

TIMARU



DISTRICT COUNCIL

Te Kaunihera ā-Rohe  
o Te Tihi o Maru



YOUR PLAN OUR FUTURE  
TIMARU DISTRICT PLAN REVIEW

## Noise S.32

June 2022



**YOUR PLAN OUR FUTURE**  
**TIMARU DISTRICT PLAN REVIEW**  
LAND USE PLAN

# **Timaru District Council**

## **Section 32 Report** **Noise Chapter**

**June 2022**

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# 1 Noise

## 1.1 Introduction

This topic relates to the management of the effects of noise. Under the RMA, the Council has the function of controlling the emission of noise and the mitigation of the effects of noise, to assist it with giving effect to the RMA within the Timaru District.

The generation of noise is often a central and necessary part of the operation and function of many activities that operate in the district. While it is important that these activities are able to generate noise that is necessary for their operation, noise has potential adverse effects on people's health and wellbeing and their enjoyment of the environment. Noise effects can vary depending on the frequency, timing, duration and characteristics of the noise, and the distance or other noise reducing measures between the noise source and receiver. The background sound level in different environments also influences the level of acceptability or annoyance to noise and these vary throughout the district.

Enabling activities that necessarily generate noise, without placing undue restrictions on them, can contribute towards economic, social and cultural well-being. In addition, appropriate management of noise generating activities can support social, economic and environmental wellbeing.

This topic also addresses the potential for reverse sensitivity effects to arise where activities more sensitive to noise establish near to existing activities that generate higher levels of noise, or areas where higher noise levels are expected. Reverse sensitivity is the vulnerability of the established noisier activity to complaint from the new, more sensitive activity. Where the potential for reverse sensitivity effects to arise are not adequately managed, existing activities, or those activities anticipated in noisier zones may be constrained in terms of their establishment, ongoing operation and expansion.

This report provides an evaluation under section 32 of the RMA of the provisions in the proposed Plan that relate to managing noise, taking into account the provisions in the operation District Plan that manage noise, preliminary community feedback the statutory and policy context relevant to the topic.

## 1.2 Community / Stakeholder / Iwi Engagement

Consultation with the community on the noise topic was undertaken via a Discussion Document released in November 2016<sup>1</sup>. This identified three main issues with how the current District Plan manages noise. Each issue is listed below, along with a brief summary of the issue, a summary of community feedback and the initial direction of the Environmental Services Committee (ESC) following consideration of community feedback.

*Issue 1 – Management of noise emissions from industrial/commercial activities located near Residential Zones.*

Conflict can arise when industrial or commercial activities that generate noise are located near Residential Zones, due to the anticipated quieter nature of Residential Zones and the higher degree of noise associated with commercial and industrial activities. Noise levels from new sites or activities may not be known at the time the activity is proposed, and therefore

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<sup>1</sup> <https://www.timaru.govt.nz/services/planning/district-plan/district-plan-review/discussion-documents>

noise issues and complaints can arise after an activity is established and may require retrospective modifications to be made to reduce noise. Community feedback on this issue included:

- Support for adopting current national noise standards and technical descriptors.
- Both support for and opposition to the use of more stringent noise emission limits for industrial/commercial activities located near residential zones, with those opposed stating that consideration should be given to this at the time zones were created.
- Both support for and opposition to the use of more stringent standards for noise emission and boundary treatment, with those opposed considering such provisions would be unfair on existing activities.
- Opposition to requiring resource consents for industrial activities close to residential areas, on the basis that these should be controlled by permitted rules with standards to be met.

Following feedback, the initial direction of the ESC is to apply noise limits in all zones, with management controls put in place in buffer areas between commercial/industrial and Residential Zones.

#### *Issue 2 – Protection of strategic infrastructure, sites and facilities against reverse sensitivity*

Strategic infrastructure is important to the wellbeing of the District, providing essential services, recreational facilities and employment opportunities. A number of established strategic infrastructure, sites and facilities, such as roads, airports, ports and railways, generate noise emissions. Where activities sensitive to noise locate near to such infrastructure, there is a risk that reverse sensitivity effects may arise, and the more sensitive activities may constrain the ongoing operation, or further growth of the infrastructure, sites and facilities. Community feedback on this issue included:

- Support for including a list and maps of existing strategic infrastructure, sites and facilities.
- Support for including noise contours and buffer areas surrounding strategic infrastructure, sites and facilities.
- Requests for the inclusion of railway corridors, Radio New Zealand facilities and the National Grid as strategic infrastructure.
- Requests to use the term ‘critical infrastructure’ rather than ‘strategic infrastructure’.

Following feedback, the initial direction of the ESC is to recognise existing strategic infrastructure, sites and facilities, by requiring new noise sensitive activities to provide acoustic treatment in defined buffer areas around the infrastructure.

#### *Issue 3 – Management of noise from commercial activities within Recreation Zones*

Many recreation areas include facilities, such as sports clubs, that include a commercial component to them such as events and function, which can result in higher noise emissions. The current District Plan does not limit noise emissions or hours of operation within Recreation Zones, nor distinguish between commercial-based or community based recreation activities within the zone.

Community feedback on this issue included:

- Differing opinions on whether noise emissions from temporary activities and events on recreational land should be controlled, with opposition considering some exceptions should be applied to community events.
- Opposition from one party on imposing noise limits for commercial activities in recreation zones.

The initial direction of the ESC is to restrict temporary activities and events on recreation land in residential areas to control noise.

*Additional feedback on discussion document*

Additional feedback received from the community on the noise discussion document included requests for noise standards to be applied to address reverse sensitivity in relation to the state highway, rail corridors and farming activities near residential or rural lifestyle lots. The initial direction of the ESC is to manage reverse sensitivity noise effects for these activities. Other respondents sought exemptions to noise standards for farming activities, temporary military training activities and emergency services. Direction from the ESC is to provide exemptions for the latter two activities, but not farming activities near a household unit, where noise should instead be measured at the notional boundary of that unit.

Finally, respondents also sought that reverse sensitivity provisions be included in zone chapters. The initial direction of the ESC is to include all noise related matters, including reverse sensitivity provisions in one chapter to enable easy use of noise provisions.

As is set out in more detail later in this report, technical assessments of the noise provisions were also undertaken by Malcolm Hunt Associates. As part of the preparation of their report on managing reverse sensitivity effects, they also engaged with the following stakeholders:

- Timaru District Council, in relation to the Timaru Airport, roading, the Redruth Landfill and stadiums and events centres
- Timaru International Motor Raceway
- Fonterra
- The New Zealand Transport Agency.

