

Section 32 Report

Te orooro/Noise

prepared for the

Proposed Waimakariri District Plan

18 September 2021



WAIMAKARIRI
DISTRICT COUNCIL

TABLE OF CONTENTS

(a) EXECUTIVE SUMMARY	3
2. OVERVIEW AND PURPOSE	3
2.1 Purpose of Section 32 RMA.....	3
2.2 Topic Description.....	3
2.3 Significance of this Topic.....	4
2.4 Current Objectives, Policies and Methods	5
2.5 Information and Analysis.....	6
2.6 Consultation Undertaken.....	8
2.7 Iwi Authority Advice.....	8
2.8 Reference to Other Relevant Evaluations	8
3. STATUTORY AND POLICY CONTEXT	8
3.1 Resource Management Act 1991 (RMA)	8
3.2 National Instruments	10
3.3 Regional policy statement and plans.....	10
3.4 Iwi Management Plan	11
3.5 Any relevant management plans and strategies.....	11
3.6 Any other relevant legislation, regulations or standards	11
3.7 Any plans of adjacent territorial authorities.....	12
4. KEY RESOURCE MANAGEMENT ISSUES	13
5. OVERVIEW OF PROPOSED OBJECTIVES, POLICIES AND METHODS	13
5.1 Strategic Direction.....	13
5.2 District-wide Subject	14
5.3 Proposed Objectives and Policies.....	14
5.4 Proposed Methods	15
6. SCALE AND SIGNIFICANCE EVALUATION	16
6.1 Evaluation of Scale and Significance.....	17
7. EVALUATION OF EXISTING AND PROPOSED OBJECTIVES	19
7.1 Evaluation of Existing and Proposed Objectives	20
7.2 Summary - Evaluation of Proposed Objectives	22
8. EVALUATION OF PROPOSED POLICIES AND METHODS	22
8.1 Evaluation of Proposed Policies and Methods.....	23
8.2 Summary - Evaluation of Proposed Policies and Methods.....	29
9. SUMMARY	29
Appendix One: Specific Consultation Comments and Response.....	30

(a) EXECUTIVE SUMMARY

Noise produced by activities has the potential to affect health and detract from amenity values, environmental quality and character. Noise conflicts can occur when activities produce noise that is inconsistent with other activities or qualities in the noise-receiving environment.

The Operative District Plan manages noise through standards applied to zones, and specific controls related to airport and highway operation, construction activities, earthquake recovery construction and helicopter landing activities. The District Plan Effectiveness Review, technical review and consultation comments identified issues such as noise from bird scaring devices and firewood processing that were not adequately addressed by the current plan, together with the need to update the standards for noise and its measurement.

The key resource management issues for noise are:

- (a) Potential for noise to adversely affect health, amenity values and quality of the environment.
- (b) Management of noise effects needs to be consistent with the amenity values expected within different zones and overlays.
- (c) The potential for reverse sensitivity effects where noise sensitive activities are located near lawfully established noise generating activities.

The main changes introduced for management of noise are:

- (a) specific objectives, policies and methods for noise are contained within a separate district wide chapter;
- (b) updated standards and technical references for noise emission within zones and overlays;
- (c) specific management of potential reverse sensitivity effects related to existing noise generating activities;
- (d) specific management of limited duration noise effects related to primary production; and
- (e) new provisions for the management of noise associated with temporary activities.

2. OVERVIEW AND PURPOSE

2.1 Purpose of Section 32 RMA

The overarching purpose of Section 32 of the Resource Management Act 1991 (RMA) is to ensure that plans are developed using sound evidence and rigorous policy analysis, leading to more robust and enduring provisions.

Section 32 reports are intended to clearly and transparently communicate the reasoning behind plan provisions to the public. The report should provide a record of the evaluation process, including the consultation, technical work, methods, assumptions and risks that informed that process. A robust report can prove highly useful to decision makers, particularly where it clearly communicates the analysis undertaken to identify the most appropriate way to achieve the purpose of the RMA.

The District Council is required to undertake an evaluation of any proposed District Plan provisions before notifying those provisions. The Section 32 evaluation report provides the reasoning and rationale for the proposed provisions and should be read in conjunction with those provisions.

2.2 Topic Description

Noise is generated by a wide range of activities throughout the District. When noise is too loud or at the wrong time for the environment it may reduce amenity values and adversely affect the quality of the environment or the health and wellbeing of the community. Management of noise through the District Plan is required to ensure that noise levels and noise characteristics are consistent with the expected amenity values and quality of the environment within the different zones and overlays.

Zones and overlays have different purposes, values and features that will be more or less tolerant of noise, for example, industrial zones are working environments where a higher level of noise is both expected and tolerated, and requirements for health and safety in the workplace assist in managing adverse effects of noise on workers and visitors. Within more sensitive areas, such as residential zones, noise that interferes with enjoyment of living environments and, in particular, the ability to sleep, will not be well-tolerated. Rural zones have particular noise characteristics that are related to primary production, and intermittent noise from activities such as seasonal harvesting, cultivation, livestock management, bird-scaring and frost control activities can be apparent at times.

Effects from noise at the boundaries between zones may need management to reflect different zone amenity expectations, for example, between industrial and residential zones. Some noise that is short term and not excessive, such as that generated by temporary activities, may be more acceptable where it does not have irritating or nuisance qualities. In particular, noise associated with expected community events, activities or occasions may have a higher level of community tolerance.

Noise associated with the operation of emergency services, such as the use of warning alarms, is enabled, recognising the significance of these services for community health, safety and wellbeing.

Noise generated by other activities (such as dogs, parties, vehicles on roads, trains on rail lines, and aircraft in flight) are either controlled or exempted through other legislation.

The Resource Management Act 1991 (section 16) includes a general duty to avoid unreasonable noise whereas the District Plan control activities associated with noise and noise effects.

The proposed provisions include greater management of specific activities, amendment of noise standards in line with current best practice, new provisions for temporary activities and the operation of audible bird scaring devices, and identification of areas where noise related restrictions on activities apply. The format of the provisions is consistent with the requirements of the National Planning Standards 2019.

2.3 Significance of this Topic

Noise characteristics are an important component of amenity values and character for some parts of the District. The scale, character, timing, duration, level and frequency of noise has the potential for adverse effects, including on human health. Management of noise is consistent with the purpose of the RMA to avoid, remedy or mitigate any adverse effects of activities on the environment.

The zoning of land within the District, and proposed activity standards for noise recognise and manage differences in amenity values between zones, including within locations where noise is expected from the activities undertaken there.

Some noise emitting activities that are established in the District may require protection from new noise sensitive activities that could otherwise develop nearby, as this could constrain future activity. Potential conflict between noise sensitive activities and regionally significant infrastructure such as

major roads, highways, airfields and airports also requires management to ensure ongoing operation of these important facilities and also prevent adverse effects for noise sensitive activities.

2.4 Current Objectives, Policies and Methods

The Operative District Plan is an effects-based plan that has standards for noise that apply within each zone. Objectives and policies are in a separate chapter from the rules, and group a range of effects matters that relate to health, safety and wellbeing together in Chapter 12 (objectives and policies) and Chapter 31 (Rules).

The Waimakariri District Plan became operative in November 2005. Subsequent changes to the District Plan were introduced in response to Actions for Waimakariri District under the Land Use Recovery Plan 2013, including new provisions for construction noise.

Private Plan Change 45 (and Designation) for Rangiora Airfield includes noise contours and seeks to limit development within a proposed 55 dBA L_{dn} noise contour, including insulation from aircraft noise for new noise sensitive activities such as houses. A prohibited activity status was introduced for houses and other noise sensitive activities within the 65dBA Ldn Noise Contour for Rangiora Airport.

2.4.1 Operative District Plan Provisions

A single general objective seeks to avoid or mitigate adverse environmental effects from noise, as well as from buildings and structures, signs, glare, and hazardous substances.

