

2014

# Plan Topics

Wine Industry



## Planning for the wine industry

---

The [wine industry](#) is a major agricultural industry that is characterised by a growing range of operational activities. The nature and scale of these operations have the potential to not only affect adjacent land uses, but also to be affected by them.

This guidance note identifies and discusses five key resource management issues and related effects that are associated with the wine industry, including:

1. [multiple land-use activities on one site \(vertical integration\)](#)
2. [reverse sensitivity](#)
3. [water allocation and use](#)
4. [worker accommodation](#)
5. [waste management](#).

The guidance note focuses on the approaches applied in district plans to address these resource management issues and identifies relevant examples. Approaches applied in regional plans to address particular issues, such as the use of agrichemical sprays, water allocation and use, and waste management are also discussed.

## Guidance note

---

### Introduction

### Issues

### Approached to manage identified issues associated with the wine industry

## Introduction

---

### Development of this guidance note

This guidance note was initiated by New Zealand Winegrowers, in partnership with the Ministry for the Environment and Local Government New Zealand, as a way of promoting best practice to deal with the complex range and scale of resource management issues connected with the wine industry. Development of the guidance note involved three distinct stages:

- identification and confirmation of key issues affecting the wine industry
- preparation of draft guidance material, and
- peer review.

The primary issues associated with the wine industry were identified through discussions with local authority practitioners and members of New Zealand Winegrowers; these were confirmed at the 'Planning for the Wine Industry' conference held in November 2006. Draft guidance material was subsequently prepared and circulated for comment to conference participants. Based on these comments, a revised draft was prepared and considered by a group of planning practitioners, local authority and winegrower representatives at a workshop held in May 2007. Feedback from workshop participants was used towards a final draft that was peer reviewed by the Quality Planning editorial panel and three experienced local authority practitioners.

This guidance note was updated in 2014.

### Key Terms

#### **Winegrowing**

For the purposes of this document, winegrowing refers to activities associated with the cultivation of grapes for wine in a vineyard. This process is also referred to as viticulture. Winegrowers are those that undertake the activity of cultivating grapes for wine.

#### **Ancillary winegrowing operations**

Ancillary winegrowing operations are activities additional to the primary [winegrowing](#) function on a site. For the purpose of this document, the most common ancillary operations are winemaking and the retail sale of wine produced on site. Additional ancillary operations may include cafes, restaurants and accommodation.

#### **Grape marc**

Grape marc is the residue left after the grapes have been pressed. It consists of grape skins, stems and leaves.



**Photo of grape residue, including skins, stems and leaves**



**Crop protection devices**

Protecting horticultural and viticultural crops involves techniques that can include the use of audible, visible, or physical means to discourage or frighten birds away from crops. The birds may be frightened by something new and unusual in their environment (eg, flashing lights or strange sounds) or by something that simulates a threat (eg, a gun or predator). Another option to protect crops from bird feeding is netting. Every situation is different, and techniques that work well on one site may not work at another; and different bird species may not react in the same way to a particular control option.

**Photo of a gas gun in a vineyard**



**Photo of bird netting over grape vines**



**Frost-protection devices**

For the purpose of this document, frost-protection devices are devices that are used to move air to reduce the risk of damage to crops from frost.

Frost-protection devices may either be permanent, consisting of a fan mounted tower, or helicopters may be used for frost control.

A radiation frost begins at ground level and gradually rises, and occurs when clear skies and calm winds result in there being no barrier to prevent heat loss from soil and plants. When the ground cools during radiation frosts an upper air layer, or inversion layer, will be warmer than the air that is closer to the ground.

Wind machines and helicopters capitalise on the development of an inversion layer in a radiation frost. Their purpose is to circulate the warmer air down to crop level.

Heaters (Return Stack Heaters) emit hot gases from a stack which creates convective mixing in the crop area, tapping the important warm air source above the inversion layer. A definition is provided below for "Return Stack Heaters" and "frost pots/smudge pots". Please note, these definitions are only for the purposes of this document.

Except for helicopter landing areas, the management of helicopter movements is typically outside the jurisdiction of local authorities, as they are controlled by Civil Aviation requirements. Requirements include, for instance, minimum safe operating height and weight limitations.

**Return stack heater**

Return stack heaters ("Smokeless heater frost fighting device") are easily identified by both its chimney stack and the pipe connecting the stack to its oil pan. They work by burning oil within an enclosed metal bowl structure. The unburned oil is captured in a tube and returned to the bowl to burn again. Hot gas emissions discharge through a chimney stack and create convective mixing in the crop area. Note that Return Stack Heaters are not covered by the NES for Air Quality.



### Frost Pots/Smudge Pots

For the purposes of this document, frost pots and smudge pots are a type of frost protection heater that essentially burns oil (or diesel) in open pots. These heaters do not contain a chimney or return stack pipe, and in most cases they work by producing smoke (rather than heat) to prevent frost from settling. These frost pots/smudge pots are prohibited under the NES for Air Quality.



## Sprinkler Irrigation

Overhead sprinkler irrigation is where water is sprayed continuously over the vines and ground. When the air temperature surrounding the vines drops below freezing, the water freezes on the plants. The latent heat of water when it freezes is the principle involved in protecting the plant.

## An overview of the wine industry

The wine industry is an important agricultural industry in both the primary production and high-quality value-added sectors. The significance of wine production in New Zealand is indicated by the following:

- The current producing area stands at 34,269 ha (2012 Vineyard Register Report), with approximately 66% of the producing area being Marlborough. The industry comprised over 700 wineries ranging from small boutique wineries to large company owned businesses in 2012. Around 50 percent of wine grapes are grown under contract for wineries by over 800 independent growers, with the rest grown by wineries themselves.
- After taking into account the New Zealand wine industry's interlinkages with the rest of the economy, in 2008 the industry contributed over \$1.5 billion to New Zealand's GDP and supported over 16,500 full time equivalent jobs. (NZIER report "Economic Impact of the New Zealand Wine Industry" April 2009 )
- The wine industry is regionally concentrated in a number of areas including
  - Auckland
  - Northland
  - Waikato and Bay of Plenty
  - Gisborne
  - Hawkes Bay
  - Wairarapa/Wellington
  - Nelson
  - Marlborough
  - Canterbury
  - Central Otago

The industry is a strong contributor to regional development and tourism in these areas.

- There is significant regional variation in the scale of wine industry activity. For example, some regions are far more dependent on ancillary operations than others due to the marginal return per hectare of land.
- New Zealand grape growers and winemakers are committed to sustainable production, with approximately 95 percent of the winery productive capacity included in the Sustainable Winegrowing New Zealand Programme.
- The wine industry is export-focused and dedicated to quality production, with products generally selling in the top 15% price bracket on overseas markets.

Wine is a significant contributor to the economy in 2012 export earnings were approximately \$1.2 billion, with total sales of approximately \$1.7 billion, current projections estimate that total value will exceed \$2.2 billion by 2016. In 2012 the wine industry was New Zealand's second most valuable export to the European Union and the



## THE RMA QUALITY PLANNING RESOURCE

United Kingdom, the third most valuable to Australia and Canada, and the fifth most valuable to the United States (Ex statistics New Zealand, global New Zealand trade report).

Industry governance is provided at a national level by New Zealand Winegrowers. It is the national body that represents, promotes and researches the interests of the New Zealand grape and wine industry. It was established in 2002 as a joint initiative between the Wine Institute of New Zealand and the New Zealand Grape Growers Council Incorporated. All New Zealand growers and wineries are members of New Zealand Winegrowers through their parent organisations, the Wine Institute of New Zealand and the New Zealand Grape Growers Council.

The wine industry in New Zealand is characterised by a wide range of operational types. Operations range from [winegrowing](#) only, ancillary cellar door facilities and boutique wine production, through to large-scale off-site wine production. These operations are not mutually exclusive and can change over time. Generally, winegrowers have to increase the scale of their activity in order to increase productivity.



