified and experienced acoustic engineer. The design certificate shall be based either on actual noise measurements with the closest frost fan operating at normal duty, or an assumed noise level based on a frost fan emitting a noise level calculated using 500 metre reference sound level data as follows: Note: this is not based on cumulative noise, rather protection from the dominant noise source that being the closest frost fan.

	<u>Octave Centre Frequency (Hz)</u>							<u>dBA</u>
	<u>63</u>	<u>125</u>	<u>250</u>	<u>500</u>	<u>1k</u>	<u>2k</u>	<u>4k</u>	
<u>Design sound pressure level for one frost fan at 500 metres</u>	<u>64</u>	<u>61</u>	<u>49</u>	<u>44</u>	<u>45</u>	<u>38</u>	<u>27</u>	<u>50</u>

- c) Part (a) of this rule shall also apply to any alteration of an existing dwellinghouse, visitor accommodation or other habitable building located within 300 metres of any frost fan and existing as at 24 September 2009, where a new bedroom forms part of the alteration. Only the new bedroom has to be treated in accordance with part (a) of this rule.
- d) For the purposes of this rule, “frost fan” includes any lawfully established frost fan, and includes a proposed frost fan for which an approved building consent and/or resource consent has been granted.

New bullet point to the list of bullet points in Rural 4 and 4 Zones Rule 30.2.1:

- Erection and use of frost fan

New rule 30.2.9:

30.2.9 Erection and use of frost fans

The construction ~~and use~~ and maintenance of a frost fan is a Controlled Activity provided the Activity conforms to the following standards and terms:

30.2.9.1 Standards and terms

30.2.9.1.1.1 Noise from a frost fan shall not exceed 55dB LAeq15 ~~when measured:~~

- i) At a distance of 300 metres from the device; or
- ii) At any point within the notional boundary of any existing dwelling, visitor accommodation, or other habitable building (other than on the property on which the frost fan is situated);
whichever is the least distance.

30.2.9.1.2 Sound levels shall be measured in accordance with the provisions of NZS 6801: 2008 Acoustics – Measurement of Sound and assessed in accordance with the provisions of NZS 6802: Acoustics – Environmental Noise.

30.2.9.1.3 a) The frost fan shall only be operated for frost protection ~~and~~

b) With the exception under (i) below, the frost fan shall only be operated when the local air temperature on the vineyard drops to 2°C or below. For the purposes of this rule, temperature shall be measured within the property to be protected, at the nominal mid point of the bud height (above ground level) of the plants being protected

(i) Exception to rule (b): The frost fan may operate above 2°C for the purposes of maintenance and testing, limited to operation between 8am to 5pm on any day except weekends or public holidays.

30.2.9.1.4 The frost fan shall not be located within 500 metres of an Urban Residential, Township Residential, Rural Township, or Rural Residential Zone ~~or the Marlborough Ridge Zone.~~

30.2.9.1.5 An application for the installation and use of a frost fan as a controlled Activity shall include the following information, in addition to any other information required by section 88 of the Resource Management RMA:

- a) Details of the proposed frost fan(s), including make and model, manufacturers specifications, blade type and configuration, and drive motor details.
- b) A plan showing the location of the proposed frost fan(s) and area it is designed to cover, and the location of any other existing or consented (but not installed) frost fans within a 300m radius.
- c) A report prepared by an appropriately qualified and experienced acoustic consultant setting out:
 - i) a full and detailed description of the proposed equipment;
 - ii) prediction of the noise contours of the proposed frost fan based on operational parameters;
 - iii) an assessment of the proposal against the noise Standards and Terms set out in the relevant plan rules; and
 - iv) detail of all methods to ensure the performance of the frost fan and noise levels remain as predicted.

30.2.9.2

Matters Over Which the Council Will Exercise Control

The Council reserves control over and may impose conditions with respect to:

- a) Operational requirement of any frost fans.
- b) Orientation, rotational constraints, engine muffling and Speed of any frost fan power source or frost fan blade set.
- c) Operation of any frost fans for maintenance purposes.
- d) Recording information about the use of any frost fans.
- e) Monitoring and reporting

Rural Residential Zone

New Rule 31.1.5.1:

31.1.5.1 Noise Sensitive Activities

- a) Any new dwellinghouse, visitor accommodation or other habitable building located within 300 metres of any frost fan shall be designed and constructed so that within the external building envelope surrounding any bedroom (when the doors and windows are closed) airborne sound insulation meets the following standards, as determined in accordance with NZS 1276.1:1999 (Acoustics-Rating of sound insulation in buildings and of building elements Part 1):

Dwellings located less than 300m and more than 200m from the nearest frost fan $D_{nT,w} + C^r > 25$

Dwellings located less than 200m and more than 100m from the nearest frost fan $D_{nT,w} + C^r > 28.5$

Dwellings located less than 100m from the nearest frost fan $D_{nT,w} + C^r > 34.5$

~~to ensure that the noise level inside any bedroom of the dwelling shall not exceed 30 dBA LAeq with the closest fan operating when the doors and windows are closed.~~

- b) For the purposes of this rule, “external building envelope” means an envelope defined by the outermost physical parts of the building, normally the cladding and roof.

Compliance with this standard shall be demonstrated by the production of a design certificate from an appropriately qualified and experienced acoustic engineer. The design certificate shall be based either on actual noise measurements with the closest frost fan operating at normal duty, or an assumed noise level based on a frost fan emitting a noise level calculated using 500 metre reference sound level data as follows: Note: this is not based on cumulative noise, rather protection from the dominant noise source that being the closest frost fan.