Policies for noise aim to control noise so that it is reasonable for the zone and to avoid adverse effects on amenity values, health and safety within neighbouring sites or zones, including noise from aircraft, road traffic and earthquake recovery rebuilding. The policy explanation provides further detail on different expectations within zones, and particular noise attributes that may require control.

Two policies in Chapter 3 (Water) seek to manage noise effects from nearby activities and activities on the District's two main rivers. The policies seek to maintain 'natural sound' as the dominant characteristic of Waimakariri Gorge, and to avoid, remedy or mitigate adverse effects on the Ashley River/Rakahuri environment that are related to activities on the surface of water.

Policies within other chapters of the plan relating to zones set out expectations for amenity and quality of the environment within the zone policies and associated explanations.

Rules for noise in Chapter 31 control maximum permitted sound levels within zones and require insulation from aircraft noise for buildings within the 55 dBA Ldn noise contour. Noise level requirements also apply for earthquake recovery rebuilding, construction noise and helicopter landing sites. Internal noise levels are required to be met for residential units adjacent to State Highway 1. Exemptions are provided for a number of activities including existing dwellings, helicopters, and earthquake recovery. Non-compliance with most rules would require resource consent for a restricted discretionary activity. Activities that comply with the conditions and are not otherwise specified are permitted.

Methods, other than rules, to achieve the policies are:

- the use of Enforcement Orders and Abatement Notices;
- guidelines for the use of aircraft;
- liaison with industries and health agencies;

- research and information collection (including monitoring of noise levels around airfields and strategic roads;
- information for land developers on aircraft noise and Christchurch International Airport noise contours; and
- consultation in relation to airport and airfield noise and district plan effectiveness.

2.5 Information and Analysis

Table 1 – List of relevant background assessments and reports

Title	Author
District Plan Effectiveness Review	<i>Waimakariri District Council, March 2017</i>
Description of Report	
An assessment of District Plan effectiveness was undertaken as an early step to identify issues and gaps for the District Plan Review. The assessment considered the management of noise by the Operative District Plan and included review of monitoring, complaints, enforcement, resource consents and their conditions and internal and external policy direction.	
The District Plan Effectiveness Review recommended review of noise provisions to ensure that noise producing activities are appropriately managed and that noise standards are consistent with current best practice. A lack of specific controls for the use of audible bird scaring devices, frost fans and noise from temporary activities were identified as gaps in the Operative District Plan controls. The Review recommended that management of noise issues related to business, residential and commercial zones, and zone interfaces be undertaken. Consideration of potential reverse sensitivity effects on significant infrastructure and management of noise sensitive activities was also recommended.	
Title	Author
Waimakariri District Plan Review – Noise Deliverable 1 – Gap Analysis	<i>Marshall Day Acoustics 26 February 2019</i>
Description of Report	
A review of issues to be addressed as part of a review of noise provisions for Waimakariri District.	
Title	Author
Waimakariri District Plan Review – Noise Deliverable 2 – Noise Monitoring	<ul style="list-style-type: none"> • <i>Marshall Day Acoustics 8 October 2019</i>
Description of Report	
This report discusses the noise monitoring results undertaken by Marshall Day Acoustics at a number of sites in Wamakariri District.	
Title	Author
Waimakariri District Plan Review – Noise: Deliverable 3 – Issues and Options	<i>Marshall Day Acoustics, 17 April, 2019</i>
Description of Report	
This report uses the information in preceding reports to consider identified issues and identify options for revised rules, activity standards and other methods for best practice management of noise within the District.	

Other information or technical standards considered are:

2.5.1 Draft Plan Change 37 (Waimakariri District Plan)

The Draft Plan Change (not notified) was prepared in 2013 together with a section 32 assessment. The plan change reviewed noise limit provisions, including an ambient noise assessment for the District, to better align with international best practice methodologies and to recognise the most recent revisions to New Zealand standards and included draft provisions that were reviewed and updated as part of the wider review of district plan noise management.

2.5.2 Waimakariri Community Survey 2015

This survey identified that noise within residential and rural areas, and noise from heavy vehicles was among the 'most disliked environmental issues'.

2.5.3 Draft Voluntary Agreement for the use of Bird Scarers for Landowners near Ohoka

A draft voluntary agreement to attempt to resolve noise issues from the operation of bird scaring devices where the District Plan did not adequately control impulsive noise effects. The proposed controls identified in the voluntary agreement were reviewed by Marshall Day Acoustics as part of the technical review and rules to manage audible bird scaring devices are proposed.

2.5.4 National Planning Standards Noise and Vibration Metrics Standard

Section 15 of the National Planning Standards provides mandatory directions for plan rules for noise and that they must be consistent with the following NZ Standards incorporated by reference into the planning standards:

- New Zealand Standard 6801:2008 Acoustics – Measurement of environmental sound
- New Zealand Standard 6802:2008 Acoustics – Environmental noise
- New Zealand Standard 6803:1999 Acoustics – Construction noise
- New Zealand Standard 6805:1992 Airport noise management and land use planning – measurement only
- New Zealand Standard 6806:2010 Acoustics – Road-traffic noise – New and altered roads
- New Zealand Standard 6807:1994 – Noise Management and Land Use Planning for Helicopter Landing Areas- excluding 4.3 Averaging
- New Zealand Standard 6808:2010 Acoustics – Wind farm noise
- New Zealand Standard 6809:1999 Acoustics – Port noise management and land use planning

Directions are also included that construction vibration must be consistent with ISO-4866:2010 – Mechanical vibration and shock.

2.5.5 Guide to the Management of Effects on Noise Sensitive Land Use Near to the State Highway Network

New Zealand Transport Agency (September 2015)

This guide describes methods to manage reverse sensitivity effects from noise and vibration sensitive activities, such as through setbacks and acoustic treatment, and includes model district plan rules.

2.5.6 Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017 (NESPF)

This NESPF includes controls for noise related to plantation forestry activities, for example, road construction and harvesting activities. District plans may have rules that are more stringent than the

regulations where these related to a range of specified matters including unique and sensitive environments, outstanding natural features and landscapes and significant natural areas.

2.6 Consultation Undertaken

Consultation has been undertaken as part of this District Plan Review process with key stakeholders and the local community. Consultation with relevant Waimakariri District Council staff and Councillors has also been undertaken as part of developing and testing the direction and content of draft provisions. External peer and technical review was also carried out.

Feedback from consultation relevant to the Noise Chapter is contained in **Appendix One: Specific Consultation Comments and Response**, and is summarised below:

2.6.1 Summary of feedback:

- (a) Control the development of new noise sensitive activities within or near airport or airfield operational areas (or noise contours). Also, manage effects from aircraft noise.
- (b) Provide specifically for temporary military training activities, agricultural noise such as bird scarers and frost fans, quarry related noise, noise from firearm use, boarding kennels, - function venues, firewood processing and motor vehicle racing.
- (c) Control noise on the surface of water that could affect natural or recreational values.
- (d) Control noise effects from business areas on schools.
- (e) Provide standards for noise that suit different zones, including within parks and reserves.
- (f) Manage potential reverse sensitivity effects in relation to existing industrial activities and maintain the noise levels that currently apply to those industrial activities.
- (g) Recognise existing speedway events at Woodford Glen and ensure fireworks activities are notified to neighbours.
- (h) Provide for acoustic insulation of noise sensitive activities adjacent to major infrastructure.

2.7 Iwi Authority Advice

Clause 3(1)(d) of Schedule 1 of the RMA sets out the requirements for local authorities to consult with iwi authorities during the preparation of a proposed plan. Clause 4A requires the District Council to provide a copy of a draft proposed plan to iwi authorities and have particular regard to any advice received.

No specific feedback on noise has been received.