## Issues

---

Because of the complex nature and scale of effects that are either created by or have an impact on the wine industry, the range of issues associated with the industry is broad. The five key resource management issues identified by local authority practitioners and industry representatives are:

1. [Multiple land-use activities on one site \(vertical integration\)](#)
2. [Reverse sensitivity](#)
3. [Water allocation and use](#)
4. [Worker accommodation](#)
5. [Waste management.](#)

### 1. Multiple land-use activities on one site (vertical integration)

Vertical integration is referred to in this guidance note as a process where multiple land-use activities associated with growing, making and selling a primary product occur on the same rural site. In the wine industry, this occurs where the primary production processes associated with [winegrowing](#) are supported by ancillary winemaking and retail operations, located on the same site. Additional ancillary operations can include cafes, restaurants and accommodation. The effects of these activities may extend over a wider area when large events and festivals take place. The ancillary operations associated with a vineyard are often more wide-ranging than for other primary production processes such as orchards, given the tourism potential associated with the wine industry. People increasingly want to visit the place of origin of particular wines. For this reason, the amenity associated with the buildings used for [ancillary winegrowing operations](#) is usually more important. Vertical integration is increasingly common as it improves financial viability for winegrowers.

[Noise, carparking and traffic](#)-related effects arising from winemaking activities, restaurants and cafes on a site may be inconsistent with the existing rural amenity of the surrounding area. In rural areas, concerns about the [visual](#) appearance and amenity of buildings, parking areas and [signage](#) may arise. Another common concern is [hours of operation](#). For information about rural amenity conflicts see the Ministry for the Environment's publication about [Managing Rural Amenity Conflicts \(February 2000\)](#).

#### 1.1 Noise

Noise generated by [ancillary winegrowing operations](#) may affect the health and amenity of nearby residents. Conversely, reverse sensitivity could mean that the operation of permitted rural activities (eg, the use of farm-related machinery and crop-protection devices) and vertically integrated activities within rural or rural-residential areas (eg, restaurants and cafes) are vulnerable to complaints.

The effects of activities associated with ancillary winegrowing operations, such as noise generated from wine making, cafes, restaurants and carparking areas is another common area of concern. Approaches to manage noise from non-rural uses are not necessarily specific to the [wine industry](#), and could equally apply to other non-rural activities. Refer to the [Noise management in mixed-use urban environments guidance note](#) for further discussion.



## THE RMA QUALITY PLANNING RESOURCE

### Approaches and examples

Generally, noise can be controlled at either the source or the receiver. Section 16 of the RMA requires all noise generators to adopt the best practicable option to avoid the emission of unreasonable noise. This is additional to the duty to comply with the permitted noise levels included in a district plan.

Approaches to control noise at the source include:

- **General noise emission standards**  
These apply to the site from which the noise is being emitted but measured at or beyond the boundary of the site, or at the notional boundary of neighbouring dwellings or other noise sensitive activities. For example, the general [Noise section of the Hastings District Plan \(PDF 475 KB\)](#) includes tables that indicate the maximum permitted noise levels for each zone within the district, both in dBA L10 (rule 14.2.8.1-1) and dBA Lmax (rule 14.2.8.1-2). However, these can be difficult to monitor on an on-going basis and are generally activated in response to a complaint.
- **Standards associated with particular types of activities, such as noise from entertainment venues**  
These can be difficult to cost-effectively monitor on an on-going basis, with remedial action largely arising as a response to complaints.
- **Timing restrictions on operations**  
These may be imposed as a condition of consent and are reasonably easy to monitor. For activities involving the retailing of goods and/or the serving of food and beverages to be permitted in the [Rural Zone of Hastings District \(PDF 83 KB\)](#), their hours of operation are restricted to 8am to 10pm, 7 days per week (rule 5.9.3).
- **Management plans**  
These may be imposed as a condition of consent, and include the number of events per calendar year exceeding the permitted hours of operation, the timing and noise levels of events that occur on the site, and detailed management procedures to assist the applicant and neighbours to deal with excessive noise. Management plans can be monitored reasonably easily, can be tailored to specific circumstances, and have the potential to be self-monitored by the consent holder in accordance with a consent condition.
- **Acoustic insulation and design of buildings**  
This includes the screening of outdoor areas in restaurants or wineries to mitigate noise received by adjoining properties. Consideration may also be given to the inclusion of acoustic insulation and/or location of doors and windows relative to neighbouring properties. This approach can be applied as a condition of consent.

Approaches to manage the volume of noise received include:

- **Applying lower noise limits to noise-sensitive receiving activities in adjacent areas (eg, a maximum noise limit on rural activities measured at or within the boundary of any residential site)**  
These can be difficult to cost-effectively monitor on an on-going basis, with monitoring usually being initiated in response to complaints received.
- **No-complaints covenants**  
These are an optional mechanism that can be included on a title by a landowner



## THE RMA QUALITY PLANNING RESOURCE

at the time that a property is subdivided or developed. If they are imposed as a condition of consent under s108 of the RMA they need to meet the 'Newbury' test for validity. To be effective they also need the consent of all parties. Covenants can provide owners and potential purchasers of affected properties with notice of surrounding activities.

More specifically, no complaints covenants prevent the covenantor from complaining about the adverse effects of a nearby activity. Such instruments will often include a prohibition on the owner or occupier from:

- suing for nuisance
- taking any type of enforcement action under the RMA
- making opposing submissions against an application by the effects-producing landowner to obtain new resource consents or renew existing ones;
- funding or being otherwise involved in any of these activities.

A resource consent applicant will often propose such a covenant to respond to the concerns of existing operators. A covenant may be either agreed as a condition of the consent under s108 RMA, or by private agreement, and can be registered on the title of the receiving site under s109 RMA. The [City of Napier District Plan](#) lists the use of no-complaints covenants as a non-regulatory method to avoid reverse sensitivity issues in the city's [Rural Environment \(PDF 143 KB\)](#).

- Acoustic insulation of new residential dwellings located near existing noise-generating activities  
This could be applied either as a consent condition, or a standard relating to a rezoning proposal (eg, to protect existing noise-producing rural activities, where the resource consent or rezoning results in establishing new residential activities in an area). For example, the [Hastings District Plan \(PDF 475 KB\)](#) requires residential buildings and visitor accommodation within any industrial or commercial zone to be acoustically insulated to mitigate the potential noise effects of high background noise levels (rule 14.2.9.4). This method could equally be applied in a rural area to mitigate potential noise effects arising from some rural operations.

Noise effects can also be managed by separating noisy and noise-sensitive activities (refer also to the [section on reverse sensitivity](#)). Approaches that can be used to separate activities include:

- Separation by distance - For example, the [Hastings District Plan \(PDF 475 KB\)](#) includes a guide which outlines the separation distances required to meet the maximum permitted noise levels for gas guns (rule 14.2.9.1). The [Hurunui District Plan](#) (PDF 140 KB) restricts the use of frost control fans within 300m of any dwellinghouse on a separate lot or any urban area (rule A.1.2.9(ii)). It is also an approach that could equally apply to vertically integrated activities (eg, new vineyard restaurants are to be located no closer than 300m from any existing residential building on an adjoining site).



## THE RMA QUALITY PLANNING RESOURCE

- Use of noise barriers such as earth bunds or solid fences  
The effectiveness of noise barriers will depend on what they are constructed of, how they are constructed, and the nature of the noise generated.

### 1.2 Carparking and traffic

[Winegrowing](#) and ancillary operations have the potential to increase traffic movements to and from the site and within the surrounding area. Traffic generated can include heavy vehicles delivering and picking up supplies and products, as well as staff and visitor vehicles. Wherever possible, parking demand should be catered for on site. Providing adequate on-site parking will help ensure that the traffic effects of the activity do not extend beyond the site (eg, visitors parking on the road side). The following approaches are not necessarily specific to the [wine industry](#), and could equally apply to other non-rural activities.

#### Approaches and examples

Parking requirements based on the gross floor area of an activity can be an effective means of managing some of the potential off-site traffic-related effects associated with [ancillary winegrowing operations](#). For example, the [Wairau/Awatere Resource Management Plan](#) includes permitted activity standards relating to on-site parking and manoeuvring for specific activities such as wineries (rule 27.2.3.1.7).

Controls over hours of servicing can also be used to manage effects on residential sites. These would generally be imposed through consent conditions (eg, limiting servicing activity to business hours).

### 1.3 Hours of operation

The hours of operation of [ancillary winegrowing operations](#) are likely to differ from those associated with existing rural-based primary production-related processes. This may in turn result in an increased level of noise and traffic movement occurring within a rural area. The approaches below are not necessarily specific to the [wine industry](#), and could equally apply to other non-rural activities.

