

BEFORE THE ENVIRONMENT COURT

Decision No. [2014] NZEnvC 154

IN THE MATTER of the Resource Management Act 1991

AND of appeals under Clause 14 of the First
Schedule to the Act

BETWEEN NEW ZEALAND WINEGROWERS

(ENV-2010-CHC-179)

HORTICULTURE NEW ZEALAND

(ENV-2010-CHC-184)

Appellants

AND MARLBOROUGH DISTRICT COUNCIL

Respondent

Court: Environment Judge J R Jackson
Environment Commissioner J R Mills
Environment Commissioner O Borlase

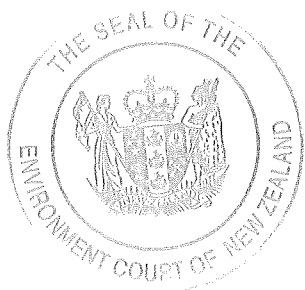
Hearing: In Chambers at Christchurch

Date of Decision: 7 July 2014

Date of Issue: 7 July 2014

DECISION

A: Under sections 290 and 293 of the Resource Management Act 1991, the Marlborough District Council is directed to amend the Wairau/Awatere Resource Management Plan as set out in Schedule 1, attached to and forming part of this decision.



- B: The amendments made by way of Order A apply equally to the Marlborough Sounds Resource Management Plan and to rule 31.1.5.1 (Rural Residential Zone) and to 2.2.11.1 of Appendix K (Marlborough Ridge Zone) and, for the avoidance of doubt, to the Rural 4 Zone of the Wairau Awatere Resource Management Plan (subject to an express exception for the Awatere catchment).
- C: Costs are reserved, although applications are not encouraged.

REASONS

Introduction

[1] These appeals by New Zealand Winegrowers and Horticulture New Zealand are against a decision of the Marlborough District Council on proposed Plan Changes 23 and 58 to the Marlborough Sounds Resource Management Plan and the Wairau/Awatere Resource Management Plan, respectively. The Plan Changes relate to the use of wind machines (“frost fans”) for protection of grapes against frost.

[2] The hearing was held in Blenheim on 4 and 5 December 2012. While Horticulture New Zealand had lodged an appeal¹ in respect of proposed Plan Change 58, all aspects of its appeal were resolved by agreement so it took no part in the hearing.

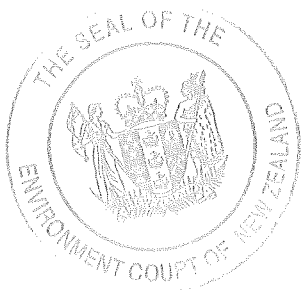
The interim decisions

[3] On 30 January 2013 the court issued an interim Decision² (“the First Decision”), directing the Marlborough District Council to amend the Wairau/Awatere Resource Management Plan (“WARMP”) by substituting the rules it set out in relation to noise insulation³, wind speed⁴ and the frost fan rule in the Rural 3 (Wairau Plains) zone⁵. The signage rule⁶ was deleted. The court made the same orders in respect of the Marlborough Sounds Resource Management Plan. Leave was reserved⁷ for any party to apply to the court to amend the rules in the event there was any mistake or ambiguity in them⁸.

[4] In Order B of the First Decision the court directed the Marlborough District Council to amend the Wairau/Awatere Resource Management Plan by adding the words “... or provided for” in Policy (12.2.2)2.1 so that it reads:

Policy 2.1 To recognise that, activities permitted or provided for in rural areas may result in effects such as noise, dust, smell and traffic generation

¹ ENV-2010-CHC-184.
² [2013] NZEnvC 7.
³ Rule 30.1.4.2.3.
⁴ Rule 30.2.9.1.4.
⁵ Rule 30.2.9.1.2.
⁶ Rule 30.2.9.1.5.
⁷ [2013] NZEnvC 7 at Orders A5 and D.



but that these will require mitigation where they have a significant adverse effect on the rural environment.