2.8 Reference to Other Relevant Evaluations

This Section 32 topic report should be read in conjunction with the temporary activities section 32 evaluation, noting that other zone chapter evaluations will also contain expectations in relation to the receiving environment and level of sensitivity to noise effects.

3. STATUTORY AND POLICY CONTEXT

3.1 Resource Management Act 1991 (RMA)

Part 2 of the RMA contains the purpose and principles of the Act.

Section 5 sets out the purpose of the RMA, which is to promote the sustainable management of natural and physical resources. In achieving this purpose, Council needs to recognise and provide for matters of national importance identified in Section 6, have particular regard to other matters listed in Section 7, and take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi) under Section 8.

The Proposed District Plan recognises that noise is produced by a range of activities throughout the District and that the adverse effects of noise require management that is consistent with the amenity values of the receiving environment.

3.1.1 Section 6

Section 6 of the RMA specifically requires that the Council recognise and provide for matters of national importance. There are no matters of national importance of specific relevance to the noise topic, however noise can be associated with a wide range of activities and values in a range of locations. As such, it is possible that any of the matters of national importance could be relevant, such as the following:

(c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna;

(e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga;

(f) the protection of historic heritage from inappropriate subdivision, use, and development; and

(g) the protection of protected customary rights.

3.1.2 Section 7

The Section 7 matters relevant to this chapter are:

(c) the maintenance and enhancement of amenity values; and

(f) maintenance and enhancement of the quality of the environment

3.1.3 Section 8

Section 8 of the RMA requires the Council to take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi). Consultation with mana whenua has been undertaken and feedback has informed the section 32 evaluations for the District Plan Review. Section 74(2A) further requires councils to take into account relevant Iwi Management Plans and their bearing on the resource management issues of the District.

In addition to the matters in Part 2, the following sections of the RMA are also relevant to the management of noise:

3.1.4 Section 16 imposes a duty on all occupiers of land to avoid unreasonable noise that requires people carrying out activities to adopt best practicable options to ensure noise does not exceed a reasonable level, and allows for a national environmental standard or resource consent to prescribe noise standards.

3.1.5 Section 31 sets out the functions of territorial authorities to give effect to the Act, including:

(d) the control of the emission of noise and the mitigation of the effects of noise;

3.1.6 Section 9 sets out restrictions on the use of land, with section 9(5) clarifying that the section only applies to aircraft noise in relation to specific noise emission controls set by a territorial authority for airports.

3.1.7 Sections 326 – 328 set out specific requirements regarding the management of ‘excessive noise’, including defining what is meant by the term along with related enforcement mechanisms. Section 326 (1) specifically excludes noise from aircraft before, during and after flight, vehicles driven on a road, and trains (in transit).

3.2 National Instruments

The following national instruments are relevant to this chapter:

3.2.1 National Planning Standards

Under RMA s75 (3) a District Plan must give effect to a National Planning Standard. This District Plan has been prepared in accordance with National Planning Standards 2019, which were introduced by the Resource Legislation Amendment Act 2017 to make plans and policy statements more useable, accessible and easier to prepare.

The Proposed District Plan will give effect to the National Planning Standards by including a separate district-wide chapter for noise and using standardised definitions and metric standards.

3.2.2 The National Environmental Standards for Telecommunications Facilities 2016 includes noise controls for telecommunications cabinets within road reserves.

3.2.3 The National Environmental Standards for Electricity Transmission Activities Regulations 2009 provides for noise and vibration as permitted activities subject to compliance with specified New Zealand and German standards.

3.2.4 The National Environmental Standards for Plantation Forestry provides for noise and vibration associated with plantation forestry activity as a permitted activity providing standards within the notional boundary of a noise sensitive activity are met.

It is not proposed to impose more restrictive controls than those set out in the above NES.

3.3 Regional policy statement and plans

The Proposed District plan must give effect to the Canterbury Regional Policy Statement (RPS). The following RPS policies are relevant to the issues for noise:

Policy 5.3.1 Regional Growth (Wider Region) provides for meeting the wider region’s growth needs and sustainable development patterns that encourage high quality urban design, including the maintenance and enhancement of amenity values.

The proposed provisions support the intention of this policy by protecting and maintaining amenity values for zones through management of the location of identified activities that produce noise, or are sensitive to the effects of noise, and restricting noise level, timing, duration and frequency.

Policy 5.3.2 Development Conditions (Wider Region) seeks to enable development including regionally significant infrastructure, where reverse sensitivity effects and conflicts between incompatible activities are avoided or mitigated (amongst other considerations).

The proposed provisions support the intention of this policy by managing reverse sensitivity effects in relation to major roads, railways, Christchurch International Airport and Rangiora Airfield.

Policy 5.3.8 Land use and transport integration (Wider Region) includes direction to integrate land use and transport planning in a way that avoids or mitigates conflicts with incompatible activities.

As discussed above, the proposed provisions are consistent with this policy.

3.4 Iwi Management Plan

The Iwi Management Plan does not contain specific policy direction for noise, however Issue R2, does seek protection of cultural amenity values such as celestial darkness (which could include management of noise that could affect that experience). The policies following this issue are more specifically related to other matters. However, the provision of methods to control the adverse effects of noise will support the protection of amenity values including any cultural amenity values.

3.5 Any relevant management plans and strategies

The following management plans and strategies are relevant to this matter:

Community Facilities and Greenspace Activity Management Plan 2018: Identifies potential noise effects from activities included in the plan and mitigation and monitoring measures that may be required, that include application of District Plan rules, conditions of licence or lease, Bylaw enforcement, education and compliance monitoring.

Reserve Management Plans: The Council has a number of Reserve Management Plans prepared under the Reserves Act 1977 to manage activities and development within Council reserves, including consideration of noise effects relating to proposed use of reserves.

3.6 Any other relevant legislation, regulations or standards

The following legislation, regulations or standards are relevant to this matter:

3.6.1 New Zealand, German and International Standards for Noise

The New Zealand Standards (NZS) and the German standard that is used in New Zealand for construction vibration, provide guidance on the measurement of noise and appropriate levels at which to control noise effects. The noise related NZS referred to in the Proposed District Plan are:

- NZS 6801: 2008 Acoustics-Measurement of environmental sound
- NZS 6802: 2008 Acoustics-Environmental noise
- NZS 6803:1999 Acoustics - Construction Noise
- NZS 6807:1994 Noise Management and Land Use Planning for Helicopter Landing Sites
- DIN 4150-3:2016, Vibration in Buildings – Part 3: Effects on Structures
- NZS 6808: 2010 Acoustics – Wind farm noise
- NZS 6805: 1992 “Airport Noise Management and Land Use Planning
- ISO 16283-3:2016 Acoustics – Field measurement of sound insulation in buildings and of building elements – Part 3: Façade sound insulation

- ISO 140-5:1998 Acoustics – Measurement of sound insulation in buildings and of building elements – Part 5 and
- ISO 717-1:2013 Acoustics – Rating of sound insulation in buildings and of building elements – Part 1

3.6.2 New Zealand Building Code specifies minimum construction requirements for noise and ventilation for houses.

3.6.3 Our District, Our Future Waimakariri 2048 District Development Strategy July 2018.

This is a strategic document for the management of growth in the District for the coming 30 years, which includes consideration of strategic infrastructure including the noise contours for Christchurch International Airport.

3.7 Any plans of adjacent territorial authorities

The District Council is required to have regard to the extent to which the District Plan needs to be consistent with the plans and proposed plans of adjacent territorial authorities under Section 74(2)(c) of the RMA.

3.7.1 Christchurch District Plan

The Operative Christchurch District Plan contains a range of zones and standards for noise management, including provisions relating to strategic infrastructure and noise-sensitive activities. The objectives and policies to manage adverse effects on amenity values, health and safety and recognise differences in the receiving environment. Policies include management of noise levels, timing, and provide for specific activities such as temporary events (including fireworks exemptions), airport noise and entertainment and hospitality in the central city. General and Specific Rules identify methods for assessing noise, exemptions, and activity standards for specific locations and activities. Rules for activities include control of noise sensitive activities within identified noise boundaries or contours, including acoustic and ventilation design for buildings.