#### Approaches and examples

In the [Rural-Productive Zone \(PDF 350 KB\)](#), the Gisborne Combined Regional Land and District Plan permits wine tasting and sales, cafes and restaurants that are ancillary to rural production from the site provided that wine processing-related industries, including wine tastings, sales, restaurants and cafes, only operate between the hours of 7am and 9pm (rule 21.10.1.7).

Within the [Te Mata Special Character Zone \(PDF 190 KB\)](#) (and [Rural \(PDF 83 KB\)](#) and [Plains Zone \(PDF 875 KB\)](#)) of the Hastings District Plan, activities which involve the retailing of goods and/or the serving of food or beverages to the public between the hours of 8am and 10pm are permitted (rule 11.1.9.2).

These approaches would be relatively easy to monitor, as any changes in hours of operation tend to occur on a seasonal basis.

## 1.4 Visual - bulk and location

[Ancillary winegrowing operations](#), including cafes and restaurants, may require large buildings and carparking areas; these features could be visually inconsistent with the surrounding rural area. Buildings associated with ancillary winegrowing operations often require a higher level of building design than other primary production activities such as for orchards.

Viticulture can be a dominating element of the landscape in particular regions of New Zealand. Consideration must be given to the contribution of the [wine industry](#), together with other primary-production industries, to the rural landscape in an area.

### Approaches and examples

Approaches to control visual effects include:

- Use of screening  
The Hurunui District Plan (PDF 140 KB) requires vehicle parks and non-residential buildings in non-urban areas that can be viewed from specified roads, adjacent residential sites or an open space zone to be screened. Screening is not required for buildings accessory to farming activities, which includes viticultural activities (rule A.1.2.10). Screening includes trees, shrubs, solid walls and fences. In the Te Mata Special Character Zone (PDF 190 KB), the Hastings District Plan requires storage areas, outdoor display areas and parking areas be screened by landscaping or fences so that they are not visible from adjoining roads or residential buildings on adjacent properties (rule 11.1.8.4). Where a winery exceeds the permitted activity threshold standards in the Rural (PDF 83 KB) and Plains Zone (PDF 875 KB), it becomes a restricted discretionary activity. Specific matters to be assessed include whether the application is "in accordance with the concept of vertical integration [and the extent to which the winery] utilises and enhances the surrounding landscape".
- Use of design guides  
For example, the Hastings District Council has produced a [Best Practice Design Guide for Subdivision and Infrastructure Development in Hastings District \(June 2011\)](#). The guidelines offer detailed advice on building location and design and the location of infrastructure. They also provide guidance on the exercise of council discretion when assessing the visual effects of a development on the landscape, particularly those which are a discretionary activity. A design guide may also be a useful approach to manage the visual effect of [winegrowing](#) activities in districts which have an extensive wine industry or clusters of winegrowing activities.
- Bulk and location standards (eg, maximum height, setback and floor area controls)  
For example, the [Rural Zone \(PDF 83 KB\)](#) (and [Plains Zone \(PDF 875 KB\)](#)) of the Hastings District Plan permits wineries, subject to meeting relevant permitted activity standards including a specific floor area requirement (rule 5.9.3 and 6.9.3). Bulk and location standards are generally easy to monitor and understand. Further examples of bulk and location standards used by councils to address the visual effects are contained in the [New Zealand Winegrowers Background Issues Paper \(PDF 329 KB\)](#).

## 1.5 Signage

[Ancillary winegrowing operations](#), such as cafes and restaurants, rely on signage to advertise, indicate their location and attract visitors, particularly in rural areas. The nature of the rural setting requires careful attention to be directed towards the location, design, and size of associated signage.

Some councils require bylaw approval for signage in addition to any resource consent requirements. Signage on or near a state highway also requires approval from Transit New Zealand.

Approaches to manage the effects of signage associated with non-rural activities are not necessarily specific to the [wine industry](#), and could equally apply to other non-rural activities.

### Approaches and examples

Approaches to control visual effects of signage include controls on:

- location
- size
- content
- visibility.

Examples of how councils have applied these approaches to manage the effects of signage are contained in the [New Zealand Winegrowers Background Issues Paper \(PDF 329 KB\)](#).

## 2. Reverse sensitivity

Reverse sensitivity applies to situations where a potentially incompatible land use is proposed to be sited next to an existing land use. Where this occurs within a rural area, for instance, it is reasonable to expect that existing rural activities will be able to continue to operate within the environmental limits provided for in the district plan. Winegrowing operations and associated ancillary operations may involve some activities which have effects beyond the site boundaries that may not be able to be completely avoided or mitigated. While reverse sensitivity issues are not specific to the wine industry, the expansion of vineyard operations and rural-residential lifestyle blocks within the rural environment may increasingly result in conflict (eg, amenity standards expected by new rural-residential dwellers could place constraints on existing permitted rural activities such as winegrowing).

Current concerns largely revolve around [noise](#), [agricultural use](#), [odour](#), return stack heaters, [glare/lighting](#), and the [visual](#) effects of winegrowing operations. These issues are also inherently relevant to [rural subdivision](#).

## 2.1 Noise

Noise generated by [winegrowing](#) operations may affect the health and amenity of residents in adjacent rural or residential zones. Conversely, where residential growth extends into rural and rural-residential areas, reverse sensitivity may affect the operation of permitted winegrowing activities within these areas.

A common concern in rural areas is noise associated with the operation of normal rural activities (eg, tractors, delivery trucks, and outdoor storage and processing areas). For winegrowing operations, noise associated with crop protection devices, such as the use of wind machines, helicopters and gas guns, is a common source of complaint.

Approaches to manage reverse sensitivity noise effects could also apply to other situations where incompatible land uses are sited next to each other. Refer to the [Noise management in mixed-use urban environments guidance note](#) for further discussion.

### Approaches and examples

Generally, noise can be controlled at either the source or the receiver's end. Section 16 of the RMA requires all noise generators to adopt the best practicable option to avoid the emission of unreasonable noise, and is additional to the duty to comply with the permitted noise levels included in a district plan.

Approaches to control the volume of noise at the source include:

- General noise emission standards  
These apply to the site from which the noise is being emitted but measured at or beyond the boundary of the site, or at the notional boundary of neighbouring dwellings or other noise-sensitive activities. For example, the [Hastings District Plan \(PDF 475 KB\)](#) includes tables that indicate the maximum permitted noise levels for each zone within the district, both in dBA L10 (rule 14.2.8.1-1) and dBA Lmax (rule 14.2.8.1-2). However, these can be difficult to cost-effectively monitor on an on-going basis, with remedial action largely occurring as a result of complaints.
- Standards associated with particular types of activities, such as noise from [crop protection devices](#) and [frost-protection devices](#)  
Within the [Gibbston Character Zone](#), the Queenstown Lakes District Plan exempts wind machines and frost-fighting devices from the permitted activity standards relating to noise, provided that they are operated in accordance with the manufacturer's specifications (rule 5.7.5.2(iii)) and does not exceed 85 dB L<sub>A</sub>F<sub>max</sub> at any point within the notional boundary of any residential unit, other than residential units on the same site as the activity. Reliance on flexible restrictions offers a useful means to recognise and provide for the infrequent and unpredictable nature of the use of frost-protection devices (eg, weather-dependent). The [Hurunui District Plan](#) (PDF 140 KB) has permitted noise standards to control the operation of frost control fans (rule A.1.2.9(i)). A dB L<sub>A</sub>eq limit is set for the cumulative noise received at the boundary of a dwelling from all frost fans operating within 1km. Standards also control separation distance from an existing dwelling, and the time of year, wind speed and temperature conditions frost control fans may operate in. Some councils now provide guidance on the construction and use of wind machines. For example, the Western Bay of Plenty



## THE RMA QUALITY PLANNING RESOURCE

District Council has set out guidelines for frost control fans, including performance standards. If consent applications for fans are assessed to meet the standard, and the applicant receives written permission from all neighbours, a non-notified consent may be granted (subject to other relevant provisions of the District Plan). Marlborough District Council also provides a building consent application checklist for wind machines.