[5] In Order C the Marlborough District Council was directed under section 293 of the Act to prepare a change to the Wairau/Awatere Resource Management Plan in respect of the Rural Zone 4 frost fan rule in order to address the matters raised in part 6 of the Reasons in the First Decision.

[6] On 16 April 2014 the court issued its second interim Decision⁹ (“the Second Decision”), which:

- (i) made a number of corrections to the First Decision, in particular the noise insulation rule set out in Order A(1)(1) was deleted and substituted with that set out in Order A(1) of the Second Decision;
- (ii) confirmed Order B of the First Decision as a final decision;
- (iii) deleted the version of the “frost fan” rule 30.2.9.1.2 in the Wairau/Awatere Resource Management Plan as amended by Order A(1)(3) of the First Decision and substituted it with that set out in Order C(1) of the Second Decision;
- (iv) deleted the Note proposed by the First Decision to be added to rule 30.2.9.1.2 (in relation to frost fans which existed as at 24 September 2009).

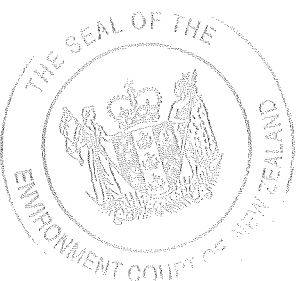
The amendments made in the Second Decision were to apply equally to the Marlborough Sounds Resource Management Plan and to rule 31.1.5.1 (Rural Residential Zone) and to 2.2.11.1 of Appendix K (Marlborough Ridge Zone) and, for the avoidance of doubt, to the Rural 4 Zone of the Wairau Awatere Resource Management Plan (subject to an express exception for the Awatere catchment). Leave was reserved for any party to make submissions on any apparent mistake or inconsistency in, or omission from, the Second Decision. Subject to the leave reserved, the Council was directed to prepare, consult with the parties and then lodge a complete set of rule changes (tracked and in the form to be inserted into the Plans).

The final changes

[7] As directed, the Council has lodged a tracked version of the rule changes and a version in the form to be inserted into the relevant Plans. This is accompanied by a memorandum, dated 9 June 2014, which informs the court that consultation has been completed, involving an acoustical review by experts on behalf of the appellant, the Council and the Nelson Marlborough Public Health Service (a section 274 party). Since counsel for the appellant also represented the interests of Wither Hills Marlborough Limited at the hearing, while there is no mention of them in the memorandum, it is

⁸ Order [A](5).

⁹ [2014] NZEnvC85.



assumed they were also a part of this process. No responses were received by the other section 274 parties to this appeal who are Michael Hyson and Malcolm Maclean.

[8] The court is advised that the changes to the provisions are primarily to reflect the outcome of the two interim decisions. There were also some minor technical changes to the language, for example the formulae used as 30.1.4.2.3(a). However, it is submitted that these changes are not inconsistent with the decisions of the court and all parties are in agreement with them.

Outcome

[9] The court finds the proposed changes, including those which have been referred to as minor technical changes, to accord with the spirit and intent of the two interim decisions.

[10] Accordingly, the court will direct that the Marlborough District Council amend the Wairau/Awatere Resource Management Plan and the Marlborough Sounds Resource Management Plan as set out in Schedule 1, attached to and forming part of this decision.



J R Jackson
Environment Judge

J R Mills
Environment Commissioner

O Borlase
Environment Commissioner

Schedule 1

Below are changes to the Wairau/Awatere Resource Management Plan as a result of Plan Change 58, as modified by Environment Court Decisions [2013] NZEnvC 7 and [2014] NZEnvC 85.

Where text is to be added to the Wairau/Awatere Resource Management Plan it is underlined. Where text is to be deleted from the Wairau/Awatere Resource Management Plan it is ~~struck through~~.

Wairau/Awatere Resource Management Plan

Volume One

Chapter 12: Rural Environments

1. Amend policy 12.2.2.1 to read as follows:

12.2.2.1 To recognise that activities permitted or provided for in rural areas may result in effects 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.