3.7.2 Selwyn District Plan

The Operative Selwyn District Plan is currently being reviewed with notification of a draft plan expected in 2020. For this reason, greater emphasis was placed on consultation with planning staff in relation to community consultation and the approach and direction for the new District Plan. As discussed in the consultation section above, the matters considered are consistent with those for the Selwyn District Plan Review.

3.7.3 Hurunui District Plan

The Operative Hurunui District Plan contains rules for noise that are specific to the zone chapters they sit within. The rules set out *measurement methodology and standards that apply. Rules are included to manage noise associated with aviation, audible bird scaring devices, frost fans, construction and management of sensitive activities in relation to rail activity.*

3.7.4 Analysis

The Hurunui District Plan was developed prior to the introduction of the New Zealand Planning Standards, and the approach of the plan therefore differs from that of the Proposed District Plan. The Christchurch District Plan and Proposed Selwyn District Plan are consistent with that of the Proposed

Waimakariri District Plan. The methods are generally consistent with the reviewed plans, including cross-boundary matters such as the noise contours for Christchurch International Airport.

3.7.5 New Plymouth Proposed District Plan

This Proposed District Plan was considered as a recent example of district plan provisions for noise. The proposed plan uses similar measurement standards for noise and provides for a range of specific noise producing activities together with a set of effects standards that relate to different zones, existing activities or infrastructure. Exemptions for a range of activities that are either outside of the control of district plans, or are anticipated within some zones, are also provided. These provisions were considered and the approach of the proposed Noise Chapter is generally consistent with the New Plymouth Proposed Plan.

4. KEY RESOURCE MANAGEMENT ISSUES

The key resource management issues that need to be addressed for noise are:

- (a) Potential for noise to adversely affect health, amenity values and quality of the environment.
- (b) Management of noise effects need to be consistent with the different amenity values expected within zones.
- (c) The potential for reverse sensitivity effects where noise sensitive activities are located near established noise generating activities.

Noise effects related to primary production, such as the use of bird scaring devices or frost fans near noise sensitive activities require clear management to avoid conflict between land uses.

The resource management issues set out in this section have been identified using sources of information including (but not limited to) the following:

- Monitoring and review of the Operative District Plan
- Issues identified in other documents and plans, including those described above
- Consultation with the community and interested parties, and
- Input from experts involved in acoustic management and design

5. OVERVIEW OF PROPOSED OBJECTIVES, POLICIES AND METHODS

5.1 Strategic Direction

The provisions in the Noise Chapter are consistent with the direction of the Strategic Directions Chapter. In particular, the management of adverse effects from noise support strategic direction objectives that seek to provide good quality urban environments, opportunities for business development within industrial zoned areas, efficient operation of strategic infrastructure, maintenance of rural character and rural amenity values and to manage reverse sensitivity effects relating to strategic and significant infrastructure and primary production.

The Urban Form and Development Chapter also contains strategic objectives and policies that respond to district and urban development higher order policy direction. The management of reverse sensitivity from new development (UFD-P9) specifically identifies the need to avoid noise sensitive activities within the Christchurch Airport Noise Contour.

5.2 District-wide Subject

The district-wide chapter contains objectives, policies and rules that provide for activities and manage adverse effects of noise. The standards identify that the provisions may include the following:

- (a) noise provisions (including noise limits) for zones, receiving environments or other spatially defined areas;
- (b) requirements for common significant noise generating activities; and
- (c) sound insulation requirements for noise sensitive activities and limits to the location of those activities relative to noise generating activities.

5.3 Proposed Objectives and Policies

The following objectives are proposed for the Noise Chapter:

Objectives
<p>NOISE-O1 Adverse noise effects</p> <p>Noise does not adversely affect human health, communities, natural values and the anticipated amenity values of the receiving environment.</p>
<p>NOISE-O2 Reverse sensitivity</p> <p>The operation of regionally significant infrastructure and strategic infrastructure, activities within Commercial and Mixed Use and Industrial Zones and identified existing activities are not adversely affected by reverse sensitivity effects from noise sensitive activities.</p>
<p>NOISE-O3 Rangiora Airfield</p> <p>The avoidance of noise sensitive activities within the 65dBA and 55dBA Ldn Noise Contours for Rangiora Airfield.</p>
Policies
<p>NOISE-P1 Minimising adverse noise effects</p> <p>Minimise adverse noise effects by:</p> <ol style="list-style-type: none"> 1. limiting the noise level, location, duration, time, intensity and any special characteristics of noise generating activities, to reflect the function, character and amenity values of each zone; 2. requiring lower noise levels during night hours compared to day time noise levels to protect human health, natural values and amenity values of sensitive environments; and 3. requiring sound insulation, or limiting the location of noise sensitive activities where they may be exposed to noise from existing activities.
<p>NOISE-P2 Limited duration noise generating activities</p> <p>Enable specific noise generating activities of limited duration that are:</p> <ol style="list-style-type: none"> 1. required for anticipated activities within zones or the District, including construction noise, audible bird scaring devices, frost control fans, temporary activities and emergency services, and

2. where noise levels and characteristics are consistent with the character and amenity values of the receiving environment.

NOISE-P3 Rail and roads

Protect the operation of rail and road infrastructure by identifying locations where acoustic mitigation measures for any new noise sensitive activities are required.

NOISE-P4 Airport Noise Contour

Protect Christchurch International Airport from reverse sensitivity effects by:

1. avoiding noise sensitive activities within the 50 dBA Ldn Noise Contour by limiting the density of any residential unit or minor residential unit to a maximum of 1 residential unit or minor residential unit per 4ha, except within existing Kaiapoi Residential Zones, greenfield priority areas identified in Chapter 6 - Map A of the RPS (gazetted 6 December 2013) or any residential Development Area; and
2. requiring noise insulation within the 50 dBA Ldn and 55 dBA Ldn Noise Contour for Christchurch International Airport.

NOISE-P5 Rangiora Airfield

Avoid the development of noise sensitive activities in the Rural Lifestyle Zone within the 55dBA Ldn Noise Contour for Rangiora Airfield and prohibit noise sensitive activities within the 65 dBA Ldn Noise Contour for Rangiora Airfield.

5.4 Proposed Methods

5.4.1 Rules are proposed for the activities set out below in the Noise Chapter.

The following are **Permitted** Activities subject to compliance with any **activity standards**:

- timber processing (Heavy Industrial Zone Ashley)
- temporary military training activity undertaken by the Ministry of Defence
- construction
- helicopter movements
- helicopter movements for emergency purposes
- audible bird scaring devices
- temporary, mobile or intermittent agricultural activities
- emergency service warning devices
- temporary activities
- noise from temporary activities
- wind turbine operation
- use of generators for emergency purposes
- speedway Activities (Woodford Glen)
- aircraft operations at Rangiora Airfield
- buildings within the CIAL 55dB L_{dn} Noise Contour

- buildings in the 55 dBA L_{dn} Noise Contour for Rangiora Airfield
- residential units within 80m of an arterial or strategic road, or rail designation
- noise sensitive activities within CIAL 50dB L_{dn} Air Noise Contour at Kaiapoi
- residential activities in Town Centre, Local Centre, Neighbourhood Centre and Mixed Use Zones
- other activities emitting noise not otherwise covered

In addition to rules within the Noise Chapter, activities associated with noise generation are also managed through other chapters in the District Plan, where specific noise issues relating to the proposed activity can be addressed through resource consent assessment, and if approved, managed by consent conditions.