In October 2020, the Council also released a Draft District Plan for public feedback. Approximately, 60 feedback points were received on the topic. All feedback was either from a commercial business (mostly industrial in nature) or a 'public' type entity such as the New Zealand Fire Service, New Zealand Defence Force, or a government department/agency. The feedback can be summarised as follows:

- There was general support for the objectives and policies, although feedback included that NOISE-O1, should directly refer to noise sensitive activities.
- The provisions will be a constraint to industrial type uses as they require any new land use activity, or an existing activity change, to meet the noise limits at the boundary of adjoining sites.
- There was concern that specific design requirements for double glazing/materials are opposed, as this will not efficiently manage activities within close proximity to state highways, commercial zones or the railway. It will restrict development and does not encourage residential development given the additional costs that will be imposed.

- Primeport was opposed to the provisions which will place restrictions on its operation. It seeks to be exempt from the provisions, given the context of the existing nature of the facility and would like to see the existing provisions of the Operative District Plan carried forward.
- Fonterra requested a new noise control boundary to be included for Clandeboye.
- It was requested that key industry and employment generators are recognised as being constrained by reverse sensitivity effects arising from inappropriately located sensitive activities.
- The rural environment can be noisy and that rural production activities generate noise which may lead to reverse sensitivity effects and complaints.
- NOISE – O1 and O2 were generally supported.
- Noise sensitive activities are located in rural areas. The objective (O-2) addressing reverse sensitivity should extend to the General Rural Zone.
- Radio NZ, as a lifeline utility should not be constrained by reverse sensitivity. Nor should rural industry within the Rural Zone.
- There was concern that aircraft noise associated with the rural zone are not adequately provided for.
- The policies were generally supported, but the rural zone needs to be considered as a high noise environment.
- Do not make any further restrictions for noise sensitive activities than the current rule specifies within the airport and raceway noise control boundaries.
- Emergency services sirens are used during training activities which should be recognised by NOISE R-1.
- Roading and roading infrastructure repair, maintenance and upgrade activities should be exempt from the noise standards as a Permitted Activity under rule NOISE-R1.
- Rules in the General Rural Zone should be amended to recognise the use of helicopters and aircraft for rural productive uses.
- NOISE-R3 has multiple references to rules and tables and is therefore confusing.
- The approach to bird scaring devices should be tweaked to refer to times between 30 minutes before sunrise and 30 minutes after sunset and should only require bird scaring devices within 500m of a boundary, to be directed away from noise sensitive activities.
- Waka Kotahi requested all noise sensitive activities within 100m of a boundary to have acoustic insulation.
- Concerns over the approach to helicopter landing sites were raised by a number of feedback providers.

This feedback has been carefully considered by Timaru District Council staff and consultants with an expertise in noise. As a result, a variety of changes have been made to the Noise Chapter within the Proposed District Plan. The changes include a different approach to helicopter landing; changes to the management of Port Noise in line with further technical and detailed discussions including the introduction of a noise control boundary, tweaks to the hours of operation of bird scaring devices and the reconsideration of acoustic insulation requirements.

## 1.3 Strategic directions

The following Proposed Strategic Directions Objectives are relevant to the Noise chapter:

### SD-O8 Infrastructure

Across the District:

- i. improved accessibility and multimodal connectivity are provided through a safe and efficient transportation network that is able to adapt to technological changes;
- ii. the provision of new network infrastructure is integrated and co-ordinated with the nature, timing and sequencing of new development;
- iii. the provision of new network infrastructure is integrated and co-ordinated with the nature, timing and sequencing of new development;
- iv. the benefits of regionally significant infrastructure and lifeline utilities are recognised and their safe, efficient and effective establishment, operation, maintenance, renewal and upgrading and development is enabled while managing adverse effects appropriately.

This objective is relevant to the management of noise as it relates to the potential for reverse sensitivity effects to arise from the noise generated by strategic infrastructure, and the need to ensure that such effects are managed to ensure the ongoing and effective operation, maintenance, renewal and upgrading of such infrastructure is enabled.

### SD-O9 Rural Areas

A range of primarily productive activities are enabled in the rural environment to enable the ongoing use of land for primary production for present and future generations, while:

- i. ....
- ii. managing the adverse effects of intensive activities on sensitive activities;
- iii. managing the adverse effects of new sensitive activities on primary production;
- iv. ....
- v. identifying and maintaining the character, qualities and amenity values of rural areas;
- vi. ...

Noise levels are one aspect that contributes to the character, qualities and amenity values of rural areas. The noise provisions in the proposed District Plan as they apply to rural zones must therefore be aimed at maintaining noise levels consistent with anticipated character, qualities and amenity values of rural areas.

## 1.4 Problem definition

### 1.4.1 Operative Plan provisions

Part B, Chapter 12 Noise provides the objective and policy framework in the operative District Plan for managing noise. The objective within this chapter seeks to minimise situations where there is conflict between noise emissions from land use activities and other more sensitive



land uses (Objective 1). The policy direction is to avoid or mitigate effects of noise on residential uses and other sensitive areas, by limiting noise emissions within residential, rural and natural areas, and by discouraging residential and other sensitive uses from locating close to land zoned or used for noisy activities (Policy 1). Further policy direction is to provide rules setting noise limits adequate for the protection of community health and welfare, while enabling control of reasonable noise emissions from activities (Policy 2); and to rely on other statutory provisions in the RMA to address noise problems where there is no suitable standard in the District Plan or imposed by a resource consent condition (Policy 3). These policies are primarily implemented within the Plan through zoning; what activities are provided for in different zones; and the setting of noise levels, as well as through other methods outside the District Plan.

There are also noise-related objectives and policies within zone chapters, for example, in the rural chapter, Objective 1.4.2 seeks the maintenance of a reasonably quiet rural environment, while accommodating periodic intrusions.

The operative Plan includes a standalone chapter containing district-wide rules for noise (Part D, General Rules, Chapter 6.21 Noise), including how noise is to be measured and assessed, and what activities are exempt from noise limits. It also contains specific rules that permit construction noise; blasting; and temporary military training activities, where these activities meet specified standards. Noise from helicopter landing areas (within the scope of New Zealand Standard 6807:1994) are discretionary activities.

Noise limits for all other activities are specified within the provisions for each zone. These provisions permit noise levels from activities, up to specified noise limits, at the boundaries specified. Noise is also managed through what activities are provided for in different zones.

A noise contour is also provided for the Timaru Airport and the Timaru Raceway, which is intended to protect the on-going operation of these sites, by requiring a non-complying activity resource consent for various land use activities and subdivision within the contours. Policy direction seeks to avoid subdivision for activities that are sensitive to aircraft noise within the noise contour, to protect the functioning of the airport. There is currently no policy support for the noise contour around the Raceway.