Volume Two

Chapter 26: Definitions

2. Add a new definition as follows:

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

3. Add a new definition as follows:

$D_{nT,w} + C_{tr50-3150}$ 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 $D_{nT,w} + C_{tr50-3150}$ 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.

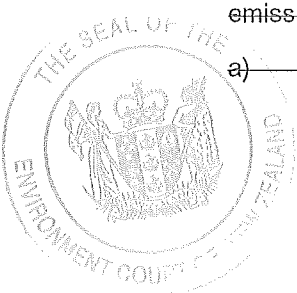
Chapter 30: Rural 3 and 4 Zones

4. Delete Rural 3 and 4 Zone Rule 30.1.4.2.3 as follows:

~~30.1.4.2.3 Wind machines for Frost Control~~

~~Any wind machine used for frost control shall be so constructed and operated that any noise emission measured at a distance of 300 metres shall not exceed 60 dBA L10 provided that:~~

- ~~a) The wind machine will be allowed to operate during the frost danger period until the leaves of the plant are dry and the air temperature has reached 2°C;~~



- b) ~~The speed of the wind machine must be governed such that the top speed of the rotor does not exceed the speed of sound; and~~
- c) ~~The wind machine be located no closer than 500 metres to any residential zone, or within 100 metres of a dwelling house not located on the property.~~

5. **Add** a new Rule 30.1.4.2.3 as follows:

30.1.4.2.3 Noise Sensitive Activities

(a) Any new dwelling house, visitor accommodation or other habitable building located within 300 metres of any frost fan not within the same site shall be designed and constructed so that within the external building envelope surrounding any bedroom (when the windows are closed), airborne sound insulation meets the following single-number rating for airborne sound insulation, determined in accordance with AS/NZS ISO 717.1:2004 Acoustics – Rating of sound insulation in buildings and of building elements Part 1 – Airborne sound insulation:

Dwellings located less than 300m and more than $D_{nT,w} + C_{tr50-3150} > 27$ dB
200m from the nearest frost fan

Dwellings located less than 200m and more than $D_{nT,w} + C_{tr50-3150} > 32$ dB
100m from the nearest frost fan

Dwellings located less than 100m from $D_{nT,w} + C_{tr50-3150} > 37$ dB
the nearest frost fan

(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.

(c) Sub-clauses a) and b) of this rule shall also apply to any alteration of an existing dwelling house, visitor accommodation or other habitable building located within 300 metres of the closest frost fan selected for the purpose of sub-clause a) of this rule, where a new bedroom forms part of the alteration. For the avoidance of doubt only the new bedroom has to be treated in accordance with paragraphs a) and b) of this rule.

(d) For the purpose of this rule, "frost fan" includes any lawfully established frost fan, and includes a proposed frost fan for which a resource consent has been granted and "site" has the meaning of "single land holding".

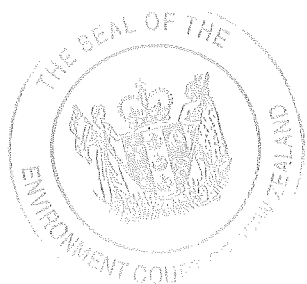
6. **Add** a new bullet point to the list of bullet points in Rural 3 and 4 Zones Rule 30.2.1 as follows:

- Erection and use of frost fans

7. **Add** a new Rule 30.2.8 as follows:

30.2.8 Erection and use of frost fans

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



30.2.8.1 Standards and Terms

30.2.8.1.1 Noise from a frost fan shall not exceed 55 dB LAeq (15min):

- a) at a distance of 300 metres from the device; or
 - b) 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.