- **Timing restrictions on operations**  
This may involve, for instance, establishing permitted noise levels that apply to different parts of the day. The approach allows higher background noise levels during business hours, with lower background levels during the night
- **Management plans**  
These may be imposed as a condition of consent, and include the number of events per calendar year exceeding the permitted hours of operation, the timing and noise levels of events that occur on the site, and detailed management procedures to assist the applicant and neighbours to deal with excessive noise.
- **Acoustic insulation and design of buildings**  
This includes screening around storage areas associated with winemaking activities to mitigate effects of machinery noise on adjoining properties. Consideration may also be given to the inclusion of acoustic insulation and/or location of doors and windows relative to neighbouring properties. This approach could be applied as a condition of consent.
- **Industry initiatives**  
The New Zealand Winegrowers Wind Machine Code of Practice 2008 aims to provide guidance to the wine industry on the safe operation of wind machines. Compliance with the Code, however, is voluntary and would not displace members' obligations to comply with rules contained in the relevant District Plan or the RMA.

Approaches to manage noise at the receiver include:

- **Applying lower noise limits to noise sensitive activities in adjacent areas (eg, a maximum noise limit on rural activities measured at or within the boundary of any residential site)**  
This approach is applied in the [Hastings District Plan \(PDF 475 KB\)](#) in relation to its gas-gun bird-scarer and wind machine (frost-protection devices) noise standards, both of which are more restrictive in relation to noise received within residential zones (rule 14.2.9). It can be difficult to cost-effectively monitor on an on-going basis, with monitoring usually being initiated in response to complaints received.
- **No-complaints covenants**  
These are an optional mechanism that can be included on a title by a landowner at the time that a property is subdivided or developed. If they are imposed as a condition of consent under s108 of the RMA they need to meet the 'Newbury' test for validity. To be effective they also need the consent of all parties. Covenants can provide owners and potential purchasers of affected properties with notice of surrounding activities.

More specifically, no complaints covenants prevent the covenantor from complaining about the adverse effects of a nearby activity. Such instruments will often include a prohibition on the owner or occupier from:



## THE RMA QUALITY PLANNING RESOURCE

- suing for nuisance;
- taking any type of enforcement action under the RMA;
- making opposing submissions against an application by the effects-producing landowner to obtain new resource consents or renew existing ones;
- funding or being otherwise involved in any of these activities.

A resource consent applicant will often propose such a covenant to respond to the concerns of existing operators. A covenant may be either agreed as a condition of the consent under s108 RMA, or by private agreement, and can be registered on the title of the receiving site under s109 RMA. The [City of Napier District Plan](#) lists the use of no-complaints covenants as a non-regulatory method to avoid reverse sensitivity issues in the city's [Rural Environment \(objective 33.2\) \(PDF 142 KB\)](#) (objective 33.2).

- Acoustic insulation of new residential dwellings located near existing rural activities  
This could be applied either as a consent condition or a standard relating to a rezoning or development proposal (eg, to protect existing noise-producing rural activities), where the resource consent or rezoning results in new residential activities establishing in an area. For examples, the [Hurunui District Plan \(PDF 140 KB\)](#) requires any new dwelling proposed within 1000m of an existing frost control fan (including if consented but not yet built) to be designed and constructed so that bedrooms receive up to a maximum level of noise when the frost control fan(s) are operating. The dwelling is required to have a mechanical ventilation system. Proposed Plan Change 58 to the Wairau-Awatere Resource Management Plan (currently under appeal) also contains a standard for noise received at bedrooms, applying to new dwellings within 300m of a frost fan.
- Council newsletters and mail-outs  
These can be used to inform new rural-residential dwellers that they are living in a "working" rural environment along with the effects that are permitted in that environment. The [Central Otago District Council](#) sends out notices every few months to remind existing and new rural residents that noise is generated by permitted activities such as primary production operations. Since introducing this practice, there have reportedly been few rural noise complaints.

Noise effects can also be managed by separating noisy and noise-sensitive activities. Approaches that can be used to separate activities include:

- Separation by distance  
For example, the [Hastings District Plan \(PDF 475 KB\)](#) includes a guide which outlines the separation distances required to meet the maximum permitted noise levels for gas guns (rule 14.2.9.1). This stems from the fact that the effectiveness of separation distances can be dependent on a variety of factors, including the topography of the separation area, the orientation of the noise source and weather conditions.
- Use of noise barriers, such as landscaping  
The effectiveness of noise barriers will be dependent on what the barrier is constructed of, how it is constructed, and the nature of the noise being generated.
- Setback distances  
These can be applied to new residential dwellings located next to permitted



## THE RMA QUALITY PLANNING RESOURCE

viticulture activities, for new vineyards establishing next to an existing residential area.

Further examples of how councils have applied these approaches to manage noise effects are contained in the [New Zealand Winegrowers Background Issues Paper \(PDF 329 KB\)](#).

### 2.2 Agrichemical use

[Winegrowing](#) operations have limited potential to cause spray drift beyond a vineyard. A number of factors play a part, such as wind direction and velocity, the uniformity of the crop canopy, effectiveness of targeting, spray droplet size, type of spray equipment used, direction of spraying and frequency of application. All spray operators are well trained, under Sustainable Winegrowing New Zealand operators are required to have Growsafe certification. Because most of the spray application in vineyards is directional, spray drift beyond the boundary is highly unlikely.

Spray drift can be a health risk and concerns are likely to arise in areas where commercial spraying occurs. The application of agrichemicals for winegrowing is closely controlled and monitored by the wine industry, particularly as the use of agrichemicals can affect trade if residue exceeds legal limits.

The effectiveness and efficiency of agrichemicals depends on the exterior temperature and weather conditions. Due to the difficulty in forecasting the appropriate conditions for application, spraying may occur at short notice. Therefore controls on the use of agrichemicals need to be flexible enough to enable their effective and efficient application.

Use of agrichemical on adjoining properties may also affect vineyards. Grapevines are particularly sensitive to hormone-based agrichemicals and may be affected by spray drift. New Zealand Winegrowers have prepared a [Best Practice Guideline - Herbicide Spray Drift Injury to Vineyards](#) for the minimisation of spray drift and to provide information to those affected by spray drift.

Approaches to manage the reverse sensitivity issues associated with agrichemical use could also apply to other situations where incompatible land uses are sited next to each other.

#### Approaches and examples

Approaches to manage agrichemical use include:

- Location of use  
The [Wairau/Awatere Resource Management Plan](#) applies permitted activity standards to control the use of agrichemical sprays. Provisions include standards which require that all reasonable steps be undertaken to ensure that no spray drifts beyond the boundary of the site or deposits onto any surface water. This can be difficult to monitor, unless complaints are received.
- Separation between the use of agrichemical sprays and particular uses on adjoining sites  
For example, to be considered a controlled activity in the [Rural 1 Zone of the](#)



## THE RMA QUALITY PLANNING RESOURCE

[Tasman Resource Management Plan](#) vineyard plantings that may result in the discharge to air of pesticides or herbicides have to be located a minimum distance of 30m from any dwelling, other accommodation, or educational facility, or 20m from any dwelling that is separated by a spray belt (rule 17.5.4).

- Use of management plans  
For example, the [Hawke's Bay Regional Resource Management Plan](#) requires in certain circumstances a spray plan to be prepared before agrichemical sprays are used (section 6.4.1 rule 10(h)). The spray plan must be in accordance with the [New Zealand Standard NZS 8409:2004 Management of Agrichemicals](#).
- [Sustainable Winegrowing New Zealand](#)  
It provides detailed guidance on chemicals and their usage and requires growers to maintain spray diaries (eg, New Zealand Winegrowers Export Wine Grape Spray Schedule contains spray data to assist growers to comply with the requirements of foreign markets). The Environmental Protection Authority (EPA) also provides information on requirements in relation to agrichemical use under the HSNO Act. Sustainable winegrowing New Zealand requires Growsafe training for all agrichemical applicators, the industry actively supports progressive Growsafe recertification and ongoing training on agrichemical application.

Further examples of how councils have applied these to manage the effects of agrichemicals are contained in the [New Zealand Winegrowers Background Issues Paper \(PDF 329 KB\)](#) and the Rural and Agricultural Aviation Guidance Note (to be published later in 2014).

### 2.3 Odour

[Winegrowing](#) operations have the potential to generate odour, primarily during winemaking. Odour can be generated by the decomposition or composting of grape skins and other solid waste, or during fermentation of the grape juice. Complaints, for instance, may arise when [grape marc](#) is left to stockpile.

Approaches to manage the reverse sensitivity issues associated with odour could also apply to other situations where incompatible land uses are sited next to each other.

Refer to the [Good practice guide for assessing and managing odour in New Zealand](#) for further discussion.