The operative Plan also contains a set of rules for noise from aircraft engine testing and aircraft operations at the Timaru Airport.

## 1.4.2 Issues identified

Noise is a necessary part of everyday part of life, but noise levels can have an adverse effect on amenity values and on the health of people and communities. Noise can cause annoyance to humans, and disturb activities undertaken by people, interfering with their enjoyment of an environment. Effects caused by noise can range from annoyance and speech interference, through to causing stress and sleep disturbance. While it is therefore important to appropriately manage noise emissions within the district, this needs to account for different environments within the district having different characteristics, and different expectations regarding noise levels. In some areas, such as industrial and commercial zones, higher levels of noise are an expected attribute of the zone. Conversely, residential areas are expected to be quieter environments. Assessment undertaken by Malcolm Hunt Associates (refer below) concluded that the noise limits in the operative District Plan for different zones is generally appropriate, but there are some gaps, and a need to update rules to follow emerging best practice.

Conflicts can arise from noise at the boundary between more noise sensitive zones and higher noise producing zones. In particular, Residential Zones are expected to provide a reasonably quiet environment for residents. Activities in commercial and industrial zones, in contrast, often generate a higher level of noise, either from the nature of the activity itself or from the noise associated with

increased levels of people and activity on site. Where Residential and Commercial/Industrial zone boundaries adjoin, conflict can arise. Conflicts can also arise when residential or other noise sensitive activities are located within noisier areas, for example, within commercial zones.

Some strategic infrastructure, such as the State Highway, Railway Corridor and the Port, by virtue of its nature, can generate higher noise emissions. These are often a consequential component of their necessary operations. Such infrastructure also provides important services and facilities to the community, and it is important that it is able to operate efficiently and effectively, and any expansion is not unduly constrained. Where new activities that are sensitive to noise establish close to this infrastructure, reverse sensitivity effects can arise, with complaints or sensitivity arising from the new activities. This can limit the ability of the established activity to operate and expand. Assessment undertaken by Malcolm Hunt Associates (refer below) concluded that the management of potential reverse sensitivity can be improved from the approach taken under the operative District Plan and updated to reflect best practice.

## 1.4.2 Relevant documents and reports

Title	Author	Date	Brief Synopsis	Link
District Plan Review, Topic 11: Noise and Vibration – Stage 1 Report	Malcolm Hunt Associates	Aug 2018	Provides recommendations on amendments and enhancements to noise provisions in the operative District Plan that would strengthen, update and overall improve the provisions. These changes are intended to support the district’s social, economic and environmental wellbeing and appropriately avoid or mitigate adverse impacts.	<a href="https://www.timaru.govt.nz/pdp-supporting-info">https://www.timaru.govt.nz/pdp-supporting-info</a>
District Plan Review, Topic 11: Noise and Vibration – Stage 2 Report, Recommendations for Managing Reverse Sensitivity Effects	Malcolm Hunt Associates	Oct 2018	Considers noise effects from key infrastructure assets and established commercial or industrial activities, and how they are best managed to address the potential for reverse sensitivity effects to arise from more sensitive activities establishing in proximity to these assets. Recommends a generalised way forward for reverse sensitivity noise provisions to protect the efficient and effective	<a href="https://www.timaru.govt.nz/pdp-supporting-info">https://www.timaru.govt.nz/pdp-supporting-info</a>

			functioning of regionally significant infrastructure.	
Port Noise Contours	Acoustic Engineering Services	Feb 2022	A report commissioned by Primeport to develop noise contours in accordance with NZS 6809:1999 Acoustics – Port Noise Management and Land Use Planning	<a href="https://www.timaru.govt.nz/pdp-supporting-info">https://www.timaru.govt.nz/pdp-supporting-info</a>
Proposed Timaru District Noise Provisions: Review of Port Noise Report and Noise Contour Recommendations	Malcom Hunt Associates	Feb 2022	A technical review of the abovementioned AES report as commissioned by Timaru District Council	<a href="https://www.timaru.govt.nz/pdp-supporting-info">https://www.timaru.govt.nz/pdp-supporting-info</a>

### 1.4.4 Other District Plan approaches

The management of noise is an issue commonly addressed by Councils around New Zealand. The approaches taken in more recent district plans (including proposed plans), by Porirua City, New Plymouth District, Christchurch City and Ashburton District are documented below.

Plan	Local Authority	Description of Approach
<i>Proposed Porirua City Plan</i> <i>Notified August 2020. There hearing on Noise was held earlier this year, but a decision is not yet available.</i>  Prepared under the National Planning Standards	Porirua City Council	Applies different noise limits depending on sensitivity of receiving zone.  Includes provisions aimed at managing reverse sensitivity from state highways, the rail network, and commercial and industrial zones.
<i>Proposed New Plymouth District Plan</i> (notified September 2019). Hearings have taken place.  Prepared under the National Planning Standards	New Plymouth District Council	Applies noise limits for each zone, relative to the role, function and character of the zone, or for specific activities.  Seeks to manage reverse sensitivity by setting out where sound insulation is required for noise sensitive activities, and/or limits the location of noise sensitive activities relative to other activities which have elevated noise levels.
<i>Christchurch District Plan</i> (Operative December 2017)  Prepared prior to the National Planning Standards	Christchurch City Council	Manages noise creating activities by setting limits on the sound levels they generate, their location, and their duration, so that the noise generated is consistent with the anticipated outcomes for the receiving environment.

		Seeks to manage reverse sensitivity by setting out where sound insulation is required for sensitive activities, or alternatively, by limiting the location of sensitive activities relative to activities which have elevated noise levels.
<i>Ashburton District Plan</i> (operative August 2014)  Prepared prior to the National Planning Standards	Ashburton District Council	Applies noise limits for each zone, relative to the environmental results anticipated for the different zones, or for specified activities.  Includes some provision for addressing reverse sensitivity in relation to State Highways and the rail corridor.

## 1.5 Statutory and Planning Context

### 1.5.1 Resource Management Act

#### Section 5 - Purpose

The sustainable management purpose of the RMA includes managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety, while achieving specified matters, including avoiding, remedying, or mitigating any adverse effects of activities on the environment.

This is relevant consideration for noise provisions, where the Noise chapter is intended to manage the use and development of land use activities to provide for health and wellbeing, while ensuring that the noise effects of these activities are appropriately managed.

It is also relevant to some existing strategic infrastructure in the District, whereby the Noise chapter provisions are intended to protect various existing physical resources from potential reverse sensitivity effects, through either avoiding or mitigating the effects of noise sensitive activities locating near to existing infrastructure.

#### Section 7 – Other matters

Section 7 lists matters to which persons exercising functions and powers under the RMA are to have particular regard to. These include: the efficient use and development of natural and physical resources (7(b)).