5.4.2 The following are **controlled** Activities:

- Operation of frost control fans

5.4.3 The following are **Restricted Discretionary** Activities:

- Residential units within the Timber Processing Noise Contour

5.4.4 The following are **Non Complying** Activities:

- Residential units and minor residential units within the Speedway Noise Contour

5.4.5 The following is a **Prohibited** Activity:

Residential units, minor residential units or noise sensitive activities within the 65 dBA L_{dn} noise contour for Rangiora Airfield

5.4.6 Noise standards apply to the zone or zones where noise is received. The chapter contains General Noise Standards, and Specific Noise Standards (which over-ride the General Noise Standards).

5.4.7 Advice notes indicate matters controlled outside of the District Plan, and a recommended approach to provision of a public notice for the use of audible bird scaring devices.

5.4.8 Matters of Control and Discretion are provided for noise, and management of noise effects, that may be considered in the assessment of a resource consent application.

5.4.9 Definitions are included for noise, sensitive activity, noise sensitive activity and temporary military training activity. Various noise measurement terms and abbreviations are also defined.

5.4.10 Other methods used to control noise effects include section 16 of the RMA which requires the best practicable option to be used to ensure noise emission is reasonable. Where noise is deemed unreasonable, Council can take enforcement action.

6. SCALE AND SIGNIFICANCE EVALUATION

Section 32 (1)(c) of the RMA requires that a Section 32 report contain a level of detail that corresponds with the scale and significance of the environmental, economic, social and cultural effects that are anticipated from the implementation of the proposed objectives, policies and methods.

The level of detail undertaken for the subsequent evaluation of the proposed objectives, policies and methods has been determined by this scale and significance assessment.

In particular, Section 32 (1)(c) of the RMA requires that:

- (a) Any new proposals need to be examined for their appropriateness in achieving the purpose of the RMA;
- (b) The benefits and costs, and risks of new policies and methods on the community, the economy and the environment need to be clearly identified and assessed; and
- (c) All advice received from iwi authorities, and the response to the advice, needs to be summarised.

Further, the analysis has to be documented to assist stakeholders and decision-makers understand the rationale for the proposed objectives, policies and methods under consideration.

In making this assessment regard has been had to a range of scale and significance factors, including whether the provisions:

- (a) Are of regional or district wide significance;
- (b) Involve a matter of national importance in terms of Section 6 of the RMA;
- (c) Involve another matter under Section 7 of the RMA;
- (d) Raise any principles of the Treaty of Waitangi (Te Tiriti o Waitangi) under Section 8 of the RMA;
- (e) Address an existing or new resource management issue;
- (f) Adversely affect people's health and safety;
- (g) Adversely affect those with particular interests including Maori;
- (h) Adversely affect a large number of people;
- (i) Result in a significant change to the character and amenity of local communities;
- (j) Result in a significance change to development opportunities or land use options;
- (k) Limit options for future generations to remedy effects;
- (l) Whether the effects have been considered implicitly or explicitly by higher order documents; and
- (m) Include regulations or other interventions that will impose significant costs on individuals or communities.

Policies and methods have been evaluated as a package, as together they address a particular issue and seek to meet a specific objective.

6.1 Evaluation of Scale and Significance

	Low	Medium	High
Degree of change from the Operative Plan		✓	
The proposed changes introduce objectives and policies for noise together with amended noise management standards, new activity controls and provisions to manage potential reverse sensitivity effects.			
Effects on matters of national importance	✓		

The proposed provisions do not directly relate to a matter of national importance in s6 of the RMA.			
Scale of effects geographically (local, district wide, regional, national)		✓	
The proposed provisions apply across all zones within the District, which is consistent with the application of noise standards in the Operative Plan. Provisions also recognise the operation of Christchurch International Airport, which is located outside the District and is identified as being strategic infrastructure.			
Scale of effects on people (how many will be affected – single landowners, multiple landowners, neighbourhoods, the public generally, future generations?)		✓	
The effects of noise are experienced throughout the community and controls to ensure noise is consistent with environmental expectations are likely to benefit the public generally as well as imposing restrictions on particular noise generating activities.			
Scale of effects on those with specific interests, e.g., Mana Whenua, industry groups	✓		
The scale of effects relate to a range of activities that produce noise, such as industrial and recreational activities and will benefit the community by maintaining amenity values expected for health, wellbeing and character of zones. The provisions will also constrain the development of sensitive activities in some locations, which will affect some development opportunities.			
Degree of policy risk – does it involve effects that have been considered implicitly or explicitly by higher order documents? Does it involve effects addressed by other standards/commonly accepted best practice? Is it consistent, inconsistent or contrary to those?	✓		
The provisions are consistent with the expectation and direction within the National Planning Standards, and the general policy direction of the RPS.			
Likelihood of increased costs or restrictions on individuals, communities or businesses		✓	
It is likely that there will be some costs or restrictions on some activities or locations for activities that relate to managing noise to achieve the character and amenity values anticipated within zones or overlays.			
<p>Summary of Scale and Significance</p> <p>Overall, there is a low to medium degree of change from the Operative Plan including the introduction of a separate chapter for noise, updating the standards for noise and its measurement, introducing requirements for a number of specified activities, introducing methods to manage new sensitive activities establishing near existing activities and amending acoustic insulation requirements for noise sensitive activities near significant infrastructure or within commercial or industrial zone locations.</p> <p>The level of detail in this report corresponds with the scale and significance anticipated from implementing the Noise Chapter provisions.</p>			

7. EVALUATION OF EXISTING AND PROPOSED OBJECTIVES

Section 32(1)(a) of the RMA requires the District Council to evaluate the extent to which the objectives are the most appropriate way to achieve the purpose of the RMA. The level of detail undertaken for the evaluation of the proposed objectives has been determined by the preceding scale and significance assessment. Below is a summary of the proposed objectives that have been identified as the most appropriate to address the resource management issue(s) and achieve the purpose of the RMA, against those objectives in the operative plan.

7.1 Evaluation of Existing and Proposed Objectives

Existing Objective	Appropriateness to achieve the purpose of the RMA
<p>Objective 12.1.1</p> <p>Maintain the amenity values and a quality of environment appropriate for different parts of the District which protects the health, safety and wellbeing of present and future generations, and ensure that any potential adverse environmental effects from buildings and structures, signs, glare, noise and hazardous substances are avoided or mitigated.</p>	<p>Relevance: The objective is consistent with Pt 2 of the RMA and includes the direction provided in the purpose of the Act and considers amenity values for different parts of the District.</p> <p>Reasonableness: The objective provides very broad direction for decision making, largely reiterating the purpose of the Resource Management Act 1991 and does not specify in what circumstances avoid or mitigate would be appropriate actions.</p> <p>Achievability: The objective does not meet the direction in the National Planning Standards to contain provisions for noise within a separate chapter. Also, as noted above, the broad scope of the objective makes it impossible to determine whether the objective is being achieved.</p>

Proposed Objectives	Appropriateness to achieve the purpose of the RMA
<p>NOISE–O1 Adverse noise effects</p> <p>Noise does not adversely affect human health, communities, natural values and the anticipated amenity values of the receiving environment.</p> <p>NOISE–O2 Reverse sensitivity</p> <p>The operation of regionally significant infrastructure and strategic infrastructure, activities within Commercial and Mixed Use Zones and Industrial Zones and identified existing activities are not adversely affected by reverse sensitivity effects from noise sensitive activities.</p> <p>NOISE – O3 Rangiora Airfield</p>	<p>Relevance: The objectives recognise the need to manage adverse effects from noise (from activities) on the environment. In particular, the objectives seek to protect values identified in section 5 of the Act, including people’s health and community wellbeing.</p> <p>Christchurch International Airport and Rangiora Airfield operations are strategic infrastructure and important for the wellbeing of the community and economic activity. Protection of these facilities from reverse sensitivity is consistent with the purpose of the Act.</p> <p>The objectives specifically identify the need to manage reverse sensitivity effects in relation to existing activities and significant infrastructure, to both ensure that those activities are not constrained through the future location of noise sensitive activities, and to ensure that sensitive activities are not adversely affected by noise.</p>

Proposed Objectives	Appropriateness to achieve the purpose of the RMA
<p>The avoidance of noise sensitive activities within the 65dBA and 55dBA Ldn Noise Contours for Rangiora Airfield.</p>	<p>Reasonableness:</p> <p>The proposed provisions are unlikely to impose prohibitive costs on activities that produce noise or on the community or individuals subject to the adverse effects of noise;</p> <p>The proposed provisions are consistent with the direction in section 7(c) of the Act, which requires that Council have particular regard to the maintenance and enhancement of amenity values.</p>
	<p>Achievability:</p> <p>The objectives are considered achievable as they:</p> <ol style="list-style-type: none"> will assist Council to more effectively carry out its statutory obligations under s16 and s31 RMA; provide more direction to assist decision makers when assessing applications involving noise levels above that anticipated by the Plan; and provide measurable outcomes to determine whether the objectives are being achieved.