#### Approaches and examples

Approaches to control the effects of odour typically involve determining the level of offensiveness created. Odour can be relatively difficult to monitor as it is a relatively subjective area. The [Hawke's Bay Regional Resource Management Plan](#) requires that an odour must not be offensive or objectionable and contains a detailed outline of the process that will be used by the council to determine the level of effect (Section 6).

## 2.4 Other air discharges

[Winegrowing](#) operations require [frost-protection devices](#) to reduce the risk of damage to crops from frost. Return Stack Heaters are a type of frost-protection device often used for smaller winegrowing operations and which can be used in conjunction with frost fans.

Emissions from frost protection heaters have the potential to affect air quality, although the effect of these discharges is largely dependent on the type of heater used. Return Stack Heaters burn much cleaner and produce far less emissions than the older style frost pots/smudge pots. Due to the pollution created by older style frost pots/smudge pots there use is not supported by New Zealand Winegrowers and is prohibited by the [National Environmental Standard for Air Quality](#).

Approaches to manage the reverse sensitivity issues associated with frost protection heaters could also apply to other situations where incompatible land uses are sited next to each other.

### Approaches and examples

Approaches to control the effects of air emissions from frost protection heaters include:

- National Environmental Standards for Air Quality 2004

Regulation 10 of the NES prohibits the burning of oil in the open air, which applies to older style frost pots without a stack. This style of frost pot is therefore banned across the country (since 2005). Regulation 10 excludes situations where the discharge from the burning oil is directed to the open air via a stack. The NES thereby leaves the effects of [return stack heaters](#) to be controlled by regional councils.

- Setting standards for the burning of fuel

For example, the [Hawke's Bay Regional Resource Management Plan \(PDF 440 KB\)](#) permits discharges to air from the burning of fuel in any frost protection heater subject to a number of standards (6.5.1, Rule 19d). These include that the discharge shall only take place to protect frost damage to horticultural production crops, that the fuel burning equipment shall operate with a stack or chimney, and that certain fuels only can be burned (petroleum in any form other than gas, including diesel and gasoline, but no waste oil).

- Council information handouts

For example, the Otago Regional Council has [produced a pamphlet](#) summarising the combined effect of outdoor burning rules in their Regional Plan: Air and the NES for Air Quality. It states that old-style frost pots must never be used and that smokeless heaters with a stack are recommended for frost protection. It advises that only clean oil can be burned in these devices.

## 2.5 Glare / lighting

[Winegrowing](#) operations often require a high level of lighting, both for operational and ancillary purposes, which can create visually intrusive glare. The level of glare often depends on the scale of the winegrowing operation, while the effects often depend on the topography of the site relative to neighbouring sites, roads and other locations from which glare can be seen. The most intense lighting generally occurs during the annual 6- to 8-week harvest period. Glare has the potential to elicit complaints from surrounding landowners.

Approaches to manage the reverse sensitivity issues associated with glare/lighting could also apply to other situations where incompatible land uses are sited next to each other.

### Approaches and examples

Approaches to control the effects of glare/lighting include:

- Setting lux level standards  
In the [Te Mata Special Character Zone \(PDF 190 KB\)](#) (and [Rural \(PDF 83 KB\)](#) and [Plains Zones \(PDF 875 KB\)](#)) of the Hastings District Plan, all external light spill must be less than an 8 lux measured at a height of 1.5m above the ground at the boundary of the site (rule 11.1.8.5). This can be monitored relatively easily with the assistance of a lighting consultant/expert.
- Controls on the direction of lighting  
For example, the [Gibbston Character Zone](#) (and [Rural General Zone](#)) of the Queenstown Lakes District Plan requires all fixed exterior lighting to be directed away from adjacent sites and roads (rule 5.7.5.2 (iv) and 5.3.5.2(vi)).
- Screening and separation of buildings and activities  
This may involve, for instance, a requirement that adequate landscaping be provided along boundaries.

Further examples of how councils have applied approaches to manage the effects of glare/lighting are contained in the [New Zealand Winegrowers Background Issues Paper \(PDF 329 KB\)](#).

## 2.6 Rural subdivision

Subdivision has the potential to affect [winegrowing](#) in two ways.

- The pattern and rate of subdivision influences the potential for conflict to arise between winegrowing operations and other activities, particularly residential use, in the rural environment. This is particularly so when subdivision creates an increased number of allotments near existing winegrowing and/or [ancillary winegrowing operations](#), and where the density of settlement intensifies as a result.
- Subdivision potentially reduces the amount of productive land available for winegrowing operations. In some instances this land will have special qualities for wine production that cannot be reproduced in other locations.



## THE RMA QUALITY PLANNING RESOURCE

Approaches to manage the reverse sensitivity issues associated with rural subdivision could also apply to other situations where incompatible land uses are sited next to each other.

Refer to the [Subdivision guidance note](#) for further discussion.

### Approaches and examples

Approaches to control the reverse sensitivity effects of rural subdivision include:

- Minimum lot size standards  
For example, the [Gisborne District Council Combined Regional Land and District Plan](#) has a general minimum lot size in the Rural Productive Zone of 8ha (rule 12.6.2), whereas the Hastings District Plan requires a minimum lot size of 12ha in the [Plains Zone \(PDF 875 KB\)](#)(rule 15.1.8.1). The larger the minimum lot size, the lower the risk of intense rural residential development occurring on adjoining or nearby sites. Refer to the [New Zealand Winegrowers Background Issues Paper \(PDF 329 KB\)](#) for further details on the lot sizes applied by different councils.
- Non-regulatory mechanisms  
For example, the [Rural Zone of the Hastings District Plan \(PDF 83 KB\)](#) advises prospective rural residents on Land Information Memoranda that they are establishing in a productive agricultural environment, and that the council recognises and will uphold the amenity effects associated with normal farming operations (method 5.5). Provided these operations comply with the permitted activity standards of the district plan, council will not consider the effects to constitute a nuisance. This can be a useful technique to make property owners aware of the potential noise levels they may be exposed to.
- Bulk and location controls (eg, requiring specific setback requirements for buildings on new allotments and specific buffering distances)  
The [Hurunui District Plan](#) includes assessment matters for subdivision consent that require consideration of cross-boundary effects between environmentally incompatible activities such as the proximity of new dwellings to vineyards in the Waipara Wine Growing area (policy 10.6). Objectives and policies could also be included in a plan to encourage clustering of new rural-residential properties in order to minimise their interface with productive rural activities.
- Consent notices  
For example, to define the future location of building platforms on new allotments.
- No-complaints covenants  
These are an optional mechanism that can be included on a title by a landowner at the time that a property is subdivided or developed. If they are imposed as a condition of consent under s108 of the RMA they need to meet the 'Newbury' test for validity. To be effective they also need the consent of all parties. Covenants can provide owners and potential purchasers of affected properties with notice of surrounding activities. They may also limit their legal standing to require action to be taken where noise from adjacent activities is within the limits set by the district plan or allowed by a resource consent. For example, the [City of Napier District Plan](#) lists the use of no-complaints covenants as a non-regulatory method to avoid reverse sensitivity issues in the city's [Rural Environment \(objective 33.2\) \(PDF 142 KB\)](#).
- Use of design guides  
These may provide a useful way to manage the visual effects of rural subdivision.



## THE RMA QUALITY PLANNING RESOURCE

They can be used to present information on appropriate or desired building form and design, through diagrams, sketches and associated commentary. For example, the Hastings District Council has produced a [Design Guide for Best Practice Subdivision and infrastructure development in Hastings District \(June 2011\)](#). The guidelines offer detailed advice on building location and design and the location of infrastructure. They also provide guidance on the exercise of council discretion when assessing the visual effects of a development on the landscape.

### 2.7 Visual - bulk and location

Because they are a primary production process, [winegrowing](#) operations often require large-scale buildings, tanks and other utilitarian facilities. However, these structures may be visually inconsistent with the surrounding rural area. As residential activities move closer to existing rural operations, they may be perceived to be inconsistent with the character of the emerging rural-residential environment.

Approaches to manage the reverse sensitivity issues associated with the visual effects of rural buildings could also apply to other situations where incompatible land uses are sited next to each other.