There are provisions proposed in the Noise chapter that seek to ensure that particular existing physical resources of importance to the district, such as roads, railways, airports, ports and the Raceway are able to continue to operate and develop efficiently and without being restricted or compromised due to reverse sensitivity effects arising.

Section 7 also requires particular regard be given to: the maintenance and enhancement of amenity values (7(c)); and the maintenance and enhancement of the quality of the environment (7(f)).

The Noise chapter provisions propose a series of controls, including limits, on noise emissions which are intended to maintain the amenity values and quality of the environment within which noise is received.

## Section 31 - Functions of territorial authorities

Section 31 of the RMA lists territorial authority functions under the RMA, which include:

*“(d) the control of the emission of noise and the mitigation of the effects of noise:”*

District Plan must give effect to:	
Document	Relevance
<b>National Planning Standards</b>	<p>Provide for a Noise chapter to be included in a district plan and require that any provisions for managing noise are located within the Noise chapter.</p> <p>The Standards include a “Noise and vibrations metric” standard and require that any noise-related metrics and noise measurement methods are consistent with this standard. This requires any plan rule to manage noise emissions to be in accordance with eight listed New Zealand Standards; and consistent with the mandatory assessment methods in New Zealand Standard 6802:2008 Acoustics – Environmental Noise, where the type of noise emitted is within the scope of that Standard.</p> <p>Under the National Planning Standards (Section 15), it is mandatory that any plan rule to manage noise emissions must be in accordance with the mandatory noise measurements methods of New Zealand Standard 6809:1999 Acoustics – Port noise management and land use planning.</p>
<b>Canterbury Regional Policy Statement 2013 (CRPS)</b>	<p>Chapter 5 of the CRPS relates to land use and infrastructure. Objective 5.2.1 provides direction relating to the design and location of development, seeking that this achieves a number of matters, including that it is compatible with, and will result in the continued safe, efficient and effective use of regionally significant infrastructure and that it <i>“avoids adverse effects on significant natural and physical resources including regionally significant infrastructure, and where avoidance is impracticable, remedies or mitigates those effects on those resources and infrastructure.”</i></p> <p>Policy 5.3.2 seeks to enable development which: avoids, remedies or mitigates adverse effects, including where such effects would compromise or foreclose existing regionally significant infrastructure; and avoids or mitigates reverse sensitivity effects and conflicts between incompatible activities.</p> <p>Policy 5.3.9 also seeks that development is avoided that would constrain the ability of regionally significant infrastructure to be developed and used without constraint, including from adverse effects relating to reverse sensitivity. The methods direct territorial authorities to set objectives and policies and may include in district plans, to avoid sensitive and incompatible land-uses within proximity of identified transport hubs and regionally significant infrastructure, where the quality of the current or future environment is incompatible with the health requirements and amenity value expectations of people adjacent to within part of the receiving environment of activities undertaken by regionally significant infrastructure.</p>

<b>District Plan must not duplicate or conflict with:</b>	
<b>Document</b>	<b>Relevance</b>
Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017	This NES includes regulations that apply to noise and vibration associated with plantation forestry activities. These Standards apply to the activities specified within the NES and cannot be duplicated or altered within a district plan.
Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009	This NES includes regulations that apply to noise and vibration from a construction activity relating to an existing transmission line. These Standards apply to the activities specified within the NES and cannot be duplicated or altered within a district plan.
Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2016	This NES includes regulations relating to noise limits for cabinets located in a road reserve. For cabinets outside road reserve, it states that the district plan noise rules apply.

<b>District Plan must not be inconsistent with:</b>	
<b>Document</b>	<b>Relevance</b>
Canterbury Regional Coastal Plan	<p>Controls activities within the CMA and includes provisions that apply to port activities undertaken within the CMA, including the emission of noise.</p> <p>Objective 8.1(2) seeks to enable the efficient and effective operation and development of the Port of Timaru while avoiding, remedying or mitigating adverse effects on the environment. Policy 8.8 directs that the Port of Timaru is enabled to operate efficiently and effectively by providing for noise control that are consistent with national noise port standards. Policy 8.9 also directs that in controlling noise-emitting activities in the CMA, the regional council ensure that noise control rules are consistent with those of the Timaru District Council. Under Rule 8.21, the RCEP sets noise limits for any activity emitting noise within the CMA, with specific limits for activities within the port area.</p>

District Plan must have regard to:	
Document	Relevance
Timaru District 2045 Growth Management Strategy  <a href="https://www.timaru.govt.nz/services/planning/district-plan/district-plan-review/growth-management-strategy">https://www.timaru.govt.nz/services/planning/district-plan/district-plan-review/growth-management-strategy</a>	Seeks to recognise and protect the role, function and development of strategic infrastructure, including from reverse sensitivity effects.  Action A2.5 directs that provisions be implemented to provide appropriate nuisance controls to maintain amenity and includes specific mention of noise. Action A6.3 also seeks to support the continued development of the Port of Timaru and Timaru Airport. Directive “Infrastructure 5” seeks to protect strategic infrastructure from incompatible and sensitive activities, including from reverse sensitivity effects.

## 2 Approach to Evaluation

Section 32(1)(b) requires an evaluation of whether the provisions are the most appropriate way to achieve the objectives by identifying other reasonably practicable options, assessing the efficiency and effectiveness of the provisions in achieving the objectives, and summarising the reasons for deciding on the provisions.

The assessment must identify and assess the benefits and costs of environmental, economic, social and cultural effects that are anticipated from the implementation of the provisions, including opportunities for economic growth and employment. The assessment must, if practicable, quantify the benefits and costs and assess the risk of acting or not acting if there is uncertain or insufficient information available about the subject matter.

The proposed provisions relevant to the Noise chapter have been assessed in accordance with the following issues:

Issue 1: Noise is a necessary part of everyday part of life, but noise levels can have an adverse effect on amenity values and on the health of people and communities.

Issue 2: Differences in the actual or anticipated amenity values, character, role and function of different areas can result in conflicts can arise from noise at the boundary between more noise sensitive zones and higher noise producing zones.

Issue 3: Strategic infrastructure provides important services and facilities to the community, but by its nature can generate higher noise levels. This can lead to the potential for reverse sensitivity effects to arise when noise sensitive activities are located in proximity to such infrastructure.

Issue 4: A District Plan must give effect to the National Planning Standards within which it is mandatory to use the New Zealand Standard 6809:1999 Acoustics – Port noise management and land use planning. The Operative District Plan does not currently do this, as this mandatory requirement came into effect In November 2019.