Evaluation of alternative options	Appropriateness to achieve the purpose of the RMA
<p>Do not identify an objective and rely on methods outside of the District Plan to control noise, including:</p> <ol style="list-style-type: none"> the use of RMA provisions requiring the best practicable option to be adopted, enforcement of unreasonable noise, the use of public education, through other chapters of the plan which control the location of activities that generate noise within zones, other legislation (such as the Building Act 2004, Health and Safety in Employment Act) and standards (such as Construction Noise), and Building Act minimum performance requirements. 	<p>Relevance:</p> <p>This option would control excessive noise through enforcement action, and would rely on increased public education to ensure the community, including the business community, were aware of their responsibilities to adopt the best practicable option, and of possible enforcement.</p> <p>Activity controls within other zones may control some noise effects (such as by providing for industrial activities within an industrial zone) but would not control noise effects received in other zones, and would be less precise in setting expectations for noise in relation to amenity, natural or other relevant values.</p>
	<p>Reasonableness:</p> <p>The option would provide lower levels of certainty than the existing or proposed objective in relation to amenity values in environments, and uncertainty for investment in development.</p>
	<p>Achievability:</p> <p>The option would be less effective in achieving the purpose of the RMA than the other options, as outcomes for health and safety (in relation to noise) would be uncertain, and it would also be uncertain whether adverse effects on the environment from noise would be avoided, remedied or mitigated as this</p>

Evaluation of alternative options	Appropriateness to achieve the purpose of the RMA
	would rely on compliance with best practice and complaints being resolved.

7.2 Summary - Evaluation of Proposed Objectives

The proposed objectives achieve the purpose of the RMA as they provide for a range of noise generating activities, including those of a temporary nature, and manage the adverse effects from noise, including reverse sensitivity effects, consistent with amenity values and character of the receiving zone. The objectives also give effect to the general policy direction of the Canterbury Regional Policy Statement to maintain and enhance amenity values and protect regionally significant and strategic infrastructure from reverse sensitivity effects.

8. EVALUATION OF PROPOSED POLICIES AND METHODS

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

The level of detail undertaken for the evaluation of the proposed policies and methods has been determined by the preceding scale and significance assessment.

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 proposed policies and methods, 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.

Policies and methods have been evaluated as a package, as together they address a particular issue and seek to meet a specific objective.

The evaluation being undertaken is of reasonably practical options that have been identified, resulting in a preferred option being put forward.

8.1 Evaluation of Proposed Policies and Methods

Options to achieve the District Plan objectives for Noise	Benefits Environmental, economic, social and cultural effects anticipated	Costs Environmental, economic, social and cultural effects anticipated	Efficiency and Effectiveness	Risk of acting / not acting if there is uncertain or insufficient information about the subject matter of the provisions
Option A: Proposed Approach				
<p>(a) The option includes a specific district-wide chapter that provides objectives, policies and rules.</p> <p>(b) The policy framework enables a range of noise producing activities, manages adverse effects from noise and protects road, rail and airport infrastructure from reverse sensitivity effects. Protection ranges from design of buildings to meet internal noise standards, to restricting or prohibiting noise sensitive activities establishing in identified contour areas.</p> <p>(c) The chapter integrates with the management of activities</p>	<p>Environmental: Provides certainty for noise level expectations for zones and ongoing operation of specified activities and infrastructure.</p> <p>Quality of the environment, amenity values and zone character are maintained or enhanced.</p> <p>Provides thresholds beyond which activities will be assessed through a resource consent process.</p> <p>Clearly signals that the most restrictive noise contour for Rangiora Airfield is not appropriate for the development of residential activities.</p> <p>Provides current best practice for standards and measurement of noise with reference to the most</p>	<p>Environmental: Costs associated with monitoring and measurement of noise.</p> <p>Economic: Additional compliance costs and delay associated with resource consent process where this is required.</p> <p>Additional cost for design and construction of buildings for noise sensitive activities in locations where this is required.</p> <p>Cost for activities associated with complying with noise standards, for example, upgrading of equipment, insulation, or restriction on operating and/or construction hours.</p>	<p>(a) The provisions give effect to the relevant objectives of the Strategic Directions Chapter and relevant policies of the Canterbury Regional Policy Statement.</p> <p>(b) The proposed policies, rules and standards are efficient as they clearly identify the status of activities, the noise levels to be achieved, and any other restrictions such as timing or duration. Overall, the provisions provide a high degree of certainty, identifying thresholds for resource consent and matters of discretion (where relevant).</p> <p>(c) The provisions will effectively establish and manage the expectations for noise within zones, amenity values, character and quality of the environment.</p>	<p>Risks of not acting:</p> <p>(a) failure to implement the National Planning Standards, or address the issues and gaps identified;</p> <p>(b) noise standards and measurement requirements may not be in line with current best practice;</p> <p>(c) gaps for noise management such as the use of frost fans, audible bird-scaring devices would not be addressed;</p> <p>(d) existing activities and significant infrastructure may not be adequately protected to provide security to operate in the future;</p> <p>(e) quality of the environment and amenity values may not be maintained within the District</p>

Options to achieve the District Plan objectives for Noise	Benefits Environmental, economic, social and cultural effects anticipated	Costs Environmental, economic, social and cultural effects anticipated	Efficiency and Effectiveness	Risk of acting / not acting if there is uncertain or insufficient information about the subject matter of the provisions
<p>within zones (such as restricting industrial activities in residential zones).</p> <p>(d) General noise standards to control the emission of noise are included for zones receiving the noise, and standards are also required for specific activities.</p> <p>(e) Rules and standards restrict the location of noise sensitive activities in relation to significant and strategic infrastructure and require acoustic insulation for buildings in some circumstances.</p> <p>(f) Rules and standards enable a range of intermittent, mobile or temporary activities where noise effects are able to be managed including through limits</p>	<p>applicable NZ or International standards.</p> <p>The provisions measure noise within the receiving zone ensuring boundaries with other zones do not expose more sensitive zones to noise from zones that are less noise sensitive.</p> <p>Resource consent assessment for activity proposals that do not comply with standards allow for more detailed assessment of potential adverse effects.</p> <p>Economic: Reduces potential for reverse sensitivity effects constraining existing identified activities.</p> <p>Regionally significant and strategic infrastructure is protected from future reverse sensitivity effects.</p> <p>Enables temporary activities while mitigating noise effects.</p> <p>Social and cultural:</p>	<p>Loss of development opportunities where activities are constrained by District Plan rules.</p> <p>Social and cultural:</p> <p>Cost for the nearby community associated with temporary activities where noise levels may be higher than usual for the environment for a limited period.</p>	<p>(d) The format and content of the provisions give effect to the National Planning Standards.</p> <p>(e) The provisions are generally consistent with the approach of the District Plans for adjacent territorial authorities and newer District Plans nationally.</p>	<p>(f) Management of noise across zone boundaries may not be adequately controlled</p> <p>(b) Risk from acting: (a) change to legislation or best practice may emerge and provisions may require subsequent amendment; (b) Community awareness of new provisions may take time to achieve; (c) Generally low risk as the provisions are supported by technical evidence and feedback from community and stakeholder consultation.</p> <p>Overall, there is sufficient information to act and the risk from not acting is higher than the risk of acting.</p>