#### Approaches and examples

Approaches to control visual effects include:

- Use of screening  
The [Hurunui District Plan](#) requires screening for vehicle parks and non-residential buildings in non-urban areas that can be viewed from specified roads, adjacent residential sites or an open space zone. It is not required for buildings accessory to farming activities, which includes viticulture activities (rule A.1.2.10). Screens include trees, shrubs, solid walls and fences. In the [Te Mata Special Character Zone \(PDF 190 KB\)](#), the Hastings District Plan requires storage areas, outdoor display areas and parking areas be screened by landscaping or fences, so that they are not visible from adjoining roads or residential buildings on adjacent properties (rule 11.1.8.4).
- Use of bulk and location standards for buildings  
For example in the [Te Mata Special Character Zone \(PDF 190 KB\)](#), the Hastings District Plan imposes a maximum permitted height of 10m for buildings and compliance with a specific building envelope (rule 11.1.8). Further examples of bulk and location standards used by councils to address visual effects are contained in the [New Zealand Winegrowers Background Issues Paper \(PDF 329 KB\)](#).
- Use of design guides  
A design guide may be a useful way to manage the visual effects of winegrowing activities in districts that have an extensive [wine industry](#) or clusters of winegrowing activities. They can be used to present information on appropriate or desired building forms and designs, through diagrams, sketches and associated commentary. For example, the Hastings District Council has produced a [Design Guide for Best Practice Subdivision and Infrastructure Development in Hastings District \(June 2011\)](#). The guidelines offer detailed advice on building location and design and the location of infrastructure. They also provide guidance to council on how to exercise its discretion when assessing the visual effects of a development on the landscape.



### 3. Water allocation and use

Water is important for the wine industry in terms of availability and allocation, and the security of supply for irrigation and processing. This issue also applies to other primary production industries. Where resources are limited and demand is high, there may be limited availability without consideration of reallocation, augmentation (reservoir storage and release), or physical or legal transfer. Some winegrowing areas have an adequate supply, but increasingly many are seasonally limited as demand for water exceeds availability.

For winegrowing, water allocation and use issues are particularly relevant to irrigation, processing and frost-protection. These activities create differing demands on water resources.

The [National Policy Statement \(NPS\) for Freshwater Management 2011](#) came into effect on 1 July 2011. The NPS sets out objectives and policies that direct local government to manage water in an integrated and sustainable way, while providing for economic growth within set water quantity and quality limits. Decision makers under the RMA must have regard to the NPS in consenting decisions. The RMA requires local authorities to amend regional policy statements, proposed regional policy statements, plans, proposed plans, and variations to give effect to any provision in a NPS that affects those documents.

Note that the NPS is currently being reviewed through the Government's freshwater reform programme. This includes the development of a national objective framework to support the implementation of the NPS. Further details can be found on the [Ministry for the Environment website](#).

Councils have the ability to preferentially allocate water (ie, by activity class through rules in regional plans and granting of water permits). These decisions can have a pronounced effect on winegrowing as they influence:

- the future availability of water for irrigation through allocation policies that are developed, and
- the current and future security of supply of allocated water for current permit-holders.

Water availability and allocation is a major issue in its own right and is not widely covered within this guidance note.

Water availability refers to the changing quantity of water resource (both groundwater and surface water) contained in a catchment.

Allocation is an issue for existing permit holders in both the [wine industry](#) and other primary production industries. This is particularly the case when continuity of supply depends on a permit renewal process.

Where available water is at or near full allocation, the issues of availability and allocation merge, and access to a secure supply through such means as allocation, augmentation or transfer can be an issue for new industry entrants.



## THE RMA QUALITY PLANNING RESOURCE

Approaches to manage the water allocation and availability could also apply to other situations where water takes are required.

### Approaches and examples

Approaches to control the effects of water take include:

- Metering of water takes  
The [Resource Management \(Measurement and Reporting of Water Takes\) Regulations 2010](#) took effect on 10 November 2010. The regulations apply to holders of water permits (resource consents) which allow freshwater to be taken at a rate of 5 litres/second or more (see Regulation 4). This means that the regulations do not apply to:
  - people who do not require a resource consent for their water take (permitted takes), including:
    - individual households or businesses that take water from a reticulated supply
    - takes that are specifically permitted in section 14 of the RMA including takes for an individual's domestic purposes, for animals' drinking water, or for fire-fighting
    - any takes which are permitted by a rule in a regional plan
  - holders of permits for water takes that only allow water to be taken at a rate of less than 5 litres/second.

The regulations also do not apply to:

- holders of permits for non-consumptive takes (irrespective of the rate of that take), which are described in the regulations as takes where the same amount of water is returned to the same water body at or near the location from which it was taken; and there is no significant delay between the taking and returning of the water.
- holders of permits for takes of coastal or geothermal water.

Metering is also seen by the wine industry as a good practice monitoring method and is intended to be a requirement of the [Sustainable Winegrowing New Zealand](#).

- Use of catchment plans  
The [Wairau/Awatere Resource Management Plan](#) uses catchment plans to indicate both allocation limits and minimum flows.
- [Greater Wellington Regional Freshwater Plan](#)  
This uses methods to set minimum flows on a largely regional basis. These include, for instance, the identification of minimum flows that should be achieved in low flow conditions (policy 6.2.1).



#### 4. Worker accommodation

The predominantly rural-based location and the labour-intensive and seasonal nature of winegrowing operations create a demand for new and existing buildings to accommodate workers. This need also applies to other primary production industries, such as fruit processing. With the current low unemployment rate, this issue is more important as there is an increasing dependence on workers from outside the region to get through seasonal peaks.

In some situations, legislation requires worker accommodation to be provided (eg, the Recognised Seasonal Employer (RSE) scheme allows approved employers to bring in seasonal workers from the Pacific Islands over a number of seasons. The scheme requires employers to take responsibility for the workers' 'pastoral care', which includes making sure they have appropriate accommodation). Providing worker accommodation on-site creates opportunities for primary production industries to better manage their workforce and to enhance employee relationships.

The visual character and appearance of buildings constructed or refurbished for worker accommodation require consideration, particularly in terms of their contribution to both existing and future character of an area. Close attention to integrated design is required if building developments are to contribute to and avoid dominating existing valued characteristics (eg, rural amenity characteristics). Consideration also needs to be given to the amenity effects of large-scale accommodation complexes in rural areas.

Related resource management issues include:

- whether worker accommodation should be provided on-site, in nearby towns, or at all, and
- whether rural land should be used for the purposes of worker accommodation when infrastructural capacity is already available in existing residential or commercial zones.

##### 4.1 Visual - bulk and location

Providing worker accommodation for [winegrowing](#) operations may require the construction of large-scale accommodation buildings within rural areas. These buildings may be visually inconsistent with the surrounding rural area, unless they are designed and located in a sensitive way. Issues can also arise where accommodation is provided away from existing residential and/or commercial zones, particularly when there is available infrastructure and capacity within these zones.

Approaches to manage the visual effects of worker accommodation could also apply to other situations where worker accommodation is needed.

##### Approaches and examples

Approaches to control visual effects include:

- Use of screening  
The [Hurunui District Plan](#) requires vehicle parks and non-residential buildings in



## THE RMA QUALITY PLANNING RESOURCE

non-urban areas that can be viewed from specified roads, adjoining residential sites or an open space zone to be screened. Screening is not required for buildings accessory to farming activities, which includes viticulture activities (rule A.1.2.10). Screening includes trees, shrubs, solid walls and fences. In the [Te Mata Special Character Zone \(PDF 190 KB\)](#), the Hastings District Plan requires storage areas, outdoor display areas and parking areas to be screened by landscaping or fences so that they are not visible from adjoining roads or residential buildings on adjacent properties (rule 11.1.8.4).

- The use of bulk and location standards for buildings  
For example, the [Te Mata Special Character Zone \(PDF 190 KB\)](#) of the Hastings District Plan imposes a maximum permitted height of 10m for buildings and compliance with a specific building envelope (rule 11.8.1). Further examples of bulk and location standards used by councils to address visual effects are contained in the [New Zealand Winegrowers Background Issues Paper \(PDF 329 KB\)](#).
- The use of design guides  
Design guides may provide a useful way to manage the visual effects of winegrowing activities in districts that have an extensive [wine industry](#) or clusters of winegrowing activities. They can be used to present information on appropriate / desired building forms and designs through diagrams, sketches and associated commentary. For example, the Hastings District Council has produced a [Design Guide for Best Practice Subdivision and Infrastructure Development in Hastings District \(June 2011\)](#). The guidelines offer detailed advice on building location and design and the location of infrastructure. They also provide guidance to council on how to exercise its discretion when assessing the visual effects of a development on the landscape.