### 2.1 Scale and significance

The table below sets out the scale and significance of managing noise in the district in terms of Council’s statutory obligations, who may be affected by any proposed changes to the

management regime, the type of effects that may occur and where in the district is mostly likely to be affected by the proposed changes to the District Plan. This will inform the nature and extent of the analysis of the proposed changes to the noise provisions. For example, proposed provisions that will result in an overall high level of scale and significance will require a more in-depth analysis of proposed objectives, policies and rules including, potentially, an economic analysis, compared to changes that will have a low-level significance.

**Issues:**

- Noise is a necessary part of everyday part of life, but noise levels can have an adverse effect on amenity values and on the health of people and communities.
- Differences in the actual or anticipated amenity values, character, role and function of different areas can result in conflicts can arise from noise at the boundary between more noise sensitive zones and higher noise producing zones.
- Strategic infrastructure provides important services and facilities to the community, but by its nature can generate higher noise levels. This can lead to the potential for reverse sensitivity effects to arise when noise sensitive activities are located in proximity to such infrastructure.
- A District Plan must give effect to the National Planning Standards within which it is mandatory to use the New Zealand Standard 6809:1999 Acoustics – Port noise management and land use planning. The Operative District Plan does not currently do this, as this mandatory requirement came into effect In November 2019.

		Scale
Reasons for change in policy	District Plan Review Giving effect to the National Planning Standards Having regard to the efficient use and development of physical resources (s7(b) of the RMA); the maintenance and enhancement of amenity values (s7(c) of the RMA); and the maintenance and enhancement of the quality of the environment (s7(f) of the RMA) Giving effect to the CRPS	Low
Relevant Statutory Considerations / Drivers	RMA Sections 5, s7(b), (c) and (f). CRPS Chapter 5.	Medium
Degree of shift from status quo required	Minor shift to update metrics used from L <sub>10</sub> to L <sub>Aeq,T</sub> , introduce slightly lower noise limits in the evening period (7-10pm) and apply in-zone noise limits across all zones. Greater restrictions or requirements will be placed on any new or altered sensitive activities located near to identified infrastructure.	Low
Who and how many will be affected?	The noise provisions are applicable throughout the district and therefore affect a wide range of landowners and operators. However, noise levels are largely being retained and therefore the impact on owners and operators will be largely the same as those currently applying. The increased provisions aimed at managing potential reverse sensitivity will only affect new or altered sensitive activities in specific areas.	Medium



Degree of impact on, or interest from iwi / Maori	Noise is not a matter specifically considered in any relevant iwi management plan.	<b>Low</b>
When will affects occur?	Provisions seeking to manage reverse sensitivity will apply when new noise sensitive activities are established.	<b>Low</b>
Geographic scale of impacts / issue	The noise provisions are applicable throughout the district. However, the impact of the noise limits is low because there is limited change from the current limits. The provisions seeking to manage reverse sensitivity will apply in specific zones (e.g., commercial) or specific noise contour areas.	<b>Medium</b>
Type of effect(s)	Mitigation measures required to be put in place, or limits on operation that are necessary, to achieve compliance with noise limits. Noise levels affect amenity values, environmental and social well-being and health and safety. Reverse sensitivity provisions affect ability for infrastructure to operate efficiently and effectively and without undue constraint.	<b>Low</b>
Degree of policy risk, implementation risk, or uncertainty	The proposed approach to the noise provisions is consistent with best practice and with recently proposed or operative District Plans.	<b>Low</b>
<b>Overall Assessment of Scale and Significance</b>		<b>Low-Medium</b>

## 2.2 Approach to managing noise

The National Planning Standards require that provisions for managing noise are to be located in the Noise Chapter, and may include noise limits, requirements for noise generating activities and sound insulation requirements for, or limits on the location of, sensitive activities. This requires noise limits relevant to each zone to be included within the noise chapter, rather than within the zone chapter, as is currently the approach in the operative District Plan.

The technical review undertaken by Malcolm Hunt Associates has identified that the noise limits and general approach taken to managing noise in the Operative District Plan is generally appropriate, but that there are improvements that can be made. The exception to this, is a need to improve management of potential reverse sensitivity effects. This aligns with the direction in the CRPS to avoid development that would constrain the ability of regionally significant infrastructure to be developed and used without constraint, including from adverse effects relating to reverse sensitivity.

It is therefore proposed to establish a noise chapter in the proposed District Plan, which includes a policy framework that provides direction for how noise is to be managed across the district. It is proposed to include general policy direction relating to management of noise, as well as more specific policy direction for particular activities. The rule framework proposed will largely carry over the provisions within the operative District Plan, with the improvements recommended by Malcolm Hunt Associates.

New control boundaries is proposed for the Port. This has been developed in response to the National Planning Standards within which it is mandatory to use the New Zealand Standard 6809:1999 Acoustics – Port noise management and land use planning.

It is also proposed to continue the reverse sensitivity provisions currently applying to the Timaru Airport and Raceway, as well as introducing provisions to manage potential reverse sensitivity effects from the State Highway network, the Railway Corridor and the Port.

## 2.3 Changes proposed

Operative Plan	Proposed Plan
Noise limits applying to specified activities contained in district-wide chapter, with noise limits for other activities contained within the zone chapters.	All noise limits contained in Noise chapter.
Noise contours included on planning maps for the Timaru Airport and Raceway.	Retained. But a new noise control boundary added for the Port. Giving effect to the National Planning Standards within which it is mandatory to use the New Zealand Standard 6809:1999 Acoustics – Port noise management and land use planning.  Setback areas from State Highways and Railway Corridor where acoustic insulation requirements apply added to maps.
An objective that broadly seeks to minimise situations where there is conflict between noise emissions from land use activities and other more sensitive land uses, and policies that direct how this will be achieved through the approach taken in the Plan.  Objectives and policies that describe the noise environment anticipated in each zone chapter.	An objective that broadly seeks those activities generate noise effects that are compatible with the role, function, amenity values and predominant character of each zone and do not compromise the health and wellbeing of people and communities.  Policies that direct that noise is controlled to maintain the anticipated character and amenity of each zone, and noise effects generated by an activity are appropriate for the activity's location.
Noise limits applied to activities within a zone, as measured at the boundary with specified zones. Some noise limits must be met at other sites within the same zone.	Retained, and extended so that noise limits must also be met at other sites within the same zone. Updated to take into account the change in zones necessitated by the National Planning Standards.
No objective regarding reverse sensitivity.  Policy direction seeking to avoid subdivision for activities that are sensitive to aircraft noise within the noise contour, to protect the functioning	An objective that seeks to protect the Airport, Raceway, State Highway, Railway Corridor and the Port, and activities within Commercial and mixed-use zones and Industrial zones from reverse sensitivity effects from noise. These are the elements of regionally significant infrastructure within the district that are