Options to achieve the District Plan objectives for Noise	Benefits Environmental, economic, social and cultural effects anticipated	Costs Environmental, economic, social and cultural effects anticipated	Efficiency and Effectiveness	Risk of acting / not acting if there is uncertain or insufficient information about the subject matter of the provisions
<p>on the duration of some activities.</p> <p>(g) Non-compliance with standards requires resource consent assessment. For restricted discretionary activities, matters of discretion are provided that guide applications, assessment and decision making.</p>	<p>The control of noise to support amenity and quality of the environment would support social and cultural activities that comply with noise standards or obtain resource consent and provide controls that are consistent with living, working and recreational environments and activities that are important for social and cultural wellbeing.</p> <p>Recognises the need for temporary military training events and the role of the defence force.</p>			
<p>Opportunities for economic growth and employment</p> <p>The provisions enable a range of activities that may provide employment and recognise noise levels appropriate to working environments, such as industry, commerce and agriculture. Maintaining expected amenity values in zones provides greater certainty that can encourage economic growth, including through development of the residential sector.</p>				
<p>Options less appropriate to achieve the objective</p>				
<p>Option B: Status Quo</p>				
<p>Continue with current District Plan provisions within combined chapters for a range of matters relating to health, safety and wellbeing.</p>	<p>Environmental: Noise is generally managed by standards that relate to zones. Clear expectations for noise permitted within zones</p> <p>Economic:</p>	<p>Environmental: Monitoring costs where applicable</p> <p>Economic: Cost for activities to comply with noise standards.</p>	<p>(a)The provisions would partly give effect to the proposed objectives but are limited in the extent to which they address reverse sensitivity.</p> <p>(b)The option is less effective for temporary activities as there is no</p>	<p>a. Risk of acting:</p> <ul style="list-style-type: none"> increased risk of reverse sensitivity effects emerging in relation to primary production, significant infrastructure, timber processing and speedway activities;

Options to achieve the District Plan objectives for Noise	Benefits Environmental, economic, social and cultural effects anticipated	Costs Environmental, economic, social and cultural effects anticipated	Efficiency and Effectiveness	Risk of acting / not acting if there is uncertain or insufficient information about the subject matter of the provisions
<p>Noise is generally permitted where standards are met, with specific requirements for managing the location of noise sensitive activities in relation to infrastructure.</p>	<p>Major highway and airport operations are recognised and noise sensitive activities are controlled in some locations.</p> <p>Social and cultural: Current practice which enables a range of activities where noise meets set standards is likely to be understood by the community.</p>	<p>Cost associated with resource consent process.</p> <p>Cost to land owners to insulate against noise sourced from another zone (where a higher standard is applied).</p> <p>Absence of explicit management of noise from temporary activities could constrain business opportunities required to comply with standards for ongoing activities</p> <p>Social and cultural:</p> <p>Activities and infrastructure may be constrained by insufficient management of new noise sensitive activities and emergence of reverse sensitivity effects which may reduce opportunities to enhance social and cultural.</p>	<p>specific provision for short duration noise effects.</p> <p>(c)The option is less certain for periodic agricultural activities that involve noise with greater risk of conflict between primary production and residential activities.</p> <p>(d)The provisions control noise in the vicinity of an industrial zone located within a rural area, but controls do not limit new sensitive activities establishing where there is potential for reverse sensitivity effects.</p> <p>(e) The provisions would not give effect to the National Planning Standards.</p>	<ul style="list-style-type: none"> • approach would be inconsistent with the direction of the National Planning Standard. b. Risk of not acting: <ul style="list-style-type: none"> • none are identified. <p>There is sufficient information to identify that the risk of acting is higher than the risk of not acting, and information on the National Planning Standards direction is available.</p>

Options to achieve the District Plan objectives for Noise	Benefits Environmental, economic, social and cultural effects anticipated	Costs Environmental, economic, social and cultural effects anticipated	Efficiency and Effectiveness	Risk of acting / not acting if there is uncertain or insufficient information about the subject matter of the provisions
<p>Opportunities for economic growth and employment</p> <p>The provisions enable a wide range of activities that may provide employment and recognise noise levels appropriate to working environments, such as industry, commerce and agriculture. There is less certainty than the proposed methods that reverse sensitivity effects could be controlled which may adversely affect economic growth related to some existing activities.</p>				
<p>Option D: Use of methods outside the District Plan.</p> <p>Rely on RMA s16 responsibilities for noise emission and enforcement and existing standards.</p>	<p>Environmental: Limited controls applied where identified (e.g. through complaint).</p> <p>Economic: Permissive approach providing a high degree of flexibility for land uses.</p> <p>Social and Cultural: Potentially permissive for events and activities that support social and cultural wellbeing.</p>	<p>Environmental: Cost relating to responding to noise complaints that may have otherwise have been controlled through the</p> <p>Excessive noise could reduce amenity values and quality of the environment.</p> <p>Economic: Uncertainty for noise sensitive activities may lead to loss of investment. Possible need for Council to respond to many complains and carry out enforcement and monitoring. Cost associated with development of noise sensitive activities near existing activities that generate noise.</p> <p>Social and Cultural:</p>	<p>Less efficient and effective in achieving the objective due to high levels of uncertainty and potential high cost for enforcement and monitoring.</p>	<p>There is sufficient information to identify that the risk of acting on these provisions outweighs the risk of not acting.</p>

Options to achieve the District Plan objectives for Noise	Benefits Environmental, economic, social and cultural effects anticipated	Costs Environmental, economic, social and cultural effects anticipated	Efficiency and Effectiveness	Risk of acting / not acting if there is uncertain or insufficient information about the subject matter of the provisions
		Cost for activities where enforcement requires cease of operation or redesign of facilities.		

Quantification

Section 32(2)(b) requires that if practicable the benefits and costs of a proposal are quantified.

Given the assessment of the scale and significance of the proposed changes above it is considered that quantifying costs and benefits would add significant time and cost to the s32 evaluation processes. The evaluation in this report identifies where there may be additional cost(s), however the exact quantification of the benefits and costs discussed was not considered necessary, beneficial or practicable.

8.2 Summary - Evaluation of Proposed Policies and Methods

The proposed policies and methods are the most appropriate option to achieve the objectives for temporary activities in Waimakariri District as the benefits outweigh the costs (in 8.1) and the methods efficiently give effect to the proposed objective.

Preferred Option A responds to variance in amenity values and character associated with district plan zones, and extends requirements for noise insulation and the location of noise sensitive activities in areas with higher noise emissions such as adjacent to state highways, within airport/airfield noise contours or contours for industry or speedway activities. References to New Zealand and International Standards are updated to ensure the Proposed Plan reflects current best practice and is consistent with other newer district plans, both within the region and nationally.

9. SUMMARY

The evaluation has been undertaken in accordance with section 32 of the Act 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 this proposal is the most appropriate as:

- (a) It includes a separate zone and activities-based chapter for objectives and policies and methods for the management of adverse effects of noise and is aligned with the National Planning Standards.
- (b) Specific objectives and policies, rules, standards, definitions and matters of discretion are proposed to:
 - Provide greater guidance for activities and associated noise that are anticipated within zones in the District;
 - Provide clear direction for decision making of the outcomes sought in relation to the management of adverse effects from noise on health, communities, natural values and the environment ;
 - Manage adverse effects of incompatible activities on existing identified activities and road, rail and airport/field infrastructure;
 - Provide specific noise controls for identified activities; and
 - Enable a range of activities while providing greater certainty for the receiving environment in relation to noise effects.
- (c) The proposed provisions refer to updated New Zealand Standards and International Standards that reflect current best practice for noise management and other newer District Plans throughout New Zealand.