## 5. Waste management

Waste resulting from crushing and winemaking activities is typically both [solid and liquid waste](#). The issue of waste management equally applies to all production industries. If not properly managed, potential effects of waste can include:

- reduction in downstream surface or ground water quality due to nutrient enrichment or salination,
- degradation of soil structure or contamination, and
- [odour](#) from waste treatment facilities.

The disposal of solid and liquid waste is controlled through regional and district plans. Application of good practice, along with good design, is also required to help minimise the potential for winery waste to adversely impact on the environment.

### 5.1 Solid and liquid waste

Solid waste from the winemaking process typically includes:

- [grape marc](#) consisting of grape skins, stems and leaves from the pressing of grapes



## THE RMA QUALITY PLANNING RESOURCE

- suspended solids from the wastewater screening
- lees sediments containing pulp and yeasts from fermentation
- sludge when settlement tanks are emptied.

Grape marc can be composted, and/or used as feed for cattle, deer or pigs. The cost of taking solid waste to a landfill acts as an incentive to discharge it on-site.

Liquid waste from the winemaking process predominantly consists of water used for cleaning floors, equipment, fermentation vessels and barrels. Liquid waste is typically seasonal in nature, with the highest volume generated at the time of vintage.

Approaches to waste management could also apply to other processes where waste produced needs to be adequately disposed of.

### Approaches and examples

Approaches to manage winery waste include:

- Reference to a Code of Practice  
[The New Zealand Winegrowers Code of Practice for Winery Waste Management](#) encourages waste minimisation. As part of this minimisation, the code of practice discourages the disposal of grape marc to landfills where other potential sustainable uses (eg, organic fertiliser; stock feed). It recommends disposal of other sludge and solids from the winemaking process to landfills where treatment facilities are not available because of the high nutrient loading of these by-products. It also recommends pre-treatment of wastewater (eg, filtering) and outlines the issues to be considered when establishing land disposal and treatment systems.
- Use of permitted activity standards relating to the disposal of waste products  
For example, the [Hawke's Bay Regional Resource Management Plan](#) includes a permitted activity standard that allows up to 100m<sup>3</sup> of raw material to be composted (rule 28).

## 5.2 Odour

[Winegrowing](#) operations have the potential to generate odour, primarily during winemaking. Odour may be generated by the decomposition or composting of grape skins and other solid waste, or during fermentation of the grape juice. Complaints, for instance, often arise when [grape marc](#) is left to stockpile.

Refer to the [Good practice guide for assessing and managing odour in New Zealand](#) for further discussion.

### Approaches and examples

Approaches to control the effects of odour typically involve determining the level of offensiveness created. The [Hawke's Bay Regional Resource Management Plan](#) requires that any discharges to air must not cause any offensive or objectionable odour beyond the boundary of the subject property, and contains a detailed outline of the process that will be used by the council to determine the level of effect (section 6.1.4).

## **Approaches to Manage identified issues associated with the Wine industry**

---

District and regional plans currently apply a variety of approaches to managing the issues associated with the wine industry, often using different techniques for different aspects of winegrowing. These variations are often due to such factors as its influence on the social history of a local community (eg, the length of time the industry has been there), climate, topography, geology, ecology, landscape and infrastructure.

While plans focus on regulatory measures such as objectives, policies and methods, various non-regulatory measures can be, and are, used in conjunction with plan provisions. There are also a number of non-regulatory mechanisms specific to the wine industry that can be used in conjunction with planning mechanisms or included within existing regulatory frameworks.

The [New Zealand Winegrowers Background Issues Paper \(PDF 329 KB\)](#) also includes a range of regulatory and non-regulatory approaches used by local authorities to manage the effects of wine growing.

### **Regulatory approaches**

#### **Objectives and policies**

Current district plans generally rely on one of the following approaches to manage the identified winegrowing-related issues:

- Special area identified within the district plan along with a separate chapter that includes specific issues, objectives and policies

This approach has the potential to work well in areas with an extensive wine industry or clusters of winegrowing activities. The concept of identifying and providing for special-character areas may be particularly useful in light of the complex and often unique scale of the issues facing the wine industry, including vertical integration and reverse sensitivity. Matters that should be considered include the scale of existing operations in the area and whether a special area is required to manage the effects of these operations on competing rural uses and vice versa.

For an example of this approach, refer to the [Te Mata Special Character Zone in the Hastings District Plan. \(PDF 190 KB\)](#) This approach recognises the importance of established winegrowing activities and makes specific provision for the separation of viticulture and rural residential development.

- Reference to winegrowing through generic objectives, policies and methods

This approach recognises the diversity of an area and the range of activities that contribute to its environment and economy. However, in areas where winegrowing is a major industry it may give insufficient weight to the nature and scale of industry effects and the methods needed to manage them. Depending on the scale of the wine industry



## THE RMA QUALITY PLANNING RESOURCE

in a particular city or district, it may also be too general and provide insufficient direction to effectively address local resource management issues relevant to the wine industry.

An example of how this approach could be applied would be to incorporate a number of objectives, policies and methods specific to winegrowing into the plan provisions that relate to the rural areas within a city, district or region.

For example, the [Wairarapa Combined District Plan](#) includes a Rural (Special) Zone within the Rural Area (section 4). This zone covers those areas where intensive viticultural and horticultural activities are facing pressure from sporadic urban growth, particularly residential development. The purpose of the zone is to recognise that unplanned residential intensification is generally inappropriate in these parts of the rural environment, and that development limitations may need to be imposed to avoid future problems. The [Rural Zone \(PDF 83 KB\)](#) (and [Plains Zone \(PDF 875 KB\)](#)) of the Hastings District Plan also recognises that many intensive horticultural, viticultural and agricultural activities may be suitable within its rural areas. The district plan states that activities establishing in the Rural Zone (and Plains Zone) need to recognise existing, accepted amenity levels, which reflect the effects of the operation of existing activities in adjacent zones.

### Rules

A number of district and regional plans include rules to manage the effects of the wine industry, but often in conjunction with voluntary and industry-based Codes of Practice and other methods. These are usually applied on either a district/region, or a catchment/special area basis, and establish the status and thresholds of activities associated with the industry.

The status and thresholds that an activity may trigger are dependent on such factors as:

- Whether the proposed activity is provided for in the district or regional plan  
This depends on how it is defined in the plan. For example, the [Hurunui District Plan](#) permits all farming activities within the rural area, subject to satisfying the relevant permitted activity standards. Viticulture is specifically included within the definition of farming activities.
- The scale of the proposed activity  
For example, in the Rural 3 and 4 Zones of the [Wairau/Awatere Resource Management Plan](#), the permitted maximum building height is 10m (rule 30.1.3.1) and all buildings have to comply with a specified sunlight access plane (rule 30.1.3.3). Permitted activity standards also set minimum front, side and rear yards (rule 30.1.3.4), and restrict the area of a site that may be covered in permanent buildings to a maximum of 15% (rule 30.1.3.5). Where these standards are not complied with the activity becomes a limited discretionary activity.
- The location of the proposed activity  
For example, within the [Gibbston Character Zone](#) the Queenstown Lake District Plan provides for retail sales, including retail sales of wine from a winery or vineyard, as a controlled activity subject to meeting the relevant permitted activity standards (rule 5.7.3.2(ii)). Matters for control are limited to the layout of the site, the location of buildings, vehicle access and car parking. Wineries themselves are a controlled activity, but with no matters specifically listed for



## THE RMA QUALITY PLANNING RESOURCE

control. All other commercial activities, including restaurants and retail sales not directly associated with a winery or vineyard, are a discretionary activity. Also, in the [Plains Zone \(PDF 875 KB\)](#) (and [Rural Zone \(PDF 83 KB\)](#)) of the Hastings District Plan, wineries are permitted, subject to meeting relevant permitted activity standards (rule 6.7.1 and 5.7.1).

A standards-driven approach is usually associated with permitted activities, whereas a qualitative approach is generally applied to discretionary activities. However, plans may also include quantifiable outcomes within discretionary provisions, to provide guidance as to what outcomes are acceptable or unacceptable. The suitability of a proposed activity is often assessed by looking at the nature of existing activities in the vicinity and determining whether any restrictions on the proposed activity are required to avoid or minimise reverse sensitivity issues. However, in some instances it may be entirely inappropriate for the proposed activity to be located in close proximity to existing operations. In such situations, incompatibilities between the existing and proposed activities may mean that resource consent is denied.