<p>of the airport. No policy support for the noise contour around the Raceway. Rules restricting subdivision and noise sensitive activities within the Airport and Raceway noise contours.</p> <p>No provisions relating to managing reverse sensitivity from other infrastructure.</p> <p>Some limits on the establishment of noise sensitive activities within noisier zones.</p>	<p>considered to generate noise that may result in reverse sensitivity effects, or zones where higher noise levels are anticipated that similarly may result in reverse sensitivity effects from noise.</p> <p>Policies and rules that require physical noise mitigation or sound insulation for noise sensitive activities near the State Highway, Railway Corridor and within Commercial and mixed-use zones and Industrial zones.</p> <p>Policy direction and non-complying activity rules to generally avoid subdivision and new noise sensitive activities within the Airport Noise control boundary overlay and the Raceway Noise control boundary overlay. An inner and an outer control boundary for the Port Noise Control Boundary.</p> <p>Some limits on the establishment of noise sensitive activities within noisier zones, with additional requirements for acoustic insulation.</p>
<p>Rules with different noise limits and standards for specific activities, including construction noise, blasting, temporary military activities and helicopter landing areas (district-wide); bird scaring devices (in the rural zone); and aircraft operation and engine testing at the Timaru Airport</p>	<p>Generally retained, but with refinements to reflect 'best practice' recommendations by Malcolm Hunt Associates, and with specific policy direction included.</p>

## 2.4 Quantification of Costs and Benefits

Section 32(2)(b) requires that if practicable the benefits and costs of a proposal are quantified. In this case, the effects arising from noise are difficult to quantify in monetary terms. Estimates can however be made regarding the cost of complying with the proposed acoustic insulation standards.

## 2.5 Choice of Evaluation Method(s)

Given the low-moderate scale and significance of the issues related to noise, the limited change proposed from the operative Plan approach to managing noise and the requirement in the CRPS to manage potential reverse sensitivity effects, the approach taken to evaluation is to assess the preferred option against the operative plan provisions (status quo). The options will be assessed using a cost-benefit analysis.

## 2.6 Proposed objectives

This section of the report evaluates the proposed objectives as to whether they are appropriate to achieve the purpose of the Act.

### **NOISE-01 Activities That Generate Noise**

Noise effects generated by activities are compatible with the purpose, character and qualities of each zone and do not compromise the health and wellbeing of people and communities.

### NOISE-02 Reverse Sensitivity

The Airport, Raceway, State Highway, Railway Corridor and the Port, and activities located within Commercial and mixed-use zones and Industrial zones are not constrained by reverse sensitivity effects arising from noise sensitive activities.

## 3 Evaluation of Objectives

Section 32(1)(a) requires an examination of the extent to which the proposed objectives are the most appropriate way to achieve the purpose of the RMA. The following table has been used to evaluate the appropriateness of the relevant objectives.

Criteria	Comments
<b>Relevance</b>	
Directed to addressing a resource management issue	Achieves Objectives are aimed at addressing adverse effects that noise can have, including conflict between different activities, and the potential for reverse sensitivity effects to arise that might compromise the ongoing operation or development of existing infrastructure.
Focused on achieving the purpose of the Act	Achieves NOISE-O1 reflects the requirements in section 5 to manage resources to enable people and communities to provide for their wellbeing and health and safety while managing adverse effects of activities on the environment. It also seeks to ensure the maintenance of amenity values and the quality of the environment, as directed in sections 7(c) and 7(f). Section 5 also includes protection of physical resources to enable people and communities to provide for their wellbeing and health and safety. NOISE-O2 is aimed at protecting specifically identified physical resources. The objective also responds to the need to have particular regard for the efficient use and development of physical resources (section 7(b)), in this case, strategic infrastructure, which can be compromised by reverse sensitivity effects.
Assists a council to carry out its statutory functions	Achieves The objectives are directly linked to the function in section 31(1)(d) of controlling the emission of noise and the mitigation of the effects of noise.
Within scope of higher-level documents	Achieves NOISE-O2 directly responds to direction within the CRPS.
<b>Feasibility</b>	

Acceptable level of uncertainty and risk	<p>Achieves</p> <p>In relation to NOISE-O1, the anticipated purpose, character and qualities of each zone is set out on other provisions within the proposed Plan. The levels of noise required to achieve these is reasonably certain. Targeting noise levels relative to the surrounding/receiving environment is also a common approach taken in district plans. Consideration of appropriate noise levels are also a topic considered in a range of standards both nationally and internationally. The uncertainty and risk associated with the objective is therefore low.</p> <p>In relation to NOISE-O2, management of reverse sensitivity effects is a common approach taken in many recent districts plans and is directed through the CRPS. The effects of taking such an approach are therefore well-tested and are neither uncertain nor risky.</p>
Realistically able to be achieved within council's powers, skills and resources	<p>Achieves</p> <p>The objectives relate to powers the Council has under the RMA to manage noise. Achievement of the outcomes sought is considered achievable within the Council's skills and resources.</p>
<b>Acceptability</b>	
Consistent with identified iwi/Māori and community outcomes	<p>Achieves</p> <p>Community consultation on the Issues &amp; Options paper identifies support for identifying strategic infrastructure, sites and facilities and inclusion of noise contours and buffer areas around these.</p>

## 4 Identification of Options

Section 32(1)(b) of the RMA requires an examination of whether the provisions in the proposal the most appropriate way to achieve the objectives, by: identifying other reasonably practicable options for achieving the objectives; assessing the efficiency and effectiveness of the provisions in achieving the objective; and summarising the reasons for deciding on the provisions. The following sections therefore identify other reasonably practicable options, assess the efficiency and effectiveness of each option, and provide an overall summary on why the proposed approach has been chosen.

The evaluation of provisions has been bundled, because they are expected to work together to achieve the objectives.

### 4.1 Option 1: Status Quo

This option involves a continuation of the Operative Plan provisions including the current policies and rules.

## **4.2 Option 2: Noise chapter that includes more directive policy guidance, introduces requirements for acoustic insulation and ventilation and implements technical recommendations**

This option reflects the requirement in the National Planning Standards to locate provisions relating to noise in the Noise chapter. It includes policies, rules and standards that allow for certain levels of noise to be generated by various activities without the requirements for resource consent. This option also provides policy guidance for the assessment of activities that exceed permitted noise limits or requirements and therefore require a resource consent, or are activities listed as requiring a resource consent.

This option also includes provisions that require acoustic insulation and ventilation for noise sensitive activities within a specified distance of established noise generating activities or noise generating zones. In relation to the Port, the provisions of the NZS 6809:1999 Acoustics Port Noise Management and Land Use Planning, apply. The National Planning Standards require the use of the Port Noise (NZS6809) and accordingly a Port Noise Control Boundary has been developed.