Appendix One: Specific Consultation Comments and Response

Date	Group	Subject Matter	Feedback	Response
September, 2017	Christchurch International Airport Limited	Issues and Options consultation	Avoid new noise sensitive activities within the 50 dBA noise contour and adopt the RPS definition of 'noise sensitive activities'. Control intensification of noise sensitive activities adjacent to Rangiora Airfield to avoid reverse sensitivity issues.	Include limits on noise sensitive activities within the contours identified and adjacent to Rangiora Airfield.
September, 2017	New Zealand Defence Force	Issues and Options consultation	Provide for temporary military training activities as permitted activities within noise rules of the District Plan	It is proposed to provide for temporary military activities within the noise chapter subject to meeting activity standards.
September, 2017	Ministry of Education	Issues and Options consultation	Consider the effects of future business development on schools, including noise from business.	Noise standards are proposed to consider effects on other zones that may be affected.
September, 2017	Department of Conservation	Issues and Options consultation	Support controls on noise emissions on the surface of water where these may adversely affect natural or recreation values.	Activities on the surface of water are managed within a separate district plan chapter. Zone rules for noise will also apply.
September, 2017	Community Comments	Issues and Options consultation	Do not allow aviation park expansion due to the impact that aircraft noise has on rural amenity values. Concentrate aviation at Rangiora Airfield.	The Noise Chapter does not contain directions for the management of aviation parks. Activities in the Rural Zones will be controlled by zone rules that consider zone amenity and character values.
	Community Comments	What's the Plan? Shaping the Content of the	In response to the question 'Do you agree or disagree with any of the noise rules outlined ... and why?', 16 respondents provided comments related to	The proposed provisions include standards that relate to the receiving zone as

		<p>Reviewed District Plan</p>	<p>noise. Two respondents did not support day and night hours being the same for all zones, while three supported standardisation of rules across all zones.</p> <p>Respondents generally supported controls to manage noise from quarries, construction, agriculture, bird scaring devices, frost fans, and military training. Two respondents opposed focusing on the zone receiving noise, rather than the zone in which the noise originates, with one suggesting noise generated should be measured at the boundary of the zone in which the noise is generated.</p> <p>In response to the question ‘Do you agree with introducing noise rules for quarry blasting, commercial firewood processing, dog boarding kennels, gun clubs, shooting ranges, motor vehicle racing, function venues, and military training?’ eight of the nine respondents agreed, and one respondent said it was difficult to define noise levels for specialised activities.</p> <p>Two respondents provided comments on noise within parks and reserves and suggested events that had a clear duration and were within the daytime, should be permitted, and that the Waimakariri Gorge should have more permissive rules due to its distance from dwellings.</p> <p>Other comments sought an 80 dBA limit for jet boating, that noise rules be placed in a concise table, a simplification</p>	<p>well as the zone in which noise originates as this more accurately manages effects on human health, natural values and amenity values.</p> <p>A variety of activity-based rules are proposed in conjunction with standards to manage noise levels and characteristics. These generally distinguish between day and night times.</p> <p>Rules in other chapters address activities on the surface of water, as well as the noise limits provided in the Noise Chapter.</p>
--	--	-------------------------------	---	--

			of noise tables and rules for aircraft noise and permitted activity rules for temporary military training.	
October 2016	Identified group of residents and farmers	Community consultation on the use of bird scaring devices	Consultation was undertaken between parties involved in the operation of, or affected by, audible bird scaring devices, where the noise levels within the District Plan were inadequate to control the effects from bird scarers. A voluntary agreement was sought in the interim.	The voluntary agreement was reviewed by commissioned acoustic consultants and provisions were incorporated into the plan to both provide for and manage the effects of audible bird scaring devices.
Various dates 2019-2020	Daiken New Zealand	Stakeholder consultation	Daiken (NZ) operate a timber processing plant in the Ashley area. They supported the current noise limits and identified a need to manage potential reverse sensitivity effects, including identification of areas that may be sensitive to the industrial zone controls.	Technical acoustic assessment was commissioned which recommended a noise contour be applied to manage potential for reverse sensitivity effects relating to the location of the proposed Heavy Industrial Zone and the development of any new sensitive activities on adjoining sites.
2019/2020	Sawmill Operators: Sutherlands Sawmill and Ashley Industrial Services Sawmill	Stakeholder consultation	Ashley Industrial Services sought rezoning to recognise the existing use of the site for industrial purposes, and in particular, to clearly indicate this within the plan, and manage reverse sensitivity from new residential activity nearby.	The response to this comment has been addressed in the industrial and residential sections of the district plan, and within the Noise Chapter, through the maximum levels permitted within the industrial and residential zones.

May 2020	Christchurch International Airport Ltd (CIAL)		Direct consultation with CIAL was undertaken in regard to the operational requirements of the airport as far as they applied within Waimakariri District. As outlined above for issues and options, CIAL have sought provisions in the plan to manage noise sensitive development within identified noise contours.	Provisions for the management of sensitive activities in relation to airport activities are proposed.
July 2019 and ongoing	Woodford Glen Speedway, and nearby property owners		<p>A range of normal event times, frequency and duration and factors that could affect events were identified. National speedway controls for noise also apply to events at the site.</p> <p>One nearby property owner identified that noise was not an issue and that land near the speedway was restricted by natural hazards that would limit development. Another owner did not want a noise contour imposed that would constrain building location.</p> <p>Notification to neighbours prior to fireworks events was requested due to effects on animals.</p> <p>Further acoustic technical advice was sought in relation to the consultation comments and review of draft noise provisions. The noise contour was retained due to the considerable difficulty in finding alternative locations for speedway activities and need to restrict potential reverse sensitivity effects on the existing speedway.</p>	An advice note recommending notification of events involving fireworks is proposed.
3 December 2019	Horticulture New Zealand and Federated Farmers of		Feedback from Federated Farmers of NZ on bird scaring devices and frost fan use identified the need for farming operations to use equipment	Bird scaring and frost fan use are provided for where activity standards are met,

	New Zealand		that generated noise, and suggested any changes should be accompanied by guidance advice to the farming sector. Horticulture NZ requested that bird-scaring devices are permitted ½ an hour prior to sunrise and ½ an hour after sunset.	and exemptions for short term agricultural activities are also provided for.
June 2019	Voluntary Agreement for the Use of Bird Scaring Devices		A meeting was held with the parties involved in the voluntary agreement to receive feedback on draft rules. Comments included details for operator information to be provided, spacing and shot frequency of bird scaring devices and sound buffering suggestions.	Draft provisions were updated following receipt of technical advice to include advice on information provision and rules for shot frequency.
2020 various	Selwyn District Council planning staff		Selwyn District Council Planning staff were consulted on proposed directions for noise and management of similar issues that existed within both districts, such as temporary activities, aircraft noise, and intermittent agricultural noise sources such as bid scaring devices and frost fans.	The direction for noise management was considered for relevance and consistency in relation to drafting of the proposed provisions, including inclusion of specific controls for agricultural noise, bird scaring devices and frost fans.
2020 various	Christchurch City Council (CCC) planning staff		CCC planning staff were consulted regarding their recent District Plan Review process, effectiveness of rules and any issues that Waimakariri District Council may want to consider. It was identified that management of sensitive activities near major transport routes could be an issue.	Comments were considered in drafting plan provisions for noise including management of the location of sensitive activities and acoustic building design requirements.