District plans have traditionally relied on various permitted activity standards to control development and activities. This situation is changing with some plans now placing greater reliance on discretionary processes.

In making this shift, district plans will need to provide greater direction through their objectives and policies, including developing clear guidance about what qualities and values are important, and the pattern of activity that is anticipated (eg, the acceptability of non-rural activities in rural zones).

For example, policies and assessment criteria outlining the development qualities sought in an area could be used to manage the effects of winegrowing developments where multiple land uses are proposed on the same site. Key considerations could include such factors as urban design, layout and setbacks. The [Te Mata Special Character Area \(PDF 190 KB\)](#) in the Hastings District Plan, for instance, includes policies and assessment criteria that relate to commercial activities that are dependent on rural resources such as winegrowing. Where a resource consent application for such an activity is lodged, the council will consider, amongst other matters, the benefits to the district that could be derived from its tourist potential.

### **Resource consent applications**

Resource consent applications should include the information outlined in Schedule 4 of the RMA. District and regional plans may also contain information requirements for resource consent applications. The [Wairarapa Combined District Plan](#) contains a detailed section on the information requirements for resource consent applications depending on the activity status and nature of the proposal (section 26). For example, a resource consent application for winegrowing operations needs to include details of hazardous substances to be used and stored on-site, including those to be used for spraying purposes. A resource consent application for an ancillary winegrowing operation should include a traffic report assessing the potential carparking demand arising from the proposed activity.

For examples of the information included in resource consent applications involving the wine industry, relevant councils should be contacted.



## Resource consent conditions

Once a resource consent has been granted, its conditions determine how a proposed activity is managed and controlled over time. For example, conditions of consent for winegrowing could include controls on the operation of crop protection devices; conditions for ancillary operations could cover carparking requirements and hours of operation. Concerns regarding reverse sensitivity can result in more restrictive resource consent conditions for new, potentially sensitive, activities. In relation to a proposed subdivision, conditions could relate to the permitted density of subdivision, size of allotments, nominated building platforms, and minimum buffer distances from boundaries. No complaints covenants are frequently included by Councils as conditions of resource consents where this has been agreed to by the relevant parties. The resource consent will either require the parties to enter into a no complaints covenant or may contain the full text of the covenant to be entered into. For further discussion, refer to the guidance note on [Resource consent conditions](#) and the Ministry for the Environment's publication on [Effective and Enforceable Consent Conditions \(June 2001\)](#).

For examples of consent conditions with no complaints covenants, refer to the examples from the following councils:

### [Hastings District Council – Decision relating to an application for land use consent \(PDF 33 KB\)](#)

Published by Hastings District Council - June 2006

Decision relating to a notified application for land use consent. Provides example of the use of no complaints covenants within resource consent conditions.

### [Rodney District Council – Resource Consents Hearings Panel \(PDF 75 KB\)](#)

Published by Rodney District Council - April 2005

Minutes of a meeting of the Resource Consents Hearings Panel. Provides example of the use of no complaints covenants within resource consent conditions.

For examples of consent conditions, refer to:

### [Hurunui District Council – Decision relating to application for land-use consent frost fan \(S Berry\) \(PDF 224KB\)](#)

Published by Hurunui District Council – September 2012

Decision relating to a non notified application for land use consent to erect a frost control fan.

### [Hastings District Council – Decision relating to application for land-use consent \(Te Awanga\) \(PDF 60KB\)](#)

Published by Hastings District Council – June 2005

Decision relating to a notified application for land use consent to establish a winery, restaurant, retail sales, offices and apartments.

### [Hastings District Council – Decision relating to an application for land use consent \(PDF 1.75MB\)](#)

Published by Hastings District Council - March 2011

Decision relating to a limited notified application for land use consent to establish a winery of a scale larger than that permitted by the District Plan. Provides example of the use of landscaping and amenity conditions within resource consent conditions.



**[Hurunui District Council – Decision relating to application for land-use consent cafe \(PDF 275KB\)](#)**

Published by Hurunui District Council May 2012

Decision relating to a limited notified basis for land-use consent for cellar door and cafe operation. Provides example of the use of access and stormwater conditions within resource consent conditions

**[Tasman District Council: Report and Discussion of the Hearings Commissioner D W Collins, under authority delegated by the Tasman District Council \(PDF 146 KB\)](#)**

Published by Tasman District Council - December 2006

Hearing report for application lodged by Kaimira Ventures Ltd relating to a proposed winery with a "Cellar Door" retail outlet and associated discharge and water use permit.

### **Non-regulatory approaches**

Non-regulatory mechanisms for managing the effects of the wine industry include a range of techniques.

Non-regulatory tools are often used to support and extend district or regional plan approaches (eg, as a method to implement objectives and policies), or to help guide and explain plan provisions (eg, GROWSAFE Code of Practice in the [New Zealand Standard NZS8409:2004 Management of Agrichemicals \(PDF 135 KB\)](#)). They are also developed and used by the [wine industry](#) itself to inform and improve practice (eg, [Sustainable Winegrowing New Zealand](#)) and the Rural and Agricultural Aviation Industry generally; refer to this guidance note for more information.

Many non-regulatory tools, such as design guides and industry guidelines, have limited legal weight in the development assessment process, although they may be relevant in assessing consent applications. However, councils are increasingly incorporating such tools into their resource management planning framework by specifically referring to them in the objectives, policies and methods of implementation. For example, in the [Rural Zone, the Hastings District Plan \(PDF 83 KB\)](#) specifically identifies the use of industry codes of practice as a method of implementing objectives and policies, and can be used as a guideline for setting consent conditions (section 5.5).

Useful non-regulatory tools that could be referred to in district or regional plans include:

**[Sustainable Winegrowing New Zealand](#)**

This is a voluntary initiative introduced by New Zealand Winegrowers. The programme provides a framework to assist winegrowers in improving all aspects of their operational performance in terms of environmental, social and economic sustainability. It also provides a 'best practice' model for vineyard and winery operations and gives a high-level assurance that sustainable practices have been used. Sustainable winegrowing has an annual independent audit of all members.

New Zealand Winegrowers have taken a strong stance on sustainability in the industry and aim for New Zealand wine to be 100% sustainable by 2012. Accreditation in the Sustainable Winegrowing New Zealand programme or other recognised equivalents has been made a pre-requisite for participating in New Zealand Winegrowers events and activities. It is estimated that 95% of the producing vineyard area is now participating in



## THE RMA QUALITY PLANNING RESOURCE

the programme. It is estimated that 3 to 5% of the national vineyard is currently producing under certified organic practices.

### **New Zealand Management of Waste By-Products Code of Practice for Wineries**

This code provides guidance to winemakers on cleaner production and sound environmental practices including waste management and disposal.

### **Growsafe requirements**

Growsafe offers accreditation programmes to help agrichemical users adhere to the requirements of [New Zealand Standard NZS 8409:2004 Management of Agrichemicals \(PDF 135 KB\)](#). This is the recognised industry standard for primary producers and for ground and aerial contractors. It provides practical advice on the safe and effective use of agrichemicals to control weeds, pests and plant diseases.

### **Provision of information to the industry**

New Zealand Winegrowers encourage regional grower associations to include reminders in their newsletters of member responsibilities (eg, noise mitigation during frost). They also host seminars to promote improved vineyard management through. A range of industry events and training days, including, Romeo Bragato conference, and sector wide Grape Day seminars, annual sustainability seminars, progressive free certification of Growsafe training, the industry website and technology transfer from the comprehensive sector research programme.

### **Winegrowers' Legal Guide (PDF 506 KB)**

Published by Bell Gully - May 2012

This guide is a reference tool for all participants in the wine industry. It identifies the key legislative and regulatory requirements that need to be considered when establishing a winery or vineyard and distributing the product.

### **International websites**

- [Australian Government Grape and Wine Research and Development Corporation](#)
- [Winemakers' Federation of Australia](#)
- [The Australian Wine Research Institute](#)
- [Western Australian Environmental Management Guidelines for Vineyards](#)
- [Angas Bremer Water Management Committee, South Australia](#)
- [California Sustainable Winegrowing Alliance](#)
- [Canadian Centre for Pollution Prevention](#)
- [Sonoma County Permit Resource Management Department - Right to Farm regulations](#)



THE RMA QUALITY PLANNING RESOURCE