This option also continues the approach in Option 1 to generally discourage noise sensitive activities within noise contours applying to the Timaru Airport and the Raceway.

This option also implements a number of recommendations made in the technical reports provided by Malcolm Hunt Associates, including

- Replace  $L_{A10}$  unit with  $L_{Aeq}$  unit;
- Apply noise limits to receiving site, including at 'within zone' boundaries, not just at zone boundaries;
- Introducing a new noise limit for the evening period between 7pm and 10pm, which results in a slightly lower limit than currently applies in that period;
- Rationalising the slightly different rules that apply to bird scaring devices in different rural zones.

## **4.3 Option 3: Make additional changes to the noise provisions**

This option involves further revising the approach taken to noise management in the operative District Plan and recommended for consideration in the technical reports provided by Malcolm Hunt Associates, including:

- Applying an overlay within the 'noisier' parts of the medium density residential zone to which the higher noise limits (currently applying to the Residential 2 Zone) are applied but applying the lower noise limits applicable to the General residential zone to the remainder of the medium density residential zone.
- Prohibiting new noise sensitive activities within the Airport Noise Control boundary overlay.
- Implement NZS 6809:1999 Acoustics – Port Noise Management and Land Use Planning to manage potential reverse sensitivity effects that may arise from port noise.

# **5 Evaluation of Options**

## **5.1 Evaluation table**

<b>OPTION 1</b>			
<i>Status Quo - Continuation of the operative Plan provisions including the current policies and rules</i>			
<b>Benefits</b>			
<b>Environmental</b>	<b>Economic</b>	<b>Social</b>	<b>Cultural</b>
Generally, manages noise effects relative to the different amenity and character of different zones within the district.	There may be savings in terms of time and cost as the Council and community are familiar with the provisions.	Continuation of current approach provides a level of familiarity and certainty to plan users.	None identified.
<b>Costs</b>			
<b>Environmental</b>	<b>Economic</b>	<b>Social</b>	<b>Cultural</b>
<p>Although the overarching objectives seek to manage conflict between activities, the policy and rule package does not fully address the potential for conflicts to arise and adverse effects on the environment could arise as a consequence of this.</p> <p>In business zones (commercial and industrial) no provision is made for in-zone noise protection, with noise limits only applied to the boundary with other more sensitive (e.g., residential and rural) zones.</p> <p>The continued use of the LA<sub>10</sub> metric also does not account for short or intermittent noise effects and therefore may result in adverse noise effects that are not sufficiently managed.</p>	Lack of management of noise sensitive activities located in proximity to noise generating activities or zones risks reverse sensitivity effects arising that result in constraints being placed on the operation of those activities, or restrictions on land being able to be fully utilised for its zoned purpose.	The gaps in the current approach can also have flow-on social costs, as a consequence of business of infrastructure activities being constrained or business areas having lower amenity.	None identified

<p><b>Efficiency</b></p>	<p>The status quo is not considered to be a particularly efficient method of meeting the objectives given the costs identified above and the issues identified in the recommendations of Malcolm Hunt Associates.</p> <p>The outcomes sought relating to noise are also spread throughout the Plan, which lacks efficiency in terms of providing clear guidance about outcomes sought in relation to noise. This has also resulted in inefficiencies between how some activities – such as bird scarers – are managed, with similar but slightly different rules within different rural zones.</p>
<p><b>Effectiveness</b></p>	<p>The existing provisions are generally effective at managing noise. However, they are not as effective as they could be at ensuring noise effects are compatible with what is anticipated for each zone, as the policy direction is in some cases generic, and there is no management of in-zone amenity in commercial and industrial zones.</p> <p>The existing provisions are only effective at protecting some noise-generating infrastructure/areas from reverse sensitivity effects. They do not provide effective protection for the State Highway, Railway Corridor or Port, or for noise generating activities in commercial and mixed-use zones.</p>
<p><b>Strategic Direction(s)</b></p>	<p>This option would not achieve the strategic objective that seeks that the safe, efficient and effective operation, maintenance, renewal and upgrading of strategic infrastructure is enabled. This is because apart from the Airport and Raceway, the current provisions to not manage the potential for reverse sensitivity effects to arise from the noise generated by strategic infrastructure, and the need to ensure that such effects are managed to ensure the objective is achieved.</p> <p>However, it is considered the status quo will ensure that the character, qualities and amenity values of rural areas are identified and maintained.</p>
<p><b>Overall Appropriateness of Option 1</b></p>	<p>This option is not the most appropriate way to achieve the preferred objectives, as it does not protect all noise-generating infrastructure/areas from reverse sensitivity effects. In addition, this option is less efficient and effective at ensuring noise effects are compatible with what is anticipated for each zone when compared with Option 2, as it lacks clear policy guidance and noise limits at boundaries within all zones. There are also inefficiencies resulting from reference to outdated standards and measurements, which are also contrary the requirements in the Noise and Vibration Metrics Standard in the National Planning Standards.</p> <p>The approach also does not implement the mandatory National Planning Standards in terms of all noise provisions being located in the Noise chapter.</p>



**OPTION 2**

*Noise chapter that includes more directive policy guidance, introduces requirements for acoustic insulation and implements technical recommendations.*

<b>Benefits Environmental</b>	<b>Economic</b>	<b>Social</b>	<b>Cultural</b>
<p>Manages noise effects relative to the different amenity and character of different zones within the district.</p> <p>Provides a clear framework for what levels of noise are anticipated in different areas or from particular activities and clear guidance as to the environmental outcomes any application to exceed those noise limits must meet.</p> <p>Use of updated metrics, such as <math>L_{Aeq}</math> and the most recent NZ Standards provides more robust methods for measurement and assessment of noise, reflects the current best practice approach to managing noise, and meets the requirements of the Noise and Vibration Metrics Standard in the National Planning Standards and NZ 6809:1999.</p> <p>Greater use of acoustic insulation and ventilation to protect occupants in new or altered habitable rooms in buildings housing noise sensitive activities enables a greater mix of uses in noise affected areas while</p>	<p>A clear and cohesive framework provides certainty as to what is required and will assist with investment decisions.</p> <p>Provides protection for the State Highway, Railway Corridor or Port, and for noise generating activities in commercial and mixed-use zones, allowing for activities in these areas to operate effectively and efficiently.</p>	<p>Appropriate management of noise will assist in ensuring that amenity levels are maintained at expected levels for residents, visitors and workers.</p> <p>The framework provides an appropriate balance between providing for noise-generating activities that have social benefits (e.g., temporary events) and ensuring the effects of noise are appropriately managed.</p>	<p>None identified</p>