	<u>Octave Centre Frequency (Hz)</u>							<u>dBA</u>
	<u>63</u>	<u>125</u>	<u>250</u>	<u>500</u>	<u>1k</u>	<u>2k</u>	<u>4k</u>	
<u>Design sound pressure level for one frost fan at 500 metres</u>	<u>64</u>	<u>61</u>	<u>49</u>	<u>44</u>	<u>45</u>	<u>38</u>	<u>27</u>	<u>50</u>

- c) Part (a) of this rule shall also apply to any alteration of an ~~existing~~ dwellinghouse, visitor accommodation or other habitable building located within 300 metres of any frost fan and existing as at 24 September 2009, where a new bedroom forms part of the alteration. Only the new bedroom has to be treated in accordance with part (a) of this rule.
- d) For the purposes of this rule, “frost fan” includes any lawfully established frost fan, and includes a proposed frost fan for which an approved building consent and/or resource consent has been granted.

Appendix K Marlborough Ridge Zone

New Rule 2.2.11.1

2.2.11.1 Noise Sensitive Activities

- a) Any new dwellinghouse, visitor accommodation or other habitable building located within 300 metres of any frost fan shall be designed and constructed so that within the external building envelope surrounding any bedroom (when the doors and windows are closed) airborne sound insulation meets the following standards, as determined in accordance with NZS 1276.1:1999 (Acoustics-Rating of sound insulation in buildings and of building elements Part 1):

Dwellings located less than 300m and more than 200m from the nearest frost fan $D_{nT,w} + C^r > 25$

Dwellings located less than 200m and more than 100m from the nearest frost fan $D_{nT,w} + C^r > 28.5$

Dwellings located less than 100m from the nearest frost fan $D_{nT,w} + C^r > 34.5$

~~to ensure that the noise level inside any bedroom of the dwelling shall not exceed 30 dBA LAeq with the closest fan operating when the doors and windows are closed.~~

- b) For the purposes of this rule, “external building envelope” means an envelope defined by the outermost physical parts of the building, normally the cladding and roof.

Compliance with this standard shall be demonstrated by the production of a design certificate from an appropriately qualified and experienced acoustic engineer. The design certificate shall be based either on actual noise measurements with the closest frost fan operating at normal duty, or an assumed noise level based on a frost fan emitting a noise level calculated using 500 metre reference sound level data as follows: Note: this is not based on cumulative noise, rather protection from the dominant noise source that being the closest frost fan.

	<u>Octave Centre Frequency (Hz)</u>							<u>dBA</u>
	<u>63</u>	<u>125</u>	<u>250</u>	<u>500</u>	<u>1k</u>	<u>2k</u>	<u>4k</u>	
<u>Design sound pressure level for one frost fan at 500 metres</u>	<u>64</u>	<u>61</u>	<u>49</u>	<u>44</u>	<u>45</u>	<u>38</u>	<u>27</u>	<u>50</u>

- c) Part (a) of this rule shall also apply to any alteration of an ~~existing~~ dwellinghouse, visitor accommodation or other habitable building located within 300 metres of any

frost fan and existing as at 24 September 2009, where a new bedroom forms part of the alteration. Only the new bedroom has to be treated in accordance with part (a) of this rule.

- d) For the purposes of this rule, “frost fan” includes any lawfully established frost fan, and includes a proposed frost fan for which an approved building consent and/or resource consent has been granted.

New rule 2.3.3

2.3.3 Erection and use of frost fans

The construction ~~and use~~ and maintenance of a frost fan is a Controlled Activity provided that the Activity conforms to the following standards and terms:

2.3.3.1 Standards and terms

2.3.3.2 Noise from a frost fan shall not exceed 55dB LAeq15 ~~when measured:~~

- i) At a distance of 300 metres from the device; or
- ii) At any point within the notional boundary of any existing dwelling, visitor accommodation, or other habitable building (other than on the property on which the frost fan is situated);
whichever is the least distance.

2.3.3.3 Sound levels shall be measured in accordance with the provisions of NZS 6801: 2008 Acoustics – Measurement of Sound and assessed in accordance with the provisions of NZS 6802: Acoustics – Environmental Noise.

2.3.3.4 a) The frost fan shall only be operated for frost protection ~~and~~

- b) With the exception under (i), the frost fan shall only be operated when the local air temperature on the vineyard drops to 2°C or below. For the purposes of this rule, temperature shall be measured within the property to be protected, at the nominal mid point of the bud height (above ground level) of the plants being protected

- (i) Exception to rule (b): The frost fan may operate above 2°C for the purposes of maintenance and testing, limited to operation between 8am to 5pm on any day except weekends or public holidays

2.3.3.5 An application for the installation and use of a frost fan as a controlled Activity shall include the following information, in addition to any other information required by section 88 of the Resource Management RMA:

- a) Details of the proposed frost fan(s), including make and model, manufacturers specifications, blade type and configuration, and drive motor details.
- b) A plan showing the location of the proposed frost fan(s) and area it is designed to cover, and the location of any other existing or consented (but not installed) frost fans within a 300m radius.
- c) A report prepared by an appropriately qualified and experienced acoustic consultant setting out:
 - i) a full and detailed description of the proposed equipment;
 - ii) prediction of the noise contours of the proposed frost fan based on operational parameters;

- iii) an assessment of the proposal against the noise Standards and Terms set out in the relevant plan rules; and
- iv) detail of all methods to ensure the performance of the frost fan and noise levels remain as predicted.

2.3.3.6 Matters Over Which the Council Will Exercise Control

The Council reserves control over and may impose conditions with respect to:

- a) Operational requirement of any frost fans.
- b) Orientation, rotational constraints, engine muffling and Speed of any frost fan power source or frost fan blade set.
- c) Operation of any frost fans for maintenance purposes.
- d) Recording information about the use of any frost fans.
- e) Monitoring and reporting