30.2.8.1.2 a) Subject to (b), sound levels shall be measured in accordance with the provisions of NZS 6801:2008 Acoustics – Measurement of Environmental Sound and assessed in accordance with the provisions of NZS 6802: 2008 Acoustics – Environmental Noise;

- b) Noise from a frost fan which has special audible characteristics such as tonality or impulsiveness, shall have a 5 dB penalty added to the measured level before compliance with rule 30.2.8.1.1 is assessed except that:
 - (i) where the Reference Method in the Standard is used to determine the penalty, the value of the penalty shall be a value in the range 0.1 dB to 6.0 dB as determined by that method;
 - (ii) no penalty for special audible characteristics shall apply to a frost fan in the Awarere Catchment if the frost fan is greater than 1 kilometre from any existing dwellinghouse, visitor accommodation or other habitable building.

- c) for the avoidance of doubt, NZS 6801:1991 and NZS 6802: 1991 do not apply.

30.2.8.1.3 The frost fan shall only be operated for protection of crops from frost from bud burst to harvest, with the exception that frost fans may also be operated in the following circumstances:

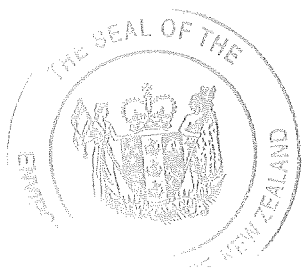
- a) For the purposes of maintenance and testing, limited to operation between 8am to 5pm on any day; or
- b) For compliance monitoring at any time when the monitoring is undertaken by the Council or, where the monitoring is undertaken by a third party, when the Council has been notified.

30.2.8.1.4 When protecting crops from potential frost damage, a frost fan shall only be operated in wind speeds not greater than 8 km/hr (averaged over periods not greater than 5 minutes) and when the local air temperature is less than 1°C. For the purposes of this rule, temperature shall be measured within the property to be protected, for vineyards at the lowest fruiting wire and for other crops at the lowest point of the bud height (above ground level) of the plants being protected.

30.2.8.1.5 The frost fan shall not be located within 500 metres of an Urban Residential, Township Residential, Rural Township, the Marlborough Ridge Zone or within 300 metres of a Rural Residential Zone.

30.2.8.2 Information Requirements

An application shall include the following information:



- a) Details of the proposed frost fan(s), including make and model, manufacturers' specifications, blade type and configuration, drive motor details, and design speed of the tips of the blades.
- b) A plan showing the location of the proposed frost fan(s) (with accurate NZTM coordinates) and area it is designed to cover.
- c) A plan showing the location of the nearest dwelling, visitor accommodation or habitable building, or the nearest zone of a residential nature, and the distance to it.
- d) Detail of all means to ensure the performance of the frost fan and noise levels remain as predicted, including measures to govern the blade tip speed and the cut-off mechanism for winds exceeding 8 km per hour.
- e) A report prepared by an appropriately qualified and experienced acoustic consultant addressing the following:
 - o a full and detailed description of the proposed frost fan;
 - o prediction of the noise contours of the proposed frost fan based on operational parameters specifically identified in the report for the particular location where the frost fan is proposed to operate, except where that frost fan has been certified by a body approved by the Council and the proposed fan is to be located and operated in accordance with that certification;

30.2.8.3 Matters Over Which the Council Will Exercise Control

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

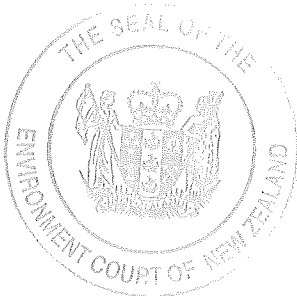
- a) Operational requirements of the frost fans.
- b) Orientation, rotational constraints, speed of the frost fan power source or frost fan blade set and engine muffling.
- c) Operation of the frost fan for maintenance purposes.
- d) Recording information about the use of the frost fan, including temperature and windspeed at the area being protected.
- e) Monitoring and reporting.
- f) The provision of contact details for the vineyard owner/manager.
- g) The review of Conditions.