protecting people against the worst effects of noise.			
<b>Costs</b>			
<b>Environmental</b>	<b>Economic</b>	<b>Social</b>	<b>Cultural</b>
The provisions proposed are expected to address noise from the port by utilising the NZS 6809:1999 Acoustics – Port noise management and land use planning, and including a Noise Control boundary to address effects of reverse sensitivity on the Port and nearby residential areas. Expansions to the Port should have been incorporated into the modelling of future Port noise.	The proposed acoustic insulation requirements will add additional costs to new buildings and alterations to existing buildings used for noise sensitive activities. Achievement of the proposed 35 dB requirement is estimated to represent about 10-15% of the build cost for a standard habitable room.	The addition of buffers within which acoustic insulation requirements apply may result in a stigma being associated with these.	None identified
<b>Efficiency</b>	This option is considered to be an efficient way to achieve the outcomes. Overall, the benefits of the approach are considered to outweigh the costs. There are also efficiencies associated with updating technical matters to reflect current practise and rationalising rules such as those applying to bird scarers. Greater direction within the policy framework also means that applicants and consents planners have a better understanding as to what the plan seeks to achieve, and this is likely to result in more efficient consent processes.		
<b>Effectiveness</b>	This option is considered to be effective at achieving the objectives, because it provides a clear rule and policy framework for ensuring activities generate noise effects that are compatible with what is anticipated in each zone and do not compromise the health and wellbeing of people and communities.  It also provides a framework that ensures identified infrastructure and zones that generate higher levels of noise are appropriately protected from reverse sensitivity effects from noise.		
<b>Strategic Direction(s)</b>	This option is expected to achieve the strategic objectives because it includes provisions aimed at ensuring that the safe, efficient and effective operation, maintenance, renewal and upgrading of strategic infrastructure is enabled, through managing the potential for reverse sensitivity effects to arise.  This option will also ensure that the character, qualities and amenity values of rural areas are maintained.		

<p><b>Overall Appropriateness of Option 2</b></p>	<p>This option is considered to be the most appropriate way to achieve the proposed objectives, taking into account its efficiency and effectiveness. In particular this option provides an effective approach to managing potential reverse sensitivity relating to noise from identified infrastructure and zones that generate higher levels, which strikes an appropriate balance between the costs and benefits of the approach.</p>
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<p><b>OPTION 3</b> <i>Make additional changes to the noise provisions</i></p>			
<p><b>Benefits</b> <b>Environmental</b></p>	<p><b>Economic</b></p>	<p><b>Social</b></p>	<p><b>Cultural</b></p>
<p>Application of lower noise limits within existing 'quieter' areas of the medium density residential zone will maintain the existing amenity of those areas.</p>	<p>Prohibition of noise sensitive activities within the Airport Noise Control boundary overlay would provide the highest form of protection to the airport's operations.</p>	<p>None identified</p>	<p>None identified.</p>
<p><b>Costs</b> <b>Environmental</b></p>	<p><b>Economic</b></p>	<p><b>Social</b></p>	<p><b>Cultural</b></p>
<p>None identified</p>	<p>Application of lower noise limits within existing 'quieter' areas of the medium density residential zone would require additional work in terms of measuring current noise levels to determine where overlay should be applied.</p> <p>Application of lower noise levels could also result in barriers to those areas being developed in the way anticipated by their zoning.</p> <p>There are potential lost opportunity costs associated with outright prohibition of noise sensitive activities within the</p>	<p>As noted above, application of lower noise limits within existing 'quieter' areas of the medium density residential zone could result in barriers to those areas being developed in the way anticipated by their zoning. This would flow-on social costs in terms of this zone not necessarily matching the character or amenity which is anticipated within it.</p>	<p>None identified</p>

	Airport Noise Control boundary overlay.		
<b>Efficiency</b>	Overall, the costs of this option are considered to outweigh the benefits.		
<b>Effectiveness</b>	In comparison to Option 2, the application of lower noise limits within existing 'quieter' areas of the medium density residential zone is not expected to be as effective at ensuring noise effects are compatible with the anticipated role, function, amenity values and predominant character of that zone. Conversely, this option is considered to be slightly more effective, in relation to the airport, at protecting these assets from reverse sensitivity effects from noise.		
<b>Strategic Direction(s)</b>	This option would achieve the strategic objectives for the same reasons set out above in relation to Option 2.		
<b>Overall Appropriateness of Option 3</b>	This option is not considered to be the most appropriate way to achieve the objectives. While this option might be slightly more effective at protecting the airport from reverse sensitivity effects from noise, it is considered a much more inefficient way to achieve the outcomes sought.		

## 5.2 Risk of Acting or Not Acting

Where there is uncertain or insufficient information about the subject matter of the provisions, section 32(2)(c) requires an evaluation of the risk of acting or not acting in the way proposed. In this case it is considered that there is sufficient information to determine the appropriate approach to managing noise within the proposed District Plan. The Council has obtained technical assessments, and the provisions are consistent with the recommendations made in these assessments.

The provisions also generally continue the approach taken to the management of noise within the current District Plan. The exception to this is the introduction of a broader range of provisions aimed at managing potential reverse sensitivity from existing noise-generating infrastructure or within zones where higher noise levels are anticipated. However, the approach taken to this is consistent with the technical recommendations, community feedback on this issue and is also consistent with the approach taken within other district plans across the country. It is therefore concluded that there is a low risk of acting in the manner proposed.

## 6 Preferred Option

This evaluation has been undertaken in accordance with Section 32 of the RMA in order to identify the need, benefits and costs and the appropriateness of the proposal having regard to its effectiveness and efficiency relative to other means in achieving the purpose of the RMA. The evaluation demonstrates that Option 2 is the most appropriate option as:

- The proposed provisions will achieve the relevant strategic objectives by:
  - o ensuring that the safe, efficient and effective operation, maintenance, renewal and upgrading of strategic infrastructure is enabled, through managing the potential for reverse sensitivity effects to arise.
  - o ensuring that the character, qualities and amenity values of rural areas are maintained.
- The proposed provisions address the identified resource management issues by providing a framework that appropriately manages adverse effects of noise, potential conflict between zone boundaries and the potential for reverse sensitivity effects to arise from noise associated with identified infrastructure or noise-generating zones.

- The policy and rule framework provides the best balance between efficiency and effectiveness at achieving the proposed objectives.
- The option also implements the necessary requirements of the National Planning Standards.

Overall, it is considered that the set of preferred provisions is the most appropriate given that the benefits outweigh the costs, and they will be effective at achieving the outcomes sought.