Chapter 31: Rural Residential Zone

8. Add a new rule 31.1.5.1 as follows:

31.1.5.1 Noise Sensitive Activities

- (a) Any new dwelling house, visitor accommodation or other habitable building located within 300 metres of any frost fan not within the same site shall be designed and constructed so that within the external building envelope surrounding any bedroom (when the windows are closed), airborne sound insulation meets the following single-number rating for airborne sound



insulation, determined in accordance with AS/NZS ISO 717.1:2004 Acoustics – Rating of sound insulation in buildings and of building elements Part 1 – Airborne sound insulation:

Dwellings located less than 300m and more than 200m from the nearest frost fan $D_{nT,w} + C_{tr50-3150} > 27$ dB

Dwellings located less than 200m and more than 100m from the nearest frost fan $D_{nT,w} + C_{tr50-3150} > 32$ dB

Dwellings located less than 100m from the nearest frost fan $D_{nT,w} + C_{tr50-3150} > 37$ dB

- (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.
- (c) Sub-clauses a) and b) of this rule shall also apply to any alteration of an existing dwelling house, visitor accommodation or other habitable building located within 300 metres of the closest frost fan selected for the purpose of sub-clause a) of this rule, where a new bedroom forms part of the alteration. For the avoidance of doubt only the new bedroom has to be treated in accordance with paragraphs a) and b) of this rule.
- (d) For the purpose of this rule, "frost fan" includes any lawfully established frost fan, and includes a proposed frost fan for which a resource consent has been granted and "site" has the meaning of "single land holding".

Appendix K: Marlborough Ridge Zone

- 9. Add a new rule 2.2.11.1 (to be located immediately before the "Bird Scaring Device" rule) as follows:

2.2.11.1 Noise Sensitive Activities

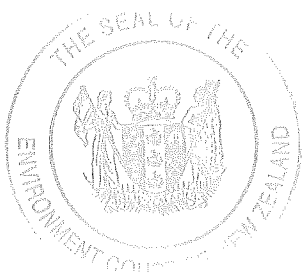
- (a) Any new dwelling house, visitor accommodation or other habitable building located within 300 metres of any frost fan not within the same site shall be designed and constructed so that within the external building envelope surrounding any bedroom (when the windows are closed), airborne sound insulation meets the following single-number rating for airborne sound insulation, determined in accordance with AS/NZS ISO 717.1:2004 Acoustics – Rating of sound insulation in buildings and of building elements Part 1 – Airborne sound insulation:

Dwellings located less than 300m and more than 200m from the nearest frost fan $D_{nT,w} + C_{tr50-3150} > 27$ dB

Dwellings located less than 200m and more than 100m from the nearest frost fan $D_{nT,w} + C_{tr50-3150} > 32$ dB

Dwellings located less than 100m from the nearest frost fan $D_{nT,w} + C_{tr50-3150} > 37$ dB

- (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.



(c) Sub-clauses a) and b) of this rule shall also apply to any alteration of an existing dwelling house, visitor accommodation or other habitable building located within 300 metres of the closest frost fan selected for the purpose of sub-clause a) of this rule, where a new bedroom forms part of the alteration. For the avoidance of doubt only the new bedroom has to be treated in accordance with paragraphs a) and b) of this rule.

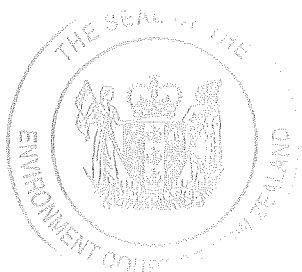
(d) For the purpose of this rule, "frost fan" includes any lawfully established frost fan, and includes a proposed frost fan for which a resource consent has been granted and "site" has the meaning of "single land holding".

10. ~~Number~~ the "Bird Scaring Device" rule as 2.2.11.2.

11. ~~Delete~~ the "Wind Machines for Frost Control" rule under 2.2.11 as follows:

~~Wind Machines for Frost Control~~

- ~~• Noise levels measured at 200 metres from the wind machine shall not exceed 60 dBA provided that:~~
- ~~• That the start-up air temperature for the machine should be no higher than 2°C.~~
- ~~• That the wind machine be allowed to operate during the frost danger period until the leaves of the plant are dry and the air temperature has reached 1°C.~~
- ~~• That the speed of the wind machine must be governed such that the top speed of the rotor does not exceed the speed of sound.~~
- ~~• That the wind machine be located no closer than 500 metres to a residential zone.~~



Marlborough Sounds Resource Management Plan

Below are changes to the to the Marlborough Sounds Resource Management Plan as a result of Plan Change 23, as modified by Environment Court Decisions [2013] NZEnvC 7 and [2014] NZEnvC 85.

Where text is to be added to the Marlborough Sounds Resource Management Plan it is underlined. Where text is to be deleted from the Marlborough Sounds Resource Management Plan it is ~~struck through~~.

Volume One

Chapter 11: Rural Environments

1. Add a new policy 11.3.1.10 to read as follows:

11.3.1.10 To recognise that activities permitted or provided for in rural areas may result in effects 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.

Volume Two

Chapter 25: Definitions

2. Add a new definition as follows:

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

3. Add a new definition as follows:

$D_{nT,w} + C_{tr50-3150}$ 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 $D_{nT,w} + C_{tr50-3150}$ 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.

Chapter 36: Rural 1 and 2 Zones

4. Delete Rural 1 and 2 Zones Rule 36.1.3.4.2.3 as follows:

~~36.1.3.4.2.3 Wind Machines for Frost Control~~

~~Any wind machine used for frost control shall be so constructed and operated that any noise emission measured at a distance of 300 metres shall not exceed 60 dBA L10 provided that:~~



- a) ~~The operation of the wind machine shall be restricted to periods during which the local air temperature does not exceed 2 degrees Celsius;~~
- b) ~~No wind machine shall be sited within 100 metres of any dwelling not on the same property;~~
- c) ~~The speed of the wind machine must be governed such that the top speed of the rotor does not exceed the speed of sound; and~~
- d) ~~The wind machine be located no closer than 500 metres to an Urban Residential Zone.~~

5. **Add** a new Rule 36.1.3.4.2.3 as follows

36.1.3.4.2.3 Noise Sensitive Activities

- (a) Any new dwelling house, visitor accommodation or other habitable building located within 300 metres of any frost fan not within the same site shall be designed and constructed so that within the external building envelope surrounding any bedroom (when the windows are closed), airborne sound insulation meets the following single-number rating for airborne sound insulation, determined in accordance with AS/NZS ISO 717.1:2004 Acoustics – Rating of sound insulation in buildings and of building elements Part 1 – Airborne sound insulation:

Dwellings located less than 300m and more than 200m from the nearest frost fan $D_{nT,w} + C_{tr,50-3150} > 27$ dB

Dwellings located less than 200m and more than 100m from the nearest frost fan $D_{nT,w} + C_{tr,50-3150} > 32$ dB

Dwellings located less than 100m from the nearest frost fan $D_{nT,w} + C_{tr,50-3150} > 37$ dB

- (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.
- (c) Sub-clauses a) and b) of this rule shall also apply to any alteration of an existing dwelling house, visitor accommodation or other habitable building located within 300 metres of the closest frost fan selected for the purpose of sub-clause a) of this rule, where a new bedroom forms part of the alteration. For the avoidance of doubt only the new bedroom has to be treated in accordance with paragraphs a) and b) of this rule.
- (d) For the purpose of this rule, "frost fan" includes any lawfully established frost fan, and includes a proposed frost fan for which a resource consent has been granted and "site" has the meaning of "single land holding".

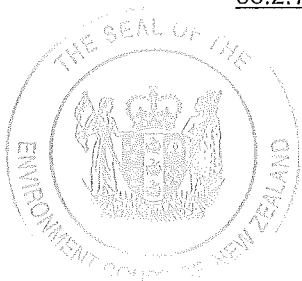
12. **Add** a new bullet point to the list of bullet points in Rural 1 and 4 Zones Rule 36.2 as follows:

- Erection and use of frost fans

6. **Add** a new Rule 36.2.7 as follows:

36.2.7 Erection and use of frost fans

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



36.2.7.1 Standards and Terms

36.2.7.1.1 Noise from a frost fan shall not exceed 55 dB LAeq (15min):

- a) at a distance of 300 metres from the device; or
- b) 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.

36.2.7.1.2 a) Subject to (b), sound levels shall be measured in accordance with the provisions of NZS 6801:2008 Acoustics – Measurement of Environmental Sound and assessed in accordance with the provisions of NZS 6802: 2008 Acoustics – Environmental Noise;

- b) Noise from a frost fan which has special audible characteristics such as tonality or impulsiveness, shall have a 5 dB penalty added to the measured level before compliance with rule 36.2.7.1.1 is assessed except that:

- (i) where the Reference Method in the Standard is used to determine the penalty, the value of the penalty shall be a value in the range 0.1 dB to 6.0 dB as determined by that method;

- c) for the avoidance of doubt, NZS 6801:1991 and NZS 6802: 1991 do not apply.

36.2.7.1.3 The frost fan shall only be operated for protection of crops from frost from bud burst to harvest, with the exception that frost fans may also be operated in the following circumstances:

- a) For the purposes of maintenance and testing, limited to operation between 8am to 5pm on any day; or
- b) For compliance monitoring at any time when the monitoring is undertaken by the Council or, where the monitoring is undertaken by a third party, when the Council has been notified.

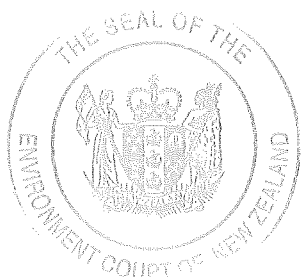
36.2.7.1.4 When protecting crops from potential frost damage, a frost fan shall only be operated in wind speeds not greater than 8 km/hr (averaged over periods not greater than 5 minutes) and when the local air temperature is less than 1°C. For the purposes of this rule, temperature shall be measured within the property to be protected, for vineyards at the lowest fruiting wire and for other crops at the lowest point of the bud height (above ground level) of the plants being protected.

36.2.7.1.5 The frost fan shall not be located within 500 metres of an Urban Residential or Rural Township Zone, or within 300 metres of a Rural Residential Zone.

36.2.7.2 Information Requirements

An application shall include the following information:

- a) Details of the proposed frost fan(s), including make and model, manufacturers' specifications, blade type and configuration, drive motor details, and design speed of the tips of the blades.
- b) A plan showing the location of the proposed frost fan(s) (with accurate NZTM coordinates) and area it is designed to cover.



- c) A plan showing the location of the nearest dwelling, visitor accommodation or habitable building, or the nearest zone of a residential nature, and the distance to it.
- d) Detail of all means to ensure the performance of the frost fan and noise levels remain as predicted, including measures to govern the blade tip speed and the cut-off mechanism for winds exceeding 8 km per hour.
- e) A report prepared by an appropriately qualified and experienced acoustic consultant addressing the following:
 - a full and detailed description of the proposed frost fan;
 - prediction of the noise contours of the proposed frost fan based on operational parameters specifically identified in the report for the particular location where the frost fan is proposed to operate, except where that frost fan has been certified by a body approved by the Council and the proposed fan is to be located and operated in accordance with that certification;

36.2.7.3 Matters Over Which the Council Will Exercise Control

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

- a) Operational requirements of the frost fans.
- b) Orientation, rotational constraints, speed of the frost fan power source or frost fan blade set and engine muffling.
- c) Operation of the frost fan for maintenance purposes.
- d) Recording information about the use of the frost fan, including temperature and windspeed at the area being protected.
- e) Monitoring and reporting.
- f) The provision of contact details for the vineyard owner/manager.
- g) The review of Conditions.

Record No: 14